

**IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF NEW YORK**

PHILADELPHIA INDEMNITY INSURANCE
COMPANY

Plaintiff,

v.

BROAN-NUTONE, LLC
and NUTONE, INC.

CASE NO.: 3:12-CV-181
(NAM/DEP)

Defendants.

**MEMORANDUM OF LAW OF PLAINTIFF, PHILADELPHIA INDEMNITY
INSURANCE COMPANY IN OPPOSITION TO THE MOTIONS *IN LIMINE* OF
DEFENDANTS BROAN-NUTONE, LLC AND NUTONE, INC.**

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I. MOTION IN LIMINE TO EXCLUDE REFERENCE TO OTHER INCIDENTS.

A. Background

This subrogation action arises from a September 17, 2009 fire at the Jack & Jill Childcare Facility (“Jack & Jill”) located at 14 Framark Drive in Victor, New York. At the time of the fire, Philadelphia Indemnity Insurance Company (“Philadelphia Insurance”) provided insurance to Jack & Jill Childcare and 14 Framark Drive, LLC, the owner of the building in which the daycare center was located.

The fire was initially discovered by an employee of the daycare center, Kristen Suffredini, who observed a flame coming out of the grille of a bathroom ventilation fan mounted in the ceiling of a bathroom attached to a classroom for two year olds (“two year old bathroom”). The fire spread through the building causing extensive fire, smoke and water damage. The fire and the resulting losses incurred by plaintiff’s insureds were caused by a defective bathroom ventilation fan manufactured by the defendant Nutone, Inc.

The fan in question was a Nutone Model 696N fan manufactured in 2002. The fan incorporated a shaded pole motor manufactured by Jakel Model Number J239-050-5138 (“5138 Motor”). The Jakel 5138 Motor incorporated a safety component, called a thermal cut out (“TCO”) manufactured by Tamura Thermal Device Corporation (“Tamura”).

Plaintiff’s engineering expert, Kevin Lewis, P.E., will testify that the fire at the Jack & Jill Childcare facility was caused by design and manufacturing defects in the Model 696N fan. Specifically, he will establish that the fan overheated and caused the fire because the sole safety component in the fan’s 5138 Motor, the TCO, failed to operate correctly and shut off power to the fan. The failure of the TCO to operate allowed the fan’s windings to overheat to the point at

which the heat from the windings and electrical arcing on the windings ignited combustible lint that adhered to the motor and other combustible materials.

Mr. Lewis will testify that he examined the TCO and found that it did not operate as designed. The TCO is connected to the power supply for the fan motor and consists of two leads that are connected inside a phenolic box by a solder bridge. *See* Lewis Report, p. 32, Figure 14 Document 49-3. According to the TCO's manufacturer, Tamura, when the motor overheats and the TCO reaches its operating temperature, the solder is supposed to melt completely and form two balls at the ends of the leads creating a large gap between them. *See* Tamura documentation, Lewis Report, p. 28, Figure 9; Photo of Properly Activated TCO, Lewis Report, p. 32, Figure 14 (Document 49-3). If the solder melts completely, it breaks the circuit and shuts down the fan motor before it can overheat and cause a fire.

In this case, Mr. Lewis opened the Tamura TCO that was installed in the fan found in the two year old bathroom. He found that it did not operate correctly. The solder between the leads in the TCO did not melt into balls at opposite ends of the phenolic case. Rather, the solder failed to melt correctly and the leads failed to separate. *Id.* at p. 18, Figure 4. This prevented the circuit from opening, power continued to flow into the windings, the fan overheated and caused the fire.

At trial, plaintiff will seek to introduce evidence of a prior fire caused by the Nutone Model 696N fan and testing of an exemplar TCO performed by plaintiff's engineering expert, Kevin Lewis. First, plaintiff will seek to introduce evidence of a March 6, 2009 fire at the Brides by Demetrios store in Bellevue, Washington ("Brides"). The Brides fire was very small and localized in the fan itself. It involved a Nutone Model 696N fan manufactured in 2001 with a Jakel 5138 Motor. These are the exact model fan and motor that are at issue in this litigation.

The motor in the Brides case contained a Tamura TCO. *Id.* at pp. 32-34. Tamura also manufactured the TCO at issue in this litigation. The Brides fan suffered electrical failures in its 5138 motor just as the 5138 motor did in the present case. *Id.* at p. 33.

The defendants are well aware of the circumstances of the Brides loss. They were placed on notice of a claim and participated in the inspection of the loss site. Defendant's electrical engineering expert in the present case, James Finneran, also investigated the Brides fire and both he and the Jakel representative who may testify on behalf of Nutone in this matter, Tom Frisse, attended the evidence inspection in Brides. *See* sign in sheet from the September 22, 2009 evidence inspection, Document 49-8. Notably absent from Defendant's motion is an affidavit from either Mr. Frisse or Mr. Finneran disputing the testimony provided by Mr. Lewis.

As in the present case, there was evidence in the Brides case of electrical arcing in the fan motor indicating that the fire started at the fan and that the fan was on at the time of the fire. Electrical arcing is impossible in a fan motor if the fan is off since no electricity would flow to the fan in that circumstance. The investigators also found that the switch for the fan was in the on position when the investigation was conducted. Lewis Report, p. 11, Document 49-3. The defendants disingenuously suggest that the fan was off based on a double hearsay statement and simply ignores the undisputed physical evidence.

When Mr. Lewis examined the TCO from the Brides fan, he found that it did not operate correctly. The solder bridge did not melt sufficiently to form completely separated spheres of material on the leads. Lewis Report, p. 36, Figure 20, Document 49-3. The fact that there were no other sources of ignition and the fan components (and the plastic toilet seat they fell on to) were the only fire damaged items found in the area, established that the Nutone 696N fan suffered a failure and caused a fire in that case.

Plaintiff will introduce evidence of the Brides fire to establish that the design of the Nutone Model 696N fan and its motor are defective because it adversely affects the TCO and its operation. Evidence of the circumstances of the Brides fire, since the only possible cause was a failure in the Model 696N fan, will further refute testimony by the defendants' witnesses that their fans in general, and the Model 696N fan in particular, cannot cause a fire. See Transcript of the April 24, 2013 Deposition of Defendants' Representative David Farchione, pp.158-59, attached hereto as Exhibit "1"; Transcript of the April 23, 2013 Deposition of Jakel Representative Tom Frisse, p. 101, attached hereto as Exhibit "2."

Plaintiff also will seek to introduce evidence of testing performed by Mr. Lewis on a TCO found in an exemplar fan at a fire site. Following an August 29, 2009 fire at the home of Kimberly and Lawrence Green in Yelm, WA, Kevin Lewis's company, Case Forensics, took possession of an operable exemplar fan from a bathroom in the Green residence that was not affected by the fire. *See* photo of the exemplar fan, Lewis Report, p. 41, Figure 27, Document 49-3. The fan was a Nutone Model 696N fan that contained a Jakel 5138 motor and a Tamura TCO.

Plaintiff will not seek to introduce evidence that the Green fire was caused by a defective Nutone fan. Rather, plaintiff will seek to introduce evidence of Mr. Lewis's testing on the exemplar TCO to establish the condition of such TCOs after extended use and establish how and why they fail to operate correctly.

Mr. Lewis's opinion is that the Tamura TCO should not have been utilized in the Jakel 5138 motor because the operating temperature of the 5138 motor would tend to overheat the flux that helps the solder melt when the TCO reaches its operating temperature. When flux is exposed to oxygen at high temperatures, it creates oxides that prevent the solder from melting

properly and breaking the circuit. Lewis Report, pp. 19, Document 49-3. Mr. Lewis's examination of the TCO from the Green exemplar revealed that during the approximately seven years the Model 696N fan had been in use, oxides had formed on the solder in the TCO. *Id.* at pp. 38, 40, Figure 25. Mr. Lewis tested the TCO by exposing it to temperatures of approximately 260 degrees Celsius. Despite the fact that the TCO was supposed to operate at 136 degrees Celsius, Mr. Lewis found that the build up of oxides prevented the Green TCO from operating. *Id.* at pp. 38-42.

At Mr. Lewis's deposition, defendants' counsel had the opportunity to question him regarding his investigation of the Brides case and his testing of the exemplar TCO taken from the Green residence. However, although Lewis mentioned the Brides case in response to questions relating to his theory, the only questions defense counsel specifically asked with regard to the Brides and Green cases related to Mr. Lewis's knowledge of the outcome of those claims and whether a court or jury determined the causation of the fires. *See* Transcript of the April 4, 2014 Deposition of Kevin Lewis, pp. 130-31, attached hereto as Exhibit "3."

B. Argument

1. The Court should permit the plaintiff to introduce evidence of prior fires caused by Nutone Model 696N fans and testing of exemplar components.

The Court should permit Philadelphia Insurance to introduce evidence of the Brides fire and the exemplar testing performed by Kevin Lewis. Mr. Lewis's investigation of the Brides fire, as detailed in his report, establishes that the Brides fire was substantially similar to the fire at the Jack & Jill Childcare facility. The evidence of exemplar testing, since it is intended to demonstrate general scientific principles, does not need to be substantially similar to the Jack & Jill case. However, the plaintiff can establish that the Green matter, and the testing performed

are substantially similar to the analysis in this case if such a showing is required since the testing of the Green exemplar evidence involved the same fan, same motor and same TCO all of which were approximately the same age as the components in the present case. Finally, the admission of evidence of these prior incidents presents no risk of unfairness, confusion or undue expenditure of time. Accordingly, for the reasons set forth below, the court should allow plaintiff to introduce evidence of the Brides fire and the testing of the exemplar TCO from the Green residence.

a. Brides By Demetrios

Evidence of prior accidents can be used in a product liability action “to demonstrate the existence of a defect, to prove notice, or to refute testimony given by defense witnesses.” *C.A. Associates v. Dow Chemical*, 918 F.2d 1485, 1489 (10th Cir. 1990). Evidence of other accidents is admissible when the conditions surrounding the other accidents are “substantially similar” to the accident which is the subject of the present litigation. *Jackson v. Firestone Tire & Rubber Co.*, 788 F.2d 1070, 1083 (5th Cir. 1986); *Bellinger v. Deere & Co.*, 881 F.Supp. 813 (N.D.N.Y. 1995). In a products liability action, it is appropriate to define the similarity of the accidents based upon the product or defect at issue. *Bellinger*, 881 F.Supp. at 818 *citing Jackson*, 788 F.2d at 1083. Also, in this context, “substantially similar” does not mean “identical.” *Estate of Carey by Carey v. Hy-temp Manufacturing, Inc.*, 929 F.2d 1229, 1235 n.2 (7th Cir. 1991). Differences in surrounding circumstances go to the weight to be given to the evidence rather than to its admissibility. *Id.* In addition to considering whether the incidents were substantially similar, the Court also must consider “the dangers of unfairness, confusion, and undue expenditure of time.” *McKinnon v. Skil Corp.*, 638 F.2d 270, 277 (1st Cir. 1981). Decisions regarding the admissibility of evidence of prior incidents reside within the discretion of the trial court. *Id.*

In this case, plaintiff will introduce evidence relating to the Brides fire because it will establish that the Nutone 696N fan is defective and help refute the expected testimony of the defendants' witnesses. The Court should permit the introduction of evidence from the Brides fire because the circumstances of the Brides fire and the Jack & Jill fire are substantially similar. Both cases involved a Nutone Model 696N fan containing a Jakel 5138 motor and Tamura TCO. The fans were manufactured in the same time frame – the Brides fan in early 2001, the Jack & Jill fan in 2002. *See* Lewis Report, pp. 7, 11, Document 49-3. In both cases, the fan was located in a bathroom, was on at the time of the fire, and both fans suffered electrical failures in the motors. *Id.* pp. 7, 33. In addition, the TCOs in both the Brides and Jack & Jill cases failed to operate properly. Moreover, in both cases, the defendants had an opportunity to inspect the loss sites and attend examinations of the fan and other evidence. As such, the Brides fire was substantially similar to the allegations in the present case and evidence relating to the investigation of that fire should be admitted since it will help establish the defective nature of the Model 696N fan. The evidence will also allow plaintiff to refute testimony from the Nutone and Jakel representatives that the 696N fan has not caused, and cannot cause, a fire.

The introduction of evidence from the Brides fire poses no risk of unfairness, confusion or undue expenditure of time. This is a single case, investigated by the defendants using the same electrical engineering expert and presenting nearly identical facts. The investigation of the Brides case will not confuse the jury because there was no other explanation for the cause of the fire other than the Model 696N fan suffered an internal failure. As such, the Court should permit plaintiff's expert, Mr. Lewis, to discuss his findings from that fire.

In their Motion, the only differences the defendants identify between the Brides case and the Jack & Jill case are that a witness in the Brides case claimed the fan was off at the time of the

fire and that the arcing in the fan did not occur at exactly the same location. The assertion that the fan was off at the time of the fire is easily dismissed. The only support for that assertion was a witness statement following the fire that was refuted by physical evidence in the fan indicating that it suffered electrical arcing that could have only occurred if the fan was on. Moreover, one would expect that if there was physical evidence that the Bride's fan was off at the time of the fire, defendant's electrical engineering expert in both the Brides and Jack & Jill cases, James Finneran, would have relied upon such evidence to rule out the Brides fan as a potential cause of the fire since the fan could not have caused the fire if it was off. Instead, at his deposition in this case, Mr. Finneran admitted that he could not rule out the Nutone fan as a cause of the Brides fire. He testified as follows:

Q. Okay. Based upon the work that you performed in [the Brides] case, did you make a determination what the cause of the fire was?

A. I don't believe I did. I believe I probably couldn't eliminate the fan as a potential cause for the fire, but I don't believe I ever made a determination as to what did cause the fire.

Transcript of the April 17, 2014 Deposition of James Finneran, p. 144-45, attached hereto as Exhibit "4."

With regard to the location of the arcing in the Brides case, the important issue is that arcing occurred in the motor. If the TCO operated correctly, there should not have been arcing at all. Moreover, to the extent there may be subtle differences between the cases, it would merely go to the weight of the evidence rather than its admissibility. For these reasons, the Court should deny the defendants' Motion *In Limine* and permit Philadelphia Insurance to introduce evidence of the Brides fire.

b. Testing of Exemplar TCOs Harvested from Green Residence

The Court should permit the plaintiff to introduce evidence of Kevin Lewis's examination and testing of the exemplar TCO obtained from a Model 696N fan in the Green residence. "The admissibility of evidence of experimental tests rests largely in the discretion of the trial judge and his decision will not be overturned absent a clear showing of an abuse of discretion." *Sprynczynatyk v. General Motors Corp.*, 771 F.2d 1112, 1124 (8th Cir.1985), *cert. denied*, 475 U.S. 1046, 106 S.Ct. 1263, 89 L.Ed.2d 572 (1986). "A court may properly admit experimental evidence if the tests were conducted under conditions substantially similar to the actual conditions. Admissibility, however, does not depend on perfect identity between actual and experimental conditions. Ordinarily, dissimilarities affect the weight of the evidence, not its admissibility." *Champeau v. Fruehauf Corp.*, 814 F.2d 1271, 1278 (8th Cir. 1987) *quoting Randall v. Warnaco, Inc.*, 677 F.2d 1226, 1233-34 (8th Cir. 1982). Moreover, experiments are not required to possess as high a degree of similarity to the actual event when evidence of an experiment is introduced merely to illustrate a scientific principle or theory. *Champeau*, 814 F.2d at 1278; *Datskow v. Teledyne Continental Motors Aircraft Products*, 826 F.Supp. 677, 686 (W.D.N.Y. 1993).

In this case, plaintiff will seek to introduce the examinations and testing to establish the general scientific principle that when heated or exposed to oxygen over a long period of time, oxides will form on the solder alloy in the TCO. The experiment performed by Mr. Lewis will help illustrate that the formation of oxides on the type of solder used in the Tamura TCO will prevent its proper operation. Because the plaintiff is merely attempting to illustrate scientific principles and theories, there is no requirement that the circumstances of the testing be substantially similar to the Jack & Jill fire.

However, even if substantial similarity is required, the circumstances of the test are substantially similar to the circumstances surrounding the Jack & Jill fire. The Green Model 696N fan was manufactured in 2002, like the Jack & Jill fan. Both fans contained a Jakel 5138 motor and a Tamura TCO. The TCOs had been in service for approximately the same amount of time. Mr. Lewis's theory in this case is that the Tamura TCO failed to operate correctly even though it was exposed to temperatures in excess of the temperature at which it should have operated and shut down the fan. The testing Lewis performed on the Green TCO exposed the TCO to temperatures in excess of the temperature at which it should open to see the effect. As noted above, Mr. Lewis found that the Green TCO did not operate even when exposed to temperatures nearly twice as hot as the temperature at which the TCO should have opened. As such, there is a substantial similarity between the testing performed on the Green TCO and Mr. Lewis's theory in this case. Accordingly, the Court should allow Mr. Lewis to introduce evidence of his testing on the Green TCO.

In their motion, the defendants cite to Kevin Lewis's deposition to misleadingly assert that Kevin Lewis "does not know any detail of the [Green] fire, the investigation, or resolution of the matter." Defendants Motion in Limine, p. 10, Document 49-2. However, a review of Mr. Lewis's report and his deposition transcript establish that this assertion simply is not true. Mr. Lewis's report contains five pages of discussion, photographs and tables detailing the Green fire and his testing of the evidence retained from the Green home. At this deposition, the only question defense counsel asked regarding the Green matter was whether Lewis knew the circumstances under which the Green claim was resolved. Defense counsel asked no questions regarding the specific circumstances of the Green loss, and more importantly, did not ask a single question regarding the circumstances and findings of Mr. Lewis's testing on the exemplar

TCO. Therefore, the defendants have no basis for objecting to the introduction of evidence of the exemplar testing, and the Court should deny the defendants' Motion *In Limine*.

c. Johnson Case

The plaintiff does not oppose the defendants' Motion *In Limine* to the extent it seeks to prevent the introduction of the evidence of the pleadings filed in the *Johnson* matter.¹

II. Motion *In Limine* to Exclude All References to the CPSC

Plaintiff does not oppose the defendants' Motion *In Limine* to exclude references relating to communications between the defendants and the Consumer Product Safety Commission provided that the defendants are prohibited from making any reference to the CPSC and the results of any investigation of the defendants' fans as well.

III. Motion *In Limine* To Exclude All Reference to Insurance Coverage

Plaintiff does not oppose the defendants' Motion *In Limine* to exclude references to insurance coverage. However, while the plaintiff will not make reference to the fact that the defendants are insured, the plaintiff must still be afforded the opportunity to raise the fact that the defendants experts' have worked on behalf of the defendants on numerous occasions regardless of whether they were initially retained by an insurance company representative and regardless of the entity that actually paid the experts' invoices. Such evidence certainly is relevant to questions of the experts' experience and potential bias.

¹ *American Family Insurance Company a/s/o Johnson v. Nutone, Inc.*, U.S. District Court for the District of Nebraska, Docket No. 8:07-cv-00305.

LAW OFFICES OF ROBERT A. STUTMAN, P.C.

Dated: June 16, 2014

s/Thomas J. Underwood, Jr. _____
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CERTIFICATE OF SERVICE

I hereby certify that the foregoing Plaintiff's Memorandum of Law in Opposition to the Defendants' Motions *In Limine* was served on the following persons electronically through ECF:

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LAW OFFICES OF ROBERT A. STUTMAN, P.C.

Dated: June 16, 2014

s/Thomas J. Underwood, Jr.

THOMAS J. UNDERWOOD, JR., ESQUIRE
Admitted Pro Hac Vice

Exhibit 1

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IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF NEW YORK

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PHILADELPHIA INDEMNITY
INSURANCE COMPANY,
Plaintiff,

vs.

Case No. 3:12-CV-181

BROAN-NUTONE, LLC,
and NUTONE, INC.,
Defendants.

* * * * *

DEPOSITION OF DAVID FARCHIONE
TAKEN AT: FOLEY & LARDNER
LOCATED AT: 777 East Wisconsin Avenue
Milwaukee, Wisconsin
April 24, 2013
9:00 a.m. to 2:00 p.m.
REPORTED BY BRENDA RAY
REGISTERED PROFESSIONAL REPORTER

* * * * *

Veritext National Court Reporting Company
Mid-Atlantic Region
1801 Market Street - Suite 1800
Philadelphia, PA 19103

1 MR. BARRER: Presently?

2 MR. UNDERWOOD: We can use throughout
3 the time the 696 has been manufactured.

4 THE WITNESS: Jakel has been used
5 certainly probably for -- well, up until around
6 2004. They were probably the primary supplier.

7 At some time in there, there was some
8 consolidations done, obviously. And we have
9 talked at length about that. A.O. Smith would
10 have been used. Probably today A.O. Smith is
11 used, also Johnson. Or also Johnson is known
12 as Z Motor. It's exactly the same. It's just
13 a branding issue.

14 There is possibly some new motors that I'm
15 not aware of that would have been put on line
16 recently in some sort of consolidation, since
17 we try to keep making, you know, like two
18 suppliers, but one motor for a lot of products
19 kind of thing. But I'm not aware of any other
20 ones offhand, besides maybe those three, that
21 would be in this particular type of unit.

22 BY MR. UNDERWOOD:

23 Q Since you've been working in your present
24 position as the manager of product performance
25 and performing these inspections and

1 investigations of claims involving ventilation
2 fans, have you ever made a determination that a
3 model 696 fan suffered an internal electrical
4 failure and started a fire?

5 A No.

6 Q Is Broan aware of any instance in which a 696
7 fan has suffered an electrical failure and
8 started a fire?

9 A Not to my knowledge.

10 Q Is Broan aware of any instance in which a
11 C-frame motor manufactured by Jakel suffered an
12 electrical failure and started a fire?

13 A Not that I know of.

14 Q Now you testified a few minutes ago about
15 observing the loss site. Was there any portion
16 of the loss site that Broan contends was
17 spoliated by the plaintiff before you had an
18 opportunity to look at it?

19 MR. BARRER: Do you know what that
20 terms means?

21 THE WITNESS: Yes. I don't know if
22 there was or not. The loss site was heavily
23 damaged, and there were certainly people there
24 before us. I don't know that there was any
25 spoliation that would really be of importance

Exhibit 2

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IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF NEW YORK

PHILADELPHIA INDEMNITY INSURANCE,

Plaintiff,

vs.

Case No. 3:12-CV-181

BROAN-NUTONE, LLC, and NUTONE, LLC

Defendants.

DEPOSITION OF: MR. THOMAS FRISSE

TAKEN AT: FOLEY & LARDNER

LOCATED AT: 777 East Wisconsin Avenue, 40th Floor

Milwaukee, Wisconsin

April 23, 2013

9:00 a.m. to 12:16 p.m.

REPORTED BY: VICKY L. ST. GEORGE, RMR.

Veritext National Court Reporting Company

Mid-Atlantic Region

1801 Market Street - Suite 1800

Philadelphia, PA 19103

1 referring to?

2 A. By adding the thermal protector.

3 Q. After the 5138 motor was placed into production, did
4 Jakel ever identify any failure modes in which that
5 motor could cause a fire?

6 A. No, we did not.

7 Q. Has Jakel ever identified an instance in which a 5138
8 motor has failed and caused a fire?

9 A. Not that I'm aware of.

10 Q. Other than your own personal knowledge, is Jakel
11 aware of any instances in which a 5138 motor has
12 failed and caused a fire?

13 A. It is my understanding that I am speaking for Jakel
14 as the corporate representative today.

15 Q. I just want to make sure that was clear, that we
16 weren't limiting it to your own personal --

17 A. I understand.

18 Q. Okay. Was there a return process for the 5138 motor?

19 A. Yes, there was.

20 Q. And what did that process consist of?

21 A. If Nutone found motors that were not in conformance
22 with their requirements, they would call our sales
23 department and request a return authorization, and we
24 would bring the product back and examine it to
25 determine what the failures were as well as what the

Exhibit 3

Transcript of the Testimony of

Kevin H. Lewis

April 4, 2014

Philadelphia Indemnity Insurance v. Broan-NuTone, et al.

No. 3:12-cv-181-NAM-DEP



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Seattle/Tacoma, Washington

1 A At some point, yes.

2 Q Did you do testing here to determine whether there was
3 any conduction of electricity between these -- the
4 oxide layer that was in this particular unit?

5 A No, because again, we find the post in the subject
6 unit, particularly in Figure 6 in the right photo, the
7 lower post had been ripped out of the case. And so
8 you can't test it at that point. But you can see the
9 tips, and the tips show fresh areas where they would
10 have been in contact.

11 Q And did you do any testing to determine whether
12 electricity was being -- could be conducted between
13 them?

14 A Well, I don't have to. I mean, I know that if I put
15 those two together, it would conduct electricity. So
16 if they're physically touching, it would.

17 Q You've spoken quite a bit about the Brides by Demetrios
18 fire. Do you know if there was any finding by a court
19 or jury as to the cause of the fire?

20 A No. The case settled. My understanding is, again,
21 Broan paid out almost all of the claim. So the case
22 was settled. It never really got to court. Assume
23 they didn't want it to see the light of day.

24 But it was examined by Broan's individuals. Both
25 Mr. Frisse and Finneran and Elliott Duncan, I believe,

Byers & Anderson Court Reporters/Video/Videoconferencing
Seattle/Tacoma, Washington

1 of Broan were all there, had an opportunity to look at
2 it. And we examined the particular fan. Clearly
3 there was no other cause for that fire. There was no
4 fire in the attic that spread. The fire was clearly
5 contained to the motor.

6 Q I think you mentioned in your report the Greene case?

7 A Yes.

8 Q Same question there. Do you know if there was a
9 determination by a court or a jury as to causation?

10 A Again, a very small fire, and in my understanding, it
11 was settled out of court. Monies were paid and people
12 were happy.

13 Q You don't know the details though?

14 A I don't. I don't concern myself with that.

15 Q During the course of the assembly of motors, windings
16 occur, correct?

17 MR. UNDERWOOD: Objection to the
18 form.

19 Q (By Mr. Barrer) You have to create windings in order
20 to create a motor?

21 A I mean, you wrap windings around a bobbin.

22 Q And you mention in your report a significant number of
23 windings rejected by Jakel, 5.5.4 on Page 21?

24 A Yes.

25 Q Do you have any information to support the theory that

Exhibit 4

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

PHILADELPHIA INDEMNITY INSURANCE,
Plaintiff,

-vs- CVA #: 3:12-cv-181

BROAN-NuTONE, LLC, and NUTONE INC.,
Defendants.

Deposition of JAMES M. FINNERAN,
held at the offices of Hiscock &
Barclay, LLP, Syracuse, New York, on
April 17, 2014, before DEBORAH R.
SALESKI, Court Reporter and Notary
Public in and for the State of New York.

Veritext National Court Reporting Company
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1801 Market Street - Suite 1800
Philadelphia, PA 19103

1 James M. Finneran

2 Q. Mr. Lewis referenced in his report, his
3 investigation in the Brides by Demetrios case; do you
4 recall seeing that in his report?

5 A. I did.

6 Q. Did you play any role in the Brides by
7 Demetrios fire?

8 A. I did.

9 Q. Who were you retained by in order to
10 investigated that fire?

11 A. I don't know. It could have been Travelers.
12 I have not pulled that case. It's still probably
13 encrypted, but it could be unencrypted eventually. So I
14 don't know the details of the case except for what I've
15 read in Mr. Lewis' report.

16 Q. Did you inspect the loss site or the fire site
17 in that case?

18 A. I did not.

19 Q. Did you examine the evidence retained from the
20 loss site in that case?

21 A. According to Mr. Lewis I did, so I believe I
22 did.

23 Q. Did you make a determination regarding the
24 cause of the fire in that case?

25 A. I did not.

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James M. Finneran

Q. Did you list the cause of the fire in that case as undetermined?

A. I don't believe I did any opinion in that case. I don't think there was a report written. At this point it would be undetermined because I haven't done any follow-up work on it.

Q. Okay. Based upon the work that you performed in that case, did you make a determination what the cause of the fire was?

A. I don't believe I did. I believe I probably couldn't eliminate the fan as a potential cause for the fire, but I don't believe I ever made a determination as to what did cause the fire.

Q. Did you identify any alternative causes for the fire?

A. I don't recall.

Q. Did you play any role in a lawsuit that was filed by American Family versus NuTone in the District of -- the Federal District of Nebraska?

A. Is that a case that Kevin lists in his report?

Q. I don't believe it is.

A. It doesn't sound familiar unless it's something that he's said he found a case that he didn't see in material returned to him and I thought it was a

United States District Court
For The Northern District of New York

Case No. 3:12-cv-00181-NAM-DEP

Date: June 23, 2014

Presiding Judge: Norman A. Mordue

(X) Plaintiff**(X)** Defendant**()** Court

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
P-015	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO 193 / P9170292
P-016	06/23/14	06/23/14	Stipulation	Kristen Suffredini	EMO 271 / P9170331
P-021	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO Event Summary Report
P-025	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO Circuit Breaker Diagram
P-026	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO 185 / P9170286
P-027	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO 171 / P9170279
P-030	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	EMO 225 / P9170308
P-048 A	06/24/14	06/24/14	Stipulation	Howard Dematties	DeMatties Diagram
P-066	06/25/14	06/25/14	Stipulation	Kevin Lewis	Thermal Cutoff E-Series Documentation (API)
P-67	06/26/14	06/26/14	Stipulation	James Fienneran	Picture
P-72M	06/24/14	06/24/14	Stipulation	Howard Dematties	DeMatties Photo SE IMG 2008

Exhibits Returned To Counsel (Date): July 1, 2014Signature: Judi L. McNicholas

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
P-072 N	06/25/14	06/25/14	Stipulation	Kevin Lewis	DeMatties 102909 IMG_2009.JPG
P-072 T	06/24/14	06/24/14	Stipulation	Howard Dematties	DeMatties 102909 IMG_2059.JPG
P-077 N	06/24/14	06/24/14	Stipulation	Howard Dematties	Tochelli Day 1 DSC_0094.JPG
P-079 A	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 B	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 C	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 D	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 F	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 G	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-079 H	06/24/14	06/24/14	Stipulation	Francis D. Wright	Part of Wright Report
P-086	06/25/14	06/25/14	Stipulation	Kevin Lewis	Exemplar Fan from Preschool Age Bathroom
P-087 F	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0067.JPG
P-087 AA	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0223.JPG
P-087 II	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0357.JPG
P-087 LL	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0406.JPG
P-087 RR	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0479.JPG
P-087 TT	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0497.JPG
P-087 WW	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0589.JPG
P-087 ZZ	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 2014_01_15_MG_0656.JPG

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
P-088	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 1 0041 Winding 15-04.jpg
P-089	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 2 mg04 1092009-15_01 eyebar cleaned 100x_BES.jpg
P-091	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 4 0054 TCO both leads.jpg
P-093	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 6
P-099	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 13
P-100	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis Figure 14
P-119 F	06/25/14	06/25/14	Stipulation	Kevin Lewis	Johnson 10-1198-030.JPG
P-119 R	06/24/14	06/24/14	Stipulation	Howard Dematties	Johnson 10-1198-539.JPG
P-119 U	06/25/14	06/25/14	Stipulation	Kevin Lewis	Johnson 10-1198-563.JPG
P-120	06/23/14	06/23/14	Stipulation	Kristen Suffredini	Natale Drawing
D-01	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	AR-309189898.jpg
D-02	06/26/14	06/26/14	Stipulation	John McConnell	Google Maps Image

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-03	06/23/14	06/23/14	Stipulation	Jeffrey Harluff	Ontario EMO images <ul style="list-style-type: none"> • P9170276 • P9170279 • P9170285 • P9170290 • P9170291 • P9170292 • P9170294 • P9170302 • P9170303 • P9170304 • P9170305 • P9170306 • P9170307 • P9170308 • P9170309 • P9170310 • P9170311 • P9170312
D-04	06/26/14	06/26/14	Stipulation	Carl Natale	Ontario EMO Event Summary Report
D-8	07/01/14	07/01/14	Stipulation	David Farchione	696N Design & Assembly Drawings, BR 328-349, 355
D-10	7/1/14	7/1/14	Stipulation	David Farchione	696N NuTone Test Documents, BR 243-327, 4754-4758

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-11	07/1/14	07/1/14	Stipulation	David Farchione	<ul style="list-style-type: none"> • UL Test Record and Procedure, BR 1-140 • UL 2003 Revision, BR 4716-4753 • UL 2007 Revision, BR 142-242
D-24	07/1/14	07/01/14	Stipulation	David Farchione	UL 1446, System of Insulating Materials (2000 ed.), Jaki5138JJ 11788-11833
D-35	06/26/14	06/26/14	Stipulation	Carl Natale	DeMatties 10/29/2009 Image <ul style="list-style-type: none"> • 2100
D-36	06/26/14	06/26/14	Stipulation	Carl Natale	Truss Diagram Chalk
D-36 B	06/26/14	06/26/14	Stipulation	Carl Natale	Natale Presentation on Damage to Two Year Old Classroom
D-36 C	06/26/14	06/26/14	Stipulation	Carl Natale	Natlae Presentation on Damage to Two Year Old Bathroom
D-38 D	06/25/14	06/25/14	Stipulation	Kevin Lewis	Lewis 0053 TCO both leads.jpg
D-38 G	06/26/14	06/26/14	Stipulation	James Finneran	Lewis 0029 TCO both leads.jpg
D-40	07/01/14	07/01/14	Stipulation	David Farchione	Fan

Exhibits Returned To Counsel (Date): _____

Signature: _____

United States District Court
For The Northern District of New York

Case No. 3:12-cv-00181-NAM-DEP

Date: June 23, 2014

Presiding Judge: Norman A. Mordue

() Plaintiff

 Defendant

() Court

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-1					Scene Photo, AR-309189898.jpg (from BR 5036)
D-2					Google Maps image of distance from 14 Framark Drive to Victor Fire Dept.
D-3					Ontario EMO Scene Photos (P9170228.jpg - P9170344.jpg)
D-4					Ontario EMO Event Summary Report, EMO File 3-4
D-5					2002 Drawing of 14 Framark Drive, BR 4761
D-6					Scene Photos taken by Carl Natale, 001.jpg - 204.jpg
D-7					Scene Photos taken by David Farchione, IMG 0001 - 0156
D-8					696N Design & Assembly Drawings, BR 328-349, 355
D-9					Motor Qualification Specifications, BR 350-354

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-10					696N NuTone Test Documents, BR 243-327, 4754-4758
D-11					A. UL Test Record and Procedure, BR 1-140 B. UL 2003 Revision, BR 4716-4753 C. UL 2007 Revision, BR 142-242
D-12					NuTone New Part Warrant Submission & Test Results, Jakel5138JJ 18841-18850
D-13					Jakel Inc. Motor Design & Assembly Drawings A. Motor Assembly, Rev. Y, AA, AC, AD, AE, AF, AG, AH, AJ B. Coil Assembly, Rev F, G, H, J, K, L, AE, AF C. Winding Assembly, Rev. J, K, L D. Magnet Wire, Rev. A E. Fuse, Rev. A, C, D F. Mylar Tube (One Shot Fuse), Rev. F G. Bracket Assembly, Rev. E H. Rotor Assembly, Rev. J I. Coil Bobbin, Rev. Q J. Lead Wire, Jakel5138JJ 19368 K. Blade Terminal – Nonpolorized, Rev. B L. Housing w/ Arc Protector, Rev. C M. Disc, Rev. J N. Bearing, Rev. F

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
					O. Bearing Cap, Rev. M P. Field Lamination, Rev. E Q. Eye Lamination, Rev. K R. Tape Electrical, Rev. E S. Splice Terminal, Rev. B T. Oil Wick, Rev. A U. Rust Preventative Mixture, Rev C V. Omnilube Oil, Rev. B W. Hex Head Machine Screw, Rev G X. Motor Assembly Process Y. Rotor Assembly Process
D-14					Jakel Process Control: Soldering and Bending Fuse Leads, BR 5046-5057
D-15					Jakel Inc. UL Test Documents A. Motor (2001), Jakel5138JJ 204-278 B. Motor (2008), Jakel5138JJ 12130-12153 C. Component (2002), Jakel5138JJ 147-203 D. Component (2003), Jakel5138JJ 15862-15875 A. Component (2006), Jakel5138JJ 12110-12129

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-16					Jakel Inc. UL Correspondence Files B. Motor (2001), Jakel5138JJ 1-22 C. Component (1999), Jakel5138JJ 23-69 D. Component (2000), Jakel5138JJ 70-105 A. Component (2001), Jakel5138JJ 106-146
D-17					Jakel Inc. Test Documents B. Undated Locked Rotor Testing, Jakel5138JJ 19330-19347 C. 07/2000 Potential Failure Mode & Effect Analysis, Jakel5138JJ 17770-17783 07/2000 Process Control Plan, Jakel5138JJ 17784-17790
D-18					Jakel Quality Manual, Jakel5138JJ 12045-12070
D-19					Certificates of Conformance for Magnet Wire
D-20					Certificates of Conformance for Fuse, Jakel5138JJ 17879-17882, 18851-18855
D-21					Advanced Products, Inc. E-Series Fuse Product Information, Jakel5138JJ 12071-12109
D-22					UL 507, Electric Fans

Exhibits Returned To Counsel (Date): _____

Signature: _____

Exhibit No.	Marked for Identification	Admitted Into Evidence	Remarks	Witness	Exhibit Description
D-23					UL 1004, Electric Motors (2001 ed.), Jakel5138JJ 11717-11787
D-24					UL 1446, System of Insulating Materials (2000 ed.), Jakel5138JJ 11788-11833
D-25					UL 2111, Overheating Protection for Motors (2002 ed.), Jakel5138JJ 11834-11892
D-26					NEMA MW 1000, Magnet Wire (1987 ed.), Jakel5138JJ 11423-11716
D-27					Certified weather records from September 17, 2009, BR 5031-5035
D-28					Victor Fire Department Response Analysis, BR 4975-4982
D-29					Summary Chart of Jakel Line Assembly and Component Inspection Documents (Fed. R. Evid. 1006)
D-30					Summary Chart of Jakel Engineering Change Orders (Fed. R. Evid. 1006)

Exhibits Returned To Counsel (Date): _____

Signature: _____

Respectfully Submitted,
Broan-NuTone LLC and NuTone, Inc.,
By their attorneys,

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Dated: June 14, 2014

Exhibits Returned To Counsel (Date): _____

Signature: _____

CERTIFICATE OF SERVICE

I hereby certify that on June 14, 2014, I electronically filed the foregoing document with the Clerk of the Court using the CM/ECF system, which sent notification of such filing to the following attorneys for plaintiffs:

Thomas Underwood, Jr.
Stuntman Law
20 East Taunton Road, Suite 403
Berlin, NJ 08009

/s/ Christopher A. Duggan

Christopher A. Duggan
Bar Roll No. 303138

Exhibits Returned To Counsel (Date): _____

Signature: _____

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK**

PHILADELPHIA INDEMNITY	:	
INSURANCE COMPANY	:	Case No.: 3:12-CV-00181(NAM/DEP)
	:	
Plaintiff,	:	
	:	
vs.	:	
	:	
	:	
BROAN-NUTONE, LLC	:	
and NUTONE, INC.	:	
	:	
Defendants.	:	

**TRIAL BRIEF OF PLAINTIFF, PHILADELPHIA INDEMNITY INSURANCE
COMPANY**

Plaintiff, Philadelphia Indemnity Insurance Company, by and through its undersigned attorneys, hereby submits the following Trial Brief for the trial in the above captioned matter scheduled to begin on June 23, 2014.

I. BACKGROUND

This subrogation action arises from a September 17, 2009 fire at the Jack & Jill Child Care facility (“Jack & Jill”) located at 14 Framark Drive in Victor, NY. At the time of the fire, Philadelphia Insurance provided insurance to Jack & Jill Childcare, the operator of the childcare facility and 14 Framark Drive LLC, the owner of the building in which the daycare center was located. A defective bathroom ventilation fan manufactured by defendant Nutone, Inc. (“Nutone”) caused the fire and plaintiff’s losses.

Late in the afternoon on the day of the fire, a Jack & Jill employee, Kristen Suffredini was working in a classroom on the north side of the rectangular building that housed the day care center. Ms. Suffredini's classroom was occupied by two year old children and was commonly known as the "two year old room." Some time between 4:30 and 4:50 p.m., a young girl went into a bathroom that was attached to the two year old room to use the toilet. When she went into the two year old bathroom, she turned on the light which also turned on a bathroom ventilation fan mounted in a drop ceiling.

The young girl left the bathroom but did not turn off the switch that controlled the light and fan. After a few minutes, Kristen Suffredini noticed something fall from the ceiling in the two year old bathroom. When she went to investigate, she found a candle like flame burning from the ventilation fan's plastic grill. She immediately called to another Jack & Jill employee, Wendy Dattilo, who came to the two year old bath room to investigate. Dattilo saw a glow in the fan and immediately worked with Ms. Suffredini to evacuate the children.

The fire department was contacted and arrived a few minutes later. However, before they could extinguish the fire, it caused severe damage to the day care center and the property located therein. Immediately after the fire was extinguished, Jeffrey Harloff, a fire investigator with the Ontario County, New York Emergency Management Office performed an investigation into the cause of the fire. Based upon his examination of the site and his consultations with witnesses, he determined that the fire originated in the ceiling of the two year old bathroom in a ventilation fan manufactured by defendant Nutone.

II. ISSUES FOR DETERMINATION AT TRIAL

A. Liability

At trial, plaintiff will pursue claims for negligence and strict product liability based upon its investigation which determined that the Nutone Model 696N fan in the two year old bathroom was defective and caused the fire. A product may be "defective" because of a flaw in the manufacturing process, inadequate instructions or warnings, or a defect in the design. *Speller Ex Rel. Miller v. Sears, Roebuck & Company*, 100 N.Y.2d 38, 760 N.Y.S.2d 79, 790 N.E.2d 252 (N.Y. 2003); *Gebo v. Black Clawson Company*, 92 N.Y.2d, 387, 681 N.Y.S.2d 221, 703 N.E.2d 1234 (N.Y. 1998).

In this case, plaintiff will establish that Nutone is strictly liable for the losses suffered by plaintiff's insureds because the Nutone 696N fan contained manufacturing and design defects. Under strict liability, if the product is defective, plaintiff has established the basis for liability without proving fault. *Lancaster Silo & Block Co. v Northern Propane Gas Co.*, 75 A.D.2d 55, 427 N.Y.S.2d 1009 (N.Y. App. Div. 1980). To establish a strict products liability claim based on a manufacturing defect, plaintiff must prove that the product did not perform as intended and that it was defective when it left the manufacturer's control. *Denny v Ford Motor Co.*, 87 N.Y.2d 248, 639 N.Y.S.2d 250, 662 N.E.2d 730 (N.Y. 1995); *Wesp v Carl Zeiss, Inc.*, 11 A.D.3d 965, 783 N.Y.S.2d 439 (N.Y. App. Div. 2004); *Nichols v Agway, Inc.*, 280 A.D.2d 889, 720 N.Y.S.2d 691 (N.Y. App. Div. 2001). In other words, the particular unit of the product differs from the manufacturer's own internal quality standards. Where a manufacturing defect is alleged, plaintiff must establish that the product was not built to specifications or that the product, as constructed, deviated from any such specifications or design. *Repka v Arctic*

Cat, Inc., 20 A.D. 3d 916, 798 NYS2d 629 (N.Y. App. Div. 2005); *McArdle v Navistar Int'l Corp.*, 293 A.D.2d 931, 742 N.Y.S.2d 146 (N.Y. App. Div. 2002).

Under New York law, a design defect may be actionable if the product is not reasonably safe. *Denny v. Ford Motor Company*, 87 N.Y.2d 248, 639 N.Y.S.2d 250, 662 N.E.2d 730 (N.Y. 1995). "In order to establish a prima facie case in strict products liability for design defects, the plaintiff must show that the manufacturer breached its duty to market safe products when it marketed a product design so that it was not reasonably safe and that the defective design was a substantial factor in causing the plaintiff's injury." *Warnke v. Warner Lambert Co.*, 21 A.D.3d 654, 799 N.Y.S.2d 666, 668 (N.Y. App. Div. 2005); *Voss v. Black & Decker Manufacturing Co.*, 59 N.Y.2d 102, 107, 463 N.Y.S.2d 398 (N.Y. 1983). The standard for determining when a product is not reasonably safe for its intended use requires an appraisal of whether, "if the design defect were known at the time of manufacture, a reasonable person would conclude that the utility of the product did not outweigh the risk inherent in marketing a product designed in that manner." *Id.*; *Voss*, supra, at 108; *Pigliavento v. Tyler Equipment Corp.*, 248 A.D.2d 840, 841, 669 N.Y.S.2d 747 (N.Y. App. Div. 1998).

Philadelphia Insurance will establish that the only reasonable explanation for the cause of the fire is that the Nutone Model 696N ventilation fan mounted in the ceiling of the two year old bathroom was defective and malfunctioned. Eyewitnesses first saw fire in the fan, the fan displays clear evidence that it suffered an electrical failure and it is undisputed that the sole safety feature in the fan, a thermal cut out, failed to operate correctly.

At trial, plaintiff will present eyewitness testimony that the first notice anyone had that there was a fire in the building is when a witness saw a flame extending down from the grille of the Nutone fan in the ceiling of the two year old bathroom. Witnesses will further testify that

prior to the discovery of fire in the Nutone fan, none of the occupants in the building noticed any problems with the operation of the lights or any other electrical system. In addition, no circuit breakers tripped before the fire was discovered in the fan and no one saw, heard or smelled anything out of the ordinary.

Plaintiff will present expert testimony to establish that the fire originated at the fan as a result of internal defects.

B. Damages

The parties have stipulated that plaintiff's real and business personal property damages are \$412,000.00. The amount of business interruption and loss rent damages is in dispute. If you find that the defendants' negligence was a substantial factor in causing the September 17, 2009 fire, you can award damages to the plaintiff for all business losses, losses of profits or lost rents experienced by Jack & Jill Childcare and 14 Framark Drive because Jack & Jill's business operations were interrupted as a result of the fire. The burden is on the plaintiff to establish any such business interruption damages. *State Farm Fire & Cas. Co. v. Southtowns Telecommunications, Inc.*, 245 A.D.2d 1028, 667 N.Y.S.2d 157 (N.Y. App. Div. 1997) (other citations omitted).

III. EVIDENTIARY ISSUES

None presently expected other than those raised in the *Motions In Limine* filed by the plaintiff.

LAW OFFICES OF ROBERT A. STUTMAN, P.C.

Dated: June 9, 2014

s/Thomas J. Underwood, Jr.
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Attorneys for Plaintiff, Philadelphia Indemnity
Insurance Company

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK**

PHILADELPHIA INDEMNITY :
INSURANCE COMPANY, :
 :
 :
 Plaintiff, :
 :
 :
 v. : CIVIL ACTION NO.: 3:12-cv-00181-NAM-DEP
 :
 :
 BROAN-NUTONE LLC and :
 NUTONE, INC. :
 :
 :
 Defendants. :
 :

**MEMORANDUM OF LAW IN
SUPPORT OF MOTIONS *IN LIMINE***

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**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK**

PHILADELPHIA INDEMNITY	:	
INSURANCE COMPANY,	:	
	:	
Plaintiff,	:	
	:	
v.	:	CIVIL ACTION NO.: 3:12-cv-00181-NAM-DEP
	:	
BROAN-NUTONE LLC and	:	
NUTONE, INC.	:	
	:	
Defendants.	:	
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**MEMORANDUM OF LAW IN
SUPPORT OF MOTIONS *IN LIMINE***

STATEMENT OF THE CASE

This Memorandum of Law is submitted on behalf of Broan-NuTone LLC and NuTone, Inc, (collectively referred to as “Broan”) in support of their motions *in limine*.

This action was commenced on January 25, 2012, and involves a fire that occurred on September 17, 2009, at Jack & Jill Childcare (“Jack & Jill”) in Victor, New York. Plaintiff insured Jack & Jill and has brought this subrogation action against Broan seeking recovery of payments it made to Jack & Jill following the fire. Plaintiff alleges a bathroom ventilation fan manufactured by NuTone is defective and caused the fire. The fan, model number 696N R02, had incorporated into it a motor manufactured by Jakel, Inc. Broan has denied the material allegations in the Complaint.

Broan anticipates the plaintiff may seek to introduce evidence regarding: (1) other incidents and fires without first making a showing the other incident is substantially similar to the facts and circumstances of this matter and without an opportunity for the Court to weigh its

probative value against the unfair prejudice to Broan; (2) communications Broan has had with the Consumer Product Safety Commission (“CPSC”); and (3) reference to Broan’s experts for this Trial being retained and paid by Broan’s liability insurance carrier.

ARGUMENT

I. MOTION *IN LIMINE* TO EXCLUDE REFERENCES TO OTHER INCIDENTS

A. INTRODUCTION

Broan-NuTone LLC and NuTone, Inc. (collectively, “Broan”) move *in limine* to exclude all references to other cases and investigations involving NuTone fans and Jakel motors without a showing, by the plaintiff, of substantial similarity in the circumstances.

Based on the report and deposition of plaintiff’s engineering expert, Kevin Lewis, and statements by counsel, Broan anticipates that the plaintiff and its experts will not solely rely on the facts of this case but will seek to introduce other claims against Broan or at least refer to other fire investigations. This is improper. Introduction of evidence of other incidents is improper without a showing of substantial similarity and must be excluded without it.

The plaintiff’s engineering expert, Kevin Lewis, specifically references three cases: (1) a Bellevue, Washington incident known as “Brides By Demetrios” or simply “Brides”¹; (2) a 2005 Omaha, Nebraska incident referred to as the “Johnson”² matter; and (3) an unknown incident that Lewis calls the “Green” case, of which Broan has never been notified. Broan anticipates the plaintiff’s experts will attempt to refer to these cases at trial. To date, the plaintiff has not identified which other claims, if any, it plans to introduce or have its experts refer to or subtly mention. This, of course, exposes Broan to potentially defending dozens of cases in the course of one trial, needlessly lengthening the trial, and heightening the risk of jury confusion.

Accordingly, Broan requests that the Court order the plaintiff (1) to identify which other incidents or investigations plaintiff or its experts intend to mention or rely upon and (2) to prove

¹ *Federal Insurance Group a/s/o Brides by Demetrios v. Broan-NuTone LLC*, U.S. District Court for the Western District of Washington, 2:10-cv-00077.

² *American Family Insurance Company a/s/o Johnson v. NuTone, Inc.*, U.S. District Court for the District of Nebraska, 8:07-cv-00305.

that those incidents are all substantially similar to the Jack & Jill matter (i.e., the underlying matter in this case) prior to any mention of the other incidents to the jury. Barring such a showing, Broan requests that the Court preclude the plaintiff and its experts from mentioning, testifying about, or eliciting testimony about incidents other than the Jack & Jill matter. Broan also requests that the Court exclude all references to the Brides, Johnson and Green matters.

B. ARGUMENT

Evidence of other incidents can be admissible to show a manufacturer's knowledge of prior incidents and to establish the existence of defect, causation, negligent design, and notice only if the proponent of the evidence shows that the incident occurred under substantially similar circumstances to those in the case at hand. *Schmelzer v. Hilton Hotels Corp.*, No. 05 Civ. 10307, 2007 WL 2826628, at *2 (S.D.N.Y. Sept. 24, 2007); *Lidle v. Cirrus Design Corp.*, 505 F. App'x 72, 74 (2d Cir. 2012) (affirming district court's exclusion of prior accident that did not occur under substantially similar circumstances and were of minimal probative value, which was outweighed by the danger of unfair prejudice to the defendant). "Whether a prior accident occurred under 'substantially similar' conditions necessarily 'depends upon the underlying theory of the case, and is defined by the particular defect at issue.'" *Lidle*, 505 F. App'x at 74 (quoting *Guild v. Gen. Motors Corp.*, 53 F.Supp.2d 363, 367 (W.D.N.Y.1999).) The plaintiff has the burden to demonstrate the substantial similarity. *Id.* Prior to admitting the other incidents, the Court must also "weigh the dangers of unfairness, confusion, and undue expenditure of time in the trial of collateral issues against the factors favoring admissibility." *McKinnon v. Skil Corp.*, 638 F.2d 270, 277 (1st Cir. 1981); Fed. R. Evid. 403.

If the plaintiff is permitted to allude to other fires without a showing of substantial similarity, the result will be jury confusion and unfair prejudice to Broan. Accordingly, Broan requests that this Court, prior to trial, hear evidence of each incident that the plaintiff seeks to

introduce and determine which, if any, can properly be admitted as occurring under similar circumstances.

- (1) The Plaintiff Should Be Precluded From Eliciting Testimony or Introducing Evidence Regarding Prior Incidents Until It Proves to the Court That the Other Incidents Are Substantially Similar to This Case.

Whether or not any other fire is substantially similar is fact specific. Because it is the plaintiff's burden to prove substantial similarity, *Lidle v. Cirrus Design Corp.*, 505 F. App'x at 74, evidence of any other fire should be excluded unless and until the plaintiff proves, to the Court's satisfaction, that the circumstances surrounding the prior fire were substantially similar to the Jack & Jill circumstances and that the probative value of any other fire is not outweighed by unfair prejudice to Broan, confusion to the jury, or undue expenditure of time.

To date, the plaintiff has not identified which other claims, if any, it plans to introduce or have its experts reference. Accordingly, Broan requests that the Court order the plaintiff:

- (1) To specify which other incident or claim or claims it intends to rely upon or offer into evidence, if any;
- (2) To offer proof that those incidents are "substantially similar" to the Jack & Jill matter during an in camera proceeding out of the hearing of the jury during such time and place as the court deems proper; and
- (3) To refrain from mentioning, offering, or in any way alluding to such other claims or other incidents unless this Court has previously ruled under Fed. R. Evid. 403 that the marginal benefit to the plaintiff outweighs the potential unfair prejudice to Broan from the introduction of such collateral matters.

- (2) The Plaintiff Should Be Precluded From Eliciting Testimony or Introducing Evidence Regarding the Brides Matter Because It Is Not Substantially Similar to This Matter.

Plaintiff's engineering expert, Kevin Lewis, will likely attempt to offer testimony about his investigation into the Brides fire. Lewis summarizes the matter as follows:

The fire occurred overnight while the building was unoccupied. The manager of the bridal boutique arrived on Friday morning to find a haze in the building and soot on the wedding dresses. The fire had self-extinguished and was not actively burning. She investigated and found that a fire occurred in the women's bathroom.

(Exhibit 1, Lewis Report, p. 11.) Lewis fails to include in his summary that the manager told the investigator that the Brides fan was off when the manager left for the evening and at the time of the fire, a fact that the fire investigator accepted and adopted. (Exhibit 2, BR001234, Page from Bellevue Fire Dept. Incident Report (the manager of the store stated that the bathroom door was open and the light, which was on the same switch as the fan, was off before she left for the night); Exhibit 3, BR001253, Phone Interview of Store Manager (the manager "is responsible for closing the store every evening and remembers leaving the woman's bathroom door open and light was off, therefore the fan was off".))

In a previous case against Broan involving the same fan and motor, the U.S. District Court for the Western District of Texas, on Broan's motion, excluded references to any prior incident and specifically the one on which the plaintiff's expert sought to rely. *More JB, Inc. v. NuTone, Inc.*, No. 2005-cv-338 (W.D.Tex.) (hereinafter referred to as the "Cain & Abel" case).³ The District Court held a hearing for the purpose of determining "whether or not the fire and

³ On June 8, 2007, the jury returned a verdict in favor of NuTone, Inc. on all counts including, negligence and design defect.

surrounding circumstances at this secondary location was the same or similar . . . or causation was the same or similar. . . .” (Cain & Abel Trial Tr. 261:6-12, attached as Exhibit 4.)

The Cain & Abel court excluded the other fires despite a litany of purported similarities. Plaintiff’s expert testified that another matter (known as “Star Seed”) and Cain & Abel had the same fan and motor (Ex. 4, Cain & Abel Trial Tr. 243:13-22), the fire caused holes in the center of the fan grills (Ex. 4, Cain & Abel Trial Tr. 243:23-244:3), the plug and cord (called the “pigtail”) were burned on the end that goes into the motor (Ex. 4, Cain & Abel Trial Tr. 244:20-245:13), the “temperature differential” was similar (Ex. 4, Cain & Abel Trial Tr. 245:14-246:8), the blower wheels were both melted (Ex. 4, Cain & Abel Trial Tr. 246:9-23), and both fans were hotter at the top as compared to the bottom (Ex. 4, Cain & Abel Trial Tr. 246:24-247:5). There were of course significant differences. The purported expert testified that the thermal cutoff (“TCO”), a device that prevents a motor from overheating, was open in one motor and not the other. (Ex. 4, Cain & Abel Trial Tr. 252:21-22; 254:4-9.) Moreover, one of the sites had significant electrical problems; the other did not. (Ex. 4, Cain & Abel Trial Tr. 254:19-22, 255:18-21, 256:4-8; 257:14-19.)

The Cain & Abel court was “hesitant to get into a secondary trial on the cause of a fire and cause of a failure of equipment at a location that [was] not the subject of [the Cain & Abel] trial” (Ex. 4, Cain & Abel Trial Tr. 262:4-7) because it would have been time-consuming (Ex. 4, Cain & Abel Trial Tr. 262:8-13), confusing to the jury (Ex. 4, Cain & Abel Trial Tr. 262:23-263:8), and of questionable probative value (Ex. 4, Cain & Abel Trial Tr. 262:23-24).

Notwithstanding the list of purported similarities between the fans, the Court concluded that the plaintiff did not demonstrate substantial similarity between the incidents. (Ex. 4, Cain & Abel Trial Tr. 266:9-17.) Moreover, introduction of evidence of the other fire would be unfairly

prejudicial to Broan, confusing to the jury, and cause undue delay. (Ex. 4, Cain & Abel Trial Tr. 266:18-20.) Accordingly, the Court excluded all evidence of other fires, including Star Seed. (Ex. 4, Cain & Abel Trial Tr. 266:21-24.)

Similarly, this Court should exclude references to the Brides case. In Brides, the fan, according to the manager and the fire investigator, was off at the time of the fire. (Ex. 2, Bellevue Fire Dept. Rpt.; Ex. 3, Store Manager's Phone Interview.) In this case, the witness says it was on, a position Lewis adopts. (Exhibit 5, Suffredini Dep., 40:21-41:6, 42:2-5; Ex. 1, Lewis Rpt., p. 8.) In fact, Lewis' entire opinion in this case hinges on the fan being on at the time of the fire. (Ex. 1, Lewis Rpt., p. 13.) (Bearing failure and temperature rise occurs only when fan is on.) Of course, Lewis claims that the Brides investigator is wrong about the fan being off (Ex. 1, Lewis Rpt., p. 33) but this raises the specter of having a secondary trial on an unrelated claim. Moreover, Lewis believes that there are significant differences between the Brides and Jack & Jill fan motors:

1. The TCO opened in the Brides case (Ex. 1, Lewis Rpt., pp. 12, 18) but Lewis alleges it failed to do so in the Jack & Jill case (Ex. 1, Lewis Rpt., p. 18).
2. In Brides, the coil did not arc to the metal core of the motor, referred to as the "eye bar." (Ex. 1, Lewis Rpt., p. 12.) According to Lewis, it did in the Jack & Jill motor.
3. The Brides motor had arcing between the crimp and the motor coil; no other arcing was found. (Ex. 1, Lewis Rpt., p. 11.) Lewis, in Jack & Jill, determined that there was no arcing between the exterior of the coil and the crimp; there was, however, evidence of arcing found within the coil itself. (Ex. 1, Lewis Rpt., p. 7.)

These are important distinctions because Lewis relies on the purported failure of the TCO to open and arcing within the windings to reach his ultimate but erroneous conclusion that an arc

from the motor ignited the lint to start the Jack & Jill fire. (Ex. 1, Lewis Rpt., p. 4.) For the same reasons that the Cain & Abel Court excluded Star Seed, this Court should exclude evidence of Brides.

Although some courts have applied a relaxed standard when other matters are offered to show notice of a dangerous condition, *Schmelzer*, 2007 WL 2826628, at *2, the Brides case cannot be used to prove notice. The Brides fire occurred on March 6, 2009. (Ex. 1, Lewis Rpt., p. 10.) The laboratory inspection upon which Lewis relies in coming to his conclusion occurred on September 22, 2009 (Exhibit 6, Inspection Sign-In Sheet, BR001260), which was six days after the Jack & Jill fire (Document 11, Amended Complaint, ¶ 12). Assuming for the sake of argument that Broan reached the same conclusions as Lewis (which, of course, it did not), those conclusions could only be reached after the Jack & Jill fire occurred. Accordingly, the Brides case cannot be offered to prove notice.⁴

- (3) The Plaintiff Should Be Precluded From Eliciting Testimony or Introducing Evidence Regarding the Johnson Matter Because Its Mention Would Unfairly Prejudice Broan.

The Johnson matter is not substantially similar to the circumstances of Jack & Jill and any reference to the Johnson case would unfairly prejudice Broan. First, the Johnson matter involved a NuTone model 696ND-B, a different fan than the 696N R02 at issue in this case. Moreover, neither Lewis nor any other of the plaintiff's witnesses have any direct knowledge of any facts related to the Johnson matter.

⁴ The fan was manufactured in December 2002 and sold shortly thereafter. The plaintiff has not alleged post-sale failure to warn (Document 11, Amended Complaint, ¶¶ 19, 20(c), 28, 35, 37), which makes any notice argument from 2009 Brides fire irrelevant. At this point, allowing the plaintiff to maintain a post-sale failure to warn where one was not pleaded would "strain the bounds of the notice-pleading standard under Rule 8" *Topliff v. Wal-Mart Stores E. LP*, 2007 WL 911891, at *29 (N.D.N.Y. Mar. 22, 2007).

Notwithstanding the fact that Lewis had not seen the fan or motor from the Johnson matter and did not visit the fire scene, he had no problem concluding that “Broan-NuTone actually sued Jakel, and Jakel ended up suing Tamura for this very condition that I contend.” (Exhibit 7, Lewis Dep. 120:21-23.) There is no basis upon which anyone could conclude that Jakel came to the same theory of defect as Lewis.⁵ In fact, both Broan and Jakel denied that the motor had any defect. (Exhibit 8, Broan’s answer in Johnson case; Exhibit 9, Jakel’s answer in Johnson case.)

The mere mention that NuTone, Inc. sued Jakel and Jakel sued Tamura in third party complaints in another case could lead the jury to jump to the same erroneous conclusion that Lewis did, i.e., that Jakel believes there was a defect in the TCO. This would unfairly prejudice Broan. Again, Broan would be forced to defend two cases at once, which would lengthen the trial and confuse the issues. For all of these reasons, the Johnson matter should be excluded from evidence and prohibited from being mentioned by any experts.

- (4) The Plaintiff Should Be Precluded From Eliciting Testimony or Introducing Evidence Regarding the Green Matter Because Its Mention Would Unfairly Prejudice Broan.

Lewis, in his report, discussed the Green matter. (Ex. 1, Lewis Report, pp. 21, 38.) However, he does not know any details regarding the fire, the investigation, or resolution of the matter.⁶ (Ex. 7, Lewis Dep. 131:6-14.) Accordingly, the plaintiff cannot prove substantial similarity between Green and Jack & Jill. The Green matter should be excluded. In fact, Broan has never been put on notice of the Green matter. Again, it would unfairly prejudice Broan to have to defend itself against allegations related to an incident that Broan was never notified of

⁵ The pleadings do not indicate any theory and the matter settled.

⁶ Lewis is incorrect that Broan settled the Green matter; Broan has never been put on notice of the Green matter.

and never investigated. For all of these reasons, the plaintiff and its experts should be prohibited from mentioning the so-called Green case

C. CONCLUSION

Wherefore, Broan requests that this Court prohibit the plaintiff, its agents, and witnesses from referring to or eliciting testimony on the Brides, Johnson, and Green matters and any other incident or other claim until the plaintiff proves substantial similarity with the Jack & Jill matter and the Court has an opportunity to weigh the potential unfair prejudice against the marginal benefit to the plaintiff from collateral evidence.

II. MOTION *IN LIMINE* TO EXCLUDE ALL REFERENCES TO THE CPSC

A. INTRODUCTION

Broan-NuTone LLC and NuTone, Inc. (collectively “Broan”) move for an order excluding references relating to the Consumer Product Safety Commission (“CPSC”), including communications between the CPSC and Broan or Broan-NuTone LLC’s parent company, Nortek, Inc. (“Nortek”). Such references in this matter would be irrelevant to any issue to be tried and unfairly prejudicial.

While there have certainly been communications between Broan and the CPSC relating to a range of products over the years, as is common with any manufacturer, the product involved in this case, a NuTone model 696N R02, has never been subject to a recall, nor has the CPSC ever concluded that the 696N R02 was defective or has been the cause of a fire. Therefore, references to the CPSC could have no purpose but to mislead the jury and divert it from an impartial examination of the evidence in this case.

B. FACTS

The plaintiff served Broan with a deposition notice listing fourteen topics upon which it sought a witness or witnesses. (Exhibit 10, 30(b)(6) Dep. Notice to Broan.) The CPSC and any inquiry therefrom were not listed as topics. Notwithstanding, plaintiff’s counsel inquired whether the NuTone 696N had ever been the subject of an investigation by the CPSC. (Exhibit 11, Farchione Dep. 110:20-22.) Broan’s designee testified that the CPSC had made an inquiry and it found nothing that merited action. (Ex. 11, Farchione Dep. 110:23-111:20.)

C. ARGUMENT

- (1) CPSC Investigations Into Any Broan Product Are Not Relevant and Must Be Excluded From Evidence.

A CPSC investigation into any Broan product is not relevant because the mere fact that CPSC might have chosen to initiate an inquiry does not make any fact or consequence more or less probable than it would be without the evidence. Fed. R. Evid. 401. Moreover, the other products are not shown to be substantially similar to the product at issue in this case.

Accordingly, evidence of an investigation is not admissible. Fed. R. Evid. 402; *Lidle v. Cirrus Design Corp.*, 505 F.Appx. 72, 74 (2d Cir. 2012) (substantial similarity required).

- (2) All Mention of the CPSC and Any Related Investigation Should Be Excluded Because Their Probative Value Is Low and Is Outweighed Substantially by the Danger of Unfair Prejudice to Broan, Confusion of the Issues, and Waste of Time.

The mere mention of a government agency investigation and other incidents that gave rise to the investigation would unfairly prejudice Broan because the jury is likely to confuse the investigation itself with evidence of a defect in Broan's products. *See Martinelli v. Penn Millers Ins. Co.*, 2008 WL 723973, *2 (3rd Cir. 2008) (It is within discretion of court to exclude an official government letter based, in part, on "the fact that it originated from an authoritative government agency, could confuse and mislead the jury and unfairly prejudice [the defendant]."); *Johnson v. Baker*, 2009 WL 3486000, *4 (W.D. Ky. 2009); *Junk v. Terminix Intern. Co., Ltd.*, 2008 WL 5142188, *6 (S.D. Iowa 2008) (and cases cited). Moreover, the mention of the CPSC creates the risk of having a trial within a trial. Both sides would argue collateral issues that do not go to the issue in this case, wasting valuable time. *McKinnon v. Skil Corp.*, 638 F.2d 270, 277 (1st Cir. 1981).

In this case, there is no probative value to a CPSC investigation related to the NuTone 696N R02 or any other product. These investigations are often initiated by reports from

consumers who are dissatisfied with a product, or are based upon suppositions that later study proves to be unfounded. The circumstances surrounding the other incidents are completely different than the facts regarding the fan installed in Jack & Jill. The use, maintenance, and age of the products (if known or described), which are investigated by the CPSC, are different than those in the instant case. Accordingly, there is no probative value to any CPSC inquiry and the danger of unfair prejudice to Broan, confusion of the issues and the jury, and waste of time would be substantial.⁷ Fed. R. Evid. 403.

D. CONCLUSION

For the foregoing reasons, Broan moves for an order excluding documents and references relating to the Consumer Product Safety Commission, including communications between the CPSC and Broan-NuTone LLC, NuTone, Inc. and Nortek.

⁷ Should the Court permit evidence on the CPSC inquiry, NuTone must then be permitted to present evidence of the CPSC's activity and failure to take any enforcement action, which is relevant and admissible on the issue of defect. *Cummins v. BIC USA, Inc.*, 727 F.3d 506, 514 (6th Cir. 2013). The probative value of this evidence and the nature and strength of any inference is "properly left for argument by counsel for the parties and determination by the jury." *Id.*

III. MOTION *IN LIMINE* EXCLUDE ALL REFERENCES OR MENTION OF INSURANCE COVERAGE

Defendants seek an Order of the Court precluding Plaintiff from eliciting any mention of liability insurance during the trial of this matter. During their depositions, Defendants Carl Natale and James Finneran were asked about the circumstances of their retention in this and other matters and testified that they were retained by Defendants or their liability insurer and that their invoices for services were sent to the liability insurer for direct payment. This appears to be similar to other retentions of these individuals.

This case presents the issue whether the Nutone 696N fan was defective and, if so, whether that claimed defect caused the September 17, 2009 fire at the Jack & Jill Daycare Center. Evidence that Defendants are or were insured for this claim is irrelevant and should be excluded. As a matter of New York law in this diversity case, evidence of a defendant's liability insurance is legally irrelevant and, when not prompted by conduct of the defendant at trial warrants the grant of a mistrial. *See, e.g., Grogan v. Nizam*, 66 A.D.3d 734, 887 N.Y.S.2d 607 (2d Dep't 2009); *Kowalski v. Loblaws, Inc.*, 61 A.D.2d 340, 402 N.Y.S.2d 681(4th Dep't 1978). Accordingly, preclusion of such evidence should be ordered.

CONCLUSION

For these reasons and those more fully explained above, Broan respectfully requests that the Court grant the motions of Broan and preclude plaintiff introducing evidence relating to: (1) other incidents without first making a showing the other incident is substantially similar to the facts and circumstances of this matter; (2) communications the defendants have had with the CPSC; (3) reference to Broan's experts for this Trial being retained and paid by Broan's liability insurance carrier and (4) and award to Broan such other and further relief as the Court deems fair and proper.

Respectfully Submitted,
Broan-NuTone LLC and NuTone, Inc.,
By their attorneys,

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Dated: June 9, 2014

CERTIFICATE OF SERVICE

I hereby certify that on June 9, 2014, I electronically filed the foregoing document with the Clerk of the Court using the CM/ECF system, which sent notification of such filing to the following attorneys for plaintiffs:

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

-----x
PHILADELPHIA INDEMNITY INSURANCE COMPANY,

Plaintiff,

vs.

12-cv-181

BROAN-NUTONE, LLC,

Defendant.
-----x

JURY TRIAL - June 23, 2014 - Volume I
100 South Clinton Street, Syracuse, New York

HONORABLE NORMAN A. MORDUE

United States District Judge, Presiding

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1 (Court convenes at 9:15.)

2 THE COURT: Will the Clerk please call the case and
3 have counsel note their appearance for the record.

4 THE CLERK: 3:2012-cv-181; Philadelphia Indemnity
5 Insurance Company versus Broan-Nutone, LLC. Please note your
6 appearances for the record.

7 MR. PAOLINI: Thomas Paolini from the Law Offices
8 of Robert Stutman on behalf of the Plaintiff.

9 MR. UNDERWOOD: Thomas Underwood, Law Offices of
10 Robert Stutman, on behalf of the plaintiff.

11 MR. BARRER: Good morning, Judge. Robert Barrer;
12 Hiscock & Barclay, for the defendant.

13 MR. BLACK: Good morning, Your Honor. Andrew
14 Black; Smith, Duggan, for the defendant.

15 MR. DUGGAN: Good morning, Your Honor. And thank
16 you for allowing me to appear before you here. I'm Chris
17 Duggan from Boston, Massachusetts, for Broan-Nutone, LLC.

18 THE COURT: I understand there's a stipulation that
19 the parties are going to make, that you're going to delete
20 one of the defendants in this case, Nutone, Inc.

21 MR. UNDERWOOD: It's based upon the assurance by
22 Mr. Duggan that the party that's going to be named in the
23 case, Broan-Nutone, LLC, is viable and will be able to
24 accommodate any verdict that may be rendered against them at
25 the end of the case. Our only concern, frankly, would be

1 that we'd be subbing out a party for a party that couldn't do
2 that, and Mr. Duggan has assured us that is not the case.

3 THE COURT: Mr. Duggan.

4 MR. DUGGAN: That is correct, except I'm not
5 stipulating that Broan-Nutone is liable, however.

6 THE COURT: Well, that could make my day easy.
7 Okay, good. So we just have Philadelphia Indemnity Insurance
8 Company versus Broan-Nutone, LLC then?

9 MR. UNDERWOOD: That's correct.

10 THE COURT: I think the thing you want to talk
11 about is I don't think we can do opening statements or
12 prepare your case until we find out about this demonstrative
13 evidence that the defense is intending to use.

14 MR. PAOLINI: That's correct, Your Honor.

15 MR. UNDERWOOD: Our concern with the demonstrative
16 that was prepared by defendants is that it does not
17 accurately reflect the conditions of the site at the time.
18 There was a severe fire damage in the area above the fan and
19 near the fan. The defendants are attempting to recreate what
20 is unknown to many people.

21 There is some evidence that there was a duct that
22 was connected to an air conditioning diffuser in the ceiling
23 of the two year old bathroom that's at issue in this case.
24 It's unclear that anyone knows what that thing actually
25 looked like. In the mock-up the defendants have attached an

1 HVAC duct, a silver HVAC duct, that is fairly wide. Our
2 review of the photographs of the loss site, including the
3 photographs that were taken by the defendant's cause and
4 origin expert, Carl Natale, indicates that there was various
5 types of duct work running in the ceiling, including some
6 ducts we are seeing that were much narrower, they were black,
7 and not as large as that are depicted there.

8 And we believe that it would be unfair and unfairly
9 prejudicial to us to have this mock-up in front of the jury
10 because it might suggest to them that the path of the fire
11 that we suggested or something along those lines would be
12 blocked by this large object that they are contending was in
13 this place. And, frankly, following the fire the only thing
14 that was left there were the spiral springs essentially, the
15 bones of the duct. No one really knows what it looked like.
16 And no one can really be sure exactly what the diameter was
17 because it had been pulled apart and it was really
18 essentially a mess there.

19 Our other issue is that there was a light that was
20 attached to the ceiling directly on the side of the location
21 where the fan was located. We think it's important to
22 understand that there was a light there and that would impact
23 on what the witnesses would expect to see if, as the
24 defendants contend, a fire was raging up in the ceiling, you
25 would expect that you would see something in lights, and I

1 think it misconstrues exactly what the circumstances were in
2 that room at the time.

3 We have photographs of what the arrangement was of
4 the ceiling but we don't have any photographs that show what
5 the arrangement was before the fire. And I think that this
6 misconstrues what was there based on what we're seeing and
7 from the other ducts in the building. And also it's just
8 pure speculation because again most of that was just burned
9 up. Thank you, Your Honor.

10 MR. DUGGAN: Your Honor, we made this mock-up for a
11 couple of reasons, but the major one is that this is a very
12 unusual ceiling construction and it's important for
13 everybody, particularly the jury, to understand how this area
14 was constructed. And indeed this is built exactly to scale.
15 And what happened here, Your Honor, was that there was a
16 dropped ceiling, there was a truss system, and attached to
17 the truss system at least in most cases there was insulation,
18 paper backed insulation. And then there was a gap of one
19 foot, uncontrolled space, and then there was acoustic tile.
20 And the fan that's at issue in this case was resting on top
21 of that acoustic tile.

22 Immediately to the west of that fan is an air
23 diffuser, and that air diffuser hooked by a duct to the main
24 air delivery system, HVAC system, that ran down the building
25 to the south.

1 So in terms of the duct itself, the ducts come in,
2 they come in three sizes; 8, 10 and 12-inch diameters. This
3 was an 8-inch diameter duct. It couldn't have been anything
4 else because the room was so small you would never be able to
5 use a 10-inch or 12-inch duct. And an 8-inch duct fits
6 exactly as Mr. Natale testified with what you see in the
7 photographs of this area.

8 In terms of the damage to the area, there is
9 virtually no damage over where this fan was. And that is one
10 thing that Mr. Underwood and I have a disagreement about, but
11 that we can fight over in the photographs. But for the jury
12 to get a real understanding of how this particular area was
13 constructed, this will be very helpful I think to the Court
14 but certainly to the jury in understanding this really
15 unusual construction.

16 Now with respect to the light. There was a, you
17 know, a fluorescent light fixture that was just to the north
18 of where this fan was set. And if I could have figured out a
19 way to put the light in here, I would love to have done that,
20 but then Judi would kill me because we had a hard enough time
21 to get this whole thing here to begin with. It simply
22 wouldn't fit. But there is going to be no dispute that there
23 was a light there. And if anybody wants to question about
24 it, that's fine.

25 But in terms of the area that we're trying to

1 depict, this model fits exactly the condition, and Mr. Natale
2 will testify to that, as it was at the time of the fire.

3 MR. UNDERWOOD: Your Honor, if I could add one more
4 thing?

5 THE COURT: Sure.

6 MR. UNDERWOOD: The issue with this ventilation
7 duct is not only with the size. They've depicted this
8 ventilation duct as a silver essentially metallic type duct.
9 Again, the photographs that we've seen following the fire,
10 that there are various types of ducts running through the
11 ceiling of this school. We have seen pictures of a black
12 duct, which is a different material. We believe that will
13 affect the opinion about what exactly happened to these ducts
14 as the fire progressed.

15 And again to say that this duct was this metallic
16 type duct material I think is just pure speculation because
17 there was nothing left of the duct following the fire. All
18 they had was the spiral metal bones of it and we don't know
19 exactly what was there. Thank you.

20 THE COURT: I'm going to reserve on that for a few
21 minutes. Anything else we've got to talk about?

22 MR. UNDERWOOD: I don't believe so, Your Honor.

23 MR. DUGGAN: I don't think so, Your Honor.

24 THE COURT: Okay. All right. I'm going to take a
25 brief adjournment. Otherwise, are you ready to go?

1 MR. DUGGAN: The defendant is ready, Your Honor.

2 MR. UNDERWOOD: Plaintiff is ready, Your Honor.

3 (Recess.)

4 (Reconvene in hallway.)

5 THE COURT: Let the record reflect counsel and the
6 Court are in the hallway. The jury's not anywheres around.
7 And I'm just seeking further explanation from counsel about
8 this demonstrative evidence. Why don't we start. Why do you
9 want to put this in?

10 MR. DUGGAN: Your Honor, I would like to put this
11 in so that the jury can fully understand the construction in
12 the area of the fan and a couple of the elements that were
13 around the fan, particularly two parts that I think are
14 really important. One is the space between the bottom of the
15 truss and the top of the dropped ceiling. There was this
16 void space and everybody agrees to that. Stapled to the
17 bottom of the truss, and you can see in our model, was this
18 yellow insulation, paper backed insulation facing down. The
19 fan as it was installed was installed like this with these
20 two one-by-fours on either side and then dropped. A hole was
21 cut in the dropped ceiling and then this was just over it.

22 THE COURT: Sits over it?

23 MR. DUGGAN: Sits over it. And then the grill
24 which we have here as well, one underneath that.

25 THE COURT: Okay.

1 MR. DUGGAN: Immediately to this -- this is facing
2 the east side of the building. Now, as you're facing the
3 model, Your Honor, to the left, that's the east side. The
4 west side is over where we have depicted the diffuser. The
5 air diffuser is right here, which brought air conditioning in
6 off the main trunk line which went right down the middle of
7 the building, which would have been south of where this two
8 year old bathroom was. The air diffuser was serviced by air
9 that came in by an 8-inch duct, which we depicted here. And
10 you can see it says 8-inches right on it. That brought air
11 in a perpendicular way just like it is here.

12 Now, if we look, this is a picture that was taken
13 by DeMatties, one of the plaintiff's experts, DeMatties. We
14 marked it as Exhibit D34, and it's Exhibit 9106. What the
15 model depicts is what's shown here after the fire. And what
16 you can see in this truss bay, we've labeled the trusses A,
17 B, C, D and E in the bathroom, so you just know where they
18 are, and what you can see here, over here is truss A, which
19 would be the furthest west.

20 THE COURT: That's not depicted here.

21 MR. DUGGAN: No. Just on D34. I'm just trying to
22 get Your Honor to understand what you're seeing. What is
23 depicted here is truss B and truss C. And you see it on this
24 photograph as well. In between those two trusses you can see
25 an area where the air diffuser was serviced by a duct, an

1 8-inch duct, that came over this stringer, which we call the
2 stringer one, came over, and then came down into the air
3 diffuser which was sitting right down here at the dropped
4 ceiling as it is depicted on our model. The fan was sitting
5 right about between C and D, someplace right about here on
6 Mr. DeMatties' photograph. And that's shown in this
7 configuration. I don't believe there is any dispute as to
8 the configuration of how the fan was installed.

9 MR. UNDERWOOD: Well, I think we're not sure
10 exactly.

11 MR. DUGGAN: We're not sure exactly how it was
12 pointed. And in other words, there is no evidence as to
13 whether this was pointed so that it was ducted to the west,
14 ducted to the north, or east, or south. And that's the
15 reason that we built this so that we can move it, and if
16 anybody wants to change the orientation of the duct port,
17 they can do that on this model.

18 But to try to -- and by the way, the other thing is
19 you have stringer one, which is on the top of the model,
20 which is the stringer that's also depicted in D34. That's
21 this one right here. Now looking at Defendant's Exhibit 3,
22 which is photograph 292 that was taken by the Emergency
23 Management Office. And unfortunately it turned out purple.
24 And the reason it turned out purple is it got hit by a fire
25 hose and it ruined his camera. And that's really

1 unfortunate, specifically he is taking the central pictures.

2 But you can see here, Your Honor, there is the air
3 diffuser to the right, there is -- or in this case it would
4 be looking at it this way, all right, to the right on this.
5 And here is the insulation where the fan was. And here is,
6 you know, the back of the wall here, the back of the two year
7 old toilet room. The toilet would be just below here right
8 underneath this cabinet. What we depicted in our mock-up
9 depicts I think as accurately as can be for all sides and for
10 the jury to understand how this construction was prior to the
11 fire. In terms of the composition of the duct, these ducts
12 are mostly silver. I think I saw one that was black in other
13 areas, but there is no indication that this was really
14 anything particular.

15 THE COURT: Is that even an issue if it's silver?

16 MR. DUGGAN: It's not an issue. The color I'm sure
17 isn't, is irrelevant. If the color is an issue, I would be
18 surprised.

19 MR. UNDERWOOD: I think the color denotes the
20 composition, Your Honor. And so if we say that it's silver,
21 that means it's one thing. If we say it's black and thin,
22 it's something else. And because we're talking about fire
23 spread and the fire path in this case, that's a very
24 important issue. I think you can see from Chris -- can I
25 look at the picture?

1 MR. DUGGAN: Sure.

2 MR. UNDERWOOD: We can look at D34, Your Honor. I
3 think you can really get a sense of what the situation was,
4 what the composition was in the area in the void space after
5 the investigators got there. I mean, it is a mess. And you
6 can see that all you have left are --

7 THE COURT: Wires.

8 MR. UNDERWOOD: Is the wire. You can't tell
9 exactly what that is. As I said, if you look at some of the
10 pictures, it's a black material and it's not as large as
11 this. And again, most of our main issue is that we really
12 just don't know what the arrangement was up in this area
13 prior to the fire. I mean, we agree that there was a void
14 space but how the fan was oriented, the fact that there
15 was -- if you can see here there was another duct that vented
16 off the back of the fan that's not depicted. And again, just
17 the overall damage that we're seeing in this space, it's
18 something that we can't recreate.

19 And then, frankly, the other issue, Your Honor, is
20 that if we're talking about fuel loads here, we have a truss
21 system. It wasn't just a single two-by-four that was running
22 back and forth in these spaces, you have a whole truss system
23 that's running at 45-degree angles up above this area. And
24 again, one of the main issues in the case is going to be the
25 fuel load and the way in which the fire was able to travel

1 from this location into the classroom. I mean, that's a
2 whole fuel load that's up here that's not depicted.

3 Again, we're concerned that given the extent of
4 damage, no one is going to be able to testify specifically
5 about the way this was arranged at the time of the fire and
6 we think it's misleading to the jury and prejudicial to us to
7 say that this is the way it was.

8 THE COURT: If it's an issue black or white, that
9 could be explained to the jury that this isn't silver or
10 black, the issue is the configuration of this and this and
11 the dead space, or whatever you call it there, and the
12 insulation.

13 MR. UNDERWOOD: They could just take it off, Your
14 Honor. If the issue is the configuration of the void space,
15 the suggestion is that this is a strange construction. I
16 mean, almost every office building in America has the same
17 construction. We have a dropped ceiling, a void space and
18 then the trusses. If the idea we're trying to get a sense of
19 what was in this space, then they can just take this off.

20 MR. DUGGAN: Well, actually the construction is in
21 violation of the building code with the paper backed
22 insulation facing down, so it's very unusual and I think
23 it's --

24 MR. UNDERWOOD: Your Honor, I think we have to
25 address that now, though, because if you're going to suggest

1 that there is a violation of the building code, we would have
2 expected to see an expert opinion that would say that. We
3 haven't seen that. So I think we're objecting in advance to
4 that if that's the basis for this.

5 MR. DUGGAN: No, that's not the issue at all. But
6 my point is that it's an unusual construction, it is unusual
7 in this way. But it does explain a lot of things of what
8 happened here, how it was built, and it certainly will aid
9 the jury in understanding.

10 Now the question really is, I think as I understand
11 the law, does this reasonably approximate what was out there,
12 and I think there is no doubt about that. If Mr. Paolini and
13 Mr. Underwood want to ask questions about the color of the
14 duct, claim that it was black, claim it was Rubatex, that's
15 fine.

16 MR. UNDERWOOD: Your Honor, the issue is once the
17 jury sees this, their minds are going to be made up that this
18 is what was there. We can talk in the abstract about what
19 may have been there, what could have been there, but they're
20 going to see this.

21 THE COURT: I think they can be instructed and
22 understand that that doesn't stand for that, what the color
23 was.

24 MR. UNDERWOOD: But again, Your Honor, it isn't
25 just the color; it's the thickness and the composition of the

1 duct. Just because this is silver doesn't mean that it's
2 exactly the same as a black duct. The black duct is a
3 different material, it's thinner, may provide a different
4 fuel load than the silver duct does.

5 MR. PAOLINI: May I be heard?

6 THE COURT: Yes.

7 MR. PAOLINI: This is very important which is why
8 if Your Honor was inclined to let it in, most of Mr. Duggan's
9 argument here this morning is they want to show the jury, but
10 if you notice, he is not bending on this one issue because
11 this is what we believe will be their theory. And it's very
12 prejudicial at this point to suggest to the jury that this
13 duct was as thick as this when there is evidence in the
14 building of ducts coming off this that I think are not this
15 heavy duty material. That's why if Your Honor was inclined
16 to allow any of this, this as a starter should be removed.
17 Then the jury sees the configuration.

18 The critical issue is this. And that's putting
19 aside the fact that again there is no light, which is a very
20 important feature because of where people would have seen
21 smoke. Mr. Duggan has represented that he has brought a duct
22 for the fan. But, Judge, there is no evidence in this case
23 that this duct was of this heavy duty material at this
24 location.

25 MR. DUGGAN: Mr. Paolini was talking about the

1 light. This is the four-by-two light fixture that would have
2 been out here on the model. I simply didn't -- logistically
3 I couldn't get it here. Mr. Paolini and Mr. Underwood want
4 to buy a fluorescent light and put it up there, I'm all for
5 it, believe me, but I can't do it. But there is no doubt
6 about this, where this is. We all agree. We have pictures
7 of it.

8 MR. PAOLINI: Judge, the issue is this material.
9 It's very important and it would be very prejudicial to allow
10 the jury to see a duct that looks like this when they have no
11 basis to suggest that it does. The black ducts that are seen
12 in the photos, Mr. Duggan's alluded to it, are not of this
13 material and do not have the same makeup. And it's
14 interesting that they're not putting the black duct on here,
15 Judge.

16 And we ask that at the very least if Your Honor was
17 inclined to introduce any of this, this needs to be removed,
18 which by looking at it would be very simple.

19 MR. DUGGAN: Go get a black duct, I mean, if you
20 want to buy one. The truth is, Your Honor, all of the ones
21 that I saw that were servicing the diffusers were of silver
22 material, but there may be ones that were black, I don't
23 really know. But that's not the point. The point is that
24 how does this vent that goes north to south -- you know, if
25 anybody wants to contest and see --

1 MR. UNDERWOOD: I don't know. But it was what it
2 was.

3 MR. PAOLINI: You should have said that you can put
4 a different duct. Judge, the simple thing would be to remove
5 it and no one is prejudiced.

6 MR. UNDERWOOD: They can suggest it was silver, we
7 can suggest it was black, we can go from there.

8 MR. DUGGAN: This shows how it was. If you want to
9 take it off and get another one, you can put your black duct
10 in, that's fine.

11 MR. PAOLINI: They also don't know which direction
12 the duct ran. It's after the fire. More importantly it's
13 the makeup. We would ask at this point that at this date
14 this be restricted; at the very least the duct, if not the
15 entire thing.

16 THE COURT: It doesn't seem to me that it's that
17 prejudicial. It can be explained away where they're not sure
18 and where you can show they're not sure. I can give an
19 instruction you established with your people that there is no
20 basis for that. Then I think you're even saying that,
21 though? Are you? Are you agreeing that you don't know if it
22 was the silver or the black?

23 MR. DUGGAN: I believe it was this one but how do I
24 know. I wasn't there. And the only thing we have is this.
25 But we can certainly give an instruction or he can put on

1 witnesses or whatever.

2 MR. PAOLINI: Judge, this is opened just by a wire
3 tie. Why not unclip it? Then they can show this was a
4 dropped ceiling, the fan was sitting on it, there was
5 insulation above it. Then that's the only issue. And it
6 must be critical because Mr. Duggan won't agree to that. I
7 mean, it must be very important and but yet he has
8 acknowledged he doesn't know it looked like this.

9 MR. DUGGAN: Well, I do know it looked like that.
10 But do I know the color? How do I know the color?

11 MR. PAOLINI: It's not just the color. Once you go
12 to the color, it's the makeup of this which is very critical.
13 So again, if their concern was showing --

14 THE COURT: I guess I don't know enough about your
15 case to appreciate the makeup.

16 MR. PAOLINI: It's actually more about their
17 defense case and their arguments, and to stick this in here
18 is extremely prejudicial when they don't know that this was
19 here, this material. It would be extremely prejudicial and
20 that's why I've suggested if the idea is to simply show the
21 jury what the area looked like, you don't need this. Unless
22 they're intending to show something with this specific duct.
23 And that's why I keep going back to then just remove the
24 duct.

25 THE COURT: All right. I've heard enough. Let me

1 think about it for a minute. Thank you.

2 (Recess.)

3 (Reconvene at 10:20.)

4 THE COURT: Let the record reflect counsel are here
5 in the courtroom. Counsel, I thought about the demonstration
6 I received. I heard from the attorneys as to if it's a
7 proper exhibit as demonstrative evidence. It is the opinion
8 of the Court that the exhibit will assist the jury in
9 understanding the testimony and I find the probative value of
10 that exhibit, demonstrative evidence, outweighs its potential
11 prejudice. You may have an exception. I have the jury
12 coming up.

13 MR. PAOLINI: Judge, just one point on that. I
14 think Mr. Duggan represented to me that he does also have the
15 flexible duct that was noted in the photograph and that he
16 would, I believe, add that.

17 MR. DUGGAN: Well, I'll give it to you if you would
18 like to add it.

19 MR. PAOLINI: Okay.

20 MR. DUGGAN: We brought one, the best I could find.

21 MR. PAOLINI: If we don't -- that's all I wanted.

22 MR. DUGGAN: Yeah, you can put it on.

23 MR. PAOLINI: Thanks.

24 THE COURT: Mr. Paolini, the gentleman sitting with
25 you?

1 MR. PAOLINI: This is John Smith from Philadelphia
2 Insurance, Your Honor.

3 THE COURT: You represent the insurance company?

4 MR. SMITH: Yes.

5 MR. PAOLINI: Just so we're clear, he is not an
6 attorney. He is the company representative.

7 THE COURT: What is your title?

8 MR. SMITH: Senior subrogation examiner.

9 THE COURT: Okay, all the jurors are here. Good
10 morning. I am Judge Norman Mordue, and I am the judge that's
11 going to preside over the trial for which you have been
12 summoned down here today.

13 Did anyone happen to volunteer to be here today?
14 You're here because you got a notice in the mail. And it's
15 called jury duty. And we all have obligations as citizens to
16 take part in jury service from time to time when you're
17 called upon. So that's what you're down here for today.

18 This is a civil trial. This is not a criminal
19 trial. And let me tell you a little bit about it. It's
20 called the Philadelphia Indemnity Insurance Company, that's
21 the plaintiff, versus Broan-Nutone, LLC. So the plaintiff,
22 Philadelphia Indemnity Insurance Company, insured the
23 property and the business interest of Jack & Jill Childcare
24 Incorporated, which operated a daycare center in Victor,
25 New York, and the 14 Framark Drive, LLC, which owned the

1 property.

2 On the afternoon of September 17, 2009, one of the
3 teachers discovered a fire in the bathroom at the daycare
4 center. The building suffered fire, smoke and water damage.
5 The plaintiff, Philadelphia Indemnity Insurance Company, paid
6 Jack 'n Jill Childcare and the 14 Framark Drive under their
7 insurance policy.

8 Upon making such a payment, the plaintiff, the
9 insurance company, became subrogated to the rights of Jack 'n
10 Jill Childcare and 14 Framark Drive. This means that the
11 plaintiff, the insurance company, has a right to seek
12 reimbursement from any party responsible for causing fire and
13 the resulting damages.

14 Now the plaintiff claims that the fire was caused
15 by a defective bathroom ventilation fan that was designed,
16 manufactured and sold by the defendants, Broan-Nutone, LLC.
17 The defendants deny the plaintiff's allegations. The
18 defendants contend -- the defendant contends that the fan was
19 not defective and was reasonably safe. The defendant also
20 contends that the fire originated in an area away from the
21 fan and that the cause of the fire remains undetermined.

22 So that's what the case is about. So we're going
23 to select a jury, the first thing we're going to do. And
24 then we'll start the case. Now the case is expected to go, I
25 believe it's going to go into next week, because on Friday I

1 have another matter on and on Monday I have to be in Albany
2 that day. So we'll go four days this week and then we'll
3 pick up next Tuesday, Wednesday, it shouldn't be much longer
4 than that. Counsel, do you have a ballpark figure in your
5 mind how long it's going to take?

6 MR. PAOLINI: I would think sometime -- without
7 Monday, Tuesday or Wednesday we should be wrapping up.

8 MR. DUGGAN: I think so too, Your Honor.

9 THE COURT: So what I'm going to do right now is
10 have my clerk swear all of you in. We're going to bring you
11 up and set you in the jury box and then I'm going to do some
12 questioning. The lawyers are going to have a chance to ask
13 you some questions.

14 Any questions that are being asked of you are not
15 meant in any way, shape or form to embarrass you. They are
16 meant to learn about you. For example, have you been on jury
17 duty before? Have you ever suffered a fire in your home or
18 your place of business? Have you ever put in a claim to an
19 insurance company? Do any of you -- are you volunteer
20 firefighters? Are you professional firefighters? Those are
21 the kind of questions we're concerned about. And then I'll
22 talk to you briefly about your personal obligations in your
23 jobs. The lawyers will have a chance to talk to you and to
24 clear up a couple things they might want to ask of you, and
25 then we'll select it. We've got to get it down to eight. I

1 think there is twenty of you here at the present time.

2 THE CLERK: Please stand and raise your right hand.

3 (Prospective jury panel was duly sworn to tell the
4 truth and jury selection was completed.)

5 (Reconvene at 12:00.)

6 THE COURT: I got thick about our time here. I
7 think what I'll do, I'll just give them the initial charge
8 and break for lunch because the cafeteria stops serving at
9 1:30 and it kind of starts to slow down about 1:00, so this
10 way they'll have some choices down there. Bring the jury in,
11 please.

12 (Jury present.)

13 THE COURT: Okay, Members of the Jury, now that you
14 have been sworn, I will give you some preliminary
15 instructions to guide you in your participation in this
16 trial. It will be your duty to find from the evidence what
17 the facts are. You, and you alone, are the judges of the
18 facts. You will then have to apply to those facts the law as
19 the Court will give it to you. You must follow the law
20 whether you agree with it or not.

21 Now nothing the Court may say or do during the
22 course of the trial is intended to indicate or should be
23 taken by you as indicating what your verdict in this matter
24 should be. The evidence from which you will find the facts
25 will consist of the testimony of witnesses, documents and

1 other things received into the record as exhibits and any
2 facts the lawyers agree or stipulate to or that the Court may
3 instruct you to find.

4 Now certain things are not evidence and must not be
5 considered by you. I will list them for you at this time.
6 First of all, the statements, the arguments and questions by
7 lawyers are not evidence.

8 Two, objections to questions are not evidence.
9 Lawyers have an obligation to their clients to make an
10 objection when they believe evidence being offered is
11 improper under the rules of evidence. You should not be
12 influenced by the objection or by the Court's ruling on it.
13 If the objection is sustained, ignore the question. If it's
14 overruled, treat the answer like any other. If you are
15 instructed that some item of evidence is received for a
16 limited purpose only, you must follow that instruction. You
17 will hear me say that from time to time.

18 Third, testimony that the Court has excluded or
19 told you to disregard is not evidence and must not be
20 considered. Anything you may have seen or heard outside this
21 courtroom is not evidence and must be disregarded. You are
22 to decide the case solely on the evidence presented here in
23 this courtroom.

24 Now there are two kinds of evidence; there is
25 direct and there is circumstantial. Direct evidence is

1 direct proof of a fact such as testimony of an eyewitness.
2 Circumstantial evidence is proof of facts from which you may
3 infer or conclude that other facts do exist. And I will give
4 you further instructions on these as well as other matters at
5 the end of the case, but have in mind you are to consider
6 both kinds of evidence.

7 I would like to give you just a simple example of
8 the difference between direct and circumstantial evidence.
9 Consider it's wintertime in Syracuse, New York. And you own
10 a dog. And it's about quarter of 11 at night and you're
11 getting ready for bed. You open the front door, you put the
12 dog out. Five, ten minutes later you come back, the dog
13 comes in. There is no snow on the ground, it's a cold night,
14 and you go up to bed. You wake up in the morning. You open
15 the door to let that dog out again. And guess what you see?
16 This white stuff on the ground in Syracuse, New York; snow.

17 Now, you can conclude sometime during the night,
18 you don't know when it was, but it snowed during the night.
19 You never saw a snow drop come down or anything, but it's
20 there. That's as strong as let's say you had a neighbor,
21 late bowling league. He is coming home about 1:00 in the
22 morning. And as he goes by the house and turns toward his
23 driveway, he sees a figure moving from your home and away,
24 and it's snowing at that time, by the back door of the
25 garage. If you get up the morning and now you see footprints

1 in the snow up to your garage door and away, you can find
2 that someone was in the vicinity of your home last night,
3 they were up by your back door. And that is as strong as the
4 introduction as the neighbor who said, I'll tell you what I
5 saw last night, somebody was up by the door. That's the
6 eyewitness versus circumstantial, it's equally strong.

7 Now it's going to be up to you to decide which
8 witnesses you will believe, which witnesses you do not
9 believe, and how much of any witness's testimony you're going
10 to accept or reject. And I'll give you some guidelines for
11 determining the credibility of witnesses again at the end of
12 the case.

13 Now I want to talk about burden of proof. This is
14 a civil case. The plaintiff has the burden of proving his
15 case by what is called a preponderance of the evidence. And
16 that means the plaintiff has to produce evidence, which
17 considered in the light of all the facts, leads you to
18 believe what the plaintiff claims is more likely true than
19 not.

20 To put it differently, if you were to put the
21 plaintiff's and the defendant's evidence at opposite sides of
22 the scales, the plaintiff would have to make the scales tip
23 somewhat on his side. If plaintiff fails to meet that
24 burden, the verdict must be for the defendant.

25 Now those of you who sat on criminal cases will

1 have heard the term proof beyond a reasonable doubt. That
2 requirement does not apply to a civil case and you should
3 therefore put that out of your minds.

4 Now in this case the plaintiff is claiming that the
5 fan, the Nutone fan that was in the bathroom, you heard about
6 that, that Nutone fan was defective. That is that it was the
7 cause of the fire because of, one, it was defectively
8 manufactured; two, defectively designed, and/or the defendant
9 failed to provide adequate warnings to the user of that fan.
10 The plaintiff also claims that the defendant was negligent in
11 the manufacture and/or design of the fan. And I told you,
12 the defendant denies that to being the case at all.

13 Now, sofar as your conduct as jurors, a few words
14 in that regard. First of all, I instruct you during the
15 trial do not discuss the case with anyone, nor permit anyone
16 to discuss it with you. Until you've retired to the jury
17 room at the end of this case to deliberate on your verdict,
18 you simply are not to talk about the case. Something that
19 goes along with it. Don't get upset with the lawyers if the
20 elevator doors open up and they're on board and you're coming
21 on board, they'll step off. And they can't talk to you.
22 They can't talk to you about what the United States did last
23 night in the soccer game, things of that nature. It has
24 nothing to do with the case, they can't talk with you,
25 because we don't want any sort of an appearance of

1 impropriety. Somebody to be able to say I saw juror number
2 six was talking with plaintiff's counsel or defense counsel.
3 And they're gentlemen and they're very nice people. They
4 would be a joy to talk to but not during the course of this
5 trial.

6 Second, do not read or listen to anything touching
7 on this case as is presented by the electronic or the printed
8 media. I got to tell you, I've been a judge 31 years. If
9 this thing makes the papers, I will be very surprised. It
10 just doesn't have a sellable spirit to it, you know. I would
11 be very surprised. But I'm going to instruct you if you're
12 on your way into work or here, this is work now, if you're on
13 your way here to court, got your radio on in your car and all
14 of a sudden you start to hear an announcer saying and then
15 regarding the fire in Victor, New York, and then you realize
16 they're talking about this case, switch the station. Don't
17 listen to it. Because in all honestly, you violate your oath
18 as a juror if you took the opinion of somebody who wrote and
19 put in the Post Standard or somebody who was announcing on
20 the radio what their opinion was of this case. Because it's
21 your opinion based on what you heard here. And the reporter
22 isn't under oath, he's not subject to cross-examination. So
23 I give you that warning.

24 Do not try to do any research or make any
25 investigation about the case on your own. In that regard, in

1 this modern day of social media, let me give you an
2 instruction that I never had to give in the old days. You as
3 jurors must decide this case based solely on the evidence
4 presented here within the four walls of this courtroom. This
5 means that during the trial you must not conduct an
6 independent research about this case, the matters in the
7 case, or the individuals or corporations involved in the
8 case.

9 In other words, you should not consult dictionaries
10 or reference materials such as search the internet, websites,
11 blogs, or use any other electronic tools to obtain
12 information about this case or to help you decide the case.
13 Please do not try to find out information from any source
14 outside the confines of this courtroom. Until you retire to
15 deliberate, you may not discuss this case with anyone, even
16 your fellow jurors. After you retire to deliberate, you may
17 begin discussing the case with your fellow jurors but you can
18 not discuss the case with anyone else until you have returned
19 a verdict and the case is at an end.

20 Now I hope for all of you this case is interesting
21 and noteworthy. I know that many of you use cell phones,
22 Blackberries, the internet and other tools of technology.
23 You also must not talk to anybody about this case or use
24 these tools to communicate electronically with anyone about
25 the case. And this includes your family and your friends.

1 You may not communicate with anyone about the case on your
2 cell phone, through e-mail, Blackberry, iPhone, text
3 messaging or on Twitter, through any blog or website, through
4 any internet chat room, or by way of any other social
5 networking website, including Facebook, Myspace, LinkedIn and
6 YouTube. I think I've covered it.

7 Finally, do not try to form an opinion on all the
8 evidence until it's all been presented to you. Try to keep
9 an open mind until you start your deliberations at the end of
10 this case.

11 Now, some of you may like to take notes. That's
12 fine. If you do, though, leave them in the jury room at
13 night. Judi will take care of them. We don't read them.
14 They will be there for you the next day. But remember,
15 here's what's important, you're going to judge credibility.
16 Sometimes if you get tied up to taking copious notes, you're
17 not watching the witness, and often what impresses you about
18 a person talking to you is not what they say as to how they
19 say it. So if you're just listening and not looking at the
20 witness, you may miss something and say, you know what,
21 they're gilding the lily here, there is something about this,
22 the way they're explaining things. You're all adults, you've
23 all dealt with human beings, you have had to believe people,
24 disbelieve them, question them in your life. All those tools
25 you brought to this station of your life, don't forget them.

1 You take them to the jury room with you and use them as you
2 decide the truth of this case.

3 During the course of the trial which is going to
4 begin, we're going to break for lunch in a couple of minutes,
5 it will begin with opening statements. Each side may make an
6 opening statement. An opening statement is neither evidence
7 nor argument. It is an outline of what that party intends to
8 prove and it's offered to help you follow the evidence.

9 Next plaintiff will present his witnesses and the
10 defendant may cross-examine them. The defendant will then
11 present his witnesses and plaintiff may cross-examine them.
12 Here is the way a witness examination goes. Who is going to
13 be your first witness?

14 MR. PAOLINI: Kristin Suffredini.

15 THE COURT: Kristin Suffredini is coming in. He is
16 going to ask her all the questions that he believes is
17 pertinent to help you decide this case. When he sits down,
18 Mr. Duggan is going to do cross.

19 MR. DUGGAN: I believe, Your Honor.

20 THE COURT: Mr. Duggan will do the
21 cross-examination. When he is finished asking all the
22 questions he feels are important to help explain what was
23 said on direct, they'll have an opportunity for redirect
24 examination. So there is direct, cross, redirect, and then
25 recross and the witness will be excused. So that's the way

1 we'll handle those witnesses.

2 When he puts all his proof in, he will rest his
3 case and the defense has an opportunity to call their
4 witnesses. And then after all the proof is in, the attorneys
5 will make their closing arguments to you, they will summarize
6 and interpret the evidence for you, and then I will give you
7 the instructions on the law at the end of the case, and you
8 will retire for purposes of making a verdict. And at that
9 time I will tell you please talk to each other as much as you
10 can.

11 That basically is my opening statement to you about
12 the case. I think it's quarter after. We should be able to
13 start. There's a cafeteria by the way on the fifth floor,
14 it's not bad. We should be able to start. But I would think
15 45 minutes is that enough or do you need more than that? Get
16 back as close to five after one. Thank you, Counsel.

17 THE CLERK: Court stands in recess.

18 (Recess at 12:15.)

19 (Reconvene at 1:07.)

20 THE COURT: What we're going to hear now is from
21 the plaintiff. You're going to notice something. The
22 plaintiff goes first in the opening statements because he has
23 the burden of proof, and when it comes to the end of the
24 trial and we have the closing statements or summations,
25 they'll go last again because they've got the burden. They

1 get the first word and they get the last word and that's
2 because they have the burden of proof.

3 Counsel, you ready to proceed?

4 MR. UNDERWOOD: We are, Your Honor.

5 THE COURT: Mr. Underwood, proceed, sir.

6 MR. UNDERWOOD: Thank you, Your Honor. Ladies and
7 Gentlemen of the Jury, before we get started let me just
8 first thank you for your service and thank you for helping us
9 bring this matter to a resolution. As Judge Mordue indicated
10 at the outset, my name is Tom Underwood. I'm an attorney
11 with the Stutman Law Firm. And seated at counsel table with
12 me is Tom Paolini, and he is also with the Stutman Law Firm.
13 And John Smith, who is our client, the Philadelphia Indemnity
14 Insurance Company. I'll just refer to my client as
15 Philadelphia Insurance as we go forward.

16 This is a case about safety. It's about the safety
17 of products that are installed in homes, and businesses, and
18 offices, and schools, and in this case a daycare center.
19 Specifically this case is about a Broan-Nutone model
20 ventilation fan that was installed in the bathroom at the
21 Jack 'n Jill Daycare Center. We are going to establish in
22 this case that the Broan-Nutone fan was defective, it was
23 unreasonably dangerous, and it was unsafe because it suffered
24 failures that caused the fire.

25 And we are confident that the evidence that we are

1 going to produce in this case is overwhelming, because there
2 are eyewitnesses who first saw fire in the fan. There are
3 investigators who evaluated the fire scene and determined
4 that the fire originated right at the fan. And there are
5 also investigators that examined all the wiring in the
6 building and determined that none of those wires throughout
7 the building could have possibly caused the fire, and that
8 the only thing that could have caused the fire was the fan.

9 We are going to produce evidence from an
10 engineering expert who will explain exactly what the defect
11 is in the fan and explain how the location of the electrical
12 failures in the fan could only have been caused if the fire
13 started in the fan.

14 Let's just go back. This fire occurred on
15 September 17, 2009 at the Jack 'n Jill Daycare Center in
16 Victor, New York. And this is a picture of the Jack 'n Jill
17 center. The building that's involved in this fire is roughly
18 rectangular in shape and it was owned by a company called 14
19 Framark Drive. And their tenant in the building was a
20 company called Jack 'n Jill Daycare Center. The companies
21 are basically related and they have some common ownership.

22 Our client, Philadelphia Insurance, provided
23 insurance for these businesses. They provided coverage for
24 the building, for the owner of the business, for the owner of
25 the building. They also provided coverage for Jack 'n Jill

1 for the products they had inside the building and also to
2 protect them in case they had a loss like this.

3 Now we're going to be talking about the overall
4 diagram of the building and the layout of the daycare center.
5 As you can see, it's roughly rectangular in shape and it's
6 about one story with a peaked roof, and we'll be talking as
7 we go through the case about how the construction was laid
8 out inside the building.

9 Here is a diagram of the building. And what we're
10 going to be focused on in this case is primarily this two
11 year old room in this area and this toilet room in this
12 location. And for ease again of reference as we talk about
13 this case, we'll be talking about the two year old classroom
14 and we'll also be talking about the two year old bathroom.
15 This is the two year old classroom and this is the two year
16 old bathroom.

17 On the day of the fire a person named Kristin
18 Suffredini was working in the two year old classroom. She
19 was responsible for children who were ages 18 months to three
20 years or so. And on the day of the fire a little girl went
21 into the two year old bathroom right here. The little girl
22 couldn't reach the switch for the light so Ms. Suffredini
23 went in, flipped the switch for the light. And when she hit
24 the switch for the light, that also turned on a bathroom
25 ventilation fan mounted in a dropped ceiling in the bathroom.

1 When the little girl completed what she was doing
2 in the bathroom, she walked out. The bathroom didn't have a
3 door so you could see into it. After the girl walked out,
4 she didn't turn off the switch because she couldn't reach it.
5 Ms. Suffredini didn't turn off the switch. When
6 Ms. Suffredini was working in the classroom, she noticed
7 something out of the corner of her eye fall from the ceiling
8 in the two year old bathroom.

9 When she went in to investigate, she saw a fire in
10 the grill of the bathroom ventilation fan that was coming
11 down through the dropped ceiling. The way it's mounted in
12 the dropped ceiling is that this grill would be mounted on
13 the bottom side of one of the dropped ceiling mounts. When
14 Ms. Suffredini looked up, she saw a flame in this grill. She
15 immediately called out. She said, there is a fire, we need
16 to evacuate. And she took her kids and she exited through
17 this door.

18 When she called out, another teacher named Wendy
19 Dattilo heard what she said and came over to the two year old
20 classroom. She went to the bathroom as well. She looked up
21 and she saw what she describes as a glow in the fan. She was
22 concerned as well, gathered up her children and made her way
23 outside the building. From that location a fire spread
24 throughout the building causing significant damage.

25 Now the fire department did arrive but they weren't

1 able to extinguish the fire again before significant damage
2 was caused throughout the building. Luckily none of the
3 teachers or children were hurt.

4 Following the fire Philadelphia Insurance Company,
5 the insurance company for both the building owner and Jack 'n
6 Jill Daycare Center, paid a claim. They reimbursed 14
7 Framark for the repairs to the building. They paid Jack 'n
8 Jill Childcare for the losses that they suffered, like the
9 tables and chairs and the board games that were inside. They
10 also made payments for what is called business interruption,
11 which is essentially the lost profits and lost rents that
12 they have.

13 After they completed that payment, Philadelphia
14 Insurance has the right to subrogate. And Judge Mordue
15 explained to you at the outset what subrogation basically is.
16 After an insured has a loss, the insurance company has the
17 right to step into its shoes or their shoes and pursue a
18 claim against whoever was responsible for the loss. In this
19 case we're pursuing a claim against Nutone because we
20 determined that the fire was caused as a result of a defect
21 in the fan.

22 This is important because subrogation serves a
23 public interest. It makes sure that people and companies
24 that are responsible for losses are held accountable. In a
25 typical case where an insurance company pays somebody like

1 Jack 'n Jill and 14 Framark, those people don't have an
2 interest in pursuing their own claim. They have already been
3 paid. They also don't have the wherewithal. They don't have
4 the interest, they don't have the contacts that can do the
5 type of investigation that can figure out exactly what
6 happened.

7 In this case Philadelphia Insurance did have that
8 experience and they undertook an extensive investigation into
9 the cause of the fire. And they determined that the fire
10 started exactly where the witnesses saw the fire, which is in
11 the fan.

12 We are going to produce evidence in this case
13 that's going to come in various forms. It will be eyewitness
14 testimony, expert testimony, we'll have physical evidence.
15 But it's important to remember that you're not going to need
16 an advanced degree in engineering or in fire science in order
17 to figure out exactly what happened here. We're only going
18 to ask for you to use your common sense and use your common
19 sense to evaluate what you're hearing, what you're hearing
20 from witnesses like Kristin Suffredini and Wendy Dattilo, who
21 will be here shortly. They will explain to you what they
22 saw. They saw a fire in the fan.

23 We're also going to have those witnesses explain to
24 you what was going on in the two year old classroom
25 immediately before the fire. And that's important because we

1 expect that the defendants, the defendant Broan-Nutone, is
2 going to say that the fire started somewhere else other than
3 the fan, as you might expect. We also anticipate they're
4 essentially going to say that the fire probably started over
5 this two year old room and burned over into that bathroom.

6 Now I want you to make sure you're listening very
7 carefully to Wendy Dattilo and Kristin Suffredini because
8 they're going to explain that immediately before they saw a
9 fire in the fan in the two year old bathroom, there were no
10 problems in the classroom. They didn't notice any smoke.
11 They didn't see fire. They didn't hear anything out of the
12 ordinary in the ceiling above them.

13 We expect that the defendants will suggest that
14 something went wrong in the wiring above the ceiling. The
15 only things up there were wiring for lights and the
16 associated things like outlets and such. The witnesses are
17 going to say before they saw fire in the fan, they didn't
18 notice any problems inside the classroom.

19 Now in addition to the eyewitness testimony we're
20 going to produce, we're also going to produce expert
21 testimony from fire investigators. And the fire
22 investigators are going to establish that the burn patterns
23 that they saw on site all indicate that the fire started in
24 the fan in the two year old classroom.

25 We'll produce testimony from Jeff Harloff, who is a

1 fire investigator with the Ontario County, Office of
2 Emergency Management. Investigator Harloff has been
3 performing fire investigations for nearly twenty years,
4 investigated over 300 fires. And he determined that the fire
5 started in the fan in the ceiling of the two year old
6 classroom -- in the ceiling of the two year old bathroom.

7 Specifically when he did his investigation, he went
8 into the two year old bathroom and he found that the fan had
9 been located in this center square here and that the fire
10 seemed to originate in that exact location. And you'll see
11 that there is a wire hanging down, and that is a wire that is
12 connected to the fan, which you will see here hanging down
13 from that ceiling.

14 Now this is the Broan-Nutone 696N fan that we
15 determined was defective and caused the fire. Now here's a
16 version of this fan. Obviously has not been in the fire but
17 it's an exemplar, and it will help you understand exactly
18 what the fan is about. Now the fan when it was in place in
19 the ceiling would have been mounted like this, so you would
20 have essentially a solid metal frame all around with an
21 opening at the bottom. Now it's going to be important to
22 understand as we go through this case, because again the
23 defendants are probably going to suggest that the fire
24 started somewhere else, that the fire burned across and came
25 down and somehow made its way into the fan where Kristin

1 Suffredini saw the fire.

2 Again we're asking you to use your common sense.

3 Typically fires burn up and out from wherever they start.

4 And experts are going to explain that to you. We expect that

5 the defendants are going to suggest to you that in this case

6 instead of burning up and out from an area above the two year

7 old classroom, that it burned sideways, that it burned down,

8 that it jumped through insulation and a void space, and

9 somehow made its way into this solid metal cabinet while the

10 fan was operating and blowing air out of it. Again we're

11 going to be asking you to use your common sense to evaluate

12 the claims you're going to hear from the defendants.

13 We're also going to produce evidence from an

14 electrical, forensic electrical investigator who examined the

15 electrical system in the area above this two year old

16 classroom. He examined all the wires looking for evidence of

17 arcing. And he will explain to you exactly what arcing is.

18 Essentially it's evidence of electrical damage from

19 electrical failures and malfunctions. And he went through

20 all of the wiring, all the lights, and all the electrical

21 fixtures in this area and could not find a single location

22 where he found evidence of an arc failure or an electrical

23 failure that could have caused the fire.

24 The only place he found evidence of an electrical

25 failure that could have caused the fire was inside the

1 Broton-Nutone 696 fan in the motor. And he will explain to
2 you and our other experts will explain to you that the only
3 way you can get an electrical failure deep inside this motor
4 is if the fire starts there. As you saw from the photograph
5 before, there is a wire hanging down from the ceiling, and
6 that's the wire that would enter into the top cabinet of this
7 fan. And that's how power is supplied to the fan.
8 Electrical connections are made inside a small junction box
9 here, electricity then runs through to a female outlet right
10 here, and then into a male plug, and then into this power
11 cord that goes into the fan that goes around, goes into these
12 windings, which are essentially aluminum coils that go
13 several hundred coils around what we'll be referring to as
14 the I bar, which is located here.

15 Not to bore you with a lot of science, but
16 essentially when the electricity goes through these windings,
17 it creates a magnetic field that makes the fan spin. Our
18 experts will explain that if you had a fire coming from
19 somewhere else, that fire would damage that cord or that
20 power line that's coming down into the top of the fan. It
21 would damage the interior components and compartments in
22 here. It would damage this power cord and the male plug. If
23 any of those things happened, if any of those components were
24 damaged, it would cut off power, it would cut off power to
25 the inside of this motor and, therefore, you couldn't have an

1 electrical failure deep inside here. The only way you get an
2 electrical failure deep inside this motor, which is what our
3 experts found, is if that's the first thing that happens.
4 And that can only occur if the fan is the thing that causes
5 the fire.

6 Now we're going to produce testimony from an
7 electrical -- from an engineering expert named Kevin Lewis.
8 He is going to explain the design of the fan, and
9 specifically he is going to explain to you what the defect
10 was in the fan. He will explain to you that when he looked
11 into this motor, he found electrical failures on the windings
12 that are right here, and that he found electrical failure on
13 the I bar, which is buried deep within these windings.

14 Again, the only way you could have a failure that
15 far deep into this fan underneath the windings on the I bar
16 is if that's where the fire started, because otherwise you
17 would need a fire to somehow make its way all the way into
18 here and to get in there and cause that problem.

19 Now Mr. Lewis is going to explain to you about the
20 full nature of the defect. And the main defect that he found
21 is that the sole safety feature that protected this fan from
22 starting a fire failed, it didn't work correctly. And it's
23 undisputed, we believe, that this thing did not operate the
24 way it was supposed to. And the thing we're talking about is
25 called a thermal cutout, which we'll refer to as a TCO for

1 short.

2 As I said, Mr. Lewis will indicate that the motor
3 suffered significant damage on the windings and that there
4 was arc damage on the I bar which runs through the windings
5 in that location. Now the TCO that he will be explaining to
6 you would typically sit on the outside of these windings and
7 it is essentially a small fuse. You can see this is a motor
8 that's been taken apart, and there are the windings there and
9 the TCO would sit outside. The TCO, as I said, is
10 essentially a fuse. It has some solder inside of it. If the
11 motor gets too hot, that fuse is supposed to operate. And
12 Mr. Lewis will explain to you exactly the way the TCO is
13 supposed to look when it operates the right way.

14 Now he will explain to you that when the motor
15 overheats, that TCO is supposed to have its metal inside
16 melt, melt into two small balls on either side of the TCO.
17 And that breaks the electrical circuit and shuts down the
18 motor before it can overheat. If the TCO does not operate
19 and the fan is overheated, the fan will get runaway heating
20 and it will overheat to the point at which it will ignite
21 nearby combustibles.

22 Mr. Lewis will explain to you all the different
23 things that can potentially catch fire inside the fan, such
24 as lint from toilet paper, dust, and things that accumulate
25 on it. And also the plastic components that are inside the

1 fan that are flammable and can spread fire.

2 Now, as I indicated, we don't believe that you as
3 jurors are going to need advanced degrees or advanced science
4 in your background to establish exactly what happened here.
5 We're just asking you to use your common sense. And we're
6 confident that at the end of this process, you will agree
7 with us that the Nutone fan was defective, that it was
8 unreasonably dangerous, and that it was simply unsafe. And
9 it was unsafe because safe fans don't catch fire.

10 At the end of this case, in addition to asking you
11 to render a verdict in our favor and against Broan-Nutone,
12 we're also going to ask you for an award of damages. With
13 regard to the building damage and damages suffered by Jack 'n
14 Jill Childcare for their lost board games and such, the
15 parties have already reached an agreement as to the amount of
16 money that should be awarded to Philadelphia Insurance in the
17 event that you find that Broan-Nutone is liable. The parties
18 have not agreed on the amount of business interruption
19 damages to which Philadelphia Insurance is entitled. And
20 we're going to present testimony that will establish exactly
21 what that business interruption damage was.

22 As a result of the fire, Jack 'n Jill was out of
23 business for over a year. 14 Framark Drive, their landlord,
24 suffered loss of rents because they didn't have a tenant that
25 could pay them any rent, so we have damages in that way.

1 There is also damages for lost profits. And Joyce LoMonaco,
2 one of the owners of both 14 Framark and Jack 'n Jill
3 Childcare, will explain to you exactly what the lost profit
4 was. She will explain to you that before the fire Jack 'n
5 Jill was operating at a loss. And she'll explain to you why
6 that was. But after the fire they suffered an even greater
7 loss and that's where her lost profit comes from.

8 We'll present testimony from an accounting expert
9 named Dan Wright. He will explain to you how he reviewed all
10 the financial documents for both 14 Framark and Jack 'n Jill
11 Childcare and determined exactly how much they lost as a
12 result of the fire. And as you can see, this is a summary of
13 the testimony that he will provide. He will explain to you
14 what the lost profits were and he will explain to you what
15 the loss of rents they suffered were.

16 As I said at the outset, this is really a case
17 about safety. And we are going to establish that this fan
18 was unsafe, as I said, because safe fans do not catch on
19 fire. After you evaluate the witness statements, the expert
20 testimony and the physical evidence, we believe that you will
21 find as we have found that the cause of this fire was the
22 result of a defective fan as a result of electrical failures
23 that started deep in the motor that could only happen if the
24 fire started there. And that you will conclude that this fan
25 is defective and that Broan-Nutone should be held liable for

1 the damages suffered by Jack 'n Jill and 14 Framark.

2 Once again, I want to thank each and every one of
3 you for your service and for your help in bringing us to a
4 resolution in this case. And I look forward to speaking to
5 you again at closing arguments. Thank you.

6 THE COURT: Thank you. Mr. Duggan.

7 MR. DUGGAN: Thank you, Your Honor. May it please
8 the Court, Counsel, Ladies and Gentlemen.

9 I'm going to prove to you that this fire did not
10 start anywhere near this fan. And I'm going to prove it to
11 you by three ways. First, the fire was noticed by
12 Ms. Suffredini at about five minutes of five on September 17,
13 2009. Five minutes of five. The call was recorded actually
14 a little bit later. The call was recorded at 1659, one
15 minute to 5:00 in the evening at the Victor Fire Department,
16 which is just up the road.

17 What you're going to see is that the Victor Fire
18 Department is less than a half a mile away from this Jack 'n
19 Jill, half a mile. And we're going to prove to you that the
20 call was received at 1659, and that in four, four minutes the
21 chief of the Victor Fire Department, John McConnell, arrived
22 on the scene. At 1703 or 1704, shows up on the scene, and
23 from the candle that you just heard Mr. Underwood tell you
24 about, remember the candle that you heard, this exhibit,
25 Defendant's Exhibit 1, is what he saw within thirty seconds

1 of showing up on the scene, about five minutes after the call
2 came in.

3 And I'm going to prove to you that there is no way
4 that you can get from a candle in a fan, that I'm going to
5 show you in a minute given the construction we have behind me
6 here you will see, to the Defendant's Exhibit 1 in five
7 minutes.

8 Second, we look carefully, and I'm going to prove
9 to you that we look carefully at the burn damage. And you're
10 going to hear from experts, all sorts of experts that you can
11 look at burn damage in fire scenes and you can see them and
12 make some interpretations, and that the place where the fire
13 originates and burns longest and burns with most heat is the
14 place of the most damage. As Mr. Underwood says, bring your
15 common sense to the table. Makes sense, doesn't it?

16 This, show you this picture which you will see,
17 Defense Exhibit 3, photo 292, this picture was taken by the
18 Emergency Management Office up in Victor of the fan, of the
19 area of the two year old bathroom. I apologize for the
20 color. But apparently the photographer, a man named
21 Inspector Middlebrook, got hit by some water as he was taking
22 a picture and it turned it purple.

23 But anyway, this is what he saw when he took a
24 picture of it. And the fan was indeed up here in the truss
25 space. The trusses are on the top of the ceiling, right next

1 to this thing over here, that's called an air diffuser. I'll
2 show you that, but that was where the fan was in between
3 trusses C and D. And I'll explain that in a minute. But
4 right there, that's where you're going to see it looked like
5 immediately after the fire, about half an hour after the fire
6 was extinguished.

7 And you'll notice this wall over here on Defense
8 Exhibit 32. That wall is the wall to the office. I'm going
9 to show you that in a minute. Not touched by the fire. The
10 air diffuser, the thing that the air conditioner comes in and
11 diffuses the air, not deflected at all, not at all. This is
12 what the two year old bathroom looked like. So what did the
13 two year old room look like? This is Defense Exhibit 34.
14 That's what the two year old room looked like immediately
15 after the fire.

16 The dropped ceiling, as you saw in the bathroom,
17 still there. The diffuser, still there. The insulation,
18 right over where they say the fan was, I'm going to prove to
19 you was still there. And this is how the area looked after
20 the fire in the two year old room.

21 And one of the questions you're going to be asked
22 is where was the most damage and where was the most burn.
23 Now let me show you a diagram as well. Mr. Paolini and --
24 you will see this diagram. And the reason we put this
25 together is basically the diagram that you had, Mr. Carl

1 Natale put together, but what we did was we identified all
2 the trusses. The trusses are basically a thing that go
3 overhead in the ceiling and form part of the roof, basically
4 the roof structure. The bottom ones are called truss chords,
5 and then there is diagonals that go up.

6 And what you'll see is that the two year old room,
7 which is on the west side of the building, is up here. And
8 this is north where an exit was out of the two year old room.
9 The bathroom was way over here on the east side. So that
10 purple picture I showed you, that is taken right up where the
11 C, D truss space was. That's what I'm going to show you,
12 that there was virtually no damage in this space where the C,
13 D truss. And what we did was in the bathroom we labeled the
14 trusses A, B, C, D and E. A right at the dividing line
15 between the bathroom and the two year old room. And C, D is
16 where that fan was. Just so that we all talk about the same
17 thing.

18 The other thing you will notice about the diagram
19 is there is a series of stringers that we labeled 5, 4, 3, 2
20 and 1. Stringers are nothing more than a tool that
21 carpenters use when they're building a house. They have to
22 keep the trusses exactly 2 feet apart, 2 feet on center from
23 the middle to the middle of the trusses. While they're
24 building it, they put these two-by-fours up there 12 feet
25 long and they nail them down together just to make sure that

1 the trusses are 2 feet on center. They don't provide any
2 structural integrity to the building after they're finished
3 but they're left there. Why is that important? Because when
4 you see what happened in the two year old playroom or
5 classroom after the fire, immediately after the fire, as you
6 see here in Defense Exhibit 34, these are remnants of the
7 stringers. They're burned. They're gone. The trusses we
8 labeled where the junction boxes are that you can see, but
9 the two year old, the stringers over the two year old room
10 are basically burned away until you get down here to the
11 truss number 1 where there is a little U-shaped burn you will
12 see, but it's some of it left.

13 You get more damage in the middle and less damage
14 as you work toward the two year old room. And that's why we
15 know that the fire occurred in the two year old room and
16 started in the two year old room and not in the bathroom and
17 worked its way there. Why? Because fires just don't burn
18 up. Fires start in the middle. Like if you had a piece of
19 paper and put a match to it, it's going to burn evenly in
20 both directions. So most damage I'm going to prove to you
21 was around truss number 4, 5 or 6, someplace in there, and it
22 burned out evenly on both sides, so by the time you got to
23 the western most part of the two year old room there was some
24 damage. By the time you got to the eastern most part of the
25 room there was damage. When you got to the bathroom you saw

1 what you had, very little damage.

2 So what happened? This picture, which is Defense
3 Exhibit D34, this is how it looked after the ceiling was
4 taken down in the bathroom. In other words, this purple
5 exhibit over here, 292, is after you take the ceiling down.
6 And what you notice is that that's that stringer I was
7 telling you about. Remember the stringers that ran 5, 4, 3,
8 2, 1? The stringer in the bathroom right here, this is that
9 stringer that I have my hand on, my finger on. And I'm going
10 to prove to you that the stringer directly over where that
11 fan was, the C, D truss, looked like this after the fire.
12 You will see that there is not a mark on the stringer where
13 they want you to believe the fire started. Which is
14 consistent because as you saw from the other picture, the
15 insulation was still in place.

16 You will see that the very end of this stringer,
17 this is the part closest to the two year old room, there is a
18 very little piece of burning right there where it intersects
19 with this truss, which is the A truss. So it's like
20 Manhattan, north and south and east and west. These run
21 north and south, the trusses, and the stringer runs east to
22 west. So the A truss, stringer 1, A1 intersection, you have
23 a little bit of burning there. And then as you move toward
24 the bathroom where the fan was, no damage at all.

25 Why? Because what I'm also going to show to you is

1 right here you'll see that the insulation, instead of being
2 stapled underneath the truss system, actually at this one
3 port where the A, B trusses went over. So when I showed
4 you -- and I will show you that the fire burned down that
5 stringer line, giving the fire time to incubate to end up
6 with that big ball of smoke that you saw in Defense
7 Exhibit 1, it hit here, because it's now burning on top of
8 the insulation, and then hit here at the A1 intersection. It
9 now had an opportunity to get to the paper backed insulation.

10 What's that? You will see that this is the way
11 over here that this construction was made. We put together a
12 little model so that you could understand it more easily.
13 You heard Mr. Paolini -- I'm sorry, Mr. Underwood tell you
14 about how the fan was mounted. This fan was mounted like
15 this. So that there were one by three, three and a half on
16 each side, and then it was placed directly on top of acoustic
17 tiles, this, and there was a hole in it so the fan went over
18 like this. There was actually a space between the bottom of
19 the acoustic tiles and the top of the insulation. And you
20 will see that the insulation was paper backed insulation
21 12-inches from the bottom of the acoustic tile and the top of
22 the paper. And when the fire progressed down that stringer
23 line at the A1 intersection, it hit the paper. And now you
24 had a fire. Heat in this interspatial place, this place in
25 between here, and it enveloped this fan in fire.

1 You're going to hear Ms. Suffredini when she
2 testifies in a minute. She's going to tell you a couple
3 things. She's going to tell you that she turned the fan on
4 for a little girl named Elizabeth Davis at about ten minutes
5 of five. Ten minutes of five. And Elizabeth was in there
6 using the bathroom only five minutes. And you're going to
7 hear that when she turned it on, the light and the fan were
8 on the same circuit. The light came on and the fan came on.

9 Why is that important? You're going to see when
10 the fan comes on, there is a polypropylene impeller, the fan
11 blades, it turns around like this. And what she's going to
12 testify to is that there was no unusual noise. There was no
13 grinding, no hard noise, no nothing. The fan was working.
14 There is no evidence that the bearings were wearing out or
15 anything like that. The impeller was turning.

16 Why is that important? I'm going to prove to you
17 it's important because as the impeller is turning, it's
18 cooling down the motor under here. And you're going to see
19 that there is no way that a fire could start in here with a
20 moving impeller that doesn't show any sign of wear or tear or
21 unusual noise or anything like that.

22 So how do you get the damage to the motor coil that
23 Mr. Underwood just told you? I'm going to prove that to you
24 too. You're going to see that when the motor is energized
25 and it gets hit by either enveloping heat or perhaps fire

1 that comes from the underside of this paper, it causes
2 electrical damage on energized components.

3 The windings. And that's how you got this little
4 damage to this motor. And that's how you have the whole
5 building enveloped in smoke within five or ten minutes of a
6 call -- within five minutes of a call and ten minutes of the
7 little flame or glowing that Ms. Suffredini and Ms. Dattilo
8 saw. What they saw was not the beginning of fire. It was at
9 the extension and it's the first thing they noticed.

10 Now I will not be able to prove to you how the fire
11 started. You will see that the fire looked like I showed you
12 here in that two year old room. Afterward it was a mess.
13 Many of the conductors were gone. There was a recessed light
14 here, fluorescent light, that was right next to this, that by
15 the time Broan-Nutone got a chance to inspect the scene on
16 October 29th of 2009, that was gone. Nobody can identify
17 where that light fixture was. The place was a jumbled mess.

18 But I will tell you this. That there were eleven
19 circuit breakers that were tripped. Eleven circuit breakers.
20 I'll prove that to you. I will prove to you also that that
21 indicates there was arcing all over that building,
22 particularly in the two year old room.

23 Now I also told you three reasons and here is one
24 of them. The third reason is this fan manufactured by
25 Broan-Nutone in 2002, December of 2002, is tested to a UL

1 standard, Underwriters Laboratories independent testing.
2 Underwriters Laboratories puts it through UL tests and there
3 are certain tests about heat rise and making sure that the
4 heat won't go over a particular temperature. In this case
5 it's 225 degrees Centigrade, which sounds like a lot to us
6 but not much of what's out there, and that's the UL standard.
7 And this met it. Not only did it meet it once, it met it
8 continually. And you're going to hear that UL tested this
9 fan repeatedly, as it does.

10 You're also going to hear that the motor is
11 subjected to UL test. So you have a UL listing on the
12 product, on the fan. The motor itself was also tested by UL
13 and was tested repeatedly every single quarter for heat
14 temperature rise, make sure it doesn't get too hot. And make
15 sure that the TCO, thermal cutout, that it worked. And
16 you're going to see that it was tested to UL standards and UL
17 passed it from 1999 all the way up to the date of this fire
18 and tested repeatedly. And so that means it's got a UL
19 recognition.

20 You're going to also see that every single
21 component in that motor that carries electrical
22 characteristics, every single one, that includes the TCO,
23 that includes the motor windings, that includes the tape that
24 you're going to see goes around the motor, that includes a
25 mylar strip that keeps the TCO, doesn't matter, every single

1 one of them is tested by UL. And before they're tested by
2 UL, they are tested by their engineers from those companies.
3 And you're going to see that they all pass strict UL
4 standards.

5 And that's how I'm going to prove to you that this
6 fan didn't start this fire because the fan is perfectly safe.

7 Let me add my thanks as well on behalf of
8 Broan-Nutone for your jury service. For all of us. For all
9 of us as American citizens. There is something great about
10 what we're doing here, trying a case to a jury. It goes back
11 actually well before our country was founded. It's part of
12 the Seventh Amendment of the United States Constitution.
13 Actually goes back and predates the Magna Carta, which will
14 turn 800 next year.

15 So we are together participating in an important
16 service to our country. And I will feel confident to justify
17 if the evidence is as I just laid it out to you, if the fan
18 is UL recognized and all its parts are UL recognized, if the
19 burn patterns are what I just showed you, if you find that
20 the timing in five minutes or seven minutes from the time of
21 the call in until the time that Chief McConnell saw that
22 thing, does it make any sense? If that's the evidence then I
23 will feel justified at the end of this case in standing up
24 before you and asking you to return a verdict for
25 Broan-Nutone. Thank you very much.

1 THE COURT: Thank you, sir. Who is going to do the
2 examination of the first witness?

3 MR. UNDERWOOD: I am, Your Honor.

4 THE COURT: Call your first witness.

5 MR. UNDERWOOD: The plaintiff calls Kristin
6 Suffredini.

7 THE CLERK: Please state your full name and spell
8 your last name for the record.

9 THE WITNESS: Kristin Suffredini;
10 S-U-F-F-R-E-D-I-N-I.

11 KRISTIN SUFFREDINI, called as a witness and
12 being duly sworn, testifies as follows:

13 DIRECT EXAMINATION BY MR. UNDERWOOD:

14 Q Could you please state your name for us?

15 A Kristin Suffredini.

16 Q Ms. Suffredini, where do you live?

17 A I live on 223 Bristol Street in Canandaigua, New York.

18 Q Are you presently employed?

19 A Yes, I am.

20 Q Where are you employed?

21 A I work at Care-a-Lot Childcare Center in Farmington,
22 New York.

23 Q And what type of business is Care-a-Lot?

24 A It's a childcare center.

25 Q What's your position there?

1 A I am the toddler teacher.

2 Q How long have you been employed at Care-a-Lot?

3 A I'll be there five years in October.

4 Q Where did you work before Care-a-Lot?

5 A I worked at Jack 'n Jill Childcare Center.

6 Q Where was Jack 'n Jill Child Center located?

7 A 14 Framark Drive in Victor, New York.

8 Q What period of time were you employed at Jack 'N Jill
9 Childcare Center?

10 A I worked from October 2004 through September 2009.

11 Q And what were your -- what was your position there?

12 A I was the lead toddler teacher.

13 Q Now what was the makeup of the building? What did it
14 look like?

15 A It looked like a rectangle.

16 Q And how many stories was it?

17 A One.

18 Q And did it have a peaked roof?

19 A Yes.

20 MR. UNDERWOOD: Your Honor, is it okay if I
21 approach the witness or if I could place something directly
22 on the display.

23 THE COURT: It's right there.

24 Q Ms. Suffredini, I'm going to show you what we marked
25 previously as Plaintiff's Exhibit 120. Do you recognize

1 what's picked in that diagram?

2 A Yes.

3 Q What's depicted in that diagram?

4 A That's Jack 'N Jill Childcare Center.

5 Q Does that fairly and accurately depict the daycare
6 center as it existed back in September 2009?

7 A Yes.

8 Q Back in September 2009 where did you typically work
9 within the daycare center?

10 A I worked where the two year old room is.

11 Q Would that be the area located right there?

12 A Yes.

13 Q And what were your responsibilities working in the two
14 year old room?

15 A I did lesson plans, took care of the children, light
16 cleaning duties and answered the phones.

17 Q What was your shift?

18 A I worked nine to six Monday through Friday.

19 Q How many children were you responsible for at that time?

20 A There was ten children in the classroom.

21 Q Now, did a fire occur at the Jack 'N Jill Childcare
22 Center on September 17, 2009?

23 A Yes.

24 Q Now, we're going to ask you some questions about that,
25 obviously.

1 A Okay.

2 Q Now, by way of background, did the two year old
3 classroom have its own bathroom?

4 A Yes, it did.

5 Q Where was that bathroom located?

6 A It was located where it says toilet room. Can I point?

7 Q Would that be this area right here?

8 A Yes.

9 Q Now did the toilet room or the two year old bathroom
10 have a door?

11 A No.

12 Q What was in the bathroom itself?

13 A In the bathroom there was two toilets, there was a sink
14 and there was the sleeping mats.

15 Q And was there a dropped ceiling in the two year old
16 bathroom?

17 A Yes.

18 Q What was in the ceiling?

19 A There was an air conditioning vent, there was the
20 ventilation fan for the fan, and then there was a light.

21 Q Was there a switch on the wall?

22 A Yes.

23 Q What did the switch operate?

24 A It operated the fan and the light.

25 Q Now what sort of facing did the fan and the dropped

1 ceiling have?

2 A It was a grill with little slats on it.

3 Q Did it look something like this?

4 A Yes, it did.

5 Q Did it look exactly like this?

6 A Yes.

7 Q On the day of the fire were you working in the two year
8 old classroom?

9 A Yes, I was.

10 Q And immediately prior to the fire what were you doing?

11 A I was cleaning up the classroom and a child went to go
12 to the bathroom, so I turned on the light because she wasn't
13 tall enough. She proceeded to go to the bathroom, and I was
14 standing at a counter that was to the right on the wall where
15 it says, right by the wall that says toilet room.

16 MR. UNDERWOOD: Your Honor, if I could, can the
17 witness mark on the display exactly where she's indicated?

18 THE COURT: Sure.

19 A Right here. Around right here. I was standing, there
20 is a shelf.

21 Q And I think you can hit clear to clear that out. About
22 what time of day did that occurrence happen?

23 A It was around 5 p.m.

24 Q When the little girl used the bathroom, how long was she
25 in there?

1 A She was only in there a couple minutes. She went, she
2 washed her hands and then she came out.

3 Q When the little girl was in the bathroom, was the light
4 on?

5 A Yes.

6 Q Was the ventilation fan on?

7 A Yes, because the light was on.

8 Q At some point obviously the girl left the bathroom?

9 A Yes, she did.

10 Q When the little girl left the bathroom, was the light
11 still on?

12 A Yes.

13 Q Was the fan still on?

14 A Yes, because the light was on.

15 Q What happened next after she left the bathroom?

16 A She came out of the bathroom and she met me and we were
17 cleaning up some puzzles that were on the floor. And as I
18 walked from the shelf to go meet her at the puzzles, I saw
19 something fall from the corner of my eye. I looked down
20 thinking a bug, like it fell from the ceiling. And then I
21 looked up and that's when I noticed the ventilation cover had
22 a little flame that looked almost like a birthday candle
23 coming out of the grill.

24 Q You said you saw something fall from out of the corner
25 of your eye, did you understand where you thought that item

1 had fallen from?

2 A I just saw it come down so I assumed it came from the
3 ceiling. I looked to make sure there was nothing on the
4 floor first and then I looked up.

5 Q What ceiling are you referring to?

6 A The ceiling in the bathroom.

7 Q And you indicated that you saw something in the grill?

8 A Yeah. It was like a birthday candle sized flame coming
9 out of the grill.

10 Q And it was this type of grill?

11 A Yes.

12 Q After seeing the flame, what did you do next?

13 A I went to the door and I yelled across to my other
14 co-workers and told them there was a fire, we needed to get
15 out.

16 Q Can you indicate on the diagram what door you went to?

17 A Yeah. This door right there.

18 Q And what type of door was that?

19 A It was just a wooden door. We didn't have windows in it
20 at the time, they took them out for some reason, but I could
21 just yell through them to communicate with the people across
22 the hall.

23 Q When you went to that door, what did you yell?

24 A I yelled to Wendy who was across the hall and I said
25 there's a fire, we need to get out. She proceeded to come

1 across the hall and we exited out our emergency door.

2 Q When you say Wendy, who are you referring to?

3 A Assistant director.

4 Q What is Wendy's last name?

5 A Wendy Dattilo.

6 Q Where was Wendy located when you were yelling out?

7 A She was in this classroom across the hall.

8 Q That be would the infant room?

9 A Yes, the infant room.

10 Q How many children were in the two year old classroom at
11 the time the fire occurred?

12 A I had five children.

13 Q What did you do with the children?

14 A I just gathered them up calmly. I didn't want them to
15 be scared. And I escorted them right out the door.

16 Q And which door did you exit out of?

17 A We exited out of our emergency door right here that says
18 gate, right here.

19 Q As you were exiting the building, did you make any
20 observations of the building?

21 A No. I just knew I had to get out of there and make sure
22 these kids were safe.

23 Q As you exited the building did you make any observations
24 about the exterior of the building?

25 A Not when we were exiting.

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1 Q Did you eventually at some point turn around and look
2 back at the building?

3 A When we got down to the fence where our playground ends,
4 I looked back and there was smoke coming out of the gutters,
5 that was by the air conditioner that was in the picket fence.

6 Q Ms. Suffredini, I'm going show you a photograph that we
7 previously marked as Plaintiff's Exhibit 16. Do you
8 recognize what's depicted in that photograph?

9 A Yes.

10 Q And what's depicted in P16?

11 A There is the air conditioners in the picket fence area
12 and the first blue door, which is kind of hard to see right
13 here, but is the door where we exited and that goes into our
14 playground.

15 Q Can you identify with using the marker where the door is
16 that you exited out?

17 A Right around there.

18 Q Now if you could just clear that out. And you testified
19 a few seconds ago that you saw smoke coming from the eaves.
20 Can you identify the area where you saw smoke coming from the
21 eaves?

22 A Yeah. Right about there.

23 THE COURT: Right there in the corner?

24 THE WITNESS: Yes.

25 Q Now about how long did you stay in the toddler area

1 outside the building?

2 A Probably about three minutes, because the smoke got a
3 little heavy so we had to move the kids to the next
4 playground so that they weren't getting hurt by the smoke.

5 Q And where did you go from there?

6 A We went to the preschool playground, which is right
7 across, you walk through the fence and there is another
8 fenced area.

9 Q Now I'm going to ask you a couple questions about what
10 happened right before the fire. Okay?

11 A Okay.

12 Q On the day of the fire immediately prior to seeing the
13 flame in the grill of the fan in the two year old bathroom,
14 did you notice anything out of the ordinary in the two year
15 old classroom?

16 A No, I did not.

17 Q I show you that diagram again. Was there any problems
18 using any of the electrical items that were in the two year
19 old room prior to you seeing the fire?

20 A No.

21 Q Did any of the lights flicker prior to the fire?

22 A Nope.

23 Q Did you hear anything out of the ordinary in the ceiling
24 above where you were working?

25 A Nope.

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1 Q Did you observe any smoke prior to seeing fire in the
2 fan?

3 A No.

4 Q Did you smell smoke before seeing fire in the fan?

5 A Nope.

6 Q Was there anything out of the ordinary occurring in the
7 two year old classroom, this area here, before you saw a fire
8 in the fan in the two year old bathroom?

9 A No.

10 Q Now did you hear any odd sounds coming from the ceiling
11 above where you were working?

12 A Nope.

13 THE COURT: Excuse me one second. Does that
14 diagram have an exhibit number?

15 MR. UNDERWOOD: That's the same one we used before,
16 P120.

17 THE COURT: That's okay, I got it.

18 Q Now what time were children typically picked up from the
19 daycare center?

20 A They're usually later, so like between five and six at
21 night.

22 Q Now prior to your observation of this flame in the
23 grill, were you aware of anyone coming in saying that they
24 saw smoke coming from the building?

25 A No.

1 Q Did anyone come to you or are you aware of anyone that
2 said they saw smoke anywhere else inside the building?

3 A No.

4 MR. UNDERWOOD: Nothing further, Your Honor.

5 THE COURT: Thank you. Cross?

6 MR. DUGGAN: Yes, Your Honor, a few things.

7 *CROSS-EXAMINATION BY MR. DUGGAN:*

8 Q Good afternoon, Ms. Suffredini.

9 A Hello.

10 Q We haven't met before, have we?

11 A No.

12 Q My name is Chris Duggan, just so you know. And I
13 represent Broan-Nutone.

14 A Okay.

15 Q How long had you worked at Jack 'n Jill before September
16 17, 2009?

17 A I was there five years.

18 Q And during that whole course of the five years that you
19 were there, were you always working in the two year old room?

20 A No. I worked -- I started in the preschool room and
21 then I worked in the infant room and then I was in the
22 toddler room within the five years.

23 Q How long did you spend in the toddler room as a teacher?

24 A I was in there for a year and a half.

25 Q In that whole year and a half did you ever hear anything

1 unusual coming from the fan?

2 A No, I did not.

3 Q No unusual noises? No loud noises, nothing like that?

4 A Nope.

5 Q Now on the day of the fire, I think you told

6 Mr. Underwood that about ten minutes of five or so that you

7 took a little girl in the bathroom?

8 A She was in there probably five minutes.

9 Q But you went in about ten minutes to five or something
10 like that?

11 A Yeah, yep.

12 Q And you turned the light on for her?

13 A Yes.

14 Q So it was off before then?

15 A Yes.

16 Q The fan was off before then?

17 A Yes.

18 Q When you turned the light on and turned the switch on,
19 did it come on, the light come on?

20 A Yes.

21 Q Did the fan come on?

22 A Yes, it did.

23 Q How do you know the fan was on?

24 A The fan always turns on with the light and you can hear
25 the fan turn on but then you can't hear it after it's been on

1 for a few minutes.

2 Q You could hear it actually come on?

3 A Yes.

4 Q You heard it turn?

5 A Yes.

6 Q Didn't make any unusual noises?

7 A No.

8 Q Just completely regular?

9 A Yep. Just the normal noise.

10 Q Now, I think you also said -- was the girl's name
11 Elizabeth Davis, is that right?

12 A Yes.

13 Q When Elizabeth came out of the bathroom, she came over
14 and helped her get a puzzle?

15 A Yes.

16 Q And that took I think you said in your deposition about
17 a minute?

18 A Yeah.

19 Q And then you were walking over to the counter and you
20 saw this thing fall from the ceiling?

21 A From the corner of my eye, yeah.

22 Q And you thought, what, it was a bee because you used to
23 have an infestation problem?

24 A Yeah. We had a problem with bees prior and I thought
25 maybe it was a bee, and I don't want bees in the classroom,

1 so I just had to check it out.

2 Q So you looked on the floor?

3 A Yes.

4 Q Was there anything on the floor?

5 A No.

6 Q Nothing melting on the floor?

7 A Not that I could see.

8 Q Nothing dripping from the fan?

9 A No.

10 Q You just saw a little candle glow?

11 A Yeah.

12 Q Is that right?

13 A Yes.

14 Q I'm sorry, we need like a word answer. So at that point
15 you went and got Wendy Dattilo?

16 A I went over to the window and called for Wendy Dattilo,
17 yeah.

18 Q And she came over, correct?

19 A Yes.

20 Q And did she look in the bathroom too?

21 A I'm not sure of that. I just walked first and I just
22 took the kids out, so I'm not sure if she stopped and looked
23 or if she just kept walking. She was behind me.

24 Q You just went out to get your kids outside because you
25 saw the glow in the bathroom light, the fan?

1 A Yes.

2 Q You were out within a minute or two of seeing that glow?

3 A Yes.

4 Q For good reason, right?

5 A Yes. To save those kids.

6 Q Yeah and when you got out there, you already saw smoke
7 coming out of the eaves?

8 A By the time we hit the back fence, we saw smoke coming
9 out of the eaves.

10 Q That was another minute or so?

11 A Yeah.

12 Q So from the whole time from seeing the glow to smoke
13 coming out was about, what, three minutes?

14 A Three to five minutes.

15 Q Now when you were out there, shortly thereafter did you
16 have a chance to look at the roof?

17 A I looked. I just looked at where we came out, just the
18 side because I couldn't see the center of the roof but I
19 could see the side, and I just saw the smoke coming out of
20 the eaves.

21 Q And then when you got down to the other playground at
22 the other end, which would be the end of the building?

23 A Yes.

24 Q You had a chance to see the building?

25 A Yes.

1 Q Did it look like this?

2 A Yes.

3 Q And this is D1.

4 MR. DUGGAN: May I approach, Your Honor?

5 THE COURT: Yes.

6 Q Exhibit D1.

7 A Yes.

8 Q And within six or seven minutes of you seeing the glow,
9 what you saw looked like D1?

10 A Yes.

11 MR. DUGGAN: I have no further questions, Your
12 Honor.

13 THE COURT: Any redirect?

14 MR. UNDERWOOD: No, Your Honor.

15 THE COURT: You're all set. Thank you. Next
16 witness.

17 MR. PAOLINI: The plaintiff calls Wendy Dattilo.

18 THE CLERK: State your full name and spell your
19 last name for the record.

20 THE WITNESS: Wendy Dattilo; D-A-T-T-I-L-O.

21 *WENDY DATTILO*, called as a witness and being
22 duly sworn, testifies as follows:

23 *DIRECT EXAMINATION BY MR. PAOLINI:*

24 Q Good afternoon.

25 A Good afternoon.

Wendy Dattilo - Direct - Mr. Paolini

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1 Q Could you state your name for the record, please?

2 A It's Wendy Dattilo.

3 Q At what address do you live?

4 A 74 Gannett Road, Farmington, New York 14425.

5 Q Are you presently employed?

6 A Yes.

7 Q Where are you employed?

8 A At Jack 'n Jill Childcare in Victor.

9 Q And how long approximately have you been employed there?

10 A About 15 years.

11 Q Does Jack 'n Jill have more than one location?

12 A Yes, it does.

13 Q Now did you work at the Victor location in 2009?

14 A Yes.

15 Q Do you recall when you started at the Victor location?

16 A I believe it was '03, '04, around there.

17 Q Okay. And what is -- what was your position back in
18 2009?

19 A I was the assistant director and preschool teacher.

20 Q Could you just briefly describe what your
21 responsibilities were?

22 A Cheryl wasn't there, the director, then I would take
23 over her responsibilities, and I also was the preschool
24 teacher which just did regular preschool program.

25 Q I'm going to show you what's been marked P120. Can you

1 see that okay?

2 A Yes.

3 Q Back in September of 2009 what room did you work in?

4 A I was in the preschool room. But on the day of the fire
5 I went into the toddler room to relieve our toddler teacher.

6 Q Now September 17, 2009, does that date stand out to you?

7 A Yes.

8 Q Why is that?

9 A That's the day of the fire.

10 Q How did you learn about the fire?

11 A Our two year old teacher at the time called me over and
12 said that a spark had fallen, and so I brought my kids over
13 and observed the glow in the fan.

14 Q And using the diagram, did you go into the two year old
15 room?

16 A Yes.

17 Q And you mentioned the glow in the fan. What room in the
18 two year old room did you see that in?

19 A The bathroom.

20 Q And did you look up in the ceiling?

21 A Yes.

22 Q Did you see something that looks like this?

23 A Yes.

24 Q And did you see -- what did you see?

25 A It was glowing like orange and red.

1 Q In this grill? In a grill that looks like this?

2 A In the grill, yeah.

3 Q What did you do next?

4 A We -- I told everyone to evacuate and we walked out of
5 the two year old room door.

6 Q And if you could mark on the diagram with the, I think
7 there is a pencil or something you can use. Mark which door
8 you went out.

9 A Okay. We went this one.

10 Q Okay. Perfect. And where did you go once you went
11 outside?

12 A We walked out to the playground and to our designated
13 evacuation spot.

14 Q Does this show the area where you exited the building?

15 A Yes.

16 Q And in which direction did you walk after leaving
17 through that door in the two year old room?

18 A We walked to the right I guess alongside of the
19 building.

20 Q And did you go to the back of the building?

21 A Yes.

22 Q At some point did you observe anything coming from the
23 building?

24 A Yeah. There was smoke.

25 Q Where did you observe smoke?

Wendy Dattilo - Direct - Mr. Paolini

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1 A On the roof.

2 Q What portion of the building? If you could again just
3 mark.

4 A Just circle. There.

5 Q You can clear that again. You were working in the
6 building prior to the fire, is that correct?

7 A Yes.

8 Q And you walked through the two year old classroom, is
9 that correct?

10 A Yes.

11 Q Prior to observing the glow as you described coming from
12 the grill of the fan, did you notice anything unusual in the
13 building?

14 A No.

15 Q Did you smell any smoke coming from the two year old
16 classroom?

17 A No.

18 Q Any problem with any electrical?

19 A No.

20 Q Any problems with the lights?

21 A Nope.

22 MR. PAOLINI: No further questions.

23 THE COURT: Cross?

24 CROSS-EXAMINATION BY MR. DUGGAN:

25 Q Hello, Ms. Dattilo.

1 A Hi.

2 Q My name is Chris Duggan and I represent Broan-Nutone.
3 We haven't met before, have we?

4 A I don't believe so.

5 Q Okay. I wonder -- I'm going to show you now what we've
6 marked -- we're going to mark as Defense Exhibit 36 by
7 agreement and we'll put it on the screen so that you can have
8 it in front of you. Looking at this or looking at the
9 diagram, does that generally show the shape of the two year
10 old room?

11 A Yes.

12 Q And the bathroom is way over as the jury's looking at
13 this on the right-hand side, correct?

14 A Yes.

15 Q That would be toward the west, toward the street, School
16 Street?

17 A Yes.

18 Q And the exit that you went out you were talking about is
19 up at the top there, that door, right?

20 A Yes.

21 Q And that's basically north, correct?

22 A Yes.

23 Q And where -- can you just put a little X where you were
24 working on the day of the fire before?

25 A It would be across.

Wendy Dattilo - Cross - Mr. Duggan

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1 Q If you can see it.

2 A This is the two year old so I --

3 MR. PAOLINI: Your Honor, I'm going to object.

4 This doesn't show the room.

5 Q See if I can help her out. The red square that's next

6 -- the blue square is the bathroom, correct?

7 A The blue square is the bathroom.

8 Q And the red square is the two year old room?

9 A Right.

10 Q And there is a hallway as you go further south down

11 where these numbers are, right?

12 A Right.

13 Q And where you were working was down below that?

14 A Right.

15 Q Okay. So when you heard Ms. Suffredini call you, you

16 went over to the bathroom?

17 A Yes.

18 Q You said you saw a glow?

19 A Yes.

20 Q Underneath the grill in the fan?

21 A Yes.

22 Q The fan was running, right?

23 A I believe.

24 Q Did you say in your deposition that you heard it

25 running?

1 A I don't remember.

2 Q Okay, fair enough. See if I can help you out there. On
3 page 39.

4 THE COURT: Members of the jury, let me explain
5 something to you, what's going on right now. This is a civil
6 case. Before this trial ever commenced, there has been what
7 they call EBTs, Examinations Before Trial, or depositions.
8 What happens is any person who is key to the case, they are
9 examined and put under oath, correct, sworn to tell the
10 truth. The lawyers were there to question you about what you
11 saw and observed that day and what your impressions were?

12 THE WITNESS: Yes.

13 THE COURT: And you swore to tell the truth at that
14 time. How long ago was that, do you remember?

15 THE WITNESS: About two years ago.

16 THE COURT: Okay. And that was done at a lawyer's
17 office, I assume?

18 THE WITNESS: I think it was the Hamilton Inn.

19 THE COURT: Okay. Here's what happens. You heard
20 the series of questions that's been asked of her. It's
21 impressing Mr. Duggan that there is a more definite answer to
22 it given at a prior time, and that's what he is establishing
23 right now. Now if you find at a prior time that she was
24 under oath and was asked that question and gave a different
25 answer than she is giving here, you have to decide which

1 answer you want to believe; what she said here today or what
2 she said back two plus years ago. Okay. Proceed, sir.

3 Q His Honor just took you through the steps I was going
4 to. So thank you, Your Honor. You gave a deposition and
5 these same kind of questions were you asked and answered,
6 right?

7 A Yes.

8 Q And that was two years ago. So it was closer to the
9 time than we are now, right?

10 A Right.

11 THE COURT: What was the date of the EBT?

12 MR. DUGGAN: The date of deposition was on
13 December 20th of 2012.

14 THE COURT: Thank you.

15 Q And did you have a chance to review your deposition
16 before testifying today? Did you look this over?

17 A I was supposed but I didn't. I'm sorry.

18 Q Fair enough. No problem. Just go to page 39.

19 MR. DUGGAN: May I approach, Your Honor?

20 THE COURT: Sure.

21 Q When Mr. Underwood -- Mr. Underwood was asking you
22 questions, right, do you remember that?

23 A Yes, I remember.

24 Q And he asked you this question on page 39, which is line
25 13: You've been referring -- tell me if I read this

1 correctly. You've been referring to the light in the two
2 year old bathroom. Do you have a recollection of whether it
3 was a combination or fan light? And you said, yes, it was a
4 fan light, correct?

5 A Right.

6 Q And do you have a recollection that at least part,
7 the -- at least the fan part of the item was on you saw
8 glowing, right?

9 A Right.

10 Q Your answer was?

11 A Yes.

12 Q And, in fact, does that refresh your recollection?

13 A Yes.

14 Q Now let's be fair because then the next question was,
15 could you actually hear the fan running, and you said, I
16 think.

17 A Right.

18 Q So do you know really whether the fan was running or
19 not?

20 A No, I don't know. I'm sorry.

21 Q No problem.

22 A It's a long time ago.

23 Q Was it making any unusual noises?

24 A No.

25 Q Was there anything coming out of the grill?

1 A Not that I had seen.

2 Q You just saw a glow?

3 A Yes.

4 Q And, in fact, you didn't even know whether it was a
5 fire, just a red glow?

6 A It was just glowing, yeah.

7 Q Now there was some question as to where -- you left
8 almost immediately after that, correct?

9 A Yes.

10 Q So within a minute or so?

11 A Yes.

12 Q And when you got outside, can you help us here by just
13 putting a little point on where you were when you got
14 outside? Does it show on this diagram?

15 A Exit door.

16 Q See the door?

17 A Yeah. The exit door, so we exited here.

18 Q So you exited up there?

19 A Yes.

20 Q And then you went outside immediately?

21 A Uh-huh.

22 Q And that was within a minute of you looking and seeing
23 the glow?

24 A Yes.

25 Q And there was no smoke?

1 A Right.

2 Q And there was nothing dripping?

3 A Right.

4 Q And there was nothing burning?

5 A Right.

6 Q But you left and you went out and you looked up and you
7 saw smoke?

8 A Yes.

9 Q At that time?

10 A I believe so.

11 Q Do you remember where you saw the smoke?

12 A On the roof.

13 Q And do you remember being asked, did you see the smoke,
14 and you said, on the whole roof?

15 A Yes.

16 Q And, indeed, within a minute of you looking at that
17 little glow, did you see something that looked like what's
18 shown in Exhibit D1?

19 A I guess, yeah. I wasn't at that angle, so I don't know.

20 Q But there was a lot of smoke coming up there?

21 A Yeah. At that point, yes.

22 Q And one other question. You were asked I think by
23 Mr. Underwood in the deposition where the smoke was coming
24 out when you first saw it?

25 A Yes.

1 Q And do you remember telling him that it was by the two
2 year old room and the kitchen?

3 A Yes.

4 Q Can you show the jury where the two year old room and
5 the kitchen is on this diagram?

6 A The kitchen would be like in between.

7 MR. PAOLINI: What page?

8 MR. DUGGAN: Page 53.

9 Q This is Plaintiff's 120 that they just had on the board
10 over there.

11 MR. DUGGAN: May I approach, Your Honor?

12 Q And I think you identified this as generally looking
13 like what the configuration of the building was, correct?

14 A Yes.

15 Q And so the two year old room is here, right?

16 A Yes.

17 Q And can you just put a 2 where the two year old room is?
18 Can you write a 2 with your finger on that, is that possible?
19 Okay. And the kitchen is actually off to the left of our
20 diagram, isn't it?

21 A Yes.

22 Q So further west? Yeah, further west of the building,
23 it's over here, right?

24 A Yep.

25 Q So is it over near the number 5, a little bit to the

1 left of that?

2 A Yeah.

3 Q Can you just put an X there? And it's actually about 10
4 or 15 feet left of that, the kitchen, is that right?

5 A Yes, sure.

6 Q That's outside of the red box?

7 A Yeah.

8 Q And that's where you saw the smoke coming out?

9 A I'm not sure. It was -- sure, I'm sorry.

10 Q Maybe I can help you again. Looking at page 53 of your
11 deposition.

12 MR. DUGGAN: If I may once more approach, Your
13 Honor, and then I'll be done?

14 THE COURT: Yes.

15 Q By the way, before you had given a deposition, you had
16 actually given a statement to an investigator for the
17 Philadelphia Insurance Company, right?

18 A Yep.

19 MR. UNDERWOOD: Objection, Your Honor. I believe
20 it misstates who the statement came from.

21 Q You gave a statement to somebody?

22 A The fire department.

23 Q You said Mr. Harloff maybe?

24 A Yes.

25 Q And then that's what they were referring to in this part

1 of the deposition?

2 A Yes.

3 Q Okay. And question: It was right above the two on top
4 of where the two is. Are you referring to the two year old
5 classroom? And your answer was?

6 A Yes.

7 Q Okay. See if I can find it. I thought it was right
8 there. Anyway, it was on top of the two year old classroom,
9 in any event?

10 A Yeah.

11 THE COURT: So disregard about page 53?

12 MR. DUGGAN: Disregard page 53, Your Honor, because
13 I was wrong. Yes, I'm sorry, I had the wrong page, it's
14 actually page 51. I apologize to everybody. And if I can
15 approach one more time?

16 THE COURT: Yes.

17 Q Same question. I'm sorry.

18 A It's okay.

19 Q See if this refreshes your memory. Your answer was: It
20 was right above the two, on top of where the two is, like the
21 kitchen, correct?

22 A Right.

23 Q That's what you said there?

24 A Yes.

25 Q And then what were you referring to there? And your

1 answer was: I believe the two year old classroom and the
2 smoke was over the two year old classroom?

3 A Yes.

4 Q Okay. And then Mr. Underwood asked you the next
5 question: The two year old classroom was right next to the
6 kitchen, correct? And your answer was?

7 A Yes.

8 Q And that's what you showed up here to the jury, it's to
9 the left on this diagram?

10 A Yes.

11 Q All the way on the other side of the room from where the
12 bathroom is?

13 A Right.

14 Q And question from Mr. Underwood: And was that the area
15 where you saw the smoke coming out? And what was your
16 answer?

17 A Yes.

18 Q And that was two years ago. And your memory was better
19 then than it is today, I take it?

20 A Yes.

21 Q Do you have any reason to believe that the smoke wasn't
22 coming out now over the kitchen area or the west end of the
23 roof?

24 A Yeah, I don't remember that. I don't know.

25 Q You just don't remember?

1 A I don't remember.

2 Q Fair enough. Thank you very much.

3 MR. DUGGAN: No further questions, Your Honor.

4 THE COURT: Any redirect?

5 MR. PAOLINI: One minute, Your Honor. No
6 questions, Your Honor.

7 THE COURT: You're all set. Thank you. Next
8 witness.

9 MR. PAOLINI: The plaintiff calls Investigator
10 Jeffrey Harloff, Your Honor.

11 THE CLERK: State and spell your full name for the
12 record.

13 THE WITNESS: Jeffrey, J-E-F-F-R-E-Y, Harloff,
14 H-A-R-L-O-F-F.

15 *JEFFREY HARLOFF*, called as a witness and being
16 duly sworn, testifies as follows:

17 *DIRECT EXAMINATION BY MR. PAOLINI:*

18 Q Good afternoon, Investigator Harloff. Thanks for coming
19 in.

20 A Good afternoon.

21 Q Could you please state your full name for the record,
22 sir?

23 A Jeffrey R. Harloff.

24 Q And who is your employer?

25 A The County of Ontario.

1 Q What is your position with Ontario County?

2 A Director of emergency management and county fire
3 coordinator.

4 Q First thing I would like to do, sir, is discuss your
5 background.

6 MR. PAOLINI: Judge, if I may approach? I'm happy
7 to publish this, but it's his CV. I was just going to place
8 it in front of him so he could use it as a reference.

9 THE COURT: All right.

10 Q I'm going to show you what's been marked P19. Could you
11 describe what P19 is?

12 A It's a CV for myself that describes my education, my
13 employment with Ontario County, and it lists courses that is
14 relative to fire investigation or my employment with Ontario
15 County, my professional memberships and licenses, and my fire
16 department affiliation. This is a document from 2012.

17 Q Has it been updated since then?

18 A It has.

19 Q Was this document fairly accurate back in 2012?

20 A It is. There is additional training certificates and
21 training that has been completed since 2012 and it also lists
22 additional fires that I've investigated. This indicates 354
23 and it is 410 as of this morning.

24 Q Wow, that's a lot of fires, sir. If you could, for the
25 jury, tell the jury a little bit about your education,

1 please?

2 A I have a paramedic diploma from Davenport College in
3 Grand Rapids, Michigan. I have an automotive diploma from
4 BOCES in Flint, it's a technical school. And a diploma from
5 Bloomfield Junior/Senior High School. And completed several
6 courses, Level II state certification with the Office of Fire
7 Prevention and Control, and various courses through the
8 National Fire Academy. And other certifications, other fire
9 technical certifications.

10 Q We're going to discuss your Level II certification in
11 just a little bit. But before we get to that, if you could
12 explain to the jury what positions you've held -- how long
13 have you been with Ontario County?

14 A Since 1991, August.

15 Q What was the first position you held?

16 A County EMS coordinator, Emergency Medical Services
17 coordinator.

18 Q If you could, explain to the jury what were your
19 responsibilities?

20 A I coordinated the services of 19 transporting ambulance
21 companies and first responder groups, coordinated scenes,
22 assisted the departments in emergency planning, and
23 represented the county at several meetings related to the
24 emergency medical services.

25 Q And do you recall approximately how long you held that

1 position?

2 A Until September 2002.

3 Q And what position did you take in September 2002?

4 A An interim position of director of emergency management
5 and I received my final appointment on December 31st of that
6 year, 2002.

7 Q And at that point did your responsibilities change with
8 the new position?

9 A Absolutely.

10 Q If you could, just discuss what your new
11 responsibilities were.

12 A Coordinate the delivery of 28 fire departments within
13 the county, do emergency planning for Ontario County and its
14 municipalities, respond to disasters and assist them in
15 applying or making a request for the governor for disaster
16 relief through presidential declarations, conducting cause
17 and origin fire investigations, which I've done since 1995 in
18 my prior position. I am the chief investigator for the
19 county. I work with the six law enforcement agencies within
20 the county on cause and origin determination. And that about
21 summarizes it.

22 Q Do you have people that report to you?

23 A I do. I have a staff of five full time employees and
24 four part time.

25 Q Are you also or have you ever been a firefighter?

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1 A I have since 1982.

2 Q What department, sir?

3 A Iona Volunteer Fire Company.

4 Q You're also a volunteer firefighter, is that correct?

5 A I am. And also a member of the board since 2012 in the
6 same department.

7 Q Did you hold any other positions with the volunteer fire
8 department?

9 A I've been department chief, assistant chief, board
10 member, captain and lieutenant.

11 Q Sounds like you wear a lot of hats.

12 A It's been thirty years, sir.

13 Q Now I think you mentioned you've conducted almost 400
14 cause and origin investigations?

15 A Correct.

16 Q If you could just for the jury's sake, just briefly
17 describe what you mean by a cause and origin investigation?

18 A In New York State it's the responsibility of the fire
19 chief to have a fire investigated to determine it's cause and
20 origin. In Ontario County 26 of those fire departments turn
21 to our office to do the cause and origin investigation. We
22 have a team of 14 people that respond out to assist me in
23 conducting the on-scene examination. Different positions on
24 the team have certain responsibilities. And I assume
25 generally the role of case manager who writes a narrative

1 report for the investigation, is responsible to make sure
2 that all of the aspects of the investigation are completed.

3 THE COURT: Did you say earlier, though, that in
4 2002 you oversaw 28 fire companies?

5 THE WITNESS: That's correct.

6 THE COURT: Now you just said there is 26.

7 THE WITNESS: 26 that ask my office to assist them
8 in their investigation. Two of the departments have their
9 own team.

10 THE COURT: Okay.

11 Q What type of structures have you performed cause and
12 origin investigations on, sir?

13 A Commercial and residential structures, and in addition
14 to recreational vehicles and automobiles and farm equipment.

15 Q Now let's go into a little more detail about the
16 specific training you've had to conduct cause and origin
17 investigations. I believe you indicated you have a Level II
18 certification?

19 A Yes, sir.

20 Q Does that mean at some point you had a Level I
21 certification?

22 A Correct.

23 Q I guess first if you could describe what it means to
24 have a Level I certification, sir?

25 A Level I, you complete a one-week training class at

1 Montour Falls Fire Academy, and in that class it's actually
2 two classes combined. You complete a certain amount of
3 required investigations and submit a request to the state
4 fire administrator. He reviews a certain amount of
5 documentation and he certifies you as a Level I fire
6 investigator.

7 Q If you could, and you also have a Level II
8 certification?

9 A Correct. The Level I certification was completed in
10 2001 -- I'm sorry, December 31st, 1997. The Level II
11 certification was completed on May 1st, 2001.

12 Q And what is required to obtain a Level II certification?

13 A Two-week program at Montour Falls Fire Academy, and then
14 required written documentation of actual performing the
15 skills, submitting that to the state fire administrator and
16 then he certifies you as a Level II.

17 THE COURT: You can back off on that mic a little
18 bit.

19 THE WITNESS: Okay.

20 Q Now, are there any standards that cause and origin
21 investigators like yourself follow?

22 A The National Fire Protection Association, NFPA. There
23 is a guidelines and standards.

24 Q If you could explain when you say NFPA, is that an
25 organization?

1 A It is. It's a group of people from the fire service
2 industry and manufacturers. They write standards for vehicle
3 construction, standards on a lot of aspects of the fire
4 service, and they have standards for professional
5 qualifications of fire investigators, and they also have
6 guidelines for fire investigation.

7 Q And have you received training in the standards per the
8 NFPA 921?

9 A Yes, I have.

10 Q Approximately how many courses have you taken with
11 respect to NFPA?

12 A I would say since 1995 all the training classes meet or
13 exceed the standards or are referenced during the development
14 of the courses.

15 Q Have you also conducted training courses yourself?

16 A I have.

17 Q How often do you do that, sir?

18 A I deliver a state outreach course called Fire
19 Behavior/Arson Awareness. It's a 12-hour class that provides
20 instruction on the awareness level of fire investigations to
21 the firefighter and to the fire chief. Again 12-hour class.
22 And that's taught approximately once to twice a year.

23 Q Now you talked about the types of structures that you
24 investigated. What type of fires have you investigated, sir?

25 A Fatal fires. Fires caused by a variety of things in

1 different classifications.

2 Q What types of things, if you could?

3 A Natural, incendiary, accidental.

4 Q When you say incendiary, what are you referring to?

5 A Intentionally set.

6 Q And you said accidental?

7 A Yes, sir.

8 Q And what would fall under accidental?

9 A Careless action. Something that is explained that it
10 wasn't intended to occur. There is different
11 classifications, and accidental is something that we used to
12 use significantly years ago. Now in our office we use
13 different classifications that hone in more on the findings
14 of the investigation.

15 Q Have you investigated electrical fires?

16 A I have.

17 Q Have you investigated fires that start in appliances?

18 A I have.

19 Q Now as part of a cause and origin investigator, do you
20 conduct investigation into fires involving electric?

21 A I do.

22 Q Could you describe to the jury some of the training
23 you've had with regard to electric?

24 A I attended several different classes since 1985
25 involving electrical and electrical causation. One of the

1 most recent classes happens to have been taught here in the
2 Syracuse area just two weeks ago. Other classes would be the
3 fundamentals of electric. There is classes that train you on
4 the distribution systems of electric within a house, and two
5 classes at the Fire Academy that teach the investigator on
6 how to investigate fires related to electric.

7 Q What types of electrical appliances have you performed
8 cause and origin investigations with respect to?

9 A There are a variety of electrical components or
10 electrical devices; fans, coffeemakers, toaster ovens,
11 ceiling fans, outlets, surge protectors, a variety.

12 Q Have you previously testified in court as an expert
13 witness?

14 A I have testified. This is my 14th time; seven criminal
15 and seven civil cases. I do not know if I've been declared
16 an expert witness.

17 Q Have you testified as to cause and origin opinions in
18 court?

19 A Yes, I have.

20 MR. PAOLINI: Judge, at this time I would ask the
21 Court to accept Investigator Harloff as a fire cause and
22 origin investigator.

23 THE COURT: Any objection?

24 MR. DUGGAN: No objection, Your Honor.

25 THE COURT: He may testify.

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1 Q We're going to shift gears a little bit now, sir. Are
2 you familiar with the Jack 'n Jill Daycare Center in Victor,
3 New York?

4 A I am.

5 THE COURT: Let me just before. He is going to
6 testify as an expert in this area, he just told you that,
7 source and origin and things of that nature. Because I'm
8 permitting him to testify to that, I'm not telling you that
9 what he says is correct or anything like that. You listen to
10 what he says and you evaluate it like you would any other
11 witness. See how it fits with the rest of the evidence that
12 you hear in this case. If there is suspicions you have about
13 what he is saying as to what you heard, that's for you to
14 consider in your deliberations. Because you could have
15 experts going both ways.

16 MR. PAOLINI: Judge, I'm now going to get into the
17 investigation. I didn't know if there was a going to be a
18 spot where we were going to take an afternoon break.

19 THE COURT: Well, we're going to take a break in
20 about 15 minutes, about five after.

21 MR. PAOLINI: Okay.

22 Q Are you familiar with, you testified that there was a
23 fire at the Jack 'n Jill Daycare Center, is that correct?

24 A That's correct.

25 Q Do you recall approximately when that fire occurred?

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1 A In September 2009.

2 Q And when did you learn about that fire?

3 A When I was paged by our 911 center due to the fact that
4 it was a reported structure fire and that multiple agencies
5 were requested.

6 Q So would it be fair to say you were notified as the fire
7 was occurring?

8 A Correct. I also heard the initial dispatch of the
9 incident.

10 Q Do you recall what was reported to you at that time?

11 A I believe it was dispatched as a structure fire, and
12 there was some indication by the dispatcher that there were
13 flames or fire involved right from the initial dispatch.

14 Q I'm going to show you what's been marked P21. Is that
15 the dispatch you were referring to?

16 A It's an event summary report from our computer-aided
17 dispatch system. It summarizes key points or key times
18 throughout the incident.

19 Q And does that indicate what time the call was made for a
20 fire?

21 A Yes, it does. It shows 1659, and the date is September
22 17, 2009.

23 Q Does that indicate who was sent out to handle the fire?

24 A It does. In this particular address it was two
25 departments are sent, both Victor and Farmington Fire

1 Departments.

2 Q And did they -- are you able to tell from that document
3 if they went to the Victor location?

4 A Yes. It indicates at 1703 Victor and Farmington both
5 went in route. And it further indicates that at 5:04, or
6 1704 p.m., four minutes after it was dispatched, the Victor
7 fire chief arrived on scene.

8 Q And who was that, sir, if you recall?

9 A I believe John McConnell.

10 Q And does it indicate when the first fire department
11 arrived?

12 A It does. Victor fire chief. He is the first fire
13 service member on scene.

14 Q And do you know if he would have arrived on a fire truck
15 or in his individual vehicle?

16 A He would have arrived in a command vehicle, a suburban.

17 Q Now does it indicate when the next arriving firefighters
18 arrived?

19 A It doesn't list the apparatus. According to the time
20 sheet it appears that I'm the next to arrive, and my arrival
21 was at 5:13. And arriving prior to me is two ambulances.

22 Q Now, do you recall what you observed when you arrived?

23 A I recall smoke coming from the structure. I recall the
24 ladder truck positioned on the number four side of the
25 building and the chief's command vehicle parked in front of

1 the structure.

2 Q And upon arriving what, if anything, did you do?

3 A I parked my vehicle and had a conversation with the
4 chief officers and scene. I made an attempt to make a 360
5 around the building, but because of a fence on the north side
6 of the structure, or side two of the structure, I wasn't able
7 to walk on that side of the building. I made a walk past the
8 number four side of the building and to the east. I was
9 visually examining the building because my first role when I
10 arrive on scene is to assist the line officers of the
11 department coordinating the response to fire suppression
12 activities. Later in the incident the chief will ask me for
13 assistance in fire investigation but first our efforts are to
14 extinguish the fire.

15 Q And when you first arrived, did you observe flame
16 anywhere?

17 A I don't recall when I first arrived, but at some point
18 in the incident I do recall the center of the roof being
19 burned out. I don't recall flames at any specific point.

20 Q What was the smoke condition of the daycare center when
21 you first arrived?

22 A The smoke was coming from the roof in the center part of
23 the structure and smoke was also coming from the eaves on the
24 west and south sides of the structure.

25 Q How would you describe the level of smoke?

1 A There was smoke coming out of those areas. It was black
2 and gray-ish.

3 Q Does that indicate anything to you?

4 A That there is a well involved fire. This isn't a room
5 and contents fire, that quite possibly we will be looking at
6 a well involved structure. The chief when he arrived on
7 scene, within a minute after he arrived on scene, he reported
8 smoke through the structure coming from the roof of the
9 structure. I do know that the deterioration of -- the
10 incident deteriorated. From the time I arrived until it was
11 under control, I could see a deterioration in the incident, I
12 could see increasing amounts of smoke.

13 Q So would you describe this was a significant fire?

14 A All indications were that it was going to be a
15 significant fire and that we would be there for a while.

16 Q Do you recall how long you were there that day?

17 A According to the event and summary, I departed the scene
18 at 2034. Although I am not sure exactly the time that I
19 left. The in-service time or the 10:42 time on the
20 right-hand side, oftentimes a dispatcher will clear because
21 every 15 minutes they'll get an alarm and they have to keep
22 pushing a button. So sometimes when some of the fire
23 departments return in-service, I'll be the only one on scene
24 and every 15 minutes a prompt to do something, so to clear
25 that they'll show me to clear the scene. So I can't say with

1 100 percent certainty this is an accurate time.

2 Q In terms of do you recall how long it took for the fire
3 to be extinguished?

4 A The fire was placed under control at 1733, or 5:30. So
5 from the time it was dispatched to the time the chief officer
6 placed it under control was 33 minutes.

7 Q Now if you could -- strike that.

8 At some point did you conduct a cause and origin
9 investigation into this fire?

10 A After the fire was extinguished and placed under control
11 and the smoke was evacuated from the building, I did conduct
12 a cause and origin investigation at the request of the Victor
13 fire chief.

14 Q And did you prepare a report setting forth the findings
15 of your cause and origin investigation?

16 A I did.

17 MR. PAOLINI: Your Honor, I would like to approach
18 the witness and show him a copy of his report. It's been
19 marked P23.

20 MR. DUGGAN: And there is an objection to P23, Your
21 Honor.

22 THE COURT: The objection to it being received?

23 MR. DUGGAN: Yes, Your Honor.

24 MR. PAOLINI: May I approach?

25 THE COURT: Yes.

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1 Q I'm going to locate my copy. Could you tell the jury
2 what P23 is, please?

3 A It's a narrative report that summarizes the incident, my
4 observations, the cause and origin, cause and origin
5 investigation that was conducted. Oftentimes and in this
6 case it includes observations of the initial arriving
7 firefighters and also summarizes an interview from witnesses
8 and includes conclusion.

9 Q Just in general describe just a typical way you would go
10 about investigating a structure fire.

11 A We essentially use the same process every time. It
12 includes an initial walk-around of the structure where we're
13 visually examining the structure on the exterior. We are
14 looking to identify areas of burning from least amount of
15 burning to the greatest amount of burning and will make a
16 walk-through of the structure to identify the burn patterns.
17 Simultaneously in some instances the team may break up and
18 start conducting interviews of witnesses that would include
19 the initial arriving firefighters or other witnesses,
20 including occupants or passing motorists. And simultaneously
21 we're doing an on-scene examination which includes
22 photographs from the time we arrive on scene to the time we
23 leave, and examining the scene to include electrical
24 appliances, tracing back electrical circuits and excavating
25 the fire scene and identifying the point of origin or room of

1 origin.

2 Q And you conducted such an investigation at the Jack 'n
3 Jill Daycare Center, is that correct?

4 A I did.

5 Q And did you reach -- and we're going to talk about your
6 investigation in some detail. But did you ultimately reach a
7 conclusion?

8 A Yes.

9 Q If you could, referring you to page 5 of your report, if
10 you could read the conclusion paragraph, please?

11 MR. DUGGAN: Objection, Your Honor.

12 THE COURT: Sustained.

13 Q Could you tell the jury what your conclusion was?

14 A I identified the point of origin to be the ceiling fan
15 located in the bathroom of the two year old room.

16 Q Again we're going to break these down. Any other
17 conclusions?

18 A That the fire did not include any incendiary indicators
19 or any indication that the fire was intentionally set, and
20 that other sources and including the electrical distribution
21 system had been eliminated as a possible emission source, and
22 that weather was not a factor in the progression of the fire.

23 MR. PAOLINI: Judge, if I may?

24 THE COURT: Yes.

25 Q Investigator Harloff, I'm showing you what's been marked

1 P120. Do you recognize that?

2 A I do.

3 Q What is that, sir?

4 A It's a drawing of the interior floor plan of the fire
5 building.

6 Q And do you see the two year old room?

7 A I do.

8 Q Left-hand top corner?

9 A Yes.

10 Q Now you've referenced that in your opinion the fire
11 originated in the bathroom for that two year old room?

12 A Yes.

13 Q If you could just note on there where the bathroom is
14 located? And specifically what did you identify as the cause
15 of this fire?

16 A A ceiling fan that is -- was originally in the suspended
17 ceiling within that space.

18 Q Was that an exhaust fan?

19 A Yes.

20 MR. PAOLINI: Judge, this is probably a good spot
21 to take our break, if Your Honor would like.

22 THE COURT: Obviously you want to. We'll take a
23 recess at this time, Members of the Jury.

24 (Recess at 3:01.)

25 (Reconvene at 3:25, jury present.)

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1 THE COURT: The jury's here. Mr. Paolini.

2 BY MR. PAOLINI:

3 Q Investigator Harloff, when we left off I believe you had
4 indicated that it was your opinion that the fire originated
5 at the exhaust fan in the two year old bathroom, is that
6 correct?

7 A Yes.

8 Q Now, did you have an opportunity as part of your
9 investigation to go into the two year old bathroom after the
10 fire?

11 A Yes.

12 Q Did you see the fan?

13 A Yes.

14 Q Showing you, Investigator Harloff, what's been marked
15 P27. Do you recognize that photo?

16 A I do. It's a photograph I took.

17 Q What does that photograph depict?

18 A It depicts the ceiling fan that is hanging from its
19 wires and it's suspended from the ceiling level, and it's
20 inside the bathroom, the two year old bathroom, and it's near
21 the right-hand toilet within that space.

22 Q Is that the exhaust fan where you believe the fire
23 originated?

24 A It is.

25 Q Is that how you found the exhaust fan when you entered

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1 the two year old bathroom after the fire?

2 A It is.

3 Q Now did you make any observations regarding -- strike
4 that.

5 What is the fan attached to?

6 A It's being suspended by the electrical conductors that
7 supply that device with electric from the distribution system
8 within the building.

9 Q And what is that behind the fan in the photo?

10 A It's a coil wire that would be for the exhaust to
11 exhaust the air that is being drawn from the room and it
12 would be exhausted typically to the outside of the building.

13 Q I'll show you, Investigator Harloff, what's been marked
14 P15. What are we looking at in P15, sir?

15 A It's the area within the suspended ceiling where the fan
16 originated from. And in this photograph is the coil from the
17 tubing for the exhaust of the fan and also the electrical
18 conductors coming from above the suspended ceiling down to
19 the electric fan. This would be at the south end of the two
20 year old bathroom. That wall to the right is a parting wall
21 that separates the center hallway from the bathroom.

22 Q Now that duct that you described, where was that going?

23 A It would run from the exhaust fan and typically would
24 run to the outside of the building.

25 Q And in that photo what direction is that duct going in?

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1 A It goes up through the insulation that is above the
2 suspended ceiling.

3 Q Do you have an opinion as to whether are those ducts
4 flammable in your experience?

5 MR. DUGGAN: Objection.

6 A They are going to melt and they are flammable.

7 MR. DUGGAN: Objection. No foundation for the
8 expertise in that question.

9 THE COURT: Lay the foundation. Disregard that
10 answer, Members of the Jury.

11 Q Are you familiar with flexible ducts?

12 A I am.

13 Q Have you had the opportunity to investigate fires where
14 the ducts were present?

15 A Yes.

16 Q Are you familiar with the flammability of those ducts?

17 A I have seen in fires involving driers they melt. It's
18 very similar duct work for these fans. And I have seen them
19 in bathrooms where the duct work has melted and the only
20 thing left is the metal coil.

21 Q Do you have an opinion as to how this duct played a role
22 in this fire?

23 MR. DUGGAN: Objection.

24 THE COURT: Overruled.

25 A Can you rephrase the question?

1 Q Sure. You believe the fire originated at the fan, is
2 that correct?

3 A That's correct.

4 Q Did the fire progress from the fan to other parts of the
5 building?

6 A It did.

7 Q How do you believe that occurred, sir?

8 A I believe that there is a component failure or a
9 component problem within the ceiling fan itself. Fire would
10 progress upward and outward from that fan. And during the
11 stages of this malfunction, the cover, plastic cover, is
12 going to drop down from the melting the additional components
13 such as the duct work is also going to melt from above.

14 Q The duct work you indicated is flammable?

15 A Yes.

16 Q And would the fire progress at all through the duct
17 work?

18 A It is going to continue to melt, and as the fire becomes
19 larger it is going to melt and drip and flame.

20 Q Now do you see in the courtroom here there is a, it's
21 called a mock-up of the fan and some duct work. Just so
22 we're clear, the big aluminum duct that's here in the
23 courtroom, that's not the duct we're talking about, is it,
24 sir?

25 A That's correct, it is not.

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1 Q In fact, do you see the duct that we're talking about in
2 the mock-up provided by the defendants?

3 A I do not.

4 Q Now if the mock-up had been put in place, where would it
5 be going, in your opinion?

6 A The duct work would come from the ceiling fan which is
7 surrounded by the wooden blocks. This suspended ceiling is
8 the lower part. The fan sits just above that suspended
9 ceiling and it would connect to the side of the ceiling fan
10 and would progress up through the yellow colored insulation.

11 Q So based on how you found the fire scene on the day of
12 the fire, is it your opinion that there was a flexible duct
13 going up through that insulation?

14 A Yes. It's depicted in that photograph.

15 Q P15, sir?

16 A Yes.

17 Q And if I understand, the fire progression in your
18 opinion originated at the fan and then progressed where, sir?

19 A Upward and outward from the fan.

20 Q And is there wood framing above the insulation?

21 A The insulation is likely attached to the bottom chord of
22 the truss system.

23 Q So we don't see the actual truss system here in the
24 courtroom, is that correct?

25 A The wooden pieces that are facing the jury would be the

1 bottom chord of the trusses.

2 Q And let me ask you, the way the fan is currently
3 situated, and it can turn, was the C framing directly in the
4 middle of where the fan sat?

5 A The wooden framing, sir?

6 Q Yes.

7 A I'm not sure how the fan was oriented, but this fan did
8 have wood pieces on two of the four sides of the fan.

9 Q And let's talk about that for a minute show you. 27.
10 Does that depict the wood framing you were talking about,
11 sir?

12 A It is.

13 Q Did you make any observations about the wood framing
14 that the fan was attached to?

15 A It has charring on both pieces of wood framing and it's
16 on one side, likely to be the side that is holding the fan in
17 that position up in the suspended ceiling. I believe that
18 those -- the charred area is likely facing down, but when I
19 walk into the room this fan is in this position. I can't say
20 with 100 percent certainty the orientation of that fan
21 originally at the time of the fire. When I walk into the
22 room it's suspended by those wires.

23 Q Now did you make any other observation about the fan?

24 A The fan has discoloration to it. It appears white in
25 this photograph. The white discoloration is on the metal

1 surface surrounding the motor, and I can indicate it by
2 pointing.

3 Q Sure.

4 A There is a white discoloration, a clean burn to the
5 metal surface.

6 Q And did that mean anything to you as a fire
7 investigator?

8 A It's an abnormal finding, something that you would not
9 find on fires within a space that originates from another
10 cause.

11 Q Now in terms of the investigation you conducted for the
12 Jack 'n Jill Daycare Center, we got to the specifics, you
13 explained to the jury of how you believe the fire occurred or
14 where the fire occurred. Now I want you to talk to the jury
15 about your actual investigation. Just so we're clear, you
16 investigated this fire on the day it occur, is that right?

17 A That's correct. With two additional people.

18 Q And you authored the report?

19 A I did.

20 Q And you're here now testifying cause and origin in this
21 case. You're not being compensated by either party for your
22 testimony, is that correct?

23 A That's correct.

24 Q Essentially you don't have a dog in this fight, sir, is
25 that correct?

1 A That's correct.

2 Q So as part of your investigation of the Jack 'n Jill
3 Daycare Center, what's the first thing you did?

4 A Got out of the vehicle and had a conversation with the
5 incident commander.

6 Q And why did you do that, sir?

7 A It's routine. I get a briefing from the incident
8 commander. We discuss tactics, discuss resources. Because
9 the first phase of my responsibility is to assist him in the
10 coordination to make sure that he has enough resources on
11 scene to suppress the fire.

12 Q What did you do next, sir?

13 A I made several phone calls on behalf of the chief. I
14 have talked to the 911 center. I made several phone calls
15 with them. We got our breathing air truck on the road
16 answering questions, my supervisor from 911. We had
17 conversations, myself and the deputy fire coordinator, about
18 tactics. And within 15 minutes or so the fire was placed
19 under control. I also was making a phone call, a series of
20 phone calls to get several members of the fire investigation
21 team to respond out to the incident.

22 Q Kind of to help direct you, I'm going to put back up
23 P120. Now I think you indicated some of the things you were
24 doing as part of your investigation was discussing how the
25 fire was fought, is that essentially accurate?

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1 A Correct.

2 Q What did you learn about how this fire was fought?

3 A The initial hand line that came off the ladder truck
4 entered the public entrance on side one where the red arrow
5 is. The hand line came in that entrance and proceeded down
6 the hallway. As additional personnel arrived on scene,
7 additional hand lines were deployed throughout the building.
8 Second hand lines came in the rear of the structure, or side
9 three, which would be at the far right-hand side of this
10 image.

11 The interior crew progressed down the hallway and they
12 located the fire within the two year old room. They reported
13 on the radio that they were easily extinguishing the fire,
14 meaning they weren't having any difficulty in it. Sometimes,
15 more likely in a residential structure, you'll have
16 difficulties extinguishing fire or you're not locating the
17 fire, you see a lot of smoke. In this particular case they
18 were easily extinguishing the fire. They would spray water,
19 it would go out immediately. This fire was extinguished
20 fairly easily, although labor intensive where they needed a
21 lot of manpower to pull ceilings and extinguish the fire in
22 the attic space.

23 Simultaneous to the interior crew going in, there is
24 people doing horizontal ventilation where they're removing
25 window glass, breaking out the glass, and also doing vertical

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1 ventilation so that the structure ventilates horizontally and
2 vertically. And that's to improve the conditions inside the
3 structure. It allows the heat to escape from the structure,
4 and also allows the smoke and gases to escape from the
5 structure. That aids in the fire suppression and it also
6 improves visibility and improves conditions overall for the
7 interior fire attack.

8 Q And in this case were windows broken and doors opened?

9 A They were.

10 Q Do you know where that occurred, sir?

11 A I know that the door on the number two side at the top
12 of the photograph where the occupants of the two year old
13 room exited, that door was removed. I believe that door did
14 not have any handles on the outside, so the fire service had
15 to force the door open using hand tools. The front door
16 opened easily and was wedged open, so the hand lines went in
17 there. And I know my photographs show what windows were
18 broke out, but at this moment I do not recall specifically
19 which windows were removed.

20 Q I think perhaps before the break you mentioned at some
21 point the fire breached the roof of the building. The fire
22 went through the roof?

23 A There was reports of that. And the fire chief indicated
24 that on the air prior to my arrival that he had smoke and
25 fire through the roof.

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1 Q Do you know where that occurred, sir?

2 A In the center part of the structure.

3 Q Do you know where that occurred in relation to the
4 bathroom?

5 A I cannot tell you the exact location where the smoke was
6 emanating early on into the event. I do know that after the
7 fire was extinguished there was a hole in the roof I believe
8 over the bathroom where the parting wall between the bathroom
9 and the two year old room, in that general area. There was
10 also a hole cut in the roof during the vertical ventilation,
11 and that was near the ridge line. And in this particular
12 structure the ridge line runs west to east or from the left
13 side of the image to the right side of the image.

14 Q Now as part of your investigation in the cause and
15 origin, did you do an exterior walk around the property?

16 A When I originally got there, when I initially got there
17 I tried to walk around the structure. What is not depicted
18 in this scene sketch or floor plan is a chain link fence, and
19 as I remember you couldn't get past the number one, two
20 corner, which is where the north symbol is located. So I
21 came down from the front, down along the south elevation,
22 which is the bottom portion of the image, and around to the
23 rear of the structure, which is on the far right-hand side of
24 the image.

25 Q Could you tell the jury after doing what you described,

1 what was the next phase of your investigation into the cause
2 and origin?

3 A I went and interviewed an occupant of the structure.
4 There was a deputy fire coordinator who used the digital
5 camera to take some pictures on the exterior of the
6 structure. By the time I was done with the interview with
7 the occupant, the fire was under control and we were able to
8 enter the structure and do an initial walk-through and begin
9 our cause and origin or on-scene examination.

10 Q Do you recall who you interviewed, sir?

11 A Wendy Dattilo.

12 Q Do you recall -- let me ask you, in terms of the
13 standard 921 that fire investigations are conducted by,
14 that's not a step by step rigid requirement, is it, sir?

15 A 921 is a guideline. 1033, NFPA 1033 is the professional
16 qualifications for fire investigators. The standard 921 is a
17 reference document. That's a document that is, for the loss
18 of a better phrase, the Holy Grail that the fire
19 investigators and the courts reference regularly. We
20 reference a lot of materials when we're developing a report.
21 Across the country and in this state it is not required for
22 us to use that standard or reference document or guideline,
23 it's something that we choose to do.

24 Q What are some of the things that 921 indicates or that
25 provide guidelines for investigating a fire?

1 A It has definitions for terms that are used in fire
2 investigation. It has a wealth of information and now
3 colored photographs, and the latest version of these
4 documents are updated approximately every two to three years.
5 Each time it's updated and distributed, it becomes thicker
6 and thicker with more and more information.

7 Q Does 921 discuss witness accounts of fire?

8 A It does encourage you to interview people and how to
9 document that.

10 Q Why is that, sir?

11 A This guideline is to provide some consistency in the
12 industry, whether it is -- whether it is witness statements
13 or any other aspect, to provide some consistency.

14 Q And is witness statements something that you consider
15 when reaching a cause and origin opinion?

16 A It is one of the aspects that is involved in forming an
17 opinion, combined with the on-scene examination and other
18 aspects.

19 Q And what type of things on the on-scene examination do
20 you look for when conducting a cause and origin
21 investigation?

22 A Physical exam, excavating the fire debris, conducting
23 tests, trying to prove a theory, interview of witnesses,
24 interview of callers, looking at building plans, reviewing
25 prefire photographs. There is several aspects.

1 Q And what things did you do to determine the cause and
2 origin of the fire at the Jack 'n Jill Daycare Center?

3 A Digital photographs, on-scene examination, excavation of
4 the fire scene, interview of Wendy Dattilo, played back and
5 reviewed the audio to the 911 center for the first caller of
6 the fire, checked with the code enforcement office to find
7 out when the building was last inspected for codes, digital
8 photographs and compiling a narrative report.

9 Q And you indicated you spoke with Ms. Dattilo. What did
10 she report to you, sir?

11 A She stated that another individual, Kristin, and I don't
12 believe I know her last name, came to her who reported sparks
13 coming from the ceiling fixture in the two year old room.
14 She stated that her responsibilities was that she was
15 assistant director for the daycare. She stated to me at that
16 time that Kristin shut the light switch off and then they
17 called the director Cheryl Dattilo at home and that she
18 advised -- she was advised of the potential fire at the
19 building.

20 Then she went on to describe that she saw smoke coming
21 from the structure, which she described as gray and black,
22 and that she assisted the occupants, and gave me a total
23 number of occupants within the structure at the time, and I
24 believe the number was 11, and assisted everyone, all the
25 occupants of the structure to get out safely. And originally

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1 retreated to the east end of the structure or that portion
2 that's depicted on the right side, they come out the door of
3 the two year old room and progress, travel east to the
4 playground area at the rear of the structure.

5 Then they were relocated over toward the post office
6 once the fire equipment arrived. And when I did my interview
7 with Wendy, it was done outside of the pizza shop known as
8 Bernardo's.

9 Q Now, you conducted an interior examination as well?

10 A I did.

11 Q Were you able to rule out initially certain portions of
12 the building as possible areas of the origin?

13 A When you do an initial walk-through or you do an
14 on-scene examination, you want to look at each of the spaces
15 within the structure. When you walk through that building,
16 you can see that to the casual observer your bulk of the fire
17 is in an area of the two year old room and the bathroom for
18 the two year old room. In other spaces there is a heavy
19 accumulation of soot at the ceiling level that progressed
20 down the walls to the height of 2 feet or less, but visually
21 looking at the structure it's obvious that the fire
22 originates in that area.

23 Q Now would it be fair to say you were able to rule out
24 the infant room, the toddler room, the school age room?

25 A Correct. We were left with the two year old bathroom.

1 Q And as part of your investigation in the interior
2 portion of the building, specifically in the two year old
3 room, what things did you do in there, sir?

4 A We both, myself and the two other gentlemen, digitally,
5 took digital photographs of the entire structure, but in the
6 bathroom interior specifically we put a ladder up through the
7 bottom chord of the rafters, or truss system rather, and
8 examined the electrical circuits that were up there in the
9 area of the ceiling fan and above the two year old bathroom.

10 During our examination the firefighters were
11 extinguishing hot spots on the infant room and in the
12 hallway, and during our on-scene examination our camera got
13 wet. I spent a great deal of time throughout the rest of the
14 incident drying the camera and getting the camera going. It
15 would work for an image, then we would have to take the
16 battery out and try it again. That was problematic. And I
17 spent quite a bit of time trying to get the camera going.

18 Another individual from the team is on a ladder
19 examining the circuits for the ceiling light fixture in the
20 bathroom and looking at the electrical circuits above the
21 bathroom.

22 Q So am I to understand part of your investigation you
23 were actually up on a ladder in the ceiling area of the
24 bathroom?

25 A At several points in the incident two of us are, yes.

1 Also we are looking at the panel box and indicating what
2 breakers are tripped and trying to identify from the panel
3 box what circuits or what breakers controlled electric to the
4 two year old bathroom and the two year old room.

5 Q Did you make any observations about the wood framing
6 members in the area of the two year old bathroom, sir?

7 A Yes. In the trusses that are directly above the
8 bathroom and directly above the ceiling fan, there is heavy
9 amount of charring in that area, and it is on the surfaces
10 that are lowest or facing or closest to the ceiling fan.

11 Q And we've seen a lot of pictures. Somewhat difficult
12 from the pictures to identify certain areas. Am I to
13 understand you actually looked at it with your own two eyes
14 on a ladder up there?

15 A Three of us did, yes.

16 Q Three of you did. And it was based on that. What did
17 what you found in the area of that exhaust fan indicate to
18 you, if anything?

19 A There is a heavy amount of charring to the bottom
20 surfaces of the trusses. The trusses would be the angle
21 parts that hold the roof sheeting and the shingles. The
22 pieces that are lowest or closest to the ceiling fan and the
23 bottom chord have a heavy amount of charring. It's also in
24 old terminology, old terminology was alligatoring. It is a
25 distinctive fire pattern that is used to document and predict

1 fire growth and fire progression.

2 Q And your examination of the trusses in that area, did
3 that indicate anything to you?

4 A Heaviest amount of charring and the deepest amount of
5 charring is an area directly -- in an area, immediate area of
6 the ceiling fan.

7 Q The exhaust fan, sir?

8 A Yes.

9 Q Now were there charring to the trusses in the classroom
10 as well?

11 A Yes. There is charring in trusses, in bottom chord in
12 the classroom, and that would be to the left of the parting
13 wall that separates the bathroom from the classroom, to
14 several aspects of the trusses.

15 Q In terms of the fan itself, you indicated you actually
16 investigated fires involving exhaust fans, is that correct?

17 A Yes.

18 Q Are there fuel sources associated with exhaust fans?

19 A The components are flammable. The materials that are in
20 the immediate area of the fans are flammable.

21 Q So you believe there was a sufficient fuel for this
22 fire, is that correct?

23 MR. DUGGAN: Objection, Your Honor. There is no
24 foundation for that. This was not part --

25 THE COURT: Sustained as to the form.

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1 Q Did you consider the fuel sources in the area of the fan
2 as part of your investigation, sir?

3 A Yes.

4 Q And what did you -- what conclusions did you reach, if
5 any, sir?

6 MR. DUGGAN: Objection, Your Honor. Same
7 objection.

8 THE COURT: Overruled. You may answer it.

9 A I determined that the ceiling fan was the origin of the
10 fire. There is, from my level of the investigation I know
11 that there is other people that have a responsibility to come
12 in after me. One of my ultimate responsibilities is to
13 determine if a crime is committed, to investigate the fire as
14 much as possible, and to protect the scene from spoliation
15 where people would intentionally destroy evidence. In this
16 case, being a commercial structure and a business, my first
17 thought was to remove the fan and safely remove this. I know
18 that this is a case that we don't know the cause yet but the
19 fan stands out as an important aspect of this case. The fan
20 is hanging in our way. The fan was removed.

21 Through the course of the investigation, I was able to
22 determine that the fan is the cause. We did not remove the
23 light fixtures for further examination. We were able to
24 visually examine it without removing screws or removing the
25 light fixture. All of that was done to protect the scene

1 because I know people are going to be coming in after me, a
2 series of people, private investigators from the insurance
3 companies that are involved. We did not remove the light
4 fixture and we didn't remove any components of it. I don't
5 have the expertise for that and to do that could be
6 spoliation of the scene. I also don't have expertise in
7 determining the failure or failure analysis of the ceiling
8 fan either, or exhaust fan.

9 Q The specific defect, if you will?

10 A Correct. But it is my responsibility to remove the fan
11 and preserve it for someone who has got that responsibility
12 and expertise after me.

13 Q Do you know if every piece of the part of the fan was
14 recovered?

15 A We looked for the grill or the grate that covers the fan
16 that is inside the bathroom, we looked for that.

17 Q Something that looks like this, sir?

18 A Yes, sir. And another part would be the armature that
19 has got, it would be two bearings, one on each end, and it
20 would be in the center part of the fan, which is a component
21 of the motor. Oftentimes they'll fall out. We looked for
22 that. At some point we discontinued excavating. We did not
23 clear the entire floor and we didn't sift all the debris that
24 was coming out of there or relocate it, and the debris was
25 piled up in an area right near the doorway so that someone

1 else could sift that for the fine parts of this ceiling fan.

2 Q My understanding though from your testimony earlier,
3 they may have hit that area with hand hoses?

4 A When the initial hand lines came in, firefighters were
5 extinguishing fire above that area, so there could be parts
6 anywheres in the bathroom.

7 Q And some of those parts may have melted as well?

8 A Perhaps.

9 Q What type of force do those hand hoses have, sir?

10 A Depending on the nozzle, they could be running anywheres
11 between 80 to 100 pounds of pressure, gallons per minute.
12 Gallons per minute.

13 Q A minute ago you referenced a light fixture. My
14 understanding there was a light fixture near the exhaust fan?

15 A Yes, sir. There is a fluorescent light fixture in the
16 suspended ceiling.

17 Q And you conducted a visual exam of that light fixture?

18 A Rob Middlebrook, who was on the fire investigation team,
19 did, yes.

20 Q Did your investigation indicate anything suspicious with
21 respect to the light fixture as the cause of the fire?

22 A He reported no abnormal electrical activity from a
23 visual examination and without removing any components or
24 removing the ceiling fan.

25 Q Sir, what's a junction box?

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1 A A junction box is usually a metal box that's octagon in
2 shape with a metal cover. It takes a single circuit that
3 would split it into multiple circuits to provide power for
4 multiple items. It's a connection point and it protects
5 connection of electrical conductors inside a metal box.

6 Q I'm going to show you what's been marked Plaintiff's 30.
7 Show you what's been marked P30. Do you recognize that, sir?

8 A I do.

9 Q Is there a junction box in that photo, sir?

10 A Yes, there is.

11 Q If you could, why don't you circle that junction box.
12 Do you know where that junction box was located?

13 A I believe it is to the west of the interior parting wall
14 that separates the bathroom, the two year old bathroom from
15 the two year old classroom. This junction box is likely to
16 be over top of the classroom area.

17 Q Not the bathroom?

18 A Not the bathroom.

19 Q And the wood in the area of the junction box is charred,
20 is it, sir?

21 A It is.

22 Q Now you gave a deposition in this case, is that correct?

23 A I did.

24 Q A couple years ago?

25 A December 20th, 2012, I believe.

1 Q Do you recall in your deposition identifying where you
2 believed the junction box was based on your review of the
3 photograph during the deposition?

4 A Yes.

5 Q Were you mistaken during your deposition?

6 A In preparing for my testimony today, looking at the
7 photographs, I did have an error during our deposition. That
8 went on for several hours and I believe I was exhausted by
9 looking at a number of photographs. And when you're looking
10 at photographs of the truss system, some of these trusses
11 look similar. In this particular case I was mistaken on the
12 orientation of the photograph.

13 Q How many photographs would you say you looked at during
14 your deposition?

15 A We looked at a series of photographs multiple times
16 throughout the course of three hours or so.

17 Q And you were up in that attic. And would you agree with
18 me that looking at photographs makes it very difficult to
19 orientate yourself when you're looking at the photos?

20 A I can tell you that the actual photographs appear
21 different than what you're seeing on a screen. When you're
22 on scene, what you see with a naked eye looks better than the
23 digital photographs or the photographs that are being
24 depicted here today. The charring is going to stand out
25 more.

1 The degree of charring where in the lower left-hand
2 corner you have crisp, sharp edges. And what you actually
3 have on scene there isn't depicted well here today is that
4 loss of the crisp, clean edges of the trusses. And what
5 you're looking at the truss, that is one of the areas of the
6 truss. It's at an angle. And it's to support the load on
7 the roof. You have charring on those and you have charring
8 on the bottom chord and there are several areas where you
9 don't have crisp, clean edges.

10 To the right of this image you have even more charring.
11 In the truss that I've indicated right here, that has more
12 charring on the right side in comparison to the other trusses
13 in this image.

14 Q Just so I'm clear, is the bathroom exhaust fan to the
15 right or to the left?

16 A It would be to the right.

17 Q So if I understand what you're saying, as you got closer
18 to the bathroom exhaust fan, the charring intensified?

19 A That's correct.

20 Q What does that indicate to you about the direction of
21 this fire?

22 A This indicates that the fire's progressing to the left,
23 to the west.

24 Q To the west. Just so we can all orient ourselves now
25 that we have the diagram up, what did that indicate to you

1 using the diagram, sir?

2 A I want to make it clear that I didn't take that
3 photograph. I'm looking at an image that was taken by
4 someone else. And my best guess is that this image is taken
5 from the hallway looking in that general direction. In the
6 bottom of the photograph you can see what appears to be the
7 door casing and it would be that door that leads to the
8 outside.

9 Q And, sir, would it be fair to say that the opinions on
10 cause and origin you're giving in this case in part, now you
11 indicated a lot of factors, but they were based on you being
12 out at that fire scene on the day of the fire, getting up on
13 a ladder and examining this area, is that correct?

14 A That's correct. And you had three people, a total of
15 three people conducting the investigation, two of which are
16 Level II fire investigators with a number of years of
17 experience. And it is the opinion of three people that the
18 cause of this fire was --

19 MR. DUGGAN: Objection, Your Honor.

20 THE COURT: Sustained. Disregard it, Members of
21 the Jury.

22 Q What was your opinion, sir?

23 A My opinion is that the cause of the fire is the ceiling
24 fan or the exhaust fan.

25 Q Now you indicated upon arrival to the fire scene, you

1 saw heavy smoke condition, is that correct?

2 A I did.

3 Q And we've seen a lot of photos of the fire scene at an
4 early stage with heavy smoke coming from the roof. You
5 talked to the firefighters first on scene, didn't you, sir?

6 A I had a brief conversation. My conversations were
7 primarily with the fire chief.

8 Q Were you aware of the heavy smoke conditions almost
9 immediately upon the fire chief's arrival?

10 A Yes.

11 Q Does that impact your opinion? Does that change your
12 opinion of where this fire originated?

13 A No.

14 Q Why not, sir?

15 A I believe that this fire had been burning for a while
16 before the occupants noticed the sparks or the glow red of
17 the exhaust fan. I think that the fire had a pretty good
18 start before anybody dialed 911. That's indicated by within
19 three minutes of the initial dispatch or four minutes after
20 the initial dispatch the fire chief's reporting smoke and
21 flames through the roof. I believe the fire had very good
22 progression before anyone noticed it.

23 The fire is burning at the level of above the suspended
24 ceiling and it's now progressed above the insulation and it's
25 a void or an area that the occupants wouldn't see. You

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1 wouldn't see until parts fell or there was some indication
2 below that. Even the smoke detectors I believe are located
3 below the suspended ceiling.

4 Q So they wouldn't have went off?

5 A Not until you have fire or smoke accumulating in the
6 ceiling level within an occupied space or a space where there
7 is a smoke detector.

8 MR. PAOLINI: Can I just have one minute, Your
9 Honor? I think I'm pretty close. No further questions.
10 Judge. I have one further question.

11 THE COURT: Go ahead.

12 Q Are all the opinions, Investigator Harloff, you've given
13 here today given to a reasonable degree of fire certainty?

14 A Based on my experience and training, I am certain,
15 reasonably certain that the fire originates as I documented
16 in my report.

17 MR. PAOLINI: Thank you.

18 THE COURT: Cross-examination?

19 *CROSS-EXAMINATION BY MR. DUGGAN:*

20 Q Good afternoon, Mr. Harloff.

21 A Good afternoon.

22 Q We've met before a couple weeks ago, did we not?

23 A We did.

24 Q I think you just testified near the end of your
25 examination by Mr. Paolini that it's your opinion that this

1 fire was a smoldering fire, right?

2 A It was in my deposition, yes.

3 Q It was also what you just told the jury. It was going,
4 I think you said, pretty good for a long period of time,
5 right?

6 A Correct.

7 Q And one of the reasons you came to that conclusion was
8 that you know from what was marked as Plaintiff's
9 Exhibit 21 -- maybe we could show Plaintiff's Exhibit 21,
10 which is the event summary report.

11 THE COURT: Is this a Defense Exhibit?

12 MR. DUGGAN: It's actually Plaintiff's Exhibit 21.
13 It's also Defendant's Exhibit 4. Either one, it's the same
14 document.

15 THE COURT: It's called an event summary report?

16 MR. DUGGAN: Yes, Your Honor.

17 Q Let's help the jury understand what this report is.
18 Down at the bottom, the lower part there, can you all see
19 that?

20 JUROR: No.

21 MR. DUGGAN: Can we increase?

22 JUROR: Now we can.

23 Q Drag it over a little. The 27, that indicates the
24 Victor Fire Department, doesn't it?

25 A Yes, it does.

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1 Q And the 8 indicates the Farmington Fire Department?

2 A It does.

3 Q And the F270, that's the chief's vehicle for the Victor
4 Fire Department?

5 A That's correct.

6 Q And I think you told us that was Chief John McConnell?

7 A I believe that it is Chief John McConnell.

8 Q According to this document and what he told you as well
9 on the scene, Chief McConnell, the call came in at 1700,
10 5:00, right?

11 A Right.

12 Q That's up there in the upper left, correct?

13 A Actual time that it starts is 1659, which is well above
14 that. 1659.19, that's when the card is started and the
15 dispatcher is talking with the caller to create a run card
16 and to input information. The dispatch time when they are
17 dropping tones and announcing to the fire department they
18 have a call is 1700.

19 Q So that's 5:00?

20 A It is.

21 Q And at 5:00 Chief McConnell is dispatched and he leaves
22 at 1703, three minutes past five?

23 A Correct.

24 Q So we understand how this reads. And that next line
25 over there in the column where it says 1097, underneath that?

1 A Yes.

2 Q That 1704, that means he is on the scene?

3 A That's correct.

4 Q And you know, don't you, that when he was on the scene,
5 he saw something that looked like this, D01?

6 A He is describing to me a heavy smoke condition.

7 Q Something that looks just like this, correct?

8 MR. PAOLINI: Objection, Your Honor. That
9 misstates his testimony.

10 Q Is that right?

11 A I have not seen this image. And he is describing a
12 heavy smoke condition on his arrival.

13 Q And you told me and you told the jury and Mr. Paolini
14 that he was driving a vehicle, a Victor Fire Department
15 vehicle, correct?

16 A That's correct.

17 MR. DUGGAN: May I approach?

18 THE COURT: Did you say it was an SUV?

19 THE WITNESS: Yes. I think I said a Suburban, a
20 command vehicle I think is my testimony.

21 Q A command vehicle from the Victor Fire Department?

22 A Correct.

23 Q And in the lower right-hand corner of this document, is
24 that Chief McConnell's vehicle right there?

25 A It does appear to be.

1 Q And do you know if the black vehicle here is Chief
2 Lavery?

3 A I do not know whose vehicle that is.

4 Q In any event, the rest of the fire apparatus has not yet
5 responded at this time? It's not in the picture?

6 A It's not on scene. It may have responded.

7 Q I understand. It's been dispatched, it's not quite
8 there yet, right?

9 A I do not see it in the image.

10 Q Fair enough. But I'm just getting to this. Is one of
11 the reasons that you think that this -- you know that this is
12 a long smoldering fire, is that there is no way that you can
13 get from a glow in a thing like this, a ceiling fan, to what
14 looks, what's depicted in DO1 in ten minutes, isn't that
15 true?

16 A I believe the fire is above the suspended ceiling where
17 the occupants aren't going to see it and that could burn for
18 some period of time before the occupants see it.

19 Q Let's talk about that. But before I get there, just to
20 get an answer to my question. You think that is burning up
21 above the roof joists, right?

22 A I believe it's burning above the suspended ceiling.

23 Q Let's talk about how the construction is. Because this
24 was a somewhat unusual construction for a building like this,
25 wasn't it?

1 A I don't know what you're referring to.

2 Q Well, you've got a dropped ceiling here which is
3 acoustic tiles, correct?

4 A Correct.

5 Q And that's how it was at the scene, correct?

6 A Correct.

7 Q And then you have a space of some distance?

8 A Correct.

9 Q Did you measure the space from the bottom of -- top of
10 the dropped ceiling to the bottom of the trusses?

11 A I measured from the floor surface to the suspended
12 ceiling, and I also measured from the floor surface to the
13 bottom chord of the trusses, yes, I did.

14 Q Was that measurement -- can you tell me what you found
15 that measure to be?

16 A It is in my report, which is Exhibit P23, and it's on
17 page 4.

18 Q So --

19 A To answer your question, the ceiling fan's position was
20 5-foot 7-inches east of the wall that separates the bathroom
21 from the two year old room. It says that the suspended
22 ceiling was 9 feet from the floor surface and the level of
23 the truss, the bottom chord is 12 feet from the under surface
24 of the chord to the floor surface.

25 Q So you think there would be about 3 feet of space

1 between the acoustic tile and the trusses?

2 A According to the measurements that was provided.

3 Q You took them or you were provided them?

4 A It's my handwriting in a field note, so I'm assuming
5 someone else measured it and told me, which is pretty typical
6 for one person to keep some notes.

7 Q Somebody else took some notes and somebody told you
8 there was 3 feet between the acoustic tile and the bottom of
9 the trusses, right?

10 A To be clear, they're reading off a measurement and I'm
11 writing it down. They're telling me exactly what I have in
12 my report. It doesn't give -- you would have to do the math
13 to come up with the distance.

14 Q Did I do the math correctly? Twelve minus nine is
15 three?

16 A Your question was did they tell me that the space was
17 3 feet. They didn't tell me that. They told me the
18 measurements and I recorded the measurements.

19 Q You didn't take the measurements yourself?

20 A That's correct.

21 Q In any event, we can agree that comes to 3 feet?

22 A Correct.

23 Q The trusses, looking at my mock-up here, have been
24 marked, if I may, C and B. These would be the trusses,
25 correct?

1 A The bottom chord of the truss.

2 Q The bottom chord of the truss. And then the diagonal
3 chord would be over like this or something in the back.

4 Great. You know, don't you, you found that there was
5 insulation, paper backed insulation that was stapled to the
6 bottom chord of the trusses?

7 A There is insulation in that space that is attached to
8 the bottom chord of the truss, correct.

9 Q And the insulation is paper backed insulation, right?

10 A I don't recall if it's paper back or foil back.

11 Q It does make a difference to you as a fire investigator,
12 doesn't it?

13 A It does.

14 Q Because paper backed insulation in a space like this is
15 a violation of building code, isn't it?

16 MR. PAOLINI: Objection, Your Honor. There has
17 been no foundation for this at all.

18 THE COURT: What is the relevance of it?

19 MR. DUGGAN: It's a fire hazard.

20 MR. PAOLINI: Judge, may we approach?

21 THE COURT: Yes.

22 (Sidebar discussion on the record.)

23 MR. DUGGAN: Actually, I didn't think it was going
24 to take all that long. I thought it was pretty easy. All
25 I'm trying to put in is that there is a space in between

1 here, and he is a fire investigator, he is supposed to
2 investigate the burn patterns and all this, and this impacts
3 directly burn patterns, and there is a void space that's not
4 supposed to be there.

5 THE COURT: I don't know if it is, but you're
6 saying it does.

7 MR. PAOLINI: That has nothing to do with whether
8 it's a code violation. Being a fire investigator and someone
9 who gives opinions on code are completely different things.
10 And the paper didn't cause the fire, there is no suggestion.

11 THE COURT: You can bring your own witness in on
12 that.

13 MR. PAOLINI: Exactly.

14 THE COURT: It's outside. I thought you said you
15 weren't going to go into it.

16 MR. DUGGAN: I wasn't going to until he went into
17 all this other stuff. I apologize. I had no intention to
18 get into it. All I want to do is that this is an unusual
19 building construction.

20 THE COURT: I'm going to tell them to disregard.

21 MR. DUGGAN: Okay.

22 (Sidebar discussion concluded.)

23 THE COURT: Disregard the last question about the
24 insulation and the nature of it at this time, disregard it.

25 MR. DUGGAN: May I proceed, Your Honor?

1 THE COURT: Yes.

2 BY MR. DUGGAN:

3 Q There is no doubt that there was a space in between the
4 bottom of the insulation and the top of the acoustic tile,
5 correct?

6 A Correct.

7 Q And then over the top of the insulation you have a
8 stringer that ran all the way down the center of the two year
9 old room, do you not?

10 A Correct.

11 Q And you understand what stringers are used for?

12 A I do.

13 Q Can you tell the jury what stringers are used for?

14 A To maintain the spacing during construction. Also can
15 run electrical circuits for that structure. It's generally
16 attached while the trusses are put in place.

17 Q So when you're building a building, the contractor is
18 going to use the stringers to make sure that the truss chord,
19 the bottom truss chord maintain the right distance apart?

20 A Consistent distance apart, right, correct.

21 Q For the whole length of the building in this case,
22 right?

23 A Correct.

24 Q If not, the building gets out of joint and they have
25 measurement problems basically, right?

1 A Correct.

2 Q And the stringer, you actually see a stringer in what is
3 depicted here in Exhibit D34, right?

4 A Correct.

5 Q And that's -- can you just point to the jury where the
6 stringer is? Now the stringer actually goes the entire
7 length of all of the trusses, the truss chords, from east to
8 west the whole building, right?

9 A Correct.

10 Q And so you would expect to see, looking at Exhibit D36,
11 that prior to the fire you would see stringers like this the
12 whole length east to west of the building, right?

13 A Correct.

14 Q And looking at D36 you've got east over here, west over
15 here on my right, east over here, and there is the two year
16 old bathroom with the blue square?

17 A Okay.

18 Q Okay. And so there is a stringer that runs the whole
19 length of the building just to keep the trusses in place,
20 right?

21 A Correct.

22 Q And then that's over, the stringer is over the
23 insulation, right?

24 A It's attached to the top surface of the bottom chord.
25 Yes.

1 Q Yeah?

2 A If the insulation is attached to the bottom surface or
3 the bottom chord, then yes, the stringer would be above that.

4 Q Okay. And I think you were telling us that you think
5 the fire could have been cooking for a long time up above the
6 insulation?

7 A Above the suspended ceiling.

8 Q And that could happen without the occupants even knowing
9 it?

10 A That's correct. That's my testimony.

11 Q Because the smoke detectors are below?

12 A Correct.

13 Q And the acoustic tile is actually going to prevent noise
14 and such getting into the hearing of the occupants, right?

15 A I'm not sure what impact the acoustical tiles are going
16 to have on the occupants not hearing any crackling or any
17 sound of fire above them.

18 Q You told us that this fire could have been going for a
19 long time without anybody knowing it?

20 A I believe the fire is burning prior to anybody noticing
21 it for some period of time, yes, sir.

22 Q Would it be more than twenty minutes?

23 A I don't have a time frame.

24 Q But in any event, you know that certainly a lot more
25 than twenty minutes before it can get to D1, we would agree

1 with that?

2 A I would agree that it's been burning for some period of
3 time. I don't want to put a time frame to it.

4 Q Okay. Now you also know that going back to Exhibit D4,
5 P21, the event summary report, at the top, in the middle
6 where the notes are, the note structure?

7 A Yes.

8 Q Room in structure in the comments, and then back here
9 there are notes, right?

10 A Correct.

11 Q This reads in reverse chronological. So if you want to
12 find out what the reports are going from the men on site to
13 the dispatcher, you read from the bottom up?

14 A The earliest notes are at the bottom and it goes later
15 in chronological order.

16 Q And so the first note we have here is dated and timed
17 1705.23, correct?

18 A Correct.

19 Q In other words, five minutes past five and 23 seconds,
20 right?

21 A Correct.

22 Q And at five minutes past 5:00, what does Chief McConnell
23 report?

24 A Fire through the roof. This could have been a second
25 call. This could have been a radio observation or a radio

1 transmission. This line right there just indicates that the
2 dispatcher has picked up the phrase "fire through the roof."
3 Could have come from multiple sources both on radio or by
4 additional callers.

5 Q Whether it was Chief McConnell or somebody else, at five
6 minutes after 5:00 there was fire through the roof?

7 A Correct. And this only identifies the dispatcher. It
8 does not identify the source of that information.

9 Q But of course if we were to look down a little bit
10 lower, as of 1704 the only people that are logged on on the
11 scene, Chief McConnell is the only one there?

12 A Correct. Again this could come from another caller to
13 the 911 center. This does not indicate that 270 in this
14 case, or Chief John McConnell, is making that statement at
15 that time.

16 Q True, okay. I want to talk a little bit about your
17 investigation, because you mentioned that there was some
18 people that assisted you, correct?

19 A Correct.

20 Q And they took some photographs, right?

21 A We, all three of us, took photographs.

22 Q Most of the photographs were taken by Inspector
23 Middlebrook?

24 A Investigator Middlebrook, Robert Middlebrook.

25 Q And some were taken by Deputy Chief Parish?

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1 A Deputy Fire Coordinator Lynn Parish.

2 Q And you took a few yourself?

3 A Correct.

4 Q But most of them were Mr. Middlebrook?

5 A Correct.

6 Q We marked them here as Defense Exhibit 3 and we put
7 them -- you produced them so that we have your number on
8 them. It starts 228. Okay?

9 A Okay.

10 Q There are 116 photographs in this file, are there not?

11 A I don't know the exact number.

12 Q Would you take my word for it if I told you?

13 A I would.

14 Q Thank you very much. Let's go over and look, perhaps we
15 can look together at 276.

16 THE COURT: Is that Exhibit 276?

17 MR. DUGGAN: This is Defense Exhibit 3. And all of
18 the photographs are in the order that were numbered by the
19 Emergency Management Office, Your Honor. And the number
20 starts at 228 and ends at 344 with a few missing.

21 THE COURT: All right.

22 Q Do you recognize, sir, what's depicted in Defense
23 Exhibit 3, your photographs, 276?

24 A I believe this is an image inside the two year old
25 classroom and looking to the west. The north exterior wall

1 would be on the right with the window on the right side of
2 the image.

3 Q So this is taken almost looking from the bathroom back
4 toward the west, right?

5 A It appears to be, yes. Or away from that parting wall.
6 But at any rate in looking to the west.

7 Q And does this fairly depict what you saw at that time
8 after the fire was suppressed?

9 A Yes.

10 Q I believe you told me in your deposition, I believe you
11 told Mr. Paolini too, that one of the tools that you use or
12 the things that you consider in determining where the fire
13 originates is damage and depth of char and things like that,
14 right?

15 A Correct.

16 Q And this was the damage that was in the two year old
17 room as depicted in your photo 276?

18 A Correct.

19 Q Let's go to photograph of the two year old bathroom, say
20 292. Do you recognize what's shown in photograph 292?

21 A I do.

22 Q A couple things. You mentioned that you got some water
23 on your camera while you were taking pictures?

24 A The camera was ruined. And not some, a lot of water.

25 Q But that explains the purple-ish hue here, correct?

1 A When the camera was working, we have different hues
2 throughout the series of photographs; some are purple, some
3 are a pink-ish hue or a red-ish hue, yes.

4 Q But you did the best you could with the tools you had?

5 A Yes.

6 Q And despite the fact that that had that water on the
7 camera, you were able to take a few pictures of the two year
8 old bathroom, right?

9 A Correct.

10 Q And this is one of them?

11 A Correct.

12 Q And this is how the wall appeared?

13 A I'm sorry?

14 Q The wall is to the right?

15 A The center hallway, and that is a parting wall between
16 the hallway and the bathroom.

17 Q Actually I'm glad you brought that up. Because there is
18 actually an office in between the --

19 MR. DUGGAN: If I may approach, Your Honor?

20 THE COURT: Yes.

21 Q I'm going to approach and show you Exhibit P120. Can I
22 put this in front of you, Mr. Harloff? Does that fairly
23 depict the area of the interior of the building?

24 A It does.

25 Q And you see that there is the two year old room here on

1 the left-hand side, right?

2 A Yeah.

3 Q And then there is the toilet room, right?

4 A Yes.

5 Q And then just to the south of the toilet room there is
6 another room actually, isn't there?

7 A Yes.

8 Q So that wall that you see here is not the wall to the
9 hallway. It's actually the wall to an office, isn't it?

10 A Can I see that again? Yes.

11 Q Absolutely, sure.

12 A Yes. I stand corrected.

13 Q Okay, no problem. And there is no damage on the wall
14 here except little buckling at the joint, right?

15 A Correct.

16 Q And right above the room at the top of the picture, is
17 that called an air diffuser?

18 A I believe it is.

19 Q And the air diffuser is what brings cooler air, HVAC
20 air, or hot in the wintertime into the space, right?

21 A Correct.

22 Q Did you examine that air diffuser at all?

23 A I did not.

24 Q Do you know if there is any deflection in the metal in
25 that air diffuser at all?

1 A I don't have the answer to that, no.

2 Q Did you look at it? Did you photograph it? Did you do
3 anything to document the condition of the air diffuser?

4 A Rob Middlebrook was above the suspended ceiling and
5 above the insulation in that area and he did take some
6 photographs up there. I do not know whether he visually
7 examined it or not.

8 Q Can you show me in any of the pictures that you have,
9 any picture of the air diffuser other than what we see?

10 A Other than this image here?

11 Q Yeah.

12 A I believe there is only one or two off the top of my
13 head.

14 Q But also from the floor, not from up top, correct?

15 A Correct.

16 Q Right next to the air diffuser is a space where there
17 would be a dropped ceiling, right?

18 A Correct.

19 Q And above the dropped ceiling for some distance there is
20 the insulation, right?

21 A Correct.

22 Q And where that arrow is is insulation?

23 A It is.

24 Q And there is -- did you note that there is still paper
25 on the insulation at that area?

1 A I did.

2 Q And you did?

3 A I can see that there is some material, whether it is
4 foil back or paper, I do note that it is there.

5 Q And you know that that is the area where the fan was
6 prior to the fire, right?

7 A I do.

8 Q Looking a little bit to the left on this photograph
9 where there is the two-by-four that goes up and down, do you
10 see what I'm pointing to?

11 A I do.

12 Q At the very top of that, the view is a little bit
13 skewed, but there is a piece of the acoustic tile that is
14 remaining, correct?

15 THE COURT: Where are you pointing to?

16 MR. DUGGAN: Right there.

17 Q That's part of the acoustic tile in that system?

18 A Okay.

19 Q Does that look like it?

20 A It appears to be, yes.

21 Q And the edges where it's broken off, does that appear to
22 be mechanical damage to you as a fire investigator?

23 A I can't tell from this photograph.

24 Q Did you make any effort to determine whether the damage
25 that you see or the missing pieces of that acoustic tile were

1 burned away or mechanically damaged by firefighters?

2 A It would depend on the area, but there is -- on the
3 floor surface of the bathroom there are several pieces of
4 tiles from the suspended ceiling. Whether they fell out
5 during the fire, burned away or were pulled down by
6 firefighters, I do not know.

7 Q Because you didn't go into this room until well after
8 suppression was done, correct?

9 A After the fire was suppressed, yes, and after the fire
10 was placed under control.

11 Q And we have -- you pointed out another picture where
12 there was a fan hanging down by cables?

13 A Correct.

14 Q Is that called Romex cable?

15 A It was electrical conduit, yes.

16 Q Do you know if that fell down as a fire or if it fell
17 down when firefighters were checking for extension?

18 A I believe it is suspended during the fire event and
19 before extinguishment, and that is going to cause the deep
20 charring to that post or the two-by-four, dimensional
21 two-by-four that is in the left side of that image. That is
22 a post that provides rigidity to the stanchion or the wall
23 that separates the two toilets, commodes.

24 Q My question, did you go in there while the firefighters
25 were suppressing the fire in that room?

1 A Not while they were running hand lines, no, sir.

2 Q Do you know which department actually went into the
3 bathroom?

4 A I don't.

5 Q Did you talk to any of the firefighters who went into
6 that bathroom?

7 A Generally. But we didn't do a recorded interview and we
8 didn't do an interview statement, if you will, of each of the
9 firefighters in determining who is on the tip and what is the
10 manpower for each hand line. That I did not document. We
11 did have conversations with the first line in and the
12 firefighters that were on the first line that went to the
13 bathroom, I did have a conversation with them.

14 Q Well, the first in firefighters, was that Sean McAdoo?

15 A I don't recall today.

16 Q Did you document it anywhere in your report?

17 A I did not document the names of the firefighters of the
18 first hand line in the structure.

19 Q Would you agree with me that NFPA 921 says you should
20 document things like that?

21 A Again, it's a guideline and not a standard.

22 Q Would you agree with that NFPA 921 says you should
23 document things like that?

24 A I would agree with that.

25 Q So this was the -- this does fairly depict the condition

1 of the two year old bathroom when you saw it, correct?

2 A It does.

3 Q And photograph 276 fairly depicts the condition of the
4 two year old room when you saw it, right?

5 A Yes.

6 Q Any of the ceiling tiles still there?

7 A It appears to be that they are removed.

8 Q Any of the insulation in the top still there?

9 A It appears that it has been removed.

10 Q Has it been removed or has it been burned in the fire
11 and now dropped on the floor?

12 A I believe it's removed by firefighters.

13 Q Okay.

14 A And the reason for that is it's laying in this image.
15 If it was burned out by -- this is typical of the fire
16 service. They will hook and pull the insulation down to make
17 sure with the case of an attic fire that all visible fire is
18 extinguished. With the insulation in place, you can't see
19 the visible fire so they will hook the insulation and pull
20 that down.

21 Q To make sure there is no fire in the truss system?

22 A That's correct. And the other thing, if it had burned
23 away and it was not removed by firefighters, there would be
24 some that would be slightly hanging from that bottom chord.
25 In this case it appears it's been pulled out by firefighters.

1 Q You mean slightly hanging like this one that I'm
2 pointing to?

3 A Yes. In multiple areas within that space. Here it
4 appears they're standing in the center of the room and had
5 pulled that down.

6 Q One of the things you also testified to was the burn
7 pattern you think you saw on the fan housing, correct? You
8 said there was some white on the fan housing. Can we show
9 that to the jury? You testified that there was white burn
10 marks on the fan housing and that was one of the reasons you
11 thought the fire originated at this fan, right?

12 A I noted it as an abnormal condition, not something
13 typically seen. If it was from a secondary ignition source,
14 you would have a white discoloration for a majority of the
15 metal component of the housing. Here it was in a specific
16 area. It seemed abnormal to me.

17 Q Just limited to a specific area?

18 A It was in two spots of the metal housing. And someone
19 who does failure analysis after I'm done with the fire will
20 take that device and do further testing beyond the scope of
21 what I would typically do.

22 Q Sure. And there was a ceiling light in the dropped
23 ceiling right next to this, wasn't there?

24 A There was.

25 Q And that ceiling light is right there on photograph 302,

1 your photograph 302, right?

2 A There is.

3 Q There is burn patterns on that one, too, white there on
4 each side, correct?

5 A That's correct.

6 Q So that's exactly the same as the white burn pattern
7 that you saw in the fan, right?

8 A They are similar discoloration, yes.

9 Q Now you said that you didn't personally investigate
10 anything having to do with that light housing, correct?

11 A That's correct.

12 Q Would you agree with me that it would be consistent with
13 921 at least to preserve it?

14 A Yes.

15 Q Because you never know what you're going to find from an
16 initial investigation. Things develop over time, right?

17 A That's correct.

18 Q And you know that sometimes what you see, originally
19 what you think you see, turns out not to be the case upon
20 further investigation?

21 A As additional information comes in from a variety of
22 sources, but yes.

23 Q It would be very important to label that particular
24 light housing for further investigation study and to preserve
25 it, correct?

1 A My part is to make a reasonable attempt at cause and
2 origin investigation. We visually, the team visually
3 examined that fixture and ruled that out as an ignition
4 source. It is not my job to indicate to other fire
5 investigators that are coming in behind me that they should
6 look at this to rule that out. That would be not consistent
7 in the industry and that would be sending someone down a hole
8 or a bad direction. It wouldn't be an objective
9 investigation.

10 Q My question only was, to do an objective investigation,
11 you preserve everything for further analysis if you can,
12 right?

13 A Correct.

14 Q And because you said I think it was Investigator
15 Middlebrook who looked at that from the outside?

16 A I believe it was.

17 Q But nobody took it down, right?

18 A That's correct.

19 Q Nobody looked into the ballast, did they?

20 A Again, in order for us to look at the ballastor, take
21 that shield off, we're removing screws, and there is a
22 potential to lose parts, which would be spoliation and would
23 drastically or possibly negative the effect of a subrogation
24 case like we are doing here.

25 Q Sure. But at least somebody should have consistent with

1 921 preserved that, noted it and investigated it later,
2 wouldn't you agree with that?

3 A We preserved it by leaving it in the ceiling.

4 Q I understand that. You didn't do anything other than
5 look at it from the outside, you and Mr. Middlebrook,
6 correct?

7 A Correct.

8 Q But consistent with 921 it would be incumbent on someone
9 to preserve that and label it and make sure that you have a
10 full opportunity, everybody has a full opportunity to look at
11 it later?

12 A Correct.

13 Q What happened to it?

14 A It was there when we left. I don't know what happened
15 after we left.

16 Q You left the scene after what, about 7:00 that night,
17 8:00?

18 A Again, I think the CAD report shows 2034, although I'm
19 not sure if this is an accurate time period.

20 Q So you were there for five hours or so, four hours?

21 A Three hours, four hours.

22 Q And did you do any more investigation or study into this
23 case other than those three to four hours?

24 A Yeah. There is collecting information, getting the real
25 property tax information, follow-up with individuals, sure,

1 and the narrative report.

2 Q You did all that. But the narrative report is basically
3 putting together what you've already concluded, correct?

4 A Correct.

5 Q And that getting a tax shield is going to the tax
6 department and putting that into the file, correct?

7 A It's requesting information in forms, taking it,
8 revealing it and incorporating it into the case file.

9 Q And you actually have a checklist in the case file and
10 that's one of the things on the checklist, right?

11 A It is.

12 Q But my point is in terms of trying to determine what the
13 origin or cause of this fire was, you had basically concluded
14 your work by 8:00 that night, is that true?

15 A No.

16 Q What else did you do?

17 A Again, we have to write the report and collect the
18 information. My opinion is done when I sign it.

19 Q And that was within a couple of days?

20 A Here it shows September 25th, 2009.

21 Q And since then you didn't do any other work? You didn't
22 do any study on the case?

23 A Spent a lot of research and several hours studying
24 photographs preparing for depositions and for trial.

25 Q Right. I understand. But I'm talking about in trying

1 to determine the cause and origin. You didn't do any testing
2 on any of the products, did you?

3 A We did not.

4 Q You didn't go to any of the investigations or the
5 products that were taken from the scene, did you?

6 A We were not invited to the failure analysis by either
7 the insurance company or the owner or anyone else involved in
8 the case.

9 Q By the way, this photograph 302, can you show -- can you
10 just point to us, put an X where you think the fan was prior
11 to the fire?

12 A My best guess is it's in this area, but I would want to
13 look at all of my photos to make a final confidence in saying
14 that's where that is.

15 Q Let me see if I can help you out. You said that the fan
16 was hanging down on a piece of Romex, I think?

17 A Yes.

18 Q There is three wires in the Romex cable?

19 A The electrical circuit, yes.

20 Q This looks like a spiral winding that would be something
21 of a hose or a duct?

22 A It does.

23 Q Is this maybe the area, the conductor to the fan?

24 A I would like to see my photographs, but I believe it's
25 in this corner and that is the circuit for the fan, but I am

1 not 100 percent certain.

2 MR. DUGGAN: May I approach, Your Honor?

3 THE COURT: Sure.

4 Q These are your photographs. They're in order, it starts
5 with 228. I can probably point to some if they're going to
6 help you. You might want to try 292, 293 and 294.

7 Mr. Harloff, maybe I can help you a little bit. If you move
8 to 292. This one I had blown up. I think you may have
9 already even marked on it.

10 A Okay.

11 Q And wasn't the fan in right next to the air diffuser?

12 A It was.

13 Q So that would have been between what we call the C, D
14 truss right here, am I correct about that?

15 A Correct.

16 Q Not down here?

17 A I believe the measurements are going to show that it's
18 where your finger is placed.

19 Q And can we agree that's between the C and D truss, these
20 two?

21 A Okay.

22 Q Immediately next to the diffuser?

23 A If that's your identification on this other.

24 Q On the drawing, right?

25 A Sure.

1 Q With the insulation intact on here, right?

2 A Yes.

3 Q I think you talked about depth of char as being one
4 indication of where the longest burn was, right?

5 A Correct.

6 Q And the longest burn is an indication of where the fire
7 actually originated, correct?

8 A Yes.

9 Q I'm going to show you what we marked as D34.

10 MR. DUGGAN: I know we're getting late, Your Honor.
11 I'm going to finish this line and end when you tell me.

12 Q Can we put up D34?

13 THE COURT: What did you just say?

14 MR. DUGGAN: Exhibit D34, and the image is 9016.
15 There are so many pictures in this case, Your Honor, we had
16 to use an unusual convention.

17 THE COURT: Okay.

18 Q Mr. Harloff, are you all set?

19 A Yes.

20 Q I'm showing you now a picture that we marked as Defense
21 Exhibit D34. I'll tell you it was a photograph taken by
22 Mr. DeMatties, who is actually sitting back in the courtroom
23 back there. You see that this is the area of the bathroom?

24 A Yes.

25 Q Looking at this part, this picture here, this part where

1 I have my finger?

2 A Yes.

3 Q Do you agree with me that there is no damage and no
4 burning on that piece of wood at all?

5 A Yes.

6 Q Would you agree with me as I move from this truss to
7 this truss, that there is virtually no damage? In fact, no
8 damage at all to that?

9 A Correct.

10 Q And as I move from this truss to this truss, there is no
11 damage on that either, is there?

12 A That's correct.

13 Q A little bit of sooting but no damage, right?

14 A Correct.

15 Q And then as I move from this truss to that truss, you
16 still have no damage until the very, very end, correct?

17 A It appears that way, correct.

18 Q Would you agree with me that that indicates the fire
19 certainly didn't start here where it's all white? Didn't
20 start there, did it?

21 A You're looking at the under surface and I'm not sure
22 exactly where this photograph is taken and what truss bottom
23 chord we're looking at. I can say that you need to look at
24 the top surfaces of this stringer. You also need to look at
25 all of the surfaces of the truss up there in this particular

1 case because the fire originates above the suspended ceiling.

2 Q But you'll agree with me that there is from this truss
3 to that truss, you said there's no damage to this piece of
4 wood, right?

5 A There is no damage to that portion of the stringer,
6 that's correct.

7 Q So the fire didn't start here, we can agree to that,
8 can't we?

9 A Sure, yes.

10 Q And then we move from this truss to that truss, there is
11 no damage to that either, is there?

12 A Not on this, not at this angle.

13 Q So the fire didn't start here, right?

14 A Sure.

15 Q Okay. And then we move from this truss to that furthest
16 truss on the right of Exhibit D016. If the fire had any
17 major impact to burn, it's way over here on the very right
18 hand where this truss and this stringer intercept, right?

19 A We're looking at one angle and you're asking me to make
20 an opinion based on just one angle. There is a lot more to
21 an on-scene examination and making an opinion of the
22 progression or the direction of the fire. We're looking at
23 just one surface of that stringer. So I would want to look
24 at other aspects including the top surface of that stringer
25 before I rendered an opinion.

1 Q Okay. Would you agree with me that it would be nice to
2 see the rest of this stringer as it goes in this way as I'm
3 standing on it, which would actually be west? It would be
4 nice to see what happened to the stringer west, right?

5 A Sure.

6 Q That would be important, right?

7 A Correct.

8 Q Because depth of char is one of the things you talked
9 about as one of the tools you used to determine where a fire
10 started, right?

11 A Correct.

12 Q So if you have really deep charring on the stringer to
13 the right of this picture, that would indicate to you that
14 the fire -- at least that's one occasion the fire would start
15 over there and not where there is no burning, right?

16 A Correct.

17 Q Okay. Let's take a look at the Exhibit 8934, it's
18 Defense Exhibit 34, image 8934.

19 THE COURT: It's image 9016?

20 MR. DUGGAN: The other one was 9016, yes, Your
21 Honor.

22 Q Do you recognize what's shown here?

23 A It's the truss of the fire building.

24 Q And is that in the two year old room?

25 A I don't know where that image was taken.

1 Q Can you -- can we agree that the deepest possible char
2 is when the whole board is burned away? Can we agree to
3 that?

4 A Sure.

5 Q So can you see any remnants of stringers right down the
6 middle of that room that's shown on D34, 8934?

7 A It appears that they are not there.

8 Q There are actually a few remnants, though, aren't there?
9 That's how we know they were there in the first place, isn't
10 it?

11 A At the top of the image it looks to be a stringer, yes.

12 Q And we're talking about this one right here next to the
13 junction box that you were talking about, right? Correct?

14 A I was referring this other one.

15 Q This one here?

16 A Yeah.

17 Q So this stringer exists in total almost, at least on
18 this picture, right? I mean just there, there it is?

19 A Between those two trusses it appears to be there, yes.

20 Q The one next to it is you see a little bit of it, right?

21 A Yep.

22 Q And then as you head toward the next junction box, the
23 stringer is gone, right?

24 A It appears to be, yes.

25 Q And then as you head to the next junction box, past the

1 next junction box by one, two, three trusses, you see a
2 little bit left of the stringer, right, that's how we know it
3 was there, right?

4 A Correct.

5 Q And then as we move further down, this may not be the
6 best image, we can find some later, you see that on this, the
7 next one, there's really deep charring and burning here,
8 right?

9 A From this angle it's difficult to see.

10 Q Can you look at it on your monitor?

11 A I see the reflection from the flash of the camera.

12 Q Do you see any of the remaining truss or stringer?

13 A I can.

14 Q After this, do you think there is a stringer down here?

15 A I cannot see the stringer, no. But I can see the truss,
16 the bottom chord of the truss there.

17 Q Right here. But then the stringer's gone?

18 A I can't say that with 100 percent accuracy with this
19 image.

20 Q You would agree with me, though, that if the stringer
21 was gone, it would certainly indicate there was far more
22 burning in that area than where the stringer was completely
23 intact?

24 A Not necessarily.

25 Q You think there would be more burning where the stringer

1 was completely intact?

2 A I believe that firefighters may have pulled that out
3 when they're pulling the insulation in this room. I feel
4 that the firefighters have pulled the insulation in this room
5 and it's possible to remove portions of the burned stringer
6 in that room while they're removing the insulation. You
7 would have to look up there to what is remaining of that
8 stringer to see if it's burned or whether it was broken away
9 or some indication that it was hooked out of there.

10 Q Let's assume, that you can do as an expert, that the
11 stringer was actually burned away except those few remnants
12 that we see. Take that assumption. Would you agree with me
13 there was far more burning there than over the stringer that
14 was completely undamaged?

15 A Yes.

16 Q Would you agree with me that it's far more likely that
17 the fire began where all of this deep burning and charring is
18 than where the stringer is completely undamaged?

19 A The fact that the stringer is missing is not an
20 indication of where the fire originates, not in and of
21 itself. There is a lot more involved than just identifying
22 that the stringer is missing.

23 Q Sure. But that is one factor that you have to consider,
24 isn't it? You pointed out what was the deepest point of
25 char. And the deepest point of char is where the whole thing

1 is gone, right?

2 A Correct.

3 Q If the whole thing is gone, that tells you that there
4 was far more burning there and definitely far harder there
5 than where a board is untouched, isn't that true?

6 A In this case the fire is progressing that way so you're
7 going to see deep charring there. You can't say that the
8 fact that the stringer is missing identifies the area of
9 origin.

10 Q Let me ask you a couple questions about your
11 photographs. Your Honor, I have some more time.

12 THE COURT: Well then what we'll do, we'll recess
13 at this time until tomorrow morning. 9:00 everybody be here?
14 Okay. See you in the morning. Remember your rules of
15 conduct, don't discuss the case and reading about it.

16 THE CLERK: Court stands in recess.

17 (Recess at 5:03.)

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C E R T I F I C A T I O N

I, EILEEN MCDONOUGH, RPR, CRR, Federal Official
Realtime Court Reporter, in and for the United States
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Federal Official Court Reporter

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

-----x
PHILADELPHIA INDEMNITY INSURANCE COMPANY,

Plaintiff,

vs.

12-cv-181

BROAN-NUTONE, LLC,

Defendant.
-----x

JURY TRIAL - June 24, 2014 - Volume II

100 South Clinton Street, Syracuse, New York

HONORABLE NORMAN A. MORDUE

United States District Judge, Presiding

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1 (Reconvene at 9:11.)

2 THE COURT: Ready to continue?

3 MR. UNDERWOOD: Yes, sir.

4 MR. DUGGAN: Yes, sir.

5 THE COURT: All right. Mr. Harloff, right?

6 THE WITNESS: Good morning, Your Honor.

7 THE COURT: Good morning. Mike, do you want to get
8 the jury?

9 (Jury present.)

10 THE COURT: Good morning, Members of the Jury.

11 When we last met, Mr. Harloff was on the stand,
12 cross-examination by Mr. Duggan. You may continue, sir.

13 MR. DUGGAN: Thank you, Your Honor.

14 *CONTINUED CROSS-EXAMINATION BY MR. DUGGAN:*

15 Q Good morning, everyone. Could we have our computer,
16 please? Mr. Harloff, good morning.

17 A Good morning.

18 Q As I recall when you testified yesterday on direct when
19 Mr. Paolini was asking you some questions, you talked about a
20 duct that was in the two year old bathroom. Do you remember
21 that?

22 A Correct.

23 Q And I think you testified that the duct you thought went
24 to the fan, right?

25 A Yes.

1 Q And is this a picture the EMO took, Emergency Management
2 Office took?

3 A Yes.

4 Q 294?

5 A Yes.

6 Q That would be Exhibit D, image 294. Does this show the
7 fan sometime after the fire in the top of the picture?

8 A It does.

9 Q And it shows a curled looks like support for some kind
10 of duct beneath the fan almost going down to the toilet,
11 correct?

12 A Correct.

13 Q Did you measure the diameter of those coils?

14 A I did not.

15 Q Did you measure the diameter of the duct port?

16 A On the fan?

17 Q On the fan.

18 A I did not.

19 Q You have no idea, do you, whether or not whatever was
20 there on that coil actually fit on the duct port, do you?

21 A I do not because this has changed since prior to the
22 fire, this has likely changed. I did not try and fit this on
23 to the exhaust fan.

24 Q Okay. And, in fact, you don't even know what the
25 diameter of the hole was on the fan, right?

1 A I believe it was 3 to 4 inches.

2 Q Do you know if it's 3 or 4, because there is a
3 difference in the diameter, right?

4 A I do not.

5 Q And you didn't bother -- and I don't mean that in the
6 wrong way, but you just did not check any specifications or
7 anything either of the duct or of the fan on that issue, did
8 you?

9 A I did not.

10 Q And I think you told the jury that you assumed that this
11 duct actually ran out to the soffit vent which would have
12 been directly north?

13 A I don't know whether this fan exhausts through the roof
14 or to the soffit, we did not, I did not check that.

15 Q So can I have Exhibit D34, image 9016? We're going to
16 run through three images that were taken by Mr. DeMatties,
17 9016, 9017 and 9018. Mr. Harloff, this is actually the
18 corner of the wall looking back south with the office on the
19 other side, is it not?

20 A It appears to be.

21 Q And that curlicue on the left-hand side of the picture
22 as the jury is looking at it was the same curlicue spiral, if
23 you will, that we saw in a previous picture, Exhibit 294,
24 right?

25 A I am not certain of that. From this angle it appears to

1 be much larger duct work than the spiral that we saw in the
2 other photograph, if you're referring to the one on the
3 right.

4 Q I'm referring to the one on the left actually.

5 A Okay. I cannot honestly say because I didn't take this
6 photograph.

7 Q But it's in the same location as that other one was,
8 isn't it?

9 A I can't say with any certainty that it is or not. I
10 didn't take that photograph.

11 Q I understand. But I just wanted to maybe perhaps you
12 could help us out. It's right in that bay right over the two
13 year old toilet room on the right-hand side in your picture,
14 294, right?

15 A That one is, yes.

16 Q And then when we get to the next picture, which is 9016.
17 That's in the same location, isn't it?

18 A I can't say that. I didn't take that photograph, sir.

19 Q Can we go to the next one, 9017? Do you see the spiral
20 in 9017 in the lower right-hand corner that is now over the
21 two year old toilet on the right side?

22 A I see that spiral, yes, sir.

23 Q And that actually goes due east. Doesn't go north to
24 the soffits, does it?

25 A I have no idea, sir.

1 MR. PAOLINI: Judge, I'm going to object. There
2 has been no foundation that he knows how this was situated
3 when these pictures were taken.

4 THE COURT: Overruled.

5 Q And the next one, please, 9018. And further looking at
6 9018 --

7 THE COURT: I just wanted to ask a question. You
8 made a final report of all this, right?

9 THE WITNESS: I did.

10 THE COURT: Several days later.

11 THE WITNESS: Yes.

12 THE COURT: Part of your report was the information
13 supplied to you by these other people that were assisting
14 you?

15 THE WITNESS: Yes, Your Honor.

16 THE COURT: Including the people that took these
17 photos?

18 THE WITNESS: These photos were taken by someone
19 other than my staff or my fire investigation team. We took
20 our own photographs. These are someone else's, I believe.

21 MR. PAOLINI: These pictures were taken after his
22 investigators, well after.

23 THE COURT: Well, if they still reasonably and
24 accurately portray the way the conditions looked when he was
25 there, he is qualified to testify about it.

1 MR. DUGGAN: Thank you, Your Honor.

2 Q Mr. Harloff, just to finish this. The spiral that is
3 over the toilet to the right actually has -- you can see it,
4 over the soffit and over the truss chord and back due east,
5 at least in this photograph, doesn't it?

6 A It does appear to be, yes.

7 Q And do you have any evidence at all that the fan --
8 well, first of all, that this was actually connected to the
9 fan, you just don't know, do you?

10 A I have no information that would confirm that the
11 exhaust duct was connected to the fan.

12 Q And you have no information as to where that exhaust
13 duct ran north?

14 A I have no information that tells me where the duct work
15 ran for that fan.

16 Q Fair enough. Thank you. I want to talk a little bit
17 about your investigation as to some of the electrical aspects
18 of the scene. Could we have Exhibit P25, please?

19 Mr. Harloff, do you recognize Exhibit P25?

20 A I do.

21 Q And this was in part of your report, was it?

22 A It was.

23 Q Could you tell the jury what that is?

24 A It is a computer driven drawing or diagram of the
25 breaker panel that is in the utility room.

1 Q One of the aspects of any good electrical investigation
2 or fire investigation is to look at the circuit breaker panel
3 of the fire building, correct?

4 A Correct.

5 Q In fact NFPA 921 talks about that, doesn't it?

6 A It does.

7 Q And you're trying to figure out whether any of the
8 circuit breakers had tripped?

9 A That's correct.

10 Q Because if a circuit breaker trips, it tells you that
11 some abnormal activity happened on the circuit that's
12 tripped, right?

13 A That's correct.

14 Q And in a fire like this most likely that's an arc, isn't
15 it?

16 A It could be an arc, yes.

17 Q Now how many circuits tripped that you found at the
18 building on September 17?

19 A I count 15.

20 Q Fifteen circuits tripped. Can you tell the jury how
21 many of those circuits you actually traced?

22 A We did not trace any of them. At that point in history
23 we did not have equipment referred to as a Fox and Hound,
24 something that would sound out the electrical circuits. In
25 the absence of that we would have to trace each circuit,

1 three wires per circuit if it was grounded from the panel box
2 to wherever it terminated. In this case that's beyond the
3 scope of what we're going to do.

4 Q Sure. So what you know is that there are 15 different
5 circuits with trip breakers, electrical activity on it as a
6 result of this fire, but you were not able to figure out
7 where any of those circuits ran, correct?

8 A We did not trace them. We did not trace the individual
9 circuits. That is beyond the scope of what we would do in
10 calendar year 2009.

11 Q Sure. Now do you have any electrical training, sir?
12 Are you an electrical engineer?

13 A I am not an electrical engineer. I have successfully
14 passed two certification courses on electric.

15 Q You don't design motors or anything like that?

16 A I don't design motors, no, sir.

17 Q Now can I talk a little bit about the fire scene again.
18 I'm going to go back to a couple things about the burning
19 that you observed on September 17 in the two year old
20 classroom. Let's go to photograph 290, which is Defense
21 Exhibit 3, image 290. Do you recognize this, sir?

22 A I'm not sure that's a photograph I have taken.

23 Q I'll represent to you that that's part of the
24 photographs that you produced.

25 A Okay.

1 Q And if you would like to look.

2 MR. DUGGAN: May I approach, Your Honor?

3 THE COURT: Yes.

4 Q Just to make sure that I'm not doing anything untoward.
5 You recognize these?

6 A I do.

7 Q And these are the photographs that were taken by the
8 EMO?

9 A Correct.

10 Q And they're all in order starting at 228 in the
11 right-hand corner?

12 A Yes.

13 Q You got that?

14 A I do.

15 Q What we have before the jury now is the EMO photo 290,
16 is it not?

17 A It is.

18 Q And that was taken by either you or one of your staff,
19 perhaps Inspector Middlebrook?

20 A Correct.

21 Q And now do you recognize what's depicted in this
22 photograph?

23 A I do. It's the doorway between the bathroom and the two
24 year old classroom. In fact, I didn't take that image and
25 it's depicted quite well in the left-hand corner, which I'm

1 not able to see from this angle.

2 Q Because you've got the thing. But you're pictured in
3 that doorway, aren't you?

4 A I am.

5 Q And up on the top, do you know what a top plate is?

6 A I do.

7 Q There is a top plate in this picture, is there not?

8 A It is.

9 Q And is that what I'm pointing to right now in the
10 middle?

11 A It is not. The top plate would be to your right. It's
12 the part of the exterior wall that the trusses sit on.

13 Q Do you see what I'm pointing to in the middle?

14 A I do.

15 Q And that looks not like a two-by-four. That looks like
16 a four-by-four or two two-by-fours together, does it not?

17 A It does look like dimensional lumber, yes.

18 Q And would you agree with me that what I'm pointing to
19 now has very heavy charring?

20 A It does.

21 Q And this points into the other side of this wall is the
22 office space, is it not?

23 A I believe that this is the wall that separates the
24 classroom from the bathroom, is it not?

25 Q Let's look at Mr. Natale's drawing that was marked as

1 Exhibit P120. This might help us. Do you have that in front
2 of you?

3 A I do.

4 Q I'm going to point now, do you see the office wall?

5 A Yes.

6 Q And there's only about a foot of that wall to the north,
7 isn't there, where the opening to the toilet space is?

8 A It is.

9 Q So now would you agree with me, just so the jury can
10 see, the wall that we just saw on the other picture is this
11 wall right here, isn't it?

12 A Yes, sir.

13 Q And that on the other side is the office, right?

14 A Correct.

15 Q Okay. Can we go back? Looking again now at the burn
16 patterns on 290 and 291. This dimensional lumber that you
17 just described is directly over the office and into the
18 office, correct?

19 A Correct.

20 Q And there is very heavy charring on that dimensional
21 lumber in the middle, isn't there?

22 A There is.

23 Q Can I have 291, please? This is just a closeup of that
24 same picture, isn't it?

25 A I believe so, yes, sir.

1 Q And this shows actually some trusses up here?

2 A It does.

3 Q Truss 2 and trust 1 as you get into closer to the office
4 space?

5 A Yes, sir.

6 Q And this also shows that very heavy charring. And this
7 is in the two year old room, isn't it?

8 A It is.

9 Q Let's go to Exhibit D303, which you also have a hard
10 copy of in front of you in your package. Those are the two
11 pictures that we just looked at, Mr. Harloff. They were
12 taken while you were having problems with the camera, right?

13 A Correct.

14 Q And you dried out the camera and went back and took some
15 more photographs?

16 A Myself or Rob Middlebrook did, yes.

17 Q And this was one of the pictures you took later because
18 they're sequentially numbered?

19 A Correct.

20 Q So this also shows -- this is now 303. This also shows
21 that same dimensional lumber you talked about at the top of
22 the photograph on the left-hand side, right?

23 A It appears to be.

24 Q And would you agree with me that the left part of that
25 dimensional lumber has very heavy charring underneath it?

1 A It does.

2 Q And actually also into the middle of it?

3 A It does show deep charring.

4 Q As you go closer to the office space I'm pointing to
5 now, the charring gets a little less in here, doesn't it?

6 A It does.

7 Q And can we go to 304, the next picture, please. Once
8 again, what I'm pointing to now is the wall with the office
9 space on the other side, right?

10 A Correct.

11 Q And truss 1 and truss 2, right?

12 A Correct.

13 Q 1, 2. And then 3 it up here, correct?

14 A Correct.

15 Q And then here is that same dimensional lumber that shows
16 deep charring closer to the middle of the two year old room
17 and less charring as you get toward the office space?

18 A It does.

19 Q Now let's go -- oh, one question. Would you agree with
20 me that the damage that's shown in this picture, at least
21 during an initial stage of an investigation, would be one
22 indication that this might be the area of origin?

23 A It is something that we would look at and differentiate
24 between the room of origin and try to explain or make a
25 reasonable determination on the progression or path of the

1 fire.

2 Q I think you told us when Mr. Paolini was asking you
3 questions that the path of fire typically is the deepest char
4 where it starts and seen the most heat and then less char as
5 the fire spreads and progresses?

6 A That's correct.

7 Q And just by looking at those two photos and nothing
8 else, that indicates to you -- that's one indication that the
9 fire starts in the two year old room and progresses east?

10 A That alone does not indicate that. This is a finding
11 but there is more to it than that.

12 Q I understand. There are other things. But my only
13 question is, this in and of itself is just one indication
14 that you at least have to consider the fire starting in the
15 two year old room in this area where this deepest char is up
16 here, at least consider it?

17 A We would consider it, yes.

18 Q And you should also examine all of the electrical
19 appliances, lights, fixtures, things like that in that area
20 before they can be ruled in or out, isn't that true?

21 A It is a process of elimination, fire investigation is,
22 cause and origin determination is a process of elimination.

23 Q Right.

24 A We would look at electrical circuits and rule those and
25 electrical devices out.

1 Q And then you can't rule them in or out unless you
2 actually look at them and examine them, isn't that true?

3 A That is correct. But our findings is that the origin,
4 room of origin is the bathroom. And it's based on the entire
5 investigation, not just one area or one aspect. It includes
6 witness interviews and on-scene examination.

7 Q The witness that you interviewed you told us yesterday
8 was Wendy Dattilo, who was in the other room, right?

9 A That's correct.

10 Q You didn't interview Ms. Suffredini?

11 A I did not.

12 Q But anyway, my point simply is that under 921, it would
13 be 921 that you try to follow, correct?

14 A It is a guideline that we reference and in 2009 was a
15 much different time than it is today.

16 Q But you tried to follow it, I think you told us that
17 already?

18 A We do.

19 Q And it does say that you have to at least preserve and
20 examine all of the electrical appliances that might be an
21 area of origin?

22 A It is a reference document and we do follow that to the
23 best of our ability.

24 Q And that's one of the things that you follow, examine
25 and preserve all potential competent ignition sources?

1 A We do consider them, yes. But again, this is a public
2 investigation and we also need to identify when we are beyond
3 our scope. We identify criminal acts. We try to identify to
4 the reasonable extent the cause and origin of the fire. In
5 this case we recognized very early on that this was going to
6 be a subrogation case, and in that case, in this particular
7 case it's important to preserve the evidence. And we don't
8 want to disturb or cause anything that would interrupt the
9 investigators that come in and follow us. From a public
10 interest we've satisfied that this is not an intentional
11 fire, and beyond that our responsibility is to protect the
12 fire scene for those that have interest in it after us.

13 Q Sure. So your main interest here first is the safety
14 for everybody, that's the on-scene, right? That's the first
15 interest, correct?

16 A Occupants and rescuers.

17 Q Once the scene is preserved, then your next thing is is
18 there evidence of arson, basically?

19 A That's correct.

20 Q And then after that you're going to preserve it and let
21 other people determine whether there are things that as you
22 point out could end up in a subrogation lawsuit?

23 A That's correct.

24 Q That is beyond your scope?

25 A We don't have the resources for that, unless it is a

1 fatal fire that has a different spin to the investigation.

2 Q That's not this one, though, right?

3 A That's correct.

4 Q Anyway, going back to 290 for just a minute. I think
5 you told me that it would be important at least to consider
6 and preserve for other people like Philadelphia Insurance
7 Company, from Nutone, anybody else who might be interested,
8 all of the electrical appliances and things that may be what
9 is or could be an area of origin, would that be fair?

10 A That's correct.

11 Q And this at least at first blush you would agree with me
12 could be an area of origin?

13 A It is something that we were looking at.

14 Q Anything that was electrical in this area should have
15 been observed and examined to make sure you can rule things
16 in or out, would that be fair?

17 A The individuals on the fire investigation team examined
18 the electrical circuits in the area which included a portion
19 of the classroom. We did examine them and found no abnormal
20 electrical activity. That is a visual examination. We are
21 not touching each of the circuits. We identified that the
22 room of origin is the bathroom and we believed the origin to
23 be the exhaust fan.

24 Q And you believed that almost from the beginning, right,
25 I mean within a very short period of time?

1 A We recognized the fan hanging and that was an indication
2 that we needed to preserve that. And at the end of the
3 investigation, considering all aspects of the investigation,
4 we felt that the exhaust fan was a contributing factor.

5 Q Did you look at any of the junction boxes in the two
6 year old room?

7 A We did not take the covers off that I'm aware of,
8 neither one of us did.

9 Q Neither you nor Deputy Inspector Middlebrook?

10 A Investigator Middlebrook.

11 Q Did you look at there was armored cable that ran east
12 and west over this room, was there not?

13 A There was.

14 Q And that's BX cable sometimes?

15 A Yes.

16 Q Did you examine all that BX cable?

17 A We did visually examine some of the circuits and the BX
18 cable.

19 Q All of it?

20 A Not all of it in the entire building, no, sir.

21 Q Did you look at all of the overhead lights that were in
22 the two year old room?

23 A We looked at the light fixture inside the bathroom.

24 Q But that was the only one?

25 A That is the only one.

1 Q Did you look at any of the other light fixtures that
2 were out in the two year old room?

3 A We did not, because the fire originates in the bathroom
4 and progressed westward toward the west end of the building.

5 Q Would you agree with me that light fixtures certainly
6 can be a competent ignition source and have to be examined to
7 be ruled in or out?

8 A I agree with that.

9 Q And that you left for people from Philadelphia Insurance
10 and the other people in the subrogation case?

11 A Our investigation identified the bathroom as the room of
12 origin. We looked at the electrical items within the
13 bathroom, including the light fixture. Beyond the bathroom
14 we looked at circuits that went over the parting walls in
15 several directions, but we did not examine light fixtures
16 within that classroom.

17 Q Let's go to just a couple more things. Let's go to some
18 of the burn marks in the truss system that you took pictures
19 of. And we'll go to D, image D305. Do you have that in
20 front of you?

21 A I do.

22 Q And this was a picture I think you said you or
23 Investigator Middlebrook took?

24 A I believe Mr. Middlebrook took this image.

25 Q And what I'm pointing to now on the left-hand side of

1 that photograph, that's a junction box, isn't it?

2 A It appears to be.

3 Q And that junction box is in the truss space above the
4 two year old room, correct?

5 A In the classroom, yes, sir.

6 Q Okay, in the classroom. And if I tell you that there
7 were three junction boxes in that room, does that sound about
8 right to you?

9 A It seems reasonable, yes.

10 Q And this junction box was on the fourth truss; 4, 3, 2,
11 and then there is 1 over here, right?

12 A Okay.

13 Q Okay. So we know that you're looking here looking
14 north. In other words, from the hallway I think you said
15 looking north, correct, taking this picture?

16 A I believe it's in the northwest. It's a direction in
17 the northwest area.

18 Q In other words --

19 A From the center.

20 Q In other words, the playground, the grass would be out
21 here and there is a door actually behind here if we lighten
22 this picture?

23 A The playground would be to the extreme right. I believe
24 that's the northern exterior wall, if I'm not mistaken, where
25 your pointer is.

1 Q Right. Anyway, this space here, trusses 2, 3 and 4, is
2 in the two year old classroom, right?

3 A I believe it is. Again, Investigator Middlebrook took
4 this image.

5 Q Can I go to Exhibit 306, please? Do you see what's in
6 front of you as Exhibit 306?

7 A I do.

8 Q And is this what the jury has in front of it now?

9 A Yes.

10 Q That's almost from the same location, isn't it?

11 A I am not certain. Again, this is a photograph
12 Mr. Middlebrook took.

13 Q But here is another truss, here is another truss. These
14 trusses, and you can see over here, you can actually see the
15 doorway in the lower left-hand corner, can't you, where I'm
16 pointing? Can you make that out?

17 A I'm not certain that's a doorway. I can see a light
18 that is from the fire service that's a junction box in the
19 lower left-hand corner of this image. I believe that that
20 may be within the classroom area near the bathroom door, but
21 I'm not certain.

22 Q This is in the classroom. Can I go to 307, please,
23 image 307? We know, do we not, that image 307 is certainly a
24 picture of almost the same thing because we've got the
25 junction box there on truss 4, right?

1 A Correct.

2 Q And that's truss 3 and this is truss 2 that I'm pointing
3 to, correct?

4 A Again I'm not certain which truss that is. Again, it's
5 a photograph that the Investigator Middlebrook took.

6 Q But we know, we can orient ourselves because we know
7 that's where the junction box is on truss 4. You told us
8 that already?

9 A It appears to be, yes.

10 Q And now down here, do you see the yellow thing that I'm
11 circling?

12 A The reflective decals.

13 Q That's actually on the back of a firefighter, right?

14 A It's actually on a helmet.

15 Q Helmet. Great. And then is that the doorway that goes
16 out next to the north wall?

17 A I can't say that's a doorway. That's a firemen's helmet
18 and he is probably standing within the space.

19 Q In the classroom space, we can agree to that?

20 A Again, I'm not sure whether that's the classroom or
21 where it is.

22 Q Can we go to 308, please? This is Exhibit D308. And I
23 think you testified a little bit about this when Mr. Paolini
24 was asking you questions. Do you remember this one?

25 A I do.

1 Q And there is that junction box again on truss 4, right?

2 A Correct.

3 Q And there is truss 3 that I'm pointing to to the right,
4 correct?

5 A Okay.

6 Q And this diagonal truss is part of the truss 3, right?

7 A Correct.

8 Q And that's truss 4 and truss 5 as you go to the left
9 deeper into the classroom, right?

10 A Correct.

11 Q This is a shot of the truss space over the two year old
12 classroom?

13 A Correct.

14 Q And that's essentially the same as we just saw in 307?

15 A It appears to be.

16 Q Can we go to 309, please. Do you see what's shown in
17 309?

18 A Yes.

19 Q That's a closeup of truss number 3 that we just looked
20 at in 308, is it not?

21 A It appears to be a closeup of that diagonal piece of the
22 truss.

23 Q This one right here right that I'm pointing to?

24 A It appears to be the truss that is pictured in
25 photograph 308 closeup.

1 Q This picture was taken to preserve the fact that this
2 truss diagonal in particular had an awful lot of deep
3 charring, isn't it true?

4 A And it also shows that the fire path is from the right
5 progressing to the left.

6 Q Okay. And?

7 A Or in a westerly direction.

8 Q Are you talking about this burn here that I'm talking
9 about on the left-hand side?

10 A Sure. It's got deep charring on to the right side.

11 Q This right here?

12 A The whole right side and the top and bottom corners have
13 been burned, and if you compare that to the left side, if you
14 were to look at the left side, it would be more preserved
15 there and it indicates fire progression from the right side
16 to the left side.

17 Q This is in the two year old classroom space, is it not?

18 A It's above that, yes.

19 Q Above the two year old. Okay. 310, please.

20 That's another picture that was taken of that very same
21 truss but it didn't come out probably because of the water
22 damage to the camera?

23 A It looks like the camera didn't focus.

24 Q 311. And we have the same problem with 311, the camera
25 wasn't focusing maybe because of the water damage?

1 A It appears to be. If I'm correct he shot the first
2 image back on 308 and he is moving to the right and looking
3 at trusses from 308 going to the right over top of the
4 bathroom, if he shot it in order.

5 Q Let's see about that. Let's go to 309, please. I mean
6 to 312. And that's the next one in the sequence, that's 312,
7 is it not?

8 A It is. It looks like or the possibility exists he tried
9 to take several pictures of the same truss, diagonal piece of
10 the truss, and finally on the third image the camera focused,
11 that is a possibility.

12 Q Sure. And that's truss 3 over the two year old
13 bathroom. We already agreed to that, didn't we?

14 A It is possible. I can't identify which truss that is
15 from the image.

16 Q All right. Can we go back to be able to figure this
17 out. Now looking back at image 308. The one I'm pointing to
18 right now is the one of the closeups that Investigator
19 Middlebrook tried to take and ultimately got on his third or
20 fourth shot, right?

21 A It is possible, yes.

22 Q And now we can see from this picture that there is that
23 junction box, and we know that that's in the two year old
24 classroom space or over it, right?

25 A It is. But that junction box is attached to the bottom

1 chord of the next truss, and above that diagonal, the
2 diagonal piece above the junction box has got less charring
3 than it does on the right one.

4 Q My question here is, just so we know where we're at,
5 this is over the two year old classroom space, is it not?

6 A It is. But it's depicting fire progression from the
7 right side of the image westward.

8 Q Will you agree with me that all of the photographs we
9 just looked at were depicting truss damage in the two year
10 old classroom space?

11 A It is. But it's also depicting the fire growth from off
12 this image going to the west.

13 Q It's all over the two year old classroom, is it not?

14 A The heaviest charring is over the bathroom, which is not
15 depicted in this image.

16 Q My question, sir, simply is this. All of the pictures
17 that we just looked at from the truss space, from 305 all the
18 way up to this image here which is 308, and then even 312,
19 all of them are images taken over the two year old classroom
20 space, is that not true?

21 A Yes.

22 Q Now you have in front of you all of the pictures from
23 the Emergency Management Office, do you not?

24 A I do.

25 Q Show me the ones that were taken over the bathroom.

1 A We discussed this when we met a couple weeks ago. We
2 are missing three photographs. We do not have very good
3 pictures of trusses that are directly over the bathroom.

4 Q You don't have any pictures of trusses over the bathroom
5 in front of you, do you, sir?

6 A I do not. Other than the ones that were shown from the
7 floor looking up.

8 Q Yes. The ones we looked at yesterday?

9 A Correct.

10 Q Okay. Now I want to finish finally with one other
11 thing. Go back to Exhibit 13 from your deposition because
12 you got into this with Mr. Paolini. That Exhibit 13.

13 THE COURT: 30 or 13?

14 MR. DUGGAN: Exhibit 13 from his deposition is P30,
15 Plaintiff's Exhibit 30 to this case.

16 THE COURT: Okay.

17 Q This was the photograph that you testified to when
18 Mr. Paolini was asking you questions yesterday. Do you
19 remember that?

20 A Correct.

21 Q And Mr. Paolini's partner, Mr. Underwood, took your
22 deposition December 20th of 2012, right?

23 A He did.

24 Q And in that deposition --

25 MR. PAOLINI: Judge, I'm going to object. He

1 hasn't -- is this -- he is reading his deposition. This
2 isn't impeachment at this point.

3 THE COURT: Why don't you ask him the question and
4 then you can go into it.

5 MR. DUGGAN: I'm sorry, Your Honor?

6 THE COURT: Why don't you ask him the questions
7 here in the courtroom, that's why he is here.

8 MR. DUGGAN: I'm going to. I'm just laying a
9 foundation so that we know where we're at.

10 Q In that deposition --

11 MR. PAOLINI: Judge, I'm going to object again. He
12 is going right back to reading the deposition.

13 THE COURT: I agree. Sustained.

14 Q Did you give an opinion as an expert earlier as to
15 where, what the significance of that photograph was?

16 A Yes.

17 Q And you said, did you not, that this indicates that the
18 fire originates here, its longer exposure to heat and the
19 fuel package and that the fire originates here and progresses
20 upward and outward? That's what you told in a deposition
21 under oath, didn't you?

22 A I don't have the deposition in front of me but I recall
23 making statements to the effect of the progression of the
24 fire. This image right here depicts the fire progression
25 from right to left.

1 MR. DUGGAN: May I approach, Your Honor?

2 THE COURT: Yes.

3 MR. DUGGAN: I'm reading now from page 87 of the
4 deposition.

5 Q You were answering questions by Mr. Underwood, correct?

6 A Okay.

7 Q I wasn't there. And this is your deposition and you
8 were under oath, correct?

9 A Correct.

10 Q And you read this in preparation for your testimony
11 yesterday and today you said?

12 A I did.

13 Q Okay. And did not Mr. Underwood ask you --

14 THE COURT: Page and line?

15 MR. DUGGAN: Page 87, line 9.

16 Q Referring to Exhibit P30, which was also Exhibit 13 in
17 the deposition, right?

18 A Okay.

19 Q Okay. "What did that indicate to you regarding the area
20 of origin of the fire?" Did I read that question correctly?

21 A You did, sir.

22 Q Your answer was, "This indicates that the fire
23 originates here. It's a longer exposure to heat and the fuel
24 package and that the fire originates here and progresses
25 upward and outward." Was that your testimony under oath on

1 December 20th of 2012 responding to questions from
2 Mr. Underwood?

3 A Yes. This photograph does not depict the exact area of
4 origin. It shows the progression of the fire from east to
5 west. The origin is actually east or to the right of this
6 image, but it does depict the fire progression.

7 Q When you were asked the question by Mr. Underwood, "What
8 did that indicate to you regarding the area of origin of the
9 fire," you said, "The fire originates here," didn't you?

10 A This is in the area of origin, just off from it. The
11 origin would be just to the right of that image. It depicts
12 the fire progression.

13 Q Sir, when Mr. Underwood asked you the question, "What
14 did that indicate to you regarding the area of origin," you
15 said, "This is indicates that the fire originates here."
16 Wasn't that your testimony?

17 A That was my testimony. This is a photograph that is
18 significant in the cause and origin determination. The
19 origin is just to the right of that image and it depicts
20 accurately the fire progression from left to right or east to
21 west.

22 MR. DUGGAN: I have no further questions, Your
23 Honor.

24 THE COURT: Redirect.
25

1 *REDIRECT EXAMINATION BY MR. PAOLINI:*

2 Q Good morning, Investigator.

3 A Good morning.

4 Q Let's keep this up for a minute. We discussed this
5 yesterday, did we not?

6 A We did.

7 Q Explain to the jury what you believe the area of origin
8 for this fire was.

9 A It's in the two year old bathroom, which is adjacent to
10 the classroom.

11 Q When was your deposition taken?

12 A December 20th of 2012, if I am correct.

13 Q When did this fire occur?

14 A In September of 2009.

15 Q When you wrote your report in this case back in
16 September of 2009, you identified the area of origin for the
17 fire where the fan was located, is that correct?

18 A That's correct.

19 Q Approximately how long was your deposition, sir?

20 A Several hours. Three and a half hours, I believe. I
21 don't recall the exact time frame but it was several hours.

22 Q About 100 pages worth of deposition testimony?

23 A Seems fair.

24 Q How many photos did you see?

25 A Several. And we saw several of the photos several

1 times.

2 Q Did you testify truthfully here today?

3 A I did.

4 Q Did you testify truthfully here at your deposition?

5 A I did.

6 Q I asked you this yesterday. Do you have any interest in
7 this lawsuit?

8 A I have none.

9 Q The suggestion -- let's get back to your photos. You're
10 missing photos, are you not?

11 A I believe three.

12 Q And it's undisputed the reason you're missing photos is
13 because you had a problem out at this fire scene, is that
14 correct?

15 A That's correct. We had a technical problem with the
16 camera.

17 Q Explain to the jury one last time the fire progression
18 and what these photos show, this photo in particular.

19 A This photo depicts the fire progression from east to
20 west. It originates over the -- within the two year old
21 bathroom, progresses upward and outward and through the attic
22 space from east to west. It processes to the west end of the
23 building and over the two year old classroom. That is
24 confirmed by interview of witnesses, the examination of the
25 fire scene and the burn patterns on the remaining structural

1 components. It's the burn patterns to wooden components of
2 the structure.

3 Q And more importantly, sir, when you issued your opinion
4 back in September of 2009, was that based on a review of 100
5 or so photos taken from a fire scene and shown to you much
6 later, or was it based on what you were seeing on the day of
7 the fire?

8 A It's based on my observations, my active involvement in
9 the on-scene examination. I personally interviewed the
10 witness and I was there to conduct the investigation along
11 with some assistance of two other people. The other
12 individual, Rob Middlebrook, is a very experienced fire
13 investigator, a Level II investigator in this state. He has
14 many years of investigating fires, as I do, and the opinion
15 was based on all the facts and all the information collected
16 from this fire scene in consultation with a second
17 experienced individual.

18 Q Would it be fair to say you were at this fire scene, and
19 even when you're looking at these photographs years later,
20 you have a difficult time today identifying where photos were
21 taken and what they depict, is that fair?

22 A That's correct. And if I didn't take the photos, I have
23 a difficult time associating the direction and what is
24 pictured in there. We're looking at a space that has several
25 components that look very similar. You have to find

1 something that you can identify as an exact location to
2 orient yourself in the photograph. A lot of these images are
3 poor lighting and they depict items that look or appear to be
4 similar.

5 Q You were asked a question this morning, sir, about the
6 circuit breakers. I believe Mr. Duggan or you indicated
7 there were approximately 15 circuit breakers tripped, is that
8 correct?

9 A Correct.

10 Q Were there 15 points of origin in this fire?

11 A No. There was a single point of origin in my opinion.

12 Q So 15 circuit breakers tripped. Did that impact your
13 thoughts on cause and origin in this case?

14 A It's something that we document during the course of the
15 investigation.

16 Q And you were asked if that indicates evidence of arcing.
17 I guess my question is, does that indicate fire attack?

18 A It indicates that circuits quite possibly are impacted
19 by the progression of the fire.

20 Q And is that what you believe occurred here in this case?

21 A Yes. In the absence of having the label on the door
22 where each breaker is labeled, if you don't have a label that
23 identifies what breaker controls what circuit, you would have
24 to do some testing. And in 2009 we didn't have the equipment
25 that would allow us to do that, so we would have to trace

1 each circuit. Today we have that technology and we can trace
2 out each of those circuits. But again, in this particular
3 case that's beyond the interest of the public or the public's
4 piece in the investigation.

5 Q Now yesterday you were asked about a light fixture. Do
6 you recall that?

7 A I do.

8 Q And that was the light fixture in the two year old
9 bathroom?

10 A Correct.

11 Q Showing you what's been marked D3, and it's P9170302.
12 Do you recall looking at this yesterday, sir?

13 A I do.

14 Q You were asked if you identified I think white spots on
15 the light, is that correct?

16 A Yes.

17 Q I don't believe you were asked, and I want to clarify
18 this, what do you believe those two spots were on those
19 lights?

20 A It looks like clean burning of the paint.

21 Q Paint burning?

22 A Looks like clean burning of the painted surface of the
23 light fixture.

24 Q Did that in any way raise a red flag in our mind?

25 A That combined with other observations indicates that

1 that needs further examination, but I also believe that is in
2 the area of origin.

3 Q Thank you. Now you were shown some photos of the
4 classroom and the damage in the classroom. If you could tell
5 the jury what types of things impact the amount of damage
6 you're going to see in one area or another?

7 A Fire progression, drop down in the area of the
8 classroom, I believe there is a drop down effect where
9 burning materials are dropping down and igniting other
10 contents within the space.

11 Q Now again, you were out at the scene and saw the area in
12 the classroom that had been burned down low versus the
13 bathroom. Do you have any -- how did that impact your
14 opinion, sir?

15 A That is an observation that we include into the opinion,
16 and it is my opinion that the fire originates in the
17 bathroom, progresses upward and outward through the attic
18 space, and fire is dropping down from above as items are
19 burning and igniting other contents within the two year old
20 classroom. That observation is included into our opinion and
21 part of our on-scene examination.

22 Q And again, the amount of damage you saw in the classroom
23 based on the fuel load in the classroom, did that impact --
24 did that change your opinion as to where this fire started?

25 A No.

1 Q I believe in your report you indicated when you wrote
2 this report you believed that this may be a small smoldering
3 fire, is that correct?

4 A There was a heavy accumulation of soot that was on the
5 walls within the bathroom that would indicate that. I have
6 since learned that there was mats or petroleum based products
7 that were in the bathroom that when burning could deposit on
8 the walls of the bathroom. I didn't find that was
9 significant enough to amend the report. But that was
10 information that was learned about the contents within the
11 space after the report was written.

12 Q Now let me ask you this question. There were some areas
13 yesterday in the area of the bathroom ceiling where you saw
14 the bottom side of the trusses, and Mr. Duggan asked you
15 about the fact that some areas were clean, didn't have any
16 burn pattern. Do you remember that?

17 A That's correct.

18 Q What's your opinion with regard to that area in terms of
19 fire attack and how the burn patterns were significant to
20 you?

21 A With regards to unburned pieces of wood, in the examples
22 given yesterday it could be a protected area because of the
23 insulation, the fire is burning above it and the insulation
24 has protected that area, and until the insulation burns,
25 you're not going to have deep charring on the dimensional

1 lumber. That is one possibility.

2 Q And again, that was something you observed when you were
3 out at the scene and that didn't change your opinion?

4 A It does not.

5 Q Now let's talk about how different things impact the
6 amount of burn you're going to see. I believe you testified
7 that the depth of char is a factor in determining cause and
8 origin, is that correct?

9 A Correct.

10 Q Is it the only factor?

11 A It is not.

12 Q Was there areas of heavy charring to the trusses in the
13 classroom?

14 A There was.

15 Q What things impact the level of char you see in certain
16 area, one area versus another?

17 A By reviewing the burn patterns and the charring, you are
18 making a judgment on the progression of the fire and it's
19 going to be heavy charring on the side that is closest to the
20 origin or the seed of the fire. In some cases it's related
21 to the fuel package or the combustible items in an area that
22 also could have an impact that will produce heavy charring as
23 well, or exposure to extreme amounts of heat.

24 Q So if there was -- assuming there was more charring to a
25 piece of truss in the classroom at one spot versus an area

1 closer to the bathroom, would that alone be determinative in
2 your opinion?

3 A Not in and of itself, no.

4 Q And as I think you've explained at length here, you were
5 looking at the directional view of the burn patterns, is that
6 correct?

7 A That's correct.

8 Q And where did that take you back to?

9 A Back to the origin, which is at the bathroom.

10 Q Now you were shown yesterday D1. Do you recall this?

11 A I do.

12 Q I want to clarify something. Do you know who took this
13 photo?

14 A I do not.

15 Q Now are there two fire vehicles on site at that point?

16 A Could you bring the image closer?

17 Q Certainly.

18 A I can see one vehicle that is certainly a chief's
19 vehicle, it's in the left-hand corner. This appears to be a
20 privately owned vehicle.

21 Q So at the very least we know this was taken after the
22 chief arrived?

23 A Correct.

24 Q And again, do you recall what time the chief first
25 arrived?

1 A Referring to Exhibit P21, this indicates that the chief
2 arrived at 1704, or 5:04 p.m., four minutes after the
3 original dispatch.

4 Q So at this point all we know is that the chief was
5 there. We don't know how many minutes after the chief
6 arrived that this photo was actually snapped, is that
7 correct?

8 A That's correct.

9 Q What type of factors impact the amount of smoke that's
10 going to be generated in a fire?

11 A The amount of fire volume, the fuel package that is
12 burning at the time.

13 Q How quickly can fire progress in terms of minutes?

14 A A general rule is fire doubles in size every minute.

15 Q Fires double in size every minute. Okay. So if I
16 understand what you're saying, five minutes is actually ten
17 minutes in fire talk, is that fair?

18 A Sure.

19 Q Now we know the call, fire call came in I believe was it
20 at 4:59?

21 A Correct.

22 Q And we know D1, the earliest it could have been taken is
23 5:04, at the earliest, because that's when the chief arrived?

24 A Correct.

25 Q His vehicle is already parked?

1 A Correct.

2 Q Now I want you to assume that the fan had a failure in
3 it ten minutes before that. So essentially, I want you to
4 assume best case scenario from the terms of how early this
5 photo could have been taken, talking at that point a little
6 less than 15 minutes or about 15 minutes?

7 A Okay.

8 Q I want you to assume that.

9 A Okay.

10 Q Now I want you to take into account everything you know
11 about this fire, the condition of this building and what you
12 observed on September 17, 2009. Okay? Are you with me?

13 A Yep.

14 Q Does the level of smoke in this photo in any way change
15 your opinion?

16 A It does not.

17 Q Why not?

18 A That is a reasonable expectation based on the time
19 frame.

20 Q Thank you.

21 MR. PAOLINI: No further questions.

22 THE COURT: Recross?

23 MR. DUGGAN: No, thank you, Your Honor.

24 THE COURT: You may step down, sir.

25 THE CLERK: State and spell your name for the

1 record.

2 THE WITNESS: Joyce LoMonaco, L-O-M-O-N-A-C-O.

3 JOYCE LOMONACO, called as a witness and being
4 duly sworn, testifies as follows:

5 DIRECT EXAMINATION BY MR. UNDERWOOD:

6 Q Good morning. Could you please tell the jury your full
7 name?

8 A Joyce LoMonaco.

9 Q And Ms. LoMonaco, where do you presently reside?

10 A I reside at 1162 Lake Road, Western New York.

11 Q Are you presently employed?

12 A Yes.

13 Q How are you employed?

14 A I'm the owner of the Jack 'n Jill Childcare Centers.

15 Q Are you one of the owners of any other businesses?

16 A Yes.

17 Q What are those businesses?

18 A 14 Framark Drive, which is a corporation which owns the
19 building that houses one of the centers.

20 Q This case we've been talking a lot about a building
21 located at 14 Framark Drive in Victor. You understand that?

22 A Yes.

23 Q What entity owns that building?

24 A 14 Framark Drive.

25 Q How long has 14 Framark owned the building?

1 A Since we bought it.

2 Q And when you originally bought it, was the daycare
3 center already there?

4 A No.

5 Q What type of business or what type of tenant was there?

6 A Orkin Pesticide had their offices there.

7 Q At some point did you remodel that building?

8 A Yes.

9 Q And did you remodel it to put the daycare center in
10 there?

11 A Yes.

12 Q What type of business is Jack 'n Jill Daycare?

13 A We're a childcare center. We operate daily from six to
14 six, five days a week, and we accept children from the ages
15 of six weeks to 13 years.

16 Q Back in 2009 what was the relationship between
17 Jack 'n Jill and 14 Framark with regard to the building?

18 A Jack 'n Jill leased the building from 14 Framark.

19 Q So there was rent paid between Jack 'n Jill and
20 14 Framark?

21 A Yes.

22 Q How much was that rent?

23 A About 4,300.

24 Q What was the basis or how did you calculate that rent
25 payment?

1 A It was basically the mortgage, interest and taxes.

2 Q Now in terms of the kids or the type of kids that you
3 had at the daycare center, was that pretty much the same back
4 in 2009 as it is today?

5 A No. We have less today.

6 Q When you first started Jack 'n Jill Daycare at that
7 location in Victor, about how many students or kids did you
8 have there?

9 A Well, normally when you open a daycare center, you start
10 with the first person who comes in and registers and it grows
11 from there, and so we were up to 34 children by the time the
12 fire started.

13 Q Ms. LoMonaco, I'm going to show you a diagram that we
14 marked as P120. Do you recognize what's depicted in that
15 photograph?

16 A Yes. That's the inside of the building.

17 Q Does that diagram depict how the building looked back in
18 2009?

19 A Yes.

20 Q Now you'll see in the upper left-hand corner there is
21 what's depicted as the two year old room. Do you see that?

22 A Yes.

23 Q What room is that?

24 A That is the two year old room.

25 Q Is that the classroom that you guys used for

1 two-year-old children back in 2009?

2 A Yes.

3 Q And just to the right of that there is a room that's
4 depicted on the diagram as toilet room. Do you see that?

5 A Yes.

6 Q And is that what we we've called in the past the two
7 year old bathroom?

8 A Yes.

9 Q When was the building renovated in order to change it
10 over from Orkin to a daycare center, approximately?

11 A When we purchased the building we had to go through
12 zoning and planning, and then we remodeled it and we opened
13 it the following year.

14 Q And when about roughly was that?

15 A 2003, I think.

16 Q At the time of that renovation in 2003, is that when the
17 two year old bathroom was installed?

18 A Yes.

19 Q Was there a bathroom ventilation fan in the two year old
20 bathroom back in 2009?

21 A Yes.

22 Q That bathroom ventilation fan, was that installed when
23 the building was remodeled from Orkin to a daycare center?

24 A Yes.

25 Q Between the point at which the renovation took place and

1 the day of the fire, did you have any problems with the fan?

2 A No.

3 Q Did you ever have any repairs or maintenance conducted
4 on the fan?

5 A Not to my knowledge.

6 Q Now we're here talking about a fire that occurred on
7 September 17, 2009. And you recall that a fire occurred at
8 your property then?

9 A Oh, yes.

10 Q Were you at the property when the fire occurred?

11 A No, I was not.

12 Q Now with regard to the fire, did you have insurance?

13 A Yes.

14 Q And when I say you, I'm referring to 14 Framark Drive.

15 A Yes.

16 Q What did that insurance cover?

17 A Fire damage.

18 Q Did Jack 'n Jill also have coverage?

19 A Jack 'n Jill had liability damage and fire damage.

20 Q And did Philadelphia Insurance provide that coverage to
21 you?

22 A Yes.

23 Q As a result of the fire, did the daycare center continue
24 in operation?

25 A No. We were closed for over a year.

1 Q During that period of time, did the daycare center have
2 any revenue?

3 A No.

4 Q During the period of time when there was no tenant there
5 because of the fire damage, did 14 Framark continue to
6 receive rent from Jack 'n Jill?

7 A Yes. From the Jack 'n Jill Corporation, so the other
8 centers actually paid that.

9 Q But you didn't get any revenue specifically from Victor?

10 A No.

11 Q Now was there a mortgage on this building?

12 A Yes.

13 Q And what was the term of the mortgage or what is the
14 term of the mortgage?

15 A It's a 15 year mortgage, it expires in 32 months.

16 Q Is there a reason why you obtained a 15 year mortgage on
17 this property?

18 A Yes. We thought that we wanted to do a mortgage with as
19 short, for as short a time frame as possible.

20 Q Did that have any impact on the amount of rent that
21 ended up being paid between Jack 'n Jill and 14 Framark?

22 A Yes. It was much higher than what we normally pay.

23 Q And you said how many children did you have at the
24 daycare center immediately before the fire?

25 A Thirty-four.

1 Q And the daycare center was out of business for over a
2 year, right?

3 A Yes.

4 Q When you opened back up, how many students did you have?

5 A We started again as a new center, so the first child
6 came in and registered and we went from there. Although
7 we've had a very difficult time since then because parents
8 know that there was a fire there.

9 Q Has that affected the --

10 A Yeah. They're reluctant to leave their children.

11 Q Now at the time of the fire, approximately how many
12 employees did you have at the Victor location?

13 A I believe there were seven.

14 Q And as a result of the fire, were all of those employees
15 able to be replaced at other locations?

16 A No. I wanted to keep my director and my assistant
17 director because they were critical to my redoing Victor
18 again and opening it again. So we were able to move them to
19 our center in Webster and create jobs for them so that they
20 could stay. They couldn't go on unemployment. They would
21 have found other employment.

22 Q Who was the director at that time?

23 A Cheryl Dattilo.

24 Q When did Cheryl Dattilo first start working with you?

25 A When she was in high school, so to date it's been 42

1 years.

2 Q And is she one of the employees you kept?

3 A Yes.

4 Q You continued to pay?

5 A Yes.

6 Q What location did she go to?

7 A The Webster location.

8 Q Did she replace somebody in Webster or you put her in
9 that location because you wanted to keep her?

10 A I put her in that location.

11 Q Who was the assistant director at that time?

12 A Wendy Dattilo.

13 Q How long has Wendy Dattilo been with you?

14 A 14 years.

15 Q And why was it important to keep Wendy Dattilo and
16 Cheryl?

17 A Well, one was the director and one was the assistant
18 director, and since they were such long standing employees
19 and I really wanted them to be able to go and open up Victor
20 again once we remodeled.

21 Q Operating a daycare center, is there any importance in
22 the continuity of the staff?

23 A Very important.

24 Q Why is it important?

25 A Parents feel comfortable with that. They don't want to

1 know that people are coming and going every day, they want
2 their children to stay with the same people.

3 Q With regard to the children who had been attending
4 Jack 'n Jill at the Victor location at the time of the fire,
5 did any of those children go to another Jack 'n Jill
6 location?

7 A They all did.

8 Q Did they go to --

9 A They all went to other locations, not Jack 'n Jill,
10 we're too far away.

11 Q So you lost those customers?

12 A Yes.

13 Q After the fire did you make any effort to advertise the
14 fact that you were reopening?

15 A Yes. Once we started the renovation, then signs were
16 put up and we put things in the newspaper saying we would be
17 open.

18 Q But you still only attracted initially one student?

19 A Right.

20 Q With regard to your coverages with Philadelphia
21 Insurance, were you paid -- did they make payments to you for
22 the lost profit and lost rents that you suffered as a result
23 of the fire?

24 A Yes.

25 Q Were those payments made to 14 Framark for the rent?

1 A I believe so.

2 Q And with regard to lost profits, were the payments made
3 to you for those lost profits?

4 A Yes, to Jack 'n Jill.

5 Q And were those amounts in excess of \$150,000?

6 A Yes.

7 Q And how many children does the daycare center presently
8 have in Victor?

9 A We're at about 14 now.

10 Q And again, immediately before the fire how many kids did
11 you have?

12 A Thirty-four.

13 Q And it has been how long since the fire?

14 A The fire was in '09 and we opened up the following year.
15 It took us a little over a year to open up, so we opened up
16 in 2010.

17 Q Can you describe for the jury the impact the fire's had
18 on your business operation?

19 A Well, we're finding that when parents are calling to get
20 information on the center, they'll say to us, isn't this the
21 center that had the fire. And of course we have to say yes,
22 it is. And is everything up to par the way it should be?
23 Well, we totally rebuilt the whole entire building. But, you
24 know, there is always that in the back of their minds.

25 MR. UNDERWOOD: Thank you, Ms. LoMonaco. Nothing

1 further.

2 THE COURT: Cross?

3 MR. BARRER: Just briefly, Your Honor.

4 *CROSS-EXAMINATION BY MR. BARRER:*

5 Q Good morning. Just a few questions. The first might be
6 a little silly but just if you bear with me. Both
7 Jack 'n Jill and 14 Framark are for profit companies, meaning
8 you want to make money there?

9 A Correct.

10 Q And how long have you been in the daycare business?

11 A Since 1967.

12 Q And would you agree with me that there are many
13 different factors that go into making a successful daycare
14 operation?

15 A Oh, yes.

16 Q And certainly you mentioned staffing and the facilities?

17 A Yes.

18 Q Are there outside factors beyond your control that
19 affect a daycare business?

20 A Well, reputation is probably the most important of all.

21 Q But apart from your own reputation, how about the
22 economy in general?

23 A The economy in general has an influence, yes, it does.

24 Q And if the economy is bad, that may actually affect your
25 business?

1 A Yes.

2 Q And that would be the same for any business?

3 A Parents laid off, they're going to be home with their
4 children.

5 Q Certainly. I think you said, and please correct me if
6 I'm wrong and I didn't hear you correctly, that after the
7 fire 14 Framark was still paid its rent by Jack 'n Jill but
8 from the other facilities. Is that what you said?

9 A I'm not exactly sure of that. I don't remember without
10 the paperwork in front of me to see where we billed it, but
11 it was paid, it was continued.

12 Q So 14 Framark Drive still received the rent it was due?

13 A Yes. It went directly into the bank.

14 Q And who is the owner of Jack 'n Jill? Are you the sole
15 owner?

16 A No. I am 51 percent and my husband is 49.

17 Q That's a good way. How about 14 Framark, the same?

18 A Same thing.

19 MR. BARRER: Thank you very much.

20 THE COURT: Any redirect?

21 MR. UNDERWOOD: Just a couple.

22 *REDIRECT EXAMINATION BY MR. UNDERWOOD:*

23 Q Ms. LoMonaco, you testified a few seconds ago about the
24 loss of rent. The money that came into 14 Framark for the
25 rent, that just came from other locations, correct? I mean,

1 the location at Victor didn't have any income at that time?

2 A No, it didn't.

3 Q So basically money was funneled from other locations to
4 14 Framark, but you still didn't have the money from
5 Jack 'n Jill?

6 A Right.

7 MR. UNDERWOOD: Thank you.

8 MR. BARRER: Nothing, Your Honor. Thank you.

9 THE COURT: You're excused. Next witness.

10 MR. UNDERWOOD: The plaintiff calls Daniel Wright.

11 THE CLERK: State your full name and spell your
12 last name for the record.

13 THE WITNESS: Francis Daniel Wright, W-R-I-G-H-T.

14 FRANCIS DANIEL WRIGHT, called as a witness and
15 being duly sworn, testifies as follows:

16 DIRECT EXAMINATION BY MR. UNDERWOOD:

17 Q Good morning, Mr. Wright.

18 A Good morning.

19 Q Could you please state your full name for the jury?

20 A Francis Daniel Wright.

21 Q And what is the name of your employer?

22 A My employer's name is Kim & Wright, P.C.

23 Q And could you tell the jury what you do for a living?

24 A I'm a certified public accountant.

25 MR. UNDERWOOD: May I approach, Your Honor?

1 THE COURT: Yes.

2 Q Mr. Wright, I'm going to show you a document we marked
3 as P80. That a copy of your curriculum vitae?

4 A Yes, it is.

5 Q What type of business is Kim & Wright?

6 A We're a certified public accountant firm.

7 Q What is your position with the company?

8 A I'm a shareholder.

9 Q And what are your responsibilities at Kim & Wright?

10 A As a certified public accountant, and a partner in the
11 firm, vary.

12 Q How long have you been with Kim & Wright and its many
13 different phases over the years?

14 A In its many different phases, since 1998.

15 Q Could you give the jury an explanation or an overview of
16 your educational background?

17 A Yes. I have a Bachelor of Science degree in finance
18 from Penn State. I have a Master's Degree in business
19 administration from LaSalle University.

20 Q And when did you graduate from college?

21 A Yes.

22 Q When did you graduate?

23 A 1976.

24 Q And when you graduated from college, where did you go to
25 work?

1 A I went to work for Clark & Cohen, public insurance
2 adjustors.

3 Q And what type of work did you do there?

4 A I was an insurance adjustor preparing claims against
5 insurance companies.

6 Q Are you a certified public accountant?

7 A Yes.

8 Q When did you become a certified public accountant?

9 A 1987. 1986.

10 Q After you became a certified public accountant, where
11 did you go to work?

12 A I was employed by A.J. Cretella & Company, certified
13 public accountants.

14 Q What type of work did you do there?

15 A We did primarily insurance claims but we also did
16 accounting work.

17 Q And how long were you employed at A.J. Cretella?

18 A About five years.

19 Q And where did you go to work then?

20 A I started my own business.

21 Q And what was the name of that business?

22 A The name is Wright & Hagenbucher.

23 Q What type of business was Wright & Hagenbucher?

24 A Certified public accountant.

25 Q What type of accounting work did it perform?

1 A We did accounting work, emphasis again was on first
2 party insurance claims.

3 Q And how long was Wright & Hagenbucher in existence?

4 A Until we merged with some folks that we had worked with
5 from Cretella & Company.

6 Q And when did that occur?

7 A About 1998.

8 Q And have you essentially operated in that same form more
9 or less since 1998?

10 A Yes.

11 Q And you've been doing accounting work but doing work for
12 insurance companies during that period of time?

13 A Insurance companies, attorneys, clients.

14 Q When you say you work for insurance companies, what type
15 of accounting work do you do for insurance companies?

16 A Typically we're engaged to calculate damages in first
17 party insurance claims.

18 Q And in what areas do you hold yourself out as an expert
19 such as where you would be testifying in this case?

20 A Well, I've got 35 years of calculating loss damage
21 claims.

22 Q And when you say loss damage claims, does that include
23 loss damages for business interruption?

24 A Yes.

25 Q Did you previously evaluate business damages or damages

1 incurred by businesses as a result of fire before this case?

2 A Yes.

3 Q Is that something you regularly did?

4 A Yes.

5 Q Is that something you've been doing for 35 years?

6 A Yes.

7 Q Prior to this case have you evaluated business losses
8 suffered by daycare centers following a fire?

9 A Yes.

10 Q About how many occasions?

11 A Quite a few.

12 Q Are there any standards or guidelines that govern the
13 accounting work that you do in terms of determining business
14 interruption damages?

15 A Well, accounting has a variety of standards. And lost
16 profit damages there is standards and in general accounting
17 there is standards. Depends on the work that you're engaged
18 to do.

19 Q And do you have training in those standards?

20 A Yes.

21 Q What does that training consist of?

22 A Well, experience, courses, continuing education are
23 required.

24 Q And what did your continuing education consist of year
25 to year?

1 A Typically, well, it's forty credit hours per year.

2 Q You said you're a certified public accountant. Is that
3 a registration you have in any particular state?

4 A I'm licensed in Pennsylvania, New Jersey, Florida,
5 Louisiana and South Carolina.

6 Q Does your analysis of or calculation of business
7 interruption damages change from state to state depending on
8 the place you're doing your work for?

9 A No.

10 Q So if you were doing analysis in Pennsylvania, it would
11 be the same as if you were doing an analysis in New York?

12 A Correct.

13 Q What is forensic accounting?

14 A Well, we assist in calculating damages in areas where
15 there might be a dispute or there is a dispute, or just in
16 providing an expert opinion with the evaluation of what we
17 believe the insurance claims are.

18 Q And we had some discussion a little bit earlier about
19 business interruption damages. Could you plain for the jury
20 what business interruption damages are, or what business
21 interruption losses are?

22 A Business interruption losses are lost profits analyses.
23 Basically you're computing what would have occurred had no
24 loss taken place. And comparing that to what actually
25 occurred. And the difference is what you've been damaged.

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1 Q And performing that type of analysis, is that the type
2 of analysis you've been doing for about 35 years?

3 A Yes.

4 Q Have you previously been accepted by courts as an expert
5 in the same field we're seeking to have you testify today?

6 A Yes.

7 Q Have you ever been excluded by a court?

8 A No.

9 MR. UNDERWOOD: At this time, Your Honor, plaintiff
10 asks that the Court recognize Mr. Wright as an expert in the
11 field of forensic accounting including the calculating of
12 business interruption damages.

13 THE COURT: Any objection?

14 MR. BARRER: No, Judge.

15 THE COURT: He may testify. Again, members of the
16 jury, he is an expert because he is a CPA, he has a specialty
17 that he has spent 35 years doing. But you consider his
18 testimony along with the other evidence in the case and give
19 it whatever credit you feel it deserves.

20 MR. UNDERWOOD: Thank you, Your Honor.

21 Q Mr. Wright, when you were engaged to help us out in the
22 evaluation of this case?

23 A My recollection was late April, early May of 2013.

24 Q And who retained you?

25 A Your office.

1 Q Have you previously worked with our office?

2 A I may have.

3 Q How much are you being compensated for your work in this
4 case?

5 A Our average rate or our rates are between 125 and \$185
6 an hour.

7 Q What did we ask you to do in this case?

8 A You asked me to assess the lost profits business income
9 of Jack 'n Jill and Framark, Inc.

10 Q Did anyone suggest that what you did, that you should
11 make an independent determination as to what those damages
12 were?

13 A Yes, I made an independent assessment.

14 Q As part of your investigation, what did you do?

15 A Well, we reviewed the adjustor's files on the case. We
16 reviewed a series of documents provided by Framark,
17 14 Framark and Jack 'n Jill. These were historical results
18 of operations predating the loss and also the operating
19 results during the loss period.

20 MR. UNDERWOOD: Your Honor, may I approach?

21 THE COURT: Yes.

22 Q Mr. Wright, I'm going to show you a document we marked
23 as P79. Do you recognize what that document is?

24 A Yes.

25 Q As part of your investigation after reviewing the

1 documents that were provided to you, did you prepare a
2 report?

3 A Yes, we did.

4 Q And is P79 the report that you prepared in this case?

5 A Yes, it is.

6 Q Now you said you reviewed certain documents. What
7 documents did you review with regard to 14 Framark?

8 A Those documents are listed on Exhibit A.

9 Q The jury doesn't have a copy of that, so if you could
10 just give a brief explanation of what types of documents you
11 reviewed?

12 A We reviewed documents, the adjustor's reports,
13 Jack 'n Jill Childcare and 14 Framark policy information,
14 results of operations for Jack 'n Jill and 14 Framark. These
15 included payroll documents, variety of invoices and the
16 monthly results of operation as prepared by Jack 'n Jill and
17 14 Framark's accountant.

18 Q And did you reach any opinions with regard to the
19 business interruption suffered by Jack 'n Jill as a result of
20 the fire in this case?

21 A Yes, we did.

22 Q Did you make -- did you reach any opinions with regard
23 to any rent losses that were suffered by 14 Framark as a
24 result of the fire in this case?

25 A Yes. The business income loss with respect to

1 14 Framark.

2 Q With regard to the analysis that you performed, was that
3 analysis based upon the documents that you reviewed?

4 A Yes.

5 Q With regard to the lost rents suffered by 14 Framark,
6 what did you determine?

7 A We determined the loss.

8 MR. BARRER: Excuse me, Your Honor. May I
9 approach? I have an objection about 14 Framark. I would
10 rather make it outside the presence of the jury.

11 THE COURT: We'll take a break right now. Take 15
12 minutes.

13 (Jury excused for recess at 10:40.)

14 THE COURT: What's your objection?

15 MR. BARRER: I object to any testimony or
16 conclusions about lost rents to 14 Framark Drive.
17 Ms. LoMonaco testified this morning that those rents were
18 paid in full by other locations. Accordingly, there has been
19 no loss suffered by 14 Framark Drive. Whether Philadelphia
20 paid that claim is not our issue. The issue is whether
21 14 Framark actually suffered a loss. They shouldn't have
22 paid it.

23 MR. UNDERWOOD: Your Honor, if I may?

24 THE COURT: I thought she said what you said, but
25 then I thought she said that they got their rents paid from

1 the other entities.

2 MR. BARRER: They did, Judge. So, therefore, 14
3 Framark Drive suffered no financial damage.

4 MR. UNDERWOOD: Your Honor, if I could. I think
5 you're right. What she said is, yeah, they continued to get
6 money but they syphoned the money off from the other
7 entities. So as a result the entities together they still
8 suffered a loss, and that's what we're asking.

9 THE COURT: That's the way I -- you can straighten
10 it out. It seemed to me what she said, my understanding what
11 she said was that she lost -- they lost money as a result of
12 the fire but that they were able to keep the rents paid
13 because of other entities. You can get the transcript. Why
14 don't you do that?

15 MR. BARRER: Judge, I heard that as well. The loss
16 of rents was paid to 14 Framark by Jack 'n Jill's other
17 locations. Accordingly, the entity 14 Framark --

18 THE COURT: By Jack 'n Jill's other locations.

19 MR. BARRER: I agree, Judge. But the entity 14
20 Framark Drive was paid and suffered no damage. If
21 Philadelphia Insurance Company paid this claim and shouldn't
22 have, that's not the fault of anyone else. That's a loss
23 that Philadelphia Insurance has to address. They shouldn't
24 have paid that claim.

25 MR. UNDERWOOD: Your Honor, the insureds,

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1 14 Framark and Jack 'n Jill, there is a loss. Whether it's
2 classified one or the other, there is an overall loss because
3 they had to syphon monies from other locations that would
4 have been coming straight from Victor to 14 Framark.

5 THE COURT: But if Jack 'n Jill paid Mrs. LoMonaco
6 her rent, it doesn't matter if it's the Webster school or
7 whatever, what was the loss to your client? Where did she
8 lose rents on the place of the fire in Victor?

9 MR. UNDERWOOD: It would have been Jack 'n Jill at
10 that point would have suffered the loss. Jack 'n Jill
11 instead of taking money from the Victor location and
12 funneling it into 14 Framark, is now taking money out of
13 every other location and putting it into 14 Framark.

14 MR. BARRER: That's not what the claim in the
15 lawsuit is. The claim of the lawsuit is that Jack 'n Jill
16 lost profit. And the numbers that we have, Your Honor, in
17 the report are that Jack 'n Jill lost profits of \$74,351.
18 And we'll address that with Mr. Wright. And then there is a
19 separate claim for lost profits for 14 Framark Drive of
20 \$64,876. 14 Framark Drive did not lose \$64,876.

21 MR. UNDERWOOD: Your Honor, that's what we're going
22 to ask Mr. Wright about.

23 THE COURT: Ask him. He is right there. I want to
24 hear the answer.

25 Q Mr. Wright, did you review the documentation from 14

1 Framark Drive?

2 A Yes, provided by their accountant.

3 Q Did that documentation indicate a loss of rent?

4 A Yes.

5 Q And you looked at their financial information?

6 A Yes.

7 Q And it indicated that they were not receiving payments
8 for rent during that period of time?

9 A Yeah. Their accountant explained that insurance
10 proceeds were placed into 14 Framark and the mortgages were
11 paid with those proceeds. Jack 'n Jill did not pay rent.
12 The Victor location did not pay rent to 14 Framark.

13 THE COURT: Isn't that what this is about, though,
14 is the Jack 'n Jill's Victor building and the rents there?

15 MR. BARRER: The elements of the claim for economic
16 loss have not been stipulated to by the parties. We had
17 business property, that's been stipulated to. The physical
18 property, that's been stipulated to. We have two claims
19 left; lost profits to Jack 'n Jill, and we certainly can
20 address that, and lost rent to 14 Framark Drive.

21 I think Mr. Wright was here and heard Ms. LoMonaco,
22 she testified 14 Framark Drive was paid. So if it was paid,
23 it suffered no loss.

24 MR. UNDERWOOD: And the issue may have been she got
25 paid but got paid by the insurance company. Mr. Wright

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1 reviewed the documentation, the financial information, and it
2 will indicate whether they got paid.

3 THE COURT: Did she say she got paid by the
4 insurance company?

5 MR. BARRER: She said, and I urge Your Honor to
6 look at the transcript, she said she was paid by the other
7 locations of Jack 'n Jill.

8 MR. UNDERWOOD: I mean, the financial records that
9 we review will specifically detail.

10 THE COURT: Well, I've got to go with the
11 testimony. I'll have Eileen give me the testimony.

12 (Short recess.)

13 (Reconvene at 11:15, jury not present.)

14 THE COURT: I took a look at the transcript and it
15 seems to me Ms. LoMonaco, her statement was she wasn't sure.
16 She knows she got paid, it went in the bank. She's not sure
17 of how that came about but she knew every month there was a
18 payment made. So I'm going to permit the accountant. Do you
19 want to come back up, sir? And I want to hear more about it.

20 Insuring both the 14 Framark and they're insuring
21 the schools, the Jack 'n Jill schools, so she's not sure how
22 the money got there except there was a monthly payment.

23 MR. BARRER: Judge, I still will be free to
24 cross-examination on that?

25 THE COURT: Of course.

1 MR. BARRER: Thank you.

2 THE COURT: Get the jury.

3 (Jury present.)

4 THE COURT: I've reviewed a transcript and I saw
5 Ms. LoMonaco wasn't sure exactly how it came about that she
6 was paid, but they were paid on a monthly basis. So I'm
7 going to let him continue with his examination of this
8 witness.

9 *BY MR. UNDERWOOD:*

10 Q Mr. Wright, did you have an opportunity to review the
11 financial documents that came from 14 Framark?

12 A Yes.

13 Q With regard to the lost rents, had they been paid by
14 some source following the fire?

15 A Yes.

16 Q How did they get paid for the lost rents following the
17 fire?

18 A The revenue that they recognize contains insurance
19 reimbursements.

20 Q From your review of the claim filed, were you able to
21 determine which insurance company paid those reimbursements?

22 A Yes. Philadelphia.

23 Q Did you make a calculation of what the lost rent was
24 suffered by 14 Framark, aside from what they got paid by
25 Philadelphia insurance?

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1 A Yes. We calculated the lost business income profits
2 damages to be \$64,876.

3 Q Can you explain for the jury your process in determining
4 that amount?

5 A Yes. We projected the rent based on the schedule that
6 the accountant provided to us. We subtracted the actual rent
7 that was received during that time frame. The shortfall
8 results in lost rent and we deducted an amount for variable
9 costs.

10 Q And what was the final amount you came up with for lost
11 rent?

12 A The final amount was \$64,876.

13 THE COURT: Counsel, just a point. I was talking
14 to my clerk here, all the exhibits that have been presented
15 to the jury so far are received, is that correct?

16 MR. BARRER: Yes, Judge.

17 THE COURT: Okay. Can the jury make that out okay?

18 Q Mr. Wright, I'm going to show you a document we've
19 marked as P79E. Can you tell me what that document is?

20 A That is a schedule of lost rent.

21 Q And is this a summary prepared as a result of your
22 review of the documentation you obtained from the Framark, 14
23 Framark Drive's account?

24 A Yes, it is.

25 Q And what information is summarized in this exhibit?

1 A The first column are projected rents that were supplied
2 to us basically consisting of mortgage payments and some
3 additional costs that are in the payment.

4 Q Are those amounts the amounts that were supposed to be
5 paid if there hadn't been a fire?

6 A That is what Jack 'n Jill's rent would have been to be
7 paid to 14 Framark had there been no fire.

8 Q And did you review 14 Framark's documentation?

9 A Yes.

10 Q And aside from the insurance payment they got from
11 Philadelphia Insurance, did they show a loss of rent?

12 A 14 Framark's financial statements after the loss include
13 the rental reimbursement.

14 Q And if you backed out the rental reimbursement -- when I
15 say rental reimbursement, I mean reimbursement from the
16 insurance company, would they have shown a loss?

17 A Yes.

18 Q And is that the loss that you calculated?

19 A Yes.

20 Q Now, is this essentially a gross amount, a full amount?

21 A Yes, that's gross rent.

22 Q Mr. Wright, I'm going to show you a document we marked
23 as P79F. What is this document?

24 A This is a calculation of the relationship between rent
25 and the continuing operating expenses and profit of

1 14 Framark.

2 Q And is this a document that you prepared as a summary
3 from the financial records you reviewed?

4 A Yes. This is our calculation.

5 Q And why was it important to make this calculation?

6 A There was a small amount of variable costs that
7 14 Framark didn't incur as a result of the loss.

8 Q When you say variable costs, what do you mean?

9 A The accountant described them as being some fees and
10 some de minimis operating expense for the company.

11 Q When you say the accountant, is that based upon a
12 consultation you had with them or documentation you reviewed?
13 How did you get that?

14 A We reviewed documents and also spoke with the
15 accountant.

16 Q And who was the accountant?

17 A My recollection is his name is Mr. Thomes.

18 Q And as a result of this review, you came up with what
19 percentage of lost damage profit?

20 A Approximately 99.8 percent of the operating expense and
21 profits would be lost.

22 Q Mr. Wright, I'm going to show you a document we marked
23 as Exhibit P79H. Can you explain to the jury what this
24 document is?

25 A This is a summary of 14 Framark, LLC tax returns that

1 were provided to us.

2 Q And what was the reason for preparing this summary? How
3 did it incorporate into your calculations?

4 A It's a comparison of pre-loss and post-loss with noted
5 adjustments with respect to insurance reimbursements.

6 Q And does this indicate the insurance reimbursements that
7 14 Framark received from the insurance company?

8 A It includes insurance reimbursements.

9 Q Finally, Mr. Wright, with regard to the 14 Framark
10 rental loss, I'm going to show you a document we've marked as
11 Exhibit P79G. Can you just explain what's summarized in this
12 document?

13 A As I said, this is the application of the mathematics,
14 the ratio of the net profits and continuing expense
15 multiplied by gross rents that were lost.

16 Q So in that left-hand column where it says projected lost
17 gross rents, those were the amounts that Jack 'n Jill was
18 supposed to pay to 14 Framark during the period when the
19 business was closed?

20 A Yes.

21 Q And then based upon the variable costs that you backed
22 out, you applied the lost profit damages percent?

23 A Yes. For the most part is all right, the rent covers
24 the expenses.

25 Q And then you came up with a final lost damage, lost

1 profit damages for the lost rents?

2 A Yes.

3 Q And what amount is that?

4 A 64,876.

5 Q Did you also perform an evaluation of the lost profits
6 suffered by Jack 'n Jill Childcare, Inc.?

7 A Yes, we did.

8 Q Now did Jack 'n Jill have several different locations?

9 A Yes.

10 Q And was your analysis limited to the Victor location?

11 A Yes, it was.

12 Q And what did you do in terms of your investigation into
13 the lost profits suffered by Jack 'n Jill from the Victor
14 location?

15 A We obtained historical records on the Victor location.
16 We projected the results of operations for the period of
17 interruption. And we secured from the accountant the actual
18 results of operations during that period and subtracted them
19 from what we projected the business would have done had there
20 been no loss. The difference is the loss.

21 Q Now prior to the fire, was the Jack 'n Jill location
22 operating at a loss?

23 A Yes.

24 Q As a result of the fire, did it suffer greater loss?
25 Did it have profit? What happened?

1 A Yes, it suffered greater losses.

2 Q In terms of the documentation you reviewed in order to
3 reach your conclusions, what documentation did you review
4 relating to the business interruption loss suffered by
5 Jack 'n Jill?

6 A We reviewed those documents that are included on Exhibit
7 A, which are historical or pre-loss results of operations and
8 we recorded results of operations that appear on the books
9 for the Victor location made by the insurance accountant.

10 Q Did you review financial statements?

11 A Yes.

12 Q Did you review tax returns?

13 A Yes.

14 Q Did you review wage and payroll records?

15 A Yes.

16 Q And how did those records factor into your analysis?

17 A All of those records taken together and in conjunction
18 with one another led to our projection of operations,
19 profitability, or in this case of a net loss had there been
20 no fire, and we compared that to the actual net loss that was
21 recorded on the books, and the difference is the additional
22 loss that Jack 'n Jill suffered as a result of the fire.

23 Q Why did you use historical records?

24 A They serve as a foundation for judging and part of
25 analyzing and projecting.

1 Q When you say projecting, what do you have to project?

2 A You have to project the results of operations had no
3 loss occurred.

4 Q Did you make a determination of the length of time that
5 the daycare center was out of business or out of operation
6 based upon your review of the records?

7 A Yes.

8 Q What was that length of time?

9 A The business resumed some minor revenues in I believe it
10 was September of 2010 and the extended period under the
11 insuring agreement provided coverage for losses for another
12 120 days.

13 Q So is it fair to say that your analysis of the business
14 interruption for Jack 'n Jill consists of that one year
15 period plus 120 days?

16 A Yes.

17 Q So it is roughly about 16 months?

18 A Yes. The math would show 17 months because there is
19 partial months before and after.

20 Q And for the first 12 months that would be a period that
21 they had no revenue because they were completely out of
22 business?

23 A Yes. Their accountant records no revenue.

24 Q And what was the -- could you describe what the revenue
25 was once they came back into business for that first four

1 months?

2 A Yes. The accountant supplied internal financial
3 statements for the month of revenue derived by the company in
4 the subsequent 120 day period.

5 Q Were you able to make an analysis or compare what they
6 were earning in that first four months when they came back
7 into business as against what they were earning the four
8 months before they went out of business?

9 A Yes.

10 Q And what happened to their revenues?

11 A Their revenues in that 120 day period are still below
12 the historical average of the 12 months that precede the
13 fire.

14 Q Mr. Wright, I'm going to show you a document we marked
15 as P79B. With regard to this schedule, what does this
16 schedule relate to?

17 THE COURT: What is that, 79 what?

18 MR. UNDERWOOD: 79B.

19 Q Mr. Wright, what information is summarized in this
20 document?

21 A These are the fiscal year income statements for
22 Jack 'n Jill's Victor location.

23 Q And why did you need to look at the fiscal year income
24 statements for the Victor location?

25 A They summarize the results of operations, and in the

1 first two columns these are pre-loss, predate the fire, okay.

2 Q And from your review of the documentation, were you able
3 to determine how much revenue Jack 'n Jill earned in the
4 fiscal year that ended August 31, 2008?

5 A Yes.

6 Q And what did you determine for that year?

7 A Recorded on their records is \$251,197 of revenue.

8 Q And then the next year for the fiscal year ending
9 August 31, 2009, what revenue did they earn?

10 A They earned \$266,051.

11 Q So their revenue increased between 2008 and 2009?

12 A Yes, fiscal year.

13 Q Now for the fiscal year ending August 31st, 2010, did
14 you perform an analysis of that time period?

15 A We compared the fiscal year end statement for 2010 that
16 was supplied to us.

17 Q And the fiscal year ending August 31st, 2010 would have
18 incorporated or encompassed the time period when the daycare
19 center was out of business, correct?

20 A Yes. For 11 and a half months.

21 Q And what was the total revenue earned by Jack 'n Jill's
22 Victor location during that time period, fiscal year ending
23 August 31, 2010?

24 A \$9,970.

25 Q Did you also perform an analysis of the expenses that

1 were earned historically in 2008-2009?

2 A Yes.

3 Q Did you apply those against the revenue that had been
4 earned by Jack 'n Jill during that period of time?

5 A Yes.

6 Q Did you determine a net profit or loss that Jack 'n Jill
7 incurred for the fiscal year 2008?

8 A Yes.

9 Q What did you determine?

10 A The statement that was provided to us indicates net
11 operating loss of \$67,000 for the fiscal year ending August
12 of '08.

13 Q Did you also determine the net profit or loss for the
14 fiscal year that ended in 2009?

15 A Yes.

16 Q And what was the net loss for that year?

17 A The income statements supplied to us indicated that the
18 net loss was 45,000.

19 Q So the loss had decreased between 2008 and 2009?

20 A Correct.

21 Q What was the net loss for the fiscal year that ended
22 August 31, 2010?

23 A 98,000.

24 Q So it increased approximately \$53,000 year to year?

25 A Approximately.

1 Q So they had a greater loss of \$53,000 the year they
2 suffered the fire?

3 A When compared to the prior year preceding the loss.

4 Q That would be just the net profit and loss, correct?

5 A Correct. This is their internal financials.

6 Q Mr. Wright, I'm going to show you a summary that we
7 marked as Plaintiff's Exhibit 79C. What information is
8 summarized in this document?

9 A This is monthly revenue supplied for the period
10 September to August for the period ending 2007, 8 and 9.

11 Q Is this information that you generated in order to
12 finalize the summary that we just saw in the previous
13 document?

14 A This is information that was supplied to us by
15 Jack 'n Jill's accountant for the Victor location.

16 Q And when you came to the 12 month revenue calculations,
17 are those calculations that you used in ultimately
18 determining what their business interruption loss was?

19 A We calculated an average from those, for those three
20 periods.

21 Q Now I'm going to show you a document we've marked as
22 Exhibit P79D. Can you explain to the jury what's summarized
23 in this document?

24 A This is a projection of lost revenue for the period
25 September 2009 to January 2011.

1 Q And why did you have to make a projection?

2 A To forecast the results of operations had no fire
3 happened. All right.

4 Q How did you arrive at the projection for the 2009 and
5 2010 time period?

6 A We used the prior year, August 31, 2009, which is a
7 period that predates the loss. We used that average and
8 assumed that it would remain the same for the next 16 and
9 some months.

10 Q You testified earlier that during the time period prior
11 to the fire, the two years beforehand, the daycare center's
12 revenue had actually been going up, right?

13 A Correct.

14 Q Did you continue that increase in your projection?

15 A No, we did not.

16 Q Why not?

17 A We stabilized it.

18 Q Is that a conservative approach?

19 A Very conservative.

20 Q I'm going to show you a document we marked as Exhibit
21 P79A. Mr. Wright, what information is summarized in the
22 document we marked as Exhibit P79A?

23 A In the first column this represents the projection for
24 the lost period assuming no fire happened. The second column
25 represents the actual results of operations recorded by

1 Jack 'n Jill during that same time frame. The difference
2 represents revenue, reduction for revenue and variable costs
3 for non-continuing expenses that Jack 'n Jill did not incur
4 as a result of the fire happening. Their expenses were less.

5 Q Now although the daycare center was out of business
6 during that period of time, that twelve month period
7 following the fire, did they continue to incur certain
8 expenses?

9 A Jack 'n Jill recorded operating expenses on their books
10 and records.

11 Q Could you explain for the jury, generally speaking, what
12 those expenses were?

13 A Well, they include a variety of expenses, payroll,
14 operating expenses. They do not include rent.

15 Q Were you present in the courtroom when Ms. LoMonaco
16 testified?

17 A Yes.

18 Q Did you hear her testimony regarding the employees she
19 kept on the payroll from the Victor location following the
20 fire?

21 A Yes.

22 Q Based upon your review of the documentation provided by
23 the accountant, were those continuing payroll payments
24 reflected in those documents?

25 A They are reflected as continuing expenses for only those

1 individuals that were retained.

2 Q And is it fair to say that the largest continuing
3 expense for Jack 'n Jill in the period after the fire was for
4 wages?

5 A Yes.

6 Q After you did all your calculations and your projections
7 and then backed out the variable costs that they didn't
8 incur, did you make a determination of what the loss suffered
9 by Jack 'n Jill as a result of the fire was?

10 A Yes, we have calculated the business income lost profits
11 for Jack 'n Jill to be \$74,351.

12 Q Just to go back in terms to do the math. What was your
13 projection, what was your estimation of what their net profit
14 would have been for the period between September 2009 and
15 January 2011?

16 A We projected that Jack 'n Jill would have a net
17 operating loss of 63,000.

18 Q And what actual loss did they suffer in the period
19 between September 2009 and January 2011?

20 A Their records reflect that they suffered a net loss of
21 \$138,020.

22 Q So I went to law school so I'm a little thick sometimes
23 on the math. But basically how did you arrive at the \$74,000
24 increased loss?

25 A The difference between the two net profits, the

1 reduction in revenue less variable costs or charges,
2 non-continuing expenses.

3 Q Now based upon your evaluation, have all of your
4 opinions that you provided here today been relayed to us
5 within a reasonable degree of accounting and professional
6 certainty?

7 A Yes.

8 MR. UNDERWOOD: I have nothing further, Your Honor.

9 THE COURT: Cross?

10 MR. BARRER: Thank you, Judge.

11 *CROSS-EXAMINATION BY MR. BARRER:*

12 Q Still good morning, Mr. Wright. I'm Robert Barrer. I
13 represent Broan-Nutone.

14 I assume you are familiar with the review of businesses
15 with more than one location?

16 A Yes.

17 Q And that's very common nowadays, is it not?

18 A Businesses, some businesses have more than one location.

19 Q And with respect to Jack 'n Jill, that is a corporation?

20 A Yes.

21 Q And it's Jack 'n Jill Childcare, Inc. or something
22 similar to that?

23 A Yes.

24 Q How many locations does Jack 'n Jill have?

25 A I believe my recollection is there was seven. One was

1 vacant. There was six -- six, five, somewhere in there.

2 Q Do you have records to reflect how many locations
3 Jack 'n Jill had during the period of loss that you've
4 calculated?

5 A I have documents that indicate a number of locations.

6 Q But as you sit here today, you don't know how many
7 locations it had?

8 A My recollection is one was vacant and that there were
9 five operating at the time.

10 Q Can you tell me where they were located?

11 A Offhand no, not without the documents.

12 Q That's fine. Your records in your possession, the ones
13 that you reviewed, is it fair to say that they are confined
14 to the Victor location?

15 A Yes.

16 Q And is a corporation such as Jack 'n Jill one that would
17 prepare a consolidated financial statement at the end of the
18 year?

19 A I don't recall the consolidated financial statement. We
20 had a tax return.

21 Q Is that something that you would do if you were handling
22 the accounting for a business such as Jack 'n Jill?

23 A To the extent that they were all part of one
24 corporation, yeah.

25 Q It would be standard practice, would it not, to have a

1 consolidated financial statement and consolidated books and
2 records so that you know at the end of the year whether the
3 business is profitable or not, isn't that fair?

4 A Yes. There is a tax return for Jack 'n Jill.

5 Q And the tax returns that you looked at were for the
6 corporate entity which included all of the locations,
7 correct?

8 A The tax returns provided included all locations.

9 Q Did the tax returns break out location by location for
10 income and expense?

11 A No.

12 Q And that's standard as well, is it not?

13 A Yes.

14 Q Ms. LoMonaco is the owner and she certainly is entitled
15 to be paid and we hope that she is. Did your records reflect
16 from what entity she was paid?

17 A She was not paid from the Victor location after the
18 fire.

19 Q Was she paid before the fire from the Victor location?

20 A Yes.

21 Q Was she also paid from other locations before the fire?

22 A I can only talk about Victor location.

23 Q So the answer to that is you do not know. Correct, you
24 don't know?

25 A Correct.

1 Q Thank you. And the period of the claim that we're
2 speaking about is September 17, 2009 through January 31 of
3 2011, is that true?

4 A Yes.

5 Q And you mention a name Mr. Thomes. Who are the regular
6 accountants for Jack 'n Jill? Do you know the name of the
7 company?

8 A I believe it is Tim Thomes.

9 Q Where is Mr. Thomes located?

10 A My recollection is Rochester, New York.

11 Q Just up the road. Do you know where Rochester is?

12 A Given a map I can point to Rochester.

13 Q During the course of the work that you performed, did
14 you meet and talk with Ms. LoMonaco or anybody from
15 Jack 'n Jill to learn about the records and the operation?

16 A We were directed to Mr. Thomes as the person best able
17 to answer our questions and provide documents.

18 Q Is that a no?

19 A I did not talk to Ms. LoMonaco.

20 Q If you don't understand my question, sir, I would be
21 happy to rephrase it.

22 A Okay.

23 Q How many times did you talk to Mr. Thomes?

24 A There were a few occasions. I would have to consult my
25 notes.

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1 Q Do your notes reflect the number of times that you spoke
2 with him?

3 A They may. I know that some of my notes do. All of my
4 conversations don't necessarily get recorded.

5 Q But the most important ones would be?

6 A We spoke with Mr. Thomes, yes.

7 Q Did you also speak with representatives of Philadelphia
8 Insurance?

9 A We spoke with their counsel.

10 Q In the course of the review of records, you've listed a
11 large amount of information, and that's Exhibit A to your
12 report. Is that the sum total of the information that you
13 reviewed in order to come up with the opinions that you've
14 given here today?

15 A They are the documents that we reviewed.

16 Q Sir, is that a yes? I'm asking a very simple question.

17 A Yes.

18 Q Thank you. Did you know at the time you began your work
19 how much money had been paid by Philadelphia Insurance to
20 Jack 'n Jill and 14 Framark Drive?

21 A We were given their client file which included payments.

22 Q Sir, I apologize but I'm really asking very simple
23 questions.

24 MR. UNDERWOOD: Your Honor, I would object.

25 THE COURT: Do you want him to answer yes or no?

1 MR. BARRER: Yes.

2 THE COURT: Why don't you tell him that.

3 MR. UNDERWOOD: I object. It appears Mr. Barrer is
4 being argumentative with Mr. Wright.

5 THE COURT: I don't think he is being
6 argumentative. Here's the rule. He asks you a question, are
7 you warm, the answer is yes or no. Right?

8 THE WITNESS: Yes.

9 THE COURT: Well, I'm an accountant from such and
10 such and went to LaSalle. Just answer yes or no, unless you
11 cannot. And if you can't answer him, because sometimes you
12 can't answer a question yes or no, just tell him I can't
13 answer that yes or no. He will rephrase it. But I think he
14 is asking you right now just answer yes or no, if you can.
15 If you can't, tell him.

16 MR. BARRER: Thanks, Judge.

17 Q That's all I'm trying to get at, Mr. Wright, if I ask
18 you a question and you can't answer, please just tell me and
19 I'll try to help you out with that.

20 Did you hear Ms. LoMonaco this morning testify that the
21 rents for 14 Framark Drive were paid by other locations from
22 Jack 'n Jill?

23 A I heard Ms. LoMonaco testify, yes.

24 Q And did you look at the books and records of any other
25 location of Jack 'n Jill to determine if that was so?

1 A With respect to 14 Framark or Jack 'n Jill?

2 Q Yes.

3 A I'm sorry.

4 Q It was a poor question and I'll try it again. Did you
5 look at any records from other than the Victor location to
6 see whether any Jack 'n Jill entity paid the rent to
7 14 Framark Drive?

8 A No.

9 Q In terms of profitability of a business, is it correct
10 that you need to understand many different factors such as
11 revenue, expenses, costs and the like?

12 A Revenues, expenses, costs are documented in their
13 historical information.

14 Q Right. And since we can't know anything to a
15 mathematical certainty, what you're doing is making
16 projections based on historical facts?

17 A Yes, that's correct.

18 Q And when you do those projections, you look at a past
19 performance of an entity, whether it's Jack 'n Jill or
20 something else, to see how it's done in the past and then you
21 make your projections on what should have happened or could
22 have happened going forward?

23 A Historical results serve as a basis for a jumping off
24 spot for projecting.

25 Q And you would agree with me, you use this word basis,

1 it's not a certainty. Past performance doesn't equal a
2 guarantee of what would have happened in the future?

3 A Correct.

4 Q Did you test your hypothesis of what the losses were
5 going back using Jack 'n Jill's records? Did you look at the
6 records and say, okay, this makes sense because here's a
7 result and this year and this year and this year, did you go
8 back and do that?

9 A We looked at prior results of operation and considered
10 them in formulating our opinion.

11 Q Did you as part of this opinion process consider other
12 factors besides pure economic performance in the past?

13 A Yes.

14 Q What other factors did you consider?

15 A The results. The historical pattern of revenue
16 increase. How things were at that time.

17 Q When you say how things were, do you mean the economy in
18 general?

19 A Yeah.

20 Q And we all know what happened in 2008 and continuing,
21 the economy took a down turn?

22 A Well, the economy was in a down turn in 2008.

23 Q Did you consider the effect of the general economy
24 whether in Victor, Western New York, New York State or the
25 country as a whole, in formulating your estimates and

1 projections of what the revenue would have been for
2 Jack 'n Jill?

3 A We felt that it was best and that the results would be
4 most probable to base our projection on the 12 months
5 immediately preceding the loss.

6 Q But my question is a little bit different. It was,
7 apart from using the past 12 months of performance, did you
8 consider the general economy because we don't know what
9 definitely would occur going forward?

10 A Yes. That's why we did a projected increase.

11 Q All right. Did you consider other factors in the
12 performance of the company such as an owner's interest in
13 continuing the business?

14 A I'm not quite certain what you mean.

15 Q Sure. You've had work in the past for businesses where
16 an owner has decided, a key person has decided to retire or
17 do something else, and that affects a business, is that so?

18 A Yes, it can.

19 Q And we know that didn't happen here. But did you
20 consider that as a possibility?

21 A We assume that this is a going concern, this business
22 will continue.

23 Q Did you consider the cost structure of the business and
24 whether that would have changed in the period of time that
25 you were considering?

1 A Yes. It's in our projections.

2 Q Did you consider the effect of competition?

3 A No. To the extent that that's not already factored into
4 the results of operations.

5 Q How would the effect of competition be factored into the
6 results of operations?

7 A This is an established business. It's an established
8 business with increasing revenue.

9 Q Do you know whether there were any competing childcare
10 centers that opened in the vicinity during this time period?

11 A No.

12 Q Are you familiar with the economy in Victor, New York,
13 as opposed to any other part of New York State?

14 A Not offhand, no.

15 Q Are you familiar with any local issues that might affect
16 a business in Victor, New York?

17 A We were not aware of any local issues.

18 Q Did you discuss -- I apologize if I asked this question.
19 You did not meet and discuss anything with Mrs. LoMonaco or
20 anyone from Jack 'n Jill, correct?

21 A Correct. We spoke with the individual that they
22 designated who was their accountant.

23 Q As part of this review of documents, of all the records
24 of Jack 'n Jill and 14 Framark Drive, did you come upon a
25 lease entered into between Jack 'n Jill and 14 Framark Drive?

1 A We were told that no lease existed.

2 Q I recognize you're not a lawyer and if you don't know
3 the answer, please tell me. Was there an obligation on the
4 part of Jack 'n Jill to pay 14 Framark Drive anything?

5 A They paid rent prior to the fire. Their accountant
6 related to me that they had to pay rent and couldn't.

7 Q Did the accountant say why Jack 'n Jill had to pay rent?

8 A That was their agreement.

9 Q And what was the term of the agreement that you
10 understood to be in effect?

11 A We were provided with a list of rent that Jack 'n Jill
12 was projected to pay.

13 Q Were you led to understand any other terms of this
14 agreement, such as did Jack 'n Jill have to pay for
15 insurance, did Jack 'n Jill have to pay utilities, did
16 Jack 'n Jill have to pay mortgage, taxes, anything of that
17 nature?

18 A Jack 'n Jill had rent, they had interest, they had
19 utilities at the Victor location.

20 Q And was it your understanding, apart from what you saw
21 in the records, that it was the obligation of Jack 'n Jill to
22 pay this?

23 A We were given to understand that Jack 'n Jill was
24 obliged to pay rent.

25 Q And that came from Mr. Thomes?

1 A Yes.

2 Q Thank you. At page 2 of your report you summarize the
3 tax records of Jack 'n Jill, correct?

4 A Yes.

5 Q And was that the corporate entity Jack 'n Jill or the
6 Victor location of Jack 'n Jill?

7 A Jack 'n Jill's Victor location.

8 Q Do you know whether the corporate Jack 'n Jill was
9 profitable or not?

10 A In some years it was profitable, in others it was not.

11 Q And if a company was profitable, would I be correct that
12 that profit would be reflected on its income tax return?

13 A Yes.

14 Q And I'm not an accountant and it may not come out right,
15 so you correct me if I'm wrong. In order to determine
16 profitability when you look at a tax return, you have to see
17 what all the income is, take out the expenses and deductions
18 and anything that you can deduct, and what's left would be
19 the profit and you tax that, correct?

20 A Yes.

21 Q Can you tell me for the year -- strike that.

22 What does it mean to have a fiscal year for a company?

23 A Operations for that company end on a date other than
24 December 31st, which is an annual period.

25 Q And for Jack 'n Jill, am I correct that its fiscal year

1 ran from September 1 of one year to August 31 of the
2 following year?

3 A Correct.

4 Q And that would be reflected in the 2008 tax return of
5 Jack 'n Jill?

6 A Yes.

7 Q And do you know offhand what the results were for
8 Jack 'n Jill for its fiscal year ending 8/31/09?

9 A Not without the return.

10 MR. BARRER: Judge, may I approach?

11 THE COURT: Yes.

12 MR. BARRER: I cannot identify the specific number
13 because it was Bates stamped on to another document. I can
14 hand one up the Court. There is a Bates stamp number. It's
15 part of the records that were provided in Mr. Wright's. May
16 I approach, Your Honor?

17 THE COURT: Yes.

18 Q Sir, I've handed you the first page of the Jack 'n Jill
19 corporate tax return for 2008. Can you tell me whether the
20 company was profitable or not profitable in that fiscal year?

21 A The tax return reflects an operating loss of \$59,632.

22 Q And that is not broken down by any one location?

23 A Correct. That is for Jack 'n Jill Childcare
24 Incorporated.

25 Q Can you tell me, sir, whether in any of the years

1 preceding the fiscal year that we've just discussed ending
2 August 31, 2009, whether the Jack 'n Jill corporation was
3 profitable?

4 A There were years of profit.

5 Q Which ones?

6 A Offhand I couldn't tell you. I would have to look at
7 the tax returns.

8 Q Sir, would the tax returns be contained in the records
9 that you reviewed and provided to the attorneys for
10 Philadelphia Insurance?

11 A Yes, they were part of the documents sent to us.

12 Q Sir, let me show you, if I may, this is Bates stamped
13 Thomes docs 03714. I have one for the Court. May I
14 approach, Your Honor?

15 THE COURT: Yes.

16 Q Sir, is that the face page of the 2007 return which is
17 for the fiscal year ending August 31, 2008?

18 A Yes.

19 Q And what was the profit or loss for the Jack 'n Jill
20 company for that fiscal year?

21 A There was a profit of \$7,946.

22 Q And have you seen any returns other than this 2007
23 return that shows a profit for this company?

24 A Without the tax returns in front of me, I couldn't tell
25 you. I believe there were other years of profitability.

1 Q Sir, if I were to tell you that I read through every
2 single record that you provided and there are no earlier
3 returns, would you take my word for it?

4 A I guess.

5 Q In essence, this business was losing money at the time
6 of the fire but you think it lost more as a result of the
7 fire?

8 A That's correct.

9 Q Did the expenses of Jack 'n Jill fluctuate, change up or
10 down during this closure period?

11 A They went down.

12 Q Did they remain constant through the closure period?

13 A Maybe you can help me with that.

14 Q Certainly. In order to perform your calculations, you
15 looked at the expenses that were incurred during the time
16 when the center was closed, correct?

17 A Correct.

18 Q On a monthly basis did the costs incurred by
19 Jack 'n Jill during this period remain exactly the same?

20 A No.

21 Q Did they go up and down?

22 A Yes.

23 Q Why is that?

24 A That's how they were recorded, the expenses.

25 Q What expenses increased and which ones decreased during

1 the closure period?

2 A The operating expenses provided to us on a monthly basis
3 varied in their amount.

4 Q But my question, sir, is which ones went up and which
5 ones went down and why is that? Do you know?

6 A Again, I'm a little confused by your question.

7 Q Certainly, I'll try it again. I apologize for being
8 unclear. The business was closed during this period,
9 correct?

10 A Correct.

11 Q And you've indicated that it incurred some expenses
12 during this closure period, correct?

13 A Correct.

14 Q And you've also said that those expenses went up and
15 down during the closure period?

16 A Expenses are recorded on the books on a monthly basis by
17 the accountant and there is variability in them.

18 Q Why is there variability in a business that is closed
19 and not operating?

20 A Because not all expenses are fixed to an amount every
21 month.

22 Q Is one of the expenses that is variable salary?

23 A Salary is variable as they were recorded.

24 Q Did you compare the salary of the individuals who were
25 kept on payroll and compare it to what they were paid prior

1 to the fire?

2 A In aggregate.

3 Q Do you know the names of the people who were kept on
4 salary?

5 A Without my records, no. My recollection is I believe
6 one of the last names was Dattilo, but I could be --

7 Q Dattilo?

8 A Dattilo.

9 Q What I'm trying to get at is did you look and see
10 whether the amount of salary that was paid to the people that
11 were kept on the payroll was the same for those people as it
12 was prior to the fire?

13 A We looked at the salaries during the loss period and I
14 believe in prior periods these people were retained and their
15 salaries were recorded.

16 Q But my question is a little different. You have, let's
17 use, for example, Ms. Dattilo. She was kept on payroll
18 during the closure period, and we know from Ms. LoMonaco why
19 she did that. My question is, was the amount of money she
20 was paid during this closure period the same as it was prior
21 to the closure period for this individual?

22 A Offhand I can't tell you without my documents in front
23 of me.

24 Q And would it be correct that you do not know whether any
25 given individual, and we'll use Ms. Dattilo as an example,

1 also received salary from another Victor location?

2 A Ms. Dattilo, I believe it is, was recorded on the Victor
3 location by the accountant for monthly payroll.

4 Q But you don't know whether she was also listed on the
5 Webster payroll for part of her salary, do you?

6 A The records that were provided to me indicated that the
7 salary was the Victor location.

8 Q Sir, my question was different. Do you know whether she
9 also received salary and it was credited toward the Webster
10 location?

11 A No.

12 Q You don't know?

13 A No. Her salary was recorded at the Victor location.

14 Q But you don't know whether there was also salary
15 recorded at another location where she was actually working,
16 correct?

17 A Correct.

18 Q Thank you. Did you compare the expenses incurred by
19 Jack 'n Jill on a corporate basis during the closure period
20 to prior to the closure period? You told us that you've
21 looked at the Victor location and that's how you formed your
22 projections?

23 A Correct.

24 Q But Jack 'n Jill is a corporation with many locations.
25 My question, sir, is, did you look at the expenses that this

1 corporation incurred during the period of closure and compare
2 that globally to what was incurred prior to the fire?

3 A Yes.

4 Q And how did you do that?

5 A With the tax returns.

6 Q When you used the revenue loss, you did that on a
7 monthly basis. You did an average I think it was 22,000 and
8 change. Would you take a look at your records, anything you
9 have? I call your attention to P79D, that's Schedule IV.

10 A Yes.

11 Q And the projected revenue was \$22,060 per month?

12 A Correct.

13 Q And is that if you go back a page to Schedule III, that
14 was the average for the year 2008-2009?

15 A Yes.

16 Q And was the average for the preceding year lower?

17 A Yes.

18 Q Was the average for the year preceding that lower still?

19 A Yes.

20 Q When you do economic projections, is it appropriate to
21 use the highest available number for making projections?

22 A No.

23 Q Did you use of the available numbers in your records --
24 we have 2006 to 2007, 2007 to 2008, and 2008 to 2009, did you
25 use as the basis of your projection the highest average of

1 any of the years?

2 A We used the 12 months average 2008 to 2009. There are
3 many different averages within those numbers that can be
4 calculated.

5 Q Well what is the average you used?

6 A We used 22,060.

7 Q How did you get that number? Did you add up all the
8 revenue that was expected and divide it by 12?

9 A Yeah.

10 Q And that's an average?

11 A Correct.

12 Q And the average of that was the 22,060 number?

13 A Correct.

14 Q And that's the highest average that you could find of
15 any of the numbers that are reflected on Schedule III of your
16 report, isn't that so?

17 A Yes. It's the most recent.

18 Q Thank you. As to the 14 Framark Drive rent claim, the
19 issue, as I understand it, is what 14 Framark Drive would
20 have received in rent had there not been a fire?

21 A Correct.

22 Q And you said you don't know based on the records that
23 you've seen whether any other Jack 'n Jill had paid that
24 rent, all you know is Philadelphia Insurance paid something?

25 A We were provided with a schedule by Mr. Thomes that

1 indicated the projected rent and the amounts that were
2 deposited from the insurance proceeds in those accounts.

3 Q Were there saved expenses for 14 Framark Drive, the
4 entity, during that period?

5 A We estimate that there are a small amount of saved
6 expense.

7 Q What are they?

8 A They have to do with fees and de minimis costs booked to
9 that account.

10 Q Did you look at the tax returns of 14 Framark Drive?

11 A Yes.

12 Q And for what period of time?

13 A Fiscal year ending 8/31/2009, fiscal year ending
14 8/31/2010, and fiscal year ending 8/31/2011.

15 Q Anything prior to that?

16 A No.

17 Q Did you request tax returns for any prior years other
18 than what was given to you by Mr. Thomes?

19 A We might have. I would have to look at my file.

20 Q Would it be your practice to request additional records
21 when you do an assignment like this?

22 A We request documents in an historical basis, so we
23 probably would have asked for more.

24 Q You don't know in this particular case whether you did
25 that?

1 A I would have to look back at my documents.

2 Q And if Jack 'n Jill, the corporation, paid the rent to
3 14 Framark like Ms. LoMonaco said this morning, would you
4 agree with me that 14 Framark Drive suffered no loss?

5 MR. UNDERWOOD: Objection, Your Honor. I think
6 that misstates what her testimony was.

7 THE COURT: Overruled. Can you answer that?

8 A Answer the question? If Jack 'n Jill, if some other
9 entity paid 14 Framark and they received rent that they
10 otherwise would have gotten, then there would be no loss.

11 Q Thank you.

12 A But that's not my understanding.

13 Q Well, did you hear Ms. LoMonaco testify this morning?

14 A Yes.

15 Q And did you hear her say that other Jack 'n Jill
16 entities paid 14 Framark Drive for the rent?

17 A I heard her testimony. I didn't --

18 Q Do you think she knows better than you how Jack 'n Jill
19 operates?

20 A I was told by her accountant who records the books and
21 records and the results.

22 Q Sir, that isn't my question. If you could answer yes or
23 no. Do you think Joyce LoMonaco knows better than you how
24 Jack 'n Jill Childcare, Inc. operates?

25 A Yes.

1 MR. BARRER: Thank you.

2 THE COURT: Redirect?

3 MR. UNDERWOOD: Yes, Your Honor.

4 *REDIRECT EXAMINATION BY MR. UNDERWOOD:*

5 Q Mr. Wright, Mr. Barrer, counsel for the defendant, asked
6 you about your analysis of the Jack 'n Jill corporation as a
7 whole. Do you remember that question?

8 A Yes.

9 Q Did we ask you to analyze the operations of the
10 Jack 'n Jill corporation as a whole?

11 A No.

12 Q What aspects of the Jack 'n Jill corporation did we ask
13 you to analyze?

14 A Victor.

15 Q Do you have an understanding of why we asked you to
16 analyze only Victor?

17 A Because that's where the fire was.

18 Q Did any other Jack 'n Jill locations have a fire?

19 A To the best of my knowledge, no.

20 Q If you were going to analyze the effect of the fire on
21 the corporation, what location would you focus your inquiry
22 on?

23 A Victor.

24 Q You also received some questions related to the effect
25 of the general economy. In the historical data you used,

1 what years were included in that historical data?

2 A Revenue 2006 to 2007, revenue 2007 to 2008, revenue 2008
3 to 2009. The fiscal year end financial statements for
4 Victor, for the fiscal year ended 8/31/08. The fiscal year
5 ended 8/31/09, which is another 12-month period that has no
6 loss. And then the fiscal year ended 8/31/10. And that's a
7 period of 12 months that includes approximately 11 and a half
8 months of loss.

9 Q Mr. Wright, you're a certified public accountant,
10 correct?

11 A Correct.

12 Q And in that capacity do you have understanding or
13 experience relating to the conditions of the general economy?

14 A Yes.

15 Q Do you have an understanding of when the economy either
16 went up or went down in that period of 2007, 2008, 2009?

17 A Yes.

18 Q What happened during that period of time?

19 A Beginning in 2007 we had troubled times and Jack 'n Jill
20 still increased their revenue.

21 Q And did you take into account those troubled times in
22 your historical projections or historical analysis?

23 A Yes.

24 Q You also received some questions from defense counsel
25 relating to the effect of competition. Do you remember those

1 questions?

2 A Yes.

3 Q And Mr. Barrer asked you if you had considered
4 competition from other locations?

5 A Correct.

6 Q And you didn't consider competition from other locations
7 in this instance, did you?

8 A Did not think it to be material.

9 Q In the past you have analyzed the operations of daycare
10 centers, correct?

11 A Correct.

12 Q Did you hear the testimony from Ms. LoMonaco this
13 morning regarding the effect of the fire on her operations?

14 A Yes, I did.

15 Q Did you hear what she said regarding the number of
16 students she had before the fire?

17 A Yes.

18 Q What was the recollection of what she said there?

19 A My recollection was that she had approximately 34
20 students.

21 Q Do you remember what her testimony was with regard to
22 how many students they had when they reopened?

23 A Well, they had none. They had to get their market back.

24 Q Did you hear her testimony that they started out with
25 one student after the fire?

1 A Correct.

2 Q In your experience analyzing the business operations of
3 daycare centers, would a drop off from 34 students down to
4 one be consistent with increased competition?

5 A No. That would be 12 months of not having your building
6 from a fire loss.

7 MR. UNDERWOOD: I have nothing further.

8 THE COURT: Anything further?

9 MR. BARRER: Nothing, Judge, thank you.

10 THE COURT: You may step down, sir.

11 Members of the jury, we'll take our recess at this
12 time. 1:30 okay? Remember your obligations as jurors not
13 talk about the case.

14 THE CLERK: Court's in recess.

15 (Recess at 12:21.)

16 (Reconvene at 1:30.)

17 THE COURT: Are we all set? Let's bring the jury
18 in.

19 (Jury present.)

20 THE COURT: Please be seated, Members of the Jury.
21 Anybody go to lunch downstairs? Call your next witness,
22 please.

23 MR. PAOLINI: Plaintiff calls Howard DeMatties.

24 THE CLERK: Please state your name and spell your
25 last name for the record.

1 THE WITNESS: Howard Harvey DeMatties;
2 D-E-M-A-T-T-I-E-S.

3 HOWARD DEMATTIES, called as a witness and
4 being duly sworn, testifies as follows:

5 DIRECT EXAMINATION BY MR. PAOLINI:

6 Q Good afternoon. Could you state your name for the
7 record, please?

8 A My name is Howard DeMatties.

9 Q Mr. DeMatties, are you employed?

10 A I am.

11 Q With whom are you employed?

12 A A company called Forensic and Failure Analysis,
13 Incorporated.

14 Q Where is that business located?

15 A It's located right here in Syracuse, New York.

16 Q How long has that business been in operation?

17 A Since May of 2005.

18 Q And have you been with the company since May of 2005?

19 A Yes, I have.

20 Q What is your title at the company?

21 A I am the president and CEO as well as forensic engineer.

22 Q Are you the owner of the company?

23 A I'm one of the owners, yes, sir.

24 Q How long have you been an owner of that company, sir?

25 A Since May of 2005.

1 Q If you could describe the type of work your company
2 does, sir?

3 A Sure. We investigate losses. Most of those losses are
4 insured losses to property or life, and my company's a
5 multi-discipline engineering company, so we do structural
6 losses, mechanical engineering losses, as well as electrical
7 losses.

8 Q How many employees does your company have, sir?

9 A We have -- I'm not sure what the total is, we have --
10 just give you a breakdown, it's a little easier. We have
11 three electrical engineers, a mechanical engineer, a
12 consulting structural engineer, as well as support personnel,
13 administrative assistants and other support personnel.

14 Q If you could set forth your education, please?

15 A Sure. I went to Plattsburgh State University 1982 to
16 1985, as well as Stony Brook University from 1985 to 1986. I
17 then began working in the engineering field at a company
18 called JDR Systems Corporation. Over the years I also have
19 gone to the Montour Falls Fire Academy.

20 I believe in 1993 I took origin and cause investigation
21 as well as arson awareness and was a Level I New York State
22 certified fire investigator at that time. I have attended
23 multiple seminars throughout the years, you know, as well as
24 taught several seminars myself.

25 Q And we're going to go through in detail. Just want to

1 kind of work in a chronological order here.

2 MR. PAOLINI: Judge, if I may just approach to put
3 the witness's CV in front of him so he has it. It might make
4 things go better.

5 Q Now Mr. DeMatties, I've put what's been marked as P73 in
6 front you. Do you recognize that document, sir?

7 A Yes. That's my CV.

8 Q Your resume, essentially?

9 A Yes.

10 Q Lists all your education and your work experience and
11 training?

12 A Correct.

13 Q Okay. Now the education part, I would like to start
14 there. Let's strike that. Let's start with your work
15 experience. You referenced JDR Systems Corporation I believe
16 a minute ago, is that correct?

17 A That's correct.

18 Q When did you begin working for JDR?

19 A In August of 1986.

20 Q And at that point what type of work -- first, if you
21 could, describe the type of work that JDR performs or
22 performed at that time?

23 A Sure. At that time JDR System was also a
24 multi-discipline engineering firm. We did several things.
25 We did research and development. Some of that was for the

1 Central New York Regional Transportation Authority here in
2 Syracuse. We were doing some research and development for
3 Cherry Point. We were also doing some manufacturing at that
4 time. And then the final thing that we did was we also did
5 some forensic electrical engineering at that time also.

6 Q Now you were at JDR for how long?

7 A Well, from 1986 to 2005.

8 Q So when you left JDR is when you began operating the
9 business you currently own, Forensic and Failure Analysis?

10 A That's correct.

11 Q So by my calculation you were with JDR about twenty
12 years?

13 A Correct.

14 Q Did you hold one position throughout that twenty years?

15 A No.

16 Q A lot of different positions?

17 A Yes.

18 Q Let's start at the beginning with what you started doing
19 at JDR and then how you advanced.

20 A Sure. So originally when I began to work with them in
21 August of '86, we were working on something called an ALCT,
22 which is an Accelerated Life Cycle Test. And at that time I
23 was assigned to that project.

24 What we were doing is this was in the early stages of
25 development of handicap bus lifts for the northern climate.

1 And what I mean by that is the bus lifts that are on your
2 Centro buses, for example. This was in the infancy stage and
3 what was happening is they were having major maintenance
4 issues and failures because of our climate essentially. What
5 a lot of people don't realize is that those were actually
6 developed, the lifts that they put in those buses were
7 developed on the west coast, and so they brought them to
8 Syracuse and, lo and behold, nothing worked right.

9 So what we did is we did what is called an ALCT, or
10 Accelerated Life Cycle Test, project, and we used vibration
11 tables, used temperature controlled chambers, salt sprays,
12 all these different methods. And then we computer controlled
13 them to test these lifts to find out their potential failure
14 modes and why they weren't lasting in our climate. And
15 ultimately we ended up incorporating those design changes
16 based on that data. So we took ten years of life on a lift
17 and did it all in one year, on several lifts.

18 And so then we incorporated these design changes and
19 reported them to the manufacturer. And I got to travel to
20 the west coast for extended periods of time at that time to
21 the manufacturer's facilities to try to do this, to try to
22 incorporate these changes and information. And then we also
23 developed a specification for northern climates for these bus
24 lifts. So when I first began there, I was working on those
25 projects mainly.

1 Q Now, if I understand, was most of the training you were
2 getting on-the-job training essentially?

3 A Correct.

4 Q And did that involve training with electrical type
5 things as you're describing?

6 A Yes. I mean, part of that project really runs the gamut
7 because you're working with motors and hydraulics and
8 vibration tables, and most of the equipment we were testing
9 was electrically controlled and hydraulically operated with
10 motors and pumps. And actually I was part of the design team
11 that designed the actual equipment that we were using to test
12 it.

13 So all this, as you can imagine, can't be operated 24/7,
14 so we designed a program to run all this equipment
15 automatically and then installed the equipment and connect it
16 and do the data analysis, the reporting, all of that.

17 Q And the job you're describing, approximately how long
18 did you do that, sir?

19 A Well, that was my primary job. And that probably
20 lasted -- because I did have other duties also, but that was
21 what my focus, most of my time was on that project. And I'm
22 thinking probably a year and a half to two years that was the
23 primary focus. I mean, when I say primary, some weeks I
24 probably would work 32 hours on that and then eight hours on
25 other stuff. Or I didn't usually work forty hours back then

1 but just to give you an example, my main project was that.
2 And then my duties would be spread out on other jobs. And
3 that probably lasted a year and a half, something like that.

4 Q Did you take other positions within the company as it
5 progressed?

6 A I did.

7 Q If you could describe some of your experience.

8 A Sure. My next primary job focus and job duty was to get
9 me involved in we were designing and manufacturing equipment
10 for the railroad industry, and at that time what we were
11 doing is a lot of people don't realize this but rails are
12 actually lubricated with grease on corners so that as a train
13 goes down a track and your wheel turns, they'll lubricate the
14 inside flange so as it goes around the corner, it will have
15 the inside flange lubricated.

16 Now back in the early eighties that was all mechanically
17 and hydraulically operated so there were no electronics
18 involved in that. What we did was we developed equipment to
19 computer control. You say, well, why do we need a computer
20 to control that?

21 THE COURT: Can you push that mic a little farther
22 in front of you? You're picking up a little bit.

23 THE WITNESS: Sure.

24 A So what the issues were, we had to figure out what was
25 going on the problems. And why they were coming to us to do

1 that was that you could have this equipment running in Texas
2 at 110 degrees and then have the same equipment trying to run
3 in Canada at minus 20 or minus 30 degrees. And so as you can
4 imagine grease isn't -- the fluids will not operate under
5 those same conditions.

6 So what we designed was basically a controller, computer
7 controller that would account for all the variables. And
8 then what it would do is it would use an encoder on a motor,
9 and an encoder is basically like a sensor to tell you how
10 much the motor's operating. And so our computer would
11 determine how much grease we're going to put on there based
12 on the base settings that they put in, and then basically
13 measuring all those variables. And then the little encoder
14 wheel is telling it what the motor is actually doing. And
15 you run into all kind of various problems such as the grease
16 actually doesn't start to flow right away once you hit the
17 pump and start actually moving the motor. So we use that
18 encoder wheel and then change that program to adjust those
19 factors. And then we would have a very -- rather than having
20 a big pile of grease on a warm day and no grease on a cold
21 day, you had an even flow of the grease and that was part of
22 the project.

23 And then that project spun off into we actually
24 developed wheel sensors, believe it or not, for the train
25 wheels. Because part of that project was they were just

1 using what was off the shelf for a wheel sensor and we
2 developed what was called a strain gauge sensor. And what
3 that was, that's actually pretty cool, mounted on a piece of
4 metal and it's a little sensor and the strain gauge sensor
5 could actually detect the deflection of the rail as the wheel
6 passed over. You actually clamped that right to the rail and
7 detect that minute deflection as the wheel passed over. And
8 that was important because we wanted to make sure the
9 lubrication was going there when the wheel was there. So
10 that's another project that spun off of that.

11 I started in those projects. And then eventually I
12 became a project manager of that whole equipment, the quality
13 control design and engineering changes. I was involved in
14 all aspects of it, the return components for failure
15 analysis. And in that environment you can imagine there is a
16 lot of difficulties as far as determining what's going wrong
17 and the equipment is not lasting. So that was sort of the
18 next step as far as main project duties I was working on.

19 Q And I guess the area -- how much electrical type work
20 did you do for JDR?

21 A It was all electrical work, everything I was doing. I
22 mean, we got to go back, you know, there is not many things
23 in this world that are just electrical. I mean, we have all
24 the interrelated equipment that works with the electrical
25 equipment. So like, for example, I was talking about the

1 project with the lifts. You got mechanical equipment,
2 hydraulic equipment all interconnected. I was acting in the
3 aspects of the electrical failure analysis, electrical
4 equipment design, trouble shooting, quality control, that was
5 all electrical equipment that I was working on.

6 Q And that's one of the areas I wanted you to explain to
7 the jury, the electrical failure analysis type work you did
8 at JDR.

9 A So in the meantime while I'm doing that, I mentioned
10 that the company also did forensic engineering. And so while
11 I'm doing those projects, how it works basically is our
12 company would be called to investigate an insurance loss
13 also. And so, for example, someone may request that we go
14 perform a forensic investigation at some point in time along
15 the way and some days I was out working on that. So that was
16 sort of interspersed along with my main projects.

17 Q When did that type of work -- when did you start
18 performing that type of work at JDR?

19 A It was a gradual process. And so I would probably say
20 that I started to do some of that investigation fairly
21 quickly. And I don't have a specific recollection, but I
22 know I would have gone out to assist other engineers.
23 Originally that's how you do it, you would go out and assist
24 another engineer on a project, originally when you first
25 start that work.

1 It may have been six months, probably six to eight
2 months from the time I started working at JDR Systems before
3 I started and I just don't have a specific recollection when
4 that was.

5 Q And what type of investigations were you conducting,
6 sir?

7 A All the investigations were forensic electrical
8 investigations.

9 Q When you were at JDR, could you put a number on how many
10 electrical forensic investigations you believe you performed?

11 A Sure. Well, I was there for about twenty years. I was
12 actually a partner in that company for 13 of those years, the
13 last 13 years. And I also actually was a CEO, Chief
14 Executive Officer, there also.

15 And so what happened is, and this is based not on me but
16 more about how the business works. The business of forensic
17 engineering works that, you know, I don't advertise my
18 services. So essentially what happens is once people get to
19 know your work, they call you. I mean, that's really just
20 about it. You don't get many jobs in this business without
21 being known. If you just were an engineer and you came out
22 and said I want to start forensic engineering tomorrow,
23 nobody is going to call you because they want to know what
24 your level of work is.

25 The reason I'm saying that is because how your work

1 ramps up is dependent on that phenomenon. So what would
2 happen is people were calling the lead engineer that I was
3 working with initially and they eventually started calling me
4 and they were calling me rather than other people. So to
5 come with a total number, again it's like a ramping up, I
6 would say probably somewhere close to 800, 900
7 investigations, somewhere in there. And that's an estimate
8 based on I know how many I've done now, it might have been a
9 little bit more. I just don't have an exact number.

10 Q And how many total have you done up to date? You said
11 you had an idea.

12 A I've done over 1,500 forensic electrical investigations.

13 Q And I guess would the company you now own, Forensic and
14 Failure Analysis, if I'm understanding your testimony, did
15 you essentially continue to conduct forensic electrical
16 investigations upon purchasing or starting Forensic and
17 Failure Analysis?

18 A Yes. That's all we do is forensic investigation. All I
19 do is forensic electrical investigation.

20 Q And I should clarify, did you purchase the company or
21 did you form the company?

22 A I formed the company.

23 Q You built the company?

24 A Yes.

25 Q And you're still in business today?

1 A Yes.

2 Q Okay. Now, in order -- I want to start talking a little
3 bit about the training you had and I'm guessing based on your
4 experience you had a lot of training, is it fair to say?

5 A Yes.

6 Q So let's maybe -- you can certainly use your CV as a
7 reference point. What type of training have you had starting
8 with your earliest training with respect to forensic
9 electrical engineering investigation, sir?

10 A So I mentioned in 1993 I went to New York State Fire
11 Academy in Montour Falls and I took a couple courses there;
12 one, fire behavior and arson awareness, and the other was
13 origin and cause determination.

14 After you take those courses, forty hour course the two
15 of them combined, then you have to do so much fire
16 investigation experience and then you become, you request to
17 become certified. Mr. Harloff may have testified about this
18 the other day. And then they either do or do not grant you
19 certification. So I was certified that same year.

20 Q And what did that certification mean, sir?

21 A That's a New York State, New York State Level I
22 certified in origin and cause investigation.

23 Q And what additional training have you had?

24 A Additional courses that I have taken, in '94 I took
25 education methodology at the academy. Part of the reason I

1 took that course was I was getting a lot of requests to
2 instruct courses and teach courses, so that course basically
3 teaches you how to teach adults information that you're
4 trying to get across to them. So I took that in 1994. I
5 took a couple other classes in '96 and '98 that really
6 weren't related to fire investigations specifically. And
7 then I attended probably, I know I have several seminars
8 between now and 2012, probably another six or seven seminars
9 between that period of time. In addition to that, I also was
10 teaching some courses and developing courses.

11 Q What is the IAAI?

12 A That's the IAAI, is called the International Association
13 of Arson Investigators.

14 Q And did you do any training for them?

15 A I belong to the Chapter 23, which is the Central New
16 York region. And not only did I do training, I also was on
17 the committee to help develop the forty hour origin and cause
18 investigation course. I was on the committee also to develop
19 the eight hour electrical investigation course, teach
20 investigators, and then I've also taught that course.

21 Q What professional certifications do you hold, sir?

22 A I'm in the National Fire Protection Association. You've
23 heard that referred to already as NFPA. I'm in the
24 International Association of Arson Investigators, as well as
25 the International Association of Electrical Inspectors, or

1 IAEI.

2 Q You just mentioned NFPA. I think the jury has heard
3 this, but is that essentially a standard that you follow or a
4 guideline?

5 A NFPA 921 is a guideline. It's a peer review document.
6 And I mentioned to you how I was on a committee to develop
7 the IAAI course. NFPA 921 is a peer review document, so what
8 happens there is they started out with a draft and published
9 it, and then at every couple of years they go through all the
10 peers in the industry and decide, okay, we want to change
11 this, we want to change that. And then they come up with a
12 group agreement on what those changes should be and then they
13 change it and release a new edition.

14 So it's a peer reviewed fire investigation guide, but
15 there are some pretty major changes from publication to
16 publication because it's a peer reviewed process. And
17 hopefully always getting a little bit better, that's what
18 we're striving for.

19 Q Sure. What is the National Electric Code?

20 A The National Electric Code is the book that we use and
21 is typically adopted by municipalities to identify the proper
22 way of wiring structures. Some municipalities may not adopt
23 it or may adopt a little more stringent version of the
24 National Electrical Code, but it's pretty widely used.

25 Q Have you ever taken any courses with respect to the

1 National Electric Code?

2 A I don't believe I have ever taken an individual course.
3 I've been working with the National Electric Code since,
4 well, 1986. I mean, I read books, the NEC, that's what we
5 call the National Electric Code, back as early as I believe
6 1973 because we referenced that document quite often.

7 Q Did any of the training that you've had involve
8 identification of electrical sources of ignition?

9 A Yes. In addition to the work experience that I'm
10 talking about, the training that we receive at Montour Falls
11 Fire Academy in seminars discusses different types of
12 failures that can occur, failure analysis, as well as I've
13 taken some other burner programs, maybe, for example, in
14 19 -- I'm sorry, 2008. I took a program on investigating
15 residential units that have burners that may have failed,
16 that type of thing.

17 Q You described 1,500 investigations or so. Are the
18 majority of those conducted here in New York?

19 A I would say the majority are, yes.

20 Q But you do work elsewhere in the country as well?

21 A Yes. I've worked in multiple states. I worked in
22 Pennsylvania, New Hampshire, Vermont, Iowa. I would say, I'm
23 trying to think, pretty much the whole northeast I worked in
24 and then a couple states out west.

25 Q Do you have experience investigating appliance fires?

1 A Yes.

2 Q Approximately how many investigations have you
3 conducted?

4 A That's a tough call, as far as just a category of
5 appliance fires. As far as my database, we put in what the
6 unit is, I don't know if I ever sorted on just a category of
7 appliance. I would say if I were to estimate out of the
8 1,500 investigations, half of those may be appliances
9 actually. A good portion of those would be appliances,
10 appliance investigations.

11 Q Would that include investigating fires involving exhaust
12 fans?

13 A Yes.

14 Q I assume you probably don't -- does your database
15 include the numbers of those?

16 A It probably does, but typically what we enter into the
17 database is just it's not consistent from case to case
18 because the early information that we get on a case is not
19 always consistent and where that case ends up is not always
20 where it began. They may call up and say we think it's a
21 circuit breaker panel started the fire and we may find
22 something completely different. So it would be hard for me
23 to go and search those specific cases.

24 Q Have you testified in court previously?

25 A I have.

Howard DeMatties - Direct - Mr. Paolini

300

1 Q Have you testified in criminal matters?

2 A I have.

3 Q Approximately how many criminal matters have you
4 testified in, sir?

5 A I would say I know I've testified on several. I would
6 say three come to mind that I can think of, three criminal
7 matters that I've testified in in trial. It may be more, but
8 I'm just estimating.

9 Q Did you testify as an expert witness?

10 A Yes.

11 Q In what area?

12 A In forensic electrical investigation.

13 Q Have you testified in court in civil matters?

14 A I have.

15 Q Approximately how many of those?

16 A Well, my recollection is that I've testified
17 approximately just at trial, not including arbitrations or
18 depositions, but in trial my recollection is I've testified
19 probably like 16 times. So I'm thinking it's probably like
20 around 13, somewhere around there, three of those were
21 criminal. I mean that's an estimate.

22 MR. PAOLINI: Your Honor, at this time plaintiff
23 would ask that the Court accept Mr. DeMatties as an expert in
24 the field of forensic electrical investigations.

25 THE COURT: Mr. Duggan, any objection?

1 MR. DUGGAN: No objection.

2 THE COURT: Okay. Just remember, you're the
3 finders of the fact. He is just another witness that has an
4 expertise. See how his testimony stacks up with everything
5 else. It's for you to evaluate.

6 Q Okay. Now, you're familiar with the fire at the Jack 'n
7 Jill Daycare Center, is that correct?

8 A Yes, sir.

9 Q And you're here testifying on behalf of the plaintiff,
10 is that correct?

11 A I was -- I think that's yes. I mean, I'm here to
12 testify what I found in the investigation. I was retained by
13 the plaintiffs counsel, yes.

14 Q Okay. You're being compensated for your time here?

15 A Yes, sir.

16 Q What is your hourly rate?

17 A I believe now it's \$190 an hour.

18 Q Now --

19 A I should qualify that. That excludes travel time. I
20 charge less for travel time, I apologize.

21 Q Have you testified in civil cases -- or, have you been
22 retained by both plaintiffs and defendants in civil cases?

23 A Yes, I have.

24 Q So you don't limit your work to one side or the other?

25 A No. As I mentioned earlier, I don't advertise so it's

1 whoever calls me first is basically I just take the case and
2 investigate the loss, that that's the person that hired me.

3 Q So I assume you carry a cell phone around and make sure
4 you get the call. Now, did you conduct a forensic electrical
5 engineering investigation with respect to the fire at the
6 Jack 'n Jill Daycare Center?

7 A Yes, sir, I did.

8 Q And did you issue a report setting forth the opinions
9 that you're going to testify here about today?

10 A Yes, I did.

11 Q Do you have a copy of your report with you?

12 A I don't have one up here.

13 Q Would it help to have a copy of your report in front of
14 you?

15 A Sure.

16 Q I'm going to put this in front of you. If you could, I
17 think you testified a little earlier that forensic electrical
18 engineering investigations are governed by NFPA 921?

19 A Well, yeah. I mean, it's a guide that we generally
20 follow, yes.

21 Q Okay. It's not a step by step guide. It's just a
22 guideline that you can refer back to, is that fair?

23 A That's fair.

24 Q In terms of a forensic electrical engineering
25 investigation, what type of things -- just generally

1 speaking, we're going to get to what you did, what was
2 involved here. But for the jury's sake if you could explain
3 what's involved?

4 A Sure. NFPA 921 basically states that you have to use a
5 scientific method to investigate a fire. And so, critically
6 speaking, that's really the aspect that we try to stress to
7 investigators when we're teaching these courses, that you
8 want to have a methodology and that methodology should be the
9 scientific method.

10 So what does that entail? That entails you first have
11 to figure out what the problem is. You have to define the
12 problem that you're trying to investigate. In this case it's
13 a fire. So we have a fire that we're investigating. The
14 next thing that we have to do is that we have to start to
15 collect information and data about that fire. That comes
16 from all kinds of sources. It can come from Investigator
17 Harloff. It can come from Ms. Suffredini as a witness
18 statement. It can come from chemical analysis or
19 metallurgical analysis. It can come from testing. It can
20 come from photographs. That's all the data collection
21 process.

22 So that's really the next step. Once you know what the
23 problem is, okay, we had this fire. The next thing we're
24 going to talk about is let's collect the data. And one of
25 the main things is the witness statements, obviously.

1 The next thing that you do is you want to, based on that
2 data you want to create a hypothesis as to what you think
3 happened, how you think the fire started. What you may say
4 is I'm going to say the fire started here. If it started
5 here, the next thing I would expect to happen would be this,
6 and the next thing is this. It's called deductive reasoning.

7 Once you get to that point, now you're saying I'm going
8 to either prove or disprove what my theory is based on this
9 process of deductive reasoning once I've gotten to that
10 point. Based on all of your factors some things may fall
11 into place and some things may fall by the wayside and
12 doesn't fit. In that case the next thing you do is say,
13 okay, let me hypothesize that the fire started in this
14 manner. That's the next process. So we go to that theory.
15 We use that theory and use the same process.

16 Deductive reasoning is a part of what they call testing.
17 Some people get hung up on, well, you didn't test this or
18 didn't test that. That's part of the test, deductive
19 reasoning process, and it states in 921 that if you have a
20 hypothesis and developed that this sequence of events
21 occurred, and based on that hypothesis above all others it
22 fits that sequence, then you can theorize that's how the
23 occurrence happened, the loss. Maybe in this case it's a
24 fire loss. May be electrocution or electric shock or control
25 system failure, but in this case it's a fire.

1 Q Are there any -- you mentioned witness statements is
2 something you would consider?

3 A Yes.

4 Q What other things do you consider as part of your
5 investigation, sir?

6 A Well, in this case we're obviously talking about a fire,
7 so I'm going to just direct about a fire and not another type
8 of loss. So in this case in a fire loss we have witness
9 statements. We have some good witness statements in this
10 case. In addition to witness statements, we have burn
11 patterns, fire patterns that occurred in the fire.

12 Now let's talk about that later on. But you'll learn in
13 the process of this trial that burn patterns will change
14 during a fire over the progress of a fire. But we have burn
15 patterns and we're going to analyze them.

16 The next thing that we want to talk about is arc
17 mapping, and we're going to get into that also. You've heard
18 a little bit mention about it with Investigator Harloff, but
19 there is something called arc mapping that we do in a fire
20 scene investigation, and we're going to talk about that some
21 more.

22 And the fourth thing is almost not a fourth thing, it's
23 almost in combination with the third, which is arc mapping,
24 and that's fire dynamics. And I'm going to describe to you
25 as we get further along how the fire dynamics and the arc

1 mapping work in conjunction with the whole analysis of your
2 theory.

3 So let me just reiterate those. We've got witness
4 statements, burn patterns, arc mapping and then fire
5 dynamics.

6 Q What is an arc?

7 A You've all seen arcs, I'm pretty sure. Real simple
8 example of an arc would be if you have the lights off in your
9 room and you get up in the middle of the night to go to the
10 bathroom and you throw the switch on and you see a little
11 spark. That's an arc. That arc is under controlled
12 conditions, it's designed to do that. It's got the right
13 materials and the contacts, it's made to arc when it turns on
14 and off, that's a designed feature of that. That's what an
15 arc is.

16 What it is is a luminous discharge that's contained in a
17 gas plasma that occurs when a conductor of one voltage
18 transfers current to a conductor of a different voltage. And
19 that sounds pretty complicated. Real simple explanation
20 would be if you took a voltage wire, could be off your
21 battery cable, and ground it out and see spark. A lot of
22 people have seen something like that. What's happening
23 you've got a voltage potential difference between hot,
24 12-volt cable and the ground, say negative cable, or it could
25 be your car actually. So that's your spark. And so what

1 happens is it's transferring current from one conductor to
2 the other. And when that happens it creates heat. Spark has
3 got heat in it, right. And those can be very localized high
4 temperatures in the thousands of degrees Fahrenheit. And I
5 don't know if you ever looked at a cable like that, but if
6 you ever look at it after you arc it, you will see a little
7 spot on there where you arced it. Arc welding is another
8 example. That's what the arc is and it creates that little
9 tiny melt spot on the wire and that's called arc damage.

10 So a lot of people refer when they say arcs, I'm looking
11 for arcs, what they mean is that they're looking for the
12 damage that was created by that arc. Okay. And you probably
13 all experienced that to some extent.

14 Now in the microscopic level that actually happens in
15 the switch. You get those little tiny arcs, actually
16 microscopic damage to these contacts. In this case the
17 damage is a little bit larger but it's not that large, it's
18 very small still. But it can create a little bead and pit on
19 the wire when that arc occurs. So it creates an artifact for
20 later examination, the damage created by the arc.

21 Q Now, I think a few minutes ago you mentioned arc
22 mapping, is that correct?

23 A That's correct.

24 Q What is arc mapping, sir?

25 A So arc mapping, we're going to start out with I just

1 mentioned what an arc was. So we look for this damage
2 created by arcs in the fire scene. Okay. And again it's a
3 little tiny melt spot on a wire. The theory of arc mapping
4 is this. And it's really pretty simple actually. If I were
5 to start -- say this is a wire right here that had three
6 conductors inside that wire and I lit it with a lighter
7 underneath it. Okay. Now let's assume that there is power
8 in that wire. And we know what's going to happen, right, is
9 I light that insulation on fire and started burning and
10 charring, what happens is the wires that were originally
11 separated by insulators, the insulator's charring, it's
12 burning, and it becomes a semiconductor. All that means is
13 that it will allow current to pass, it's a damaged insulator.
14 It's no longer properly insulating one conductor inside the
15 insulation from the other conductor that's inside the
16 insulation. So what can happen is you can have current
17 transfer from one to the other and create this arc phenomenon
18 that I'm talking about.

19 So the theory of arc mapping is really pretty simple,
20 and that is that the fire where the earliest fire development
21 occurs is where you're going to find these arcs. And why is
22 that in a structure? Because as the fire develops and it
23 arcs the wires from the fire development, what's supposed to
24 happen? Well, what's supposed to happen in your house or in
25 a building, you have what's called a breaker in your breaker

1 panel. Most people know that because they've tripped a
2 breaker at some point in their life. And that breaker
3 protects your wiring in your structure, that's designed. So
4 say you have a 20 amp breaker, that's supposed to protect a
5 12 gauge cord. So the capacity of the wire is matched to the
6 capacity of the breaker.

7 So that if I heat that wire up from a fire, the breaker
8 turns it off and shuts power off. So during a fire that's
9 happening. As the wires are heating up and burning, it's
10 popping breakers off in the panel. That's what's supposed to
11 happen and we see it in all the fires. So if you think about
12 that conceptually, as you get further away from where the
13 earliest fire development is, it's going to trip breakers
14 out. So as you move away from that area, power should be off
15 to other circuits because the breaker is already tripped. So
16 as you move away from that earliest fire development, an arc
17 is going to occur at the earliest spot. Arc is going to
18 occur. Say, for example, I'm lighting this up. Once that
19 arc occurs, then we assume the breaker is tripping out like
20 it's supposed to. A continuing fire heats up that cable,
21 what's going to happen? It's not going to arc because there
22 is no power on, the breaker tripped and the power shut off.

23 It's a fairly simple concept. What it's doing is trying
24 to tell you where the earliest fire development is. Where
25 the earliest fire development is. And when you have a large

1 fire, it's important to use that arc mapping process to help
2 you try to determine where that is.

3 Q If you could just briefly talk about when you referred
4 to arcing through char, what that means?

5 A Yes. That's the process I just described to you.
6 Arcing through char means that the wire has power on it and
7 it's charring for some reason. There is fire in the area of
8 the wire while it's got power. And it creates this arc
9 phenomenon. And that leaves a little pit, a little divot on
10 the wire as evidence that that's what happened.

11 Q What is alloying, sir?

12 A Before I talk about alloying, I need to talk about fire
13 heat. And so, you know, all materials have a melt
14 temperature. So say for copper, most of our wiring is copper
15 and in this fire we have copper wire. Okay. The copper
16 itself, if you just heat the copper wire up, it will melt at
17 1,981 degrees Fahrenheit, just to heat it up. If you can
18 heat it up to 1,981 degrees Fahrenheit, the wire is going to
19 melt.

20 Now alloying is another melt phenomenon from heat. I
21 didn't say anything about arcing. We just said we brought
22 the temperature up high enough to melt the wire. Alloying is
23 another phenomenon and what's happening there is you have
24 more than one type of metal. So here we have copper. Quite
25 often what you have is you also have aluminum in fire scenes.

1 And in this case we have aluminum. And where we have the
2 aluminum is what we call MC cable, metal clad cable. MC
3 cable, what you have is you have conductors on the inside,
4 the copper wires, and then you have the insulating material
5 around the copper wires, and then those are all inside what
6 looks almost like a big metal slinky. It's an outer jacket
7 of metal. That's why they call it metal clad, it's clad.
8 That outer jacket can be aluminum, it can be steel but it can
9 also be aluminum. We have both in this case.

10 When that aluminum melts at a much lower temperature,
11 1,100 degree range, 1,100 to 1,200, depends on the exact
12 composition of the aluminum but in that range, compared to
13 1,981. It's a much lower temperature melting. And when that
14 melts on to the copper wire, it creates what we call an
15 alloy. And what an alloy does is it can lower the melting
16 temperature of the copper. So the lower melting temperature
17 of the aluminum has now lowered the melting temperature of
18 the copper, which now can melt at a lower temperature than
19 1,981 degrees Fahrenheit, and that creates a melt pattern.

20 Q What is conduit?

21 A Well, conduit, there is different types of conduit.
22 There is PVC conduit, there's steel conduit. In this case
23 here we have steel conduit. It's basically a metal pipe,
24 that your wires are run inside the metal pipe.

25 Q Why are wires sometimes run through conduit?

1 A In general it's to put more than one section of wire
2 inside the run as well as to protect the wiring.

3 Q Why is wiring put in this, the protective MC coating
4 that you referenced?

5 A The MC cable, again it has an outer jacket. There is
6 more than one reason. Many times it's put in for electric
7 shock protection because the outer jacket is grounded, so it
8 offers an additional level of protection. And also
9 additional levels of mechanical protection, it's an area
10 where mechanical damage is of concern. One other, finally
11 it's also used when there is dampness, dampness issue or
12 excessive moisture. So if there is excessive moisture
13 they'll use the metal clad.

14 Q Now turning your attention to the Jack 'n Jill Daycare
15 Center, have you been out to that property?

16 A I have.

17 Q How many times did you go out to the proper?

18 A I went out there two times, I believe.

19 Q And what was the purpose of going, for you to go out
20 there?

21 A Well, the first time I went out, I simply documented the
22 site with photographs. It was determined at that point that
23 other people had to be put on notice to get a chance to come
24 look at the fire scene. We did. We stopped. We did that.

25 Other people then arrived at the second site visit to

1 perform a joint, what we call a joint fire scene examination.
2 And basically the joint fire scene examination, we all
3 jointly examine the fire site, we determine step by step
4 process what the protocol is going to be, and then we collect
5 artifacts based on, again this is a joint exam, so
6 everybody's considered, everyone's discussed what we're going
7 to do next, what would you like, what would I like, and we
8 perform that job.

9 Q Earlier Investigator Harloff, there is a point in the
10 investigation when he gets to a determination of an item and
11 then he leaves it for someone else to come along and look
12 further. Is that essentially a role you serve?

13 A Yes.

14 Q If you could, why don't you describe the construction of
15 the Jack 'n Jill Daycare Center?

16 A Sure. So I know you've seen a diagram of it.

17 Q Would it help if I put that up?

18 A Certainly.

19 Q Showing you what's been marked P120, is that the diagram
20 you were referring to?

21 A Yes.

22 Q Okay. And the focus of this case I think has all been
23 on the one half of the building. I wanted to make sure that
24 was real visible. You were going to describe the
25 construction of the building, sir.

1 A I'm not sure if you've seen photographs of the outside
2 of the building, but this is a block construction building
3 around the perimeter. And then what they did is they built
4 interior walls, Sheetrock construction. The building itself
5 is basically like a big rectangle and it runs from east to
6 west and you can see that in the direction up there. They
7 then put the truss roof system on top of the wall plates and
8 the interior walls come up to the bottom of that truss roof
9 system, the bottom chord of the truss roof system. And then
10 this particular building has basically a center hall
11 construction, so it's got the central hall and then rooms off
12 from each side.

13 Q I'm going to put up the picture that you just
14 referenced. It's actually D34 and it's 092309. A minute ago
15 you were talking about the outside of the building?

16 A Yes.

17 Q If you could describe?

18 A Sure. So this is the west end of the building. You can
19 see on the right-hand side the block constructed building,
20 that's the west end. To the left there you can see a power
21 pole on the left-hand side and out near the road, that's the
22 power pole that served power to this structure. The
23 transformer, what they call a can, it's located on the top up
24 on the pole. At the time of my inspection the primary wire
25 had been disconnected to the transformer. The wires go down

1 that pole, go underground across the yard to the northwest
2 corner of the structure, actually on the north wall on the
3 northwest corner.

4 Q And the truss system you were describing, where would
5 that be in the photo?

6 A So that's -- I'm not sure. Can we just draw on this? I
7 can point it out. I'm going to draw a triangle on here
8 because that's the roofing system that we're talking about.
9 Well, I'll just do a couple arrows there. You can see the
10 block wall on the right-hand side of that right hand arrow
11 and then you can see the bottom chord of the truss that comes
12 across that would be the bottom of the triangle, the roof
13 system essentially.

14 Q Now you indicated the electrical service comes in on
15 the, is it the northwest side of the building?

16 A It comes from the pole on the northwest corner of the
17 structure out by the road underground to a meter box that's
18 located on the north wall, northwest corner.

19 Q And if you could describe the electrical system at the
20 Jack 'n Jill Daycare Center?

21 A Actually if you had the other diagram, that would be
22 useful.

23 Q I'm showing the witness P120.

24 A So I'm going to just put an arrow on the meter. It's
25 where that red box is there and it's an electric meter. So

1 the underground cables would come over from that utility pole
2 and up to that utility meter. They then go underground to
3 the electrical panel where I just put the bottom right-hand
4 corner, the arrow in the bottom right-hand corner.

5 Q I'm going to try to zoom that in a little better for
6 you. The electric panel, where was that located?

7 A (Indicating).

8 Q Was this a fuse panel? Circuit breaker panel? What was
9 it?

10 A It's called a Crouse Hinds 200 amp distribution panel.

11 Q Did you at some point examine the electrical panel?

12 A I did.

13 Q I show you what's been marked D34, it's 092309. Do you
14 recognize what's depicted in this photograph?

15 A Yes, I do.

16 Q And what is that, sir?

17 A So that's the circuit breaker panel that we just
18 discussed. At the top you have the main breaker, which I
19 sort of put an arrow near it. It's to the right of that
20 arrow a little bit. And then you have all your -- so the
21 main breaker, so you understand, it turns the whole panel
22 off. And then you have a branch of circuit breakers all down
23 below that. And those circuit breakers supply the circuits
24 to the rest of the structure.

25 Q And what was the reason for examining the panel?

1 A Number one, we want to make sure that there is no safety
2 issues. And when you're investigating a fire, obviously,
3 you're always concerned that there may be power on. We go
4 back and we have power off at the utility pole I told you,
5 and also the meter had been removed, but we double check to
6 make sure there's no power at that pole. The next thing that
7 we do is to document that to see if some of the circuit
8 breakers were tripping, based on what I was saying earlier
9 how we expect the breakers to trip as the fire progresses.

10 Q Did you -- what observations did you make with respect
11 to the circuit breaker panel?

12 A I observed there was -- I observed that it was soot
13 covered.

14 Q What do you mean by soot covered?

15 A There was evidence of black soot on the surface of the
16 panel. I also observed that several of the breakers were
17 tripped. Not all of the breakers were tripped but several
18 were tripped.

19 Q And finding evidence that it was soot covered, did that
20 raise any type of concern or was that something you would
21 have expected to find after a fire?

22 A That's something that I would have expected to find and
23 also in case the cover was on at the time of the fire.

24 Q You found, I believe you said, some breakers had been
25 tripped?

1 A Yes.

2 Q And again what, if anything, did that indicate to you?

3 A Well, number one, we see if all the breakers are
4 tripped, and the reason why we want to know if all the
5 breakers are tripped is that heat itself can trip breakers
6 thermally just without having an arc on the circuit. And
7 when that happens typically they all trip. We didn't have
8 that here.

9 Secondly, we wanted to see what size the breakers were,
10 if they were for the proper sized wire. We go back to what I
11 was saying earlier about the capacity of the breaker being
12 matched to the capacity of the wire. So those are the things
13 that we're looking at with respect to the panel.

14 Q And did you make any observations with respect to those
15 issues?

16 A I did.

17 Q And what were those, sir?

18 A The breakers that were -- we did observe breakers that
19 were tripped. And my recollection is eleven of the single
20 pole breakers -- when I say single pole, what I'm referring
21 to most of your circuits are 120-volt circuits is your house
22 and you have a couple 240-volt circuits, and that's like your
23 drier or your range. So the single pole circuits are for
24 like your outlets or your lights. Nineteen of those. Eleven
25 of those were tripped, so we know that they didn't all trip,

1 number one.

2 Number two, they were all 20 amp breakers, so that's the
3 capacity of the breaker. And we also checked the capacity of
4 the wire was 12 gauge wire, which was properly rated. So has
5 the proper capacity for the proper sized wire.

6 Q I assume you found -- did you find any evidence that a
7 fire started involving the panel?

8 A No, there is no localized interior damage or no arc
9 damage or anything like that.

10 Q Now as part of your investigation when you're doing the
11 exams, what other things did you do? You testified of the
12 exam of the panel. What else did you do in terms of just a
13 visual exam of the facility?

14 A So we start out our fire investigation by looking at the
15 areas with the least amount of fire damage. So we examined
16 those areas with the least amount of damage and then we kind
17 of moved in toward the area of most damage. So that was the
18 first thing that we did. And again taking photographs at the
19 same time that we're doing that to document the condition.

20 Q And did you do that in this case?

21 A I did.

22 Q What other things did you do to examine this fire scene?

23 A I then began to determine how these circuits were run in
24 the structure. Turns out that they come up from the panel
25 with conduit and some MC cable, and they run multiple

1 circuits of conduit out to the hallway and then they run the
2 conduit down the hallway to the junction boxes and then
3 spread the breaker circuits out from there into the area
4 where we think the heaviest burn damage was.

5 Q And was there an area or section of the building that
6 became the focus of the investigation?

7 A Yes.

8 Q What area of the building was that?

9 A That was the two year old room with attached bathroom.

10 Q And why was that?

11 A Well, obviously, first because we had witness statements
12 early on that talked about seeing fire first in the fan in
13 the bathroom, the two year old bathroom. In addition, the
14 other areas that I described to you, the utility room and the
15 other rooms had significantly less damage, less fire heat
16 damage. A lot of the combustibles were still there. Had
17 some minor heat damage but nothing like some others.

18 Q But you, nonetheless, went through the entire structure?

19 A Yes, I did.

20 Q What type of investigation did you conduct in the two
21 year old classroom?

22 A So the two year old, initially you recall that we just
23 photographed it on the first day. The second day that we
24 went back there were multiple parties represented on the
25 second day. A couple of people were there the same day that

1 I was there.

2 THE COURT: What day was it again you were there?

3 THE WITNESS: The date? If I could just refer to
4 my report to give you the exact date.

5 A So the first time that I went to the site was on
6 September 23rd, 2009. The second time that we performed a
7 joint examination was October 29th, 2009.

8 Q When you say joint exam, there were other parties
9 besides representative of Philadelphia Insurance present?

10 A Yes.

11 Q What other parties?

12 A There were other investigators there representing I
13 believe -- I don't have a specific recollection, but I
14 believe there were people representing people that did some
15 wiring or had something to do with the lighting in that area
16 also. So there was ourselves, there was a couple
17 investigators from Broan-Nutone, and then I believe an
18 investigator and an attorney for another party.

19 Q Is that standard that you have a lot of parties out at a
20 fire scene?

21 A Yes.

22 Q At the time you were conducting your fire scene
23 investigations, had you reached any conclusions as to what
24 exactly occurred?

25 A No.

1 Q Is that why you were still conducting your
2 investigation?

3 A Yes.

4 Q So explain to the jury now about your investigation, how
5 you proceeded to examine this fire scene.

6 A So the next thing that we did is that we wanted to
7 document everything again with photographs and notes how
8 basically it was run. And again you recall that I said that
9 we determined how the circuits came up out of the panel and
10 then ran over towards the hallway. The way this is wired,
11 multiple circuits were run inside a conduit. That conduit
12 heated up. And you could see still the colors on the
13 insulation of wires, they were all kind of molded together,
14 melted together, if you will, inside the conduit just from
15 the heat softening the insulation, kind of sticks everything
16 together. And then it ran to the west down the hallway and
17 there were junction boxes that came off from that, and that
18 fed different equipment. Particularly we're talking here on
19 that northwest corner of the structure.

20 And so we began to then look into excavating the room,
21 the two year old classroom. And if I recall correctly we
22 started -- and again this is all based on joint discussions
23 with all the parties there. Okay. What do we want to do
24 next and how we're going to do it. And so we started to,
25 first thing we did is we placard. What I mean by placard is

1 I put a number next to something to identify it. Placard the
2 fire scene in that area and start to recover artifacts from
3 that fire scene. And the reason we do that is because, as
4 you can imagine after a fire with overhaul and whatnot, many
5 times things are not where they began. Okay.

6 And so at least we know where we found it. Sometimes it
7 helps us, sometimes it doesn't, but we know where we found
8 it. So we placard items and we're hand digging, hand digging
9 that area out looking for other items that might have been
10 there of interest. And we're all doing that jointly, all the
11 parties are doing that jointly.

12 Q Let me show you what's been marked P72M. Do you
13 recognize, Mr. DeMatties, what's shown in that photograph?

14 A Yes, I do.

15 Q Are those the numbered placards that you were referring
16 to?

17 A Yes. And again, what you're seeing there is that number
18 correlates to an artifact that we recovered from the fire
19 scene. And again, where you see the number is where I found
20 it when I first arrived. I can't testify as to what somebody
21 else found, but that's how I found it. So what I'm doing is
22 I'm making a record of how I found it and where I recovered
23 it from.

24 Q And I think you said earlier fire scenes are often
25 overhauled, is that correct?

1 A That's correct.

2 Q And you're still able to conduct an investigation?

3 A Yes, we are.

4 Q Were you able to conduct an investigation in this case?

5 A Yes, I was.

6 Q Now, did you have an opportunity -- let me ask you this.
7 Is some of the wiring that you've been discussing depicted in
8 this photograph at all?

9 A It is.

10 Q And where would that be, sir?

11 A That's what you see in the photo going from the top left
12 corner that's hanging down toward the floor, just by this
13 arrow like that.

14 Q Now is that wiring any type of conduit or anything like
15 that?

16 A Yes. That wiring was what we call aluminum MC cable.
17 So that's the wire I described to you earlier that has copper
18 wires on the inside with an aluminum metal jacket around the
19 outside.

20 Q Show you what's been marked Plaintiff's Exhibit 72T. Do
21 you recognize what's depicted in that photograph?

22 A Yes, I do.

23 Q Is this a photograph you took?

24 A I believe it is.

25 Q What are we looking at in this photograph?

1 A So what we're looking at is I'm standing in the west end
2 of the two year old classroom and I'm looking toward the
3 east. And in this photograph you can see there is a yellow
4 halogen light fixture in the center of the photograph. To
5 the right of that is the door that would have gone out into
6 the hallway. And to the left would be the north wall.

7 Q And again, did you recover wiring from this fire scene
8 in this area?

9 A Yes. We again jointly discussed which wires we were
10 going to recover, and we recovered all the fixtures that we
11 found on the floor as well as the wiring running from
12 approximately the location of those doorways and eastward
13 toward that east end of the room.

14 Q Did you recover the switches for this wiring?

15 A Yes.

16 Q You collected those into evidence?

17 A Yes.

18 Q And did you recover light fixtures?

19 A Yes.

20 Q How many light fixtures from this area did you identify?

21 A Five.

22 Q So there were five light fixtures. Would that include
23 the bathroom as well?

24 A When I arrived there was no fixture in the bathroom
25 itself. So I collected all the fixtures that I found in that

1 room, in that two year old room.

2 Q And were you able to determine how many fixtures had
3 been in that room?

4 A I believe there were four.

5 Q And then plus the bathroom?

6 A Correct.

7 Q Would be?

8 A Would be a fifth, would be another light fixture.

9 Q And did you recover five light fixtures from that area?

10 A I did.

11 Q Now, there has been some discussion about tracing the
12 circuits back to the panel. Just explain what that means.

13 A Sure. So typically in a fire what we do is we try to
14 trace the actual circuit through the structure back to the
15 panel. And one of the reasons we do that is we want to
16 determine which breaker capacity size wise goes to which wire
17 and whether that breaker was tripped or not.

18 When we physically attempted to do that, I described to
19 you how the wires went into conduit in the center hallway.
20 And so now you have this conglomerate of wires in that
21 conduit. We have what's called a circuit tracer that can
22 potentially determine that circuit depending on if the
23 insulation is broken down somewhere and is making contact.
24 We attempted to do that with the circuit tracer and were not
25 able to.

1 This goes back to why I determined that the proper wire
2 size for all those circuits was matched to the proper breaker
3 size, because we're not able to specifically trace which
4 circuit supplied which -- which breaker supplied which
5 circuit. In other words, which breaker went to the lighting
6 circuit or which breaker went to the light and fan circuit in
7 the bathroom. But they were all 20 amp breakers matched
8 properly to the 12 gauge wires.

9 Q Now is it an uncommon thing not to be able to trace the
10 breakers back to the panel?

11 A No.

12 Q Why is that?

13 A Because it's based on the variant amounts of damage in
14 the structure.

15 Q Did that prevent you from conducting your investigation
16 and reaching opinions in this case?

17 A No, it did not. We discussed that at the fire scene
18 again jointly. To go further with each wire tracing would
19 require several more days, so that was something we discussed
20 jointly. And we also again documented the size of the
21 breakers and the capacity and it did not prevent me from
22 making a determination on this fire.

23 Q Now, did you have the opportunity to when you were
24 jointly out at the fire scene examine the light fixtures?

25 A While we were at the fire scene, yes, I photographed

1 them and examined the fixtures but not destructively.

2 Basically you do this as a visual examination at the fire
3 scene.

4 Q So that you can look at them a little closer at another
5 time?

6 A Correct.

7 Q And we're going to talk about that in a little bit,
8 because you ultimately had a lab exam, is that right?

9 A Yes. We actually had four days, four long days actually
10 of laboratory examination.

11 Q Four long days examining just the light fixtures or what
12 were you examining?

13 A Of all the artifacts that we collected.

14 Q Now in terms of your investigation, did you also examine
15 the area of the bathroom?

16 A Yes.

17 Q Now when you conducted your investigation, was the
18 exhaust fan still in place?

19 A No.

20 Q When you were conducting your scene exams, did you know
21 where the fan was?

22 A Yes. Actually, Investigator Tochelli had already
23 transferred that artifact to my custody and we brought it to
24 the site with us. They had the joint examination, so that
25 everybody, all parties had opportunity to visually examine

1 that fan remains as well as the wiring. There was some
2 wiring still attached to it.

3 Q Did you learn -- strike that.

4 Did the fact that the fan had been removed from its
5 location prior to you conducting a scene investigation
6 prevent you from reaching opinions in this case and
7 conducting an investigation?

8 A No.

9 Q Again is that uncommon?

10 A No.

11 Q In terms of your scene examination, and we're going to
12 talk about the opinions you have, what other things did you
13 do while you were all out at the fire scene, if anything?

14 A Yeah. So obviously while we're there, not only are we
15 documenting everything but we're doing what we're thinking
16 about, we're examining the burn patterns that I talked to you
17 earlier on about, the burn patterns. We're looking for this
18 artifact of arc damage, you know, the entire time.

19 If I recall correctly, before we went into the site on
20 the second day while we were all together, I think we looked
21 at that fan. And so right from the immediate start of the
22 day we're examining the wires that are attached to the fan,
23 again looking for the arc damage artifact. And as we go
24 through the structure we're doing the same thing. Typically
25 when we arc map, we will flag an arc if we find it. In this

1 case we did not find any that we could positively identify
2 arcs at the fire scene. And then we're looking for
3 structural makeup of the building and to determine when
4 things may or may not have occurred. So we're doing all that
5 at the same time. And of course that goes back to the fire
6 dynamics of how the fire may have traveled as the fire
7 progressed.

8 Q So at this point would it be fair to say you hadn't done
9 any what you would refer to sounds like destructive
10 examination of the fan?

11 A No, sir.

12 Q Everything that you had done at the scene was visually
13 looking and observing the wiring and looking for arcing on
14 the wiring and to the extent visual exams of the fixtures?

15 A That's correct.

16 Q Now did you also make any observations with regard to
17 the burn pattern you observed?

18 A Yes, I did.

19 Q And what observations did you make?

20 A Well, one of the things I think, and we'll see this
21 throughout, one of the reasons I talked about this early on
22 with regard to arc mapping, and the reason why it's important
23 is because burn patterns change throughout a fire and they
24 relate to a lot of things like fuel load, oxygen, location of
25 the fire scene, protected areas, things that might have

1 protected a certain combustible material. And that all
2 changes as the fire develops and spreads from one location to
3 another. So we're looking for construction things that may
4 affect those burn patterns. We're looking for the burn
5 patterns themselves. So examining all of those at the same
6 time.

7 Q Okay. Did you make any observations as to which way the
8 fire appeared to travel based on your observations?

9 A Well, based on my observations I believe that the fire,
10 the early development of the fire was able to escape very
11 early on from that space because we had multiple void spaces
12 and we had multiple different combustibles in that space.
13 The problem that we have with developing the exact pattern of
14 that travel is that that space no longer looks like it did at
15 the time of the fire.

16 And so based on my observations the fire is traveling,
17 this is my opinion, out of the area of the ceiling, the
18 ceiling fan in the bathroom, and up into the attic space.

19 Q And how do you believe the fire progressed from the
20 ceiling fan up into the attic space?

21 A There is multiple issues with regards to developing the
22 exact location of the progress from that dropped ceiling
23 space into the attic space. And the reason I say that is
24 because we have a ventilation duct that the only thing we
25 have remains out is the wire coil that is from that duct, so

1 we don't know the exact composition of the duct, if it was
2 vinyl or foil or insulated foil. And we saw some evidence of
3 what type it was but not able to determine exactly the type.

4 We also have paper backed insulation which is flammable,
5 and that was right attached to the bottom chord of the
6 trusses. And then we have void spaces. And what I mean by
7 void spaces, if you can imagine -- and I'm just going to try
8 to show you in this room. If you can imagine that you had --
9 you can see the perimeter above the curtains on that wall.
10 If you can imagine that's a void space up to the level where
11 it comes out from the wall, so that little gray area with the
12 maroon border, that's the area. Let's say that's the area
13 above the dropped ceiling but below the bottom chord of the
14 trusses. And you will see photos of this.

15 What we have is we have multiple locations where that
16 Sheetrock has been punched away. Now some of that damage may
17 have been due to fire fighting activities and some of it may
18 have been there pre-fire. So we have that issue. And then
19 again we have the issue of was the paper backed insulation
20 continuous across those bottom trusses? Were there any areas
21 where the paper backed insulation may have been pushed aside
22 or opened up?

23 And then finally we have evidence of an exhaust duct,
24 another wire wound remains typically of a vinyl exhaust duct
25 that would be attached to a fan.

1 Q Mr. DeMatties, I'm going to show you what's been
2 previously marked P15. Do you recognize what's in that
3 photograph?

4 A Yes, I do.

5 Q Is that the area you're discussing?

6 A Yes, that's part of the area.

7 Q Now the paper backed insulation was where?

8 A So what we're looking at is the paper backed insulation
9 and there is some you can see here and some that you can see
10 there.

11 Q Did you examine that following the fire?

12 A I did.

13 Q What observations did you make?

14 A Well, and I think you can see it here in this photo. If
15 you look at the bottom arrow, you can see where the paper
16 backed insulation, number one, has the insulation, the paper
17 portion has burned away and you have a little bit of remains
18 of the charred remains of some of the paper residue on that
19 piece.

20 The next thing you'll notice is that it is not right up
21 against the bottom chord of the trusses. It has rolled away
22 from the bottom chord of the truss. What does that do? That
23 allows heat to escape that space up into the attic space. If
24 you look at that center section, you will see again portions
25 of the paper backed insulation are gone and the remains are

1 burnt remains of that paper portion of the insulation.

2 Q And the spiral thing in the middle of the photo to the
3 left of your arrows, what is that?

4 A That portion there I believe you're describing?

5 Q Yes.

6 A I believe that is the remains of the vent duct that
7 would have been possibly attached to the exhaust fan.

8 Q At the time you say you don't know, because it's already
9 been removed and the duct is now burned away?

10 A Correct. I didn't recall that. But going back to the
11 collection of data. Okay. And in that collection of data we
12 have to go only based on what we're seeing. Now if I were to
13 find that winding, that coil winding still attached to the
14 fan, I would tell you that and I'll see that. Now obviously
15 you know that I'm not the first investigator in but I'm going
16 based on the information that I have at this point. We know
17 that the remains are there. As a fact I can't tell you that
18 it was connected at the time the fire originated.

19 Q Now is it my understands it's your opinion the fire
20 originated here where the fan was and then progressed in
21 which direction?

22 A My recollection is that it went up through the
23 fiberglass insulation and progressed in an easterly
24 direction.

25 Q Did you say east or west, sir?

1 A I said east.

2 Q Using the compass from the bathroom, in the two year old
3 bathroom, do you believe the fire progressed toward the two
4 year old room or in an opposite direction?

5 A Did you say the fire or were you talking about the vent?
6 I thought your question was about the vent.

7 Q I'm asking about the fire, sir.

8 A So was your last question about the fire?

9 Q Yes.

10 A I may have misunderstood you.

11 Q Yeah. Which way did the fire progress?

12 A Based on the patterns that I see, I believe that the
13 fire progressed in more of a westerly direction.

14 THE COURT: Why don't we take a break at this time?

15 (Recess at 3:05.)

16 (Reconvene at 3:30.)

17 THE COURT: All set? Bring the jury in, please.

18 (Jury present.)

19 THE COURT: Members of the jury, please be seated.

20 You may continue.

21 *BY MR. PAOLINI:*

22 Q Mr. DeMatties, you talked a lot about your examination
23 at the scene. Now I want to talk about your examination of
24 the electrical items that were removed from the scene. Okay?

25 A Yes.

1 Q And one of the items that you had the opportunity to
2 examine after this fire was the subject exhaust fan, is that
3 correct?

4 A That's correct.

5 Q I'm showing you what's been marked P77N. Do you
6 recognize that photograph?

7 A Yes, I do.

8 Q And what does that photograph depict, sir?

9 A That's the subject exhaust fan that was removed from the
10 two year old bathroom.

11 Q And did you have the opportunity to examine this fan
12 during one of the four-day lab exams that you described?

13 A Yes.

14 Q And what observations did you make with respect to this
15 exhaust fan?

16 A Well, one of the things that I observed was that there
17 was arc damage to the windings on the motor for the exhaust
18 fan.

19 Q And if you could, just is that area depicted in this
20 photograph?

21 A You can't really see it in that photo. I think you have
22 a better photo of it.

23 Q I do. Now showing you what's been marked 119R, do you
24 recognize that photograph?

25 A Yes. I believe that's one of my photographs.

1 Q What are the items depicted in that photograph?

2 A So you have the core of the motor and the windings of
3 the motor, the core of the I bar they call it is located in
4 the center of the motor. So this part is what they're
5 calling the I bar, and it's made out of steel. And then this
6 part that I'm indicating is made out of aluminum and what's
7 the windings that wrap around that I bar.

8 Q And what did you observe about the windings, sir?

9 A That there was arc damage on the windings.

10 Q What, if anything, did that signify to you?

11 A Again going back to our arc mapping, we talked about how
12 we look for arc damage, arc damage at a fire scene for arc
13 mapping purposes. And the significance of that is that the
14 arc damage that we found on this particular circuit was deep
15 inside this motor on the motor windings themselves. And
16 contrast to finding any arc damage, we found no arc damage on
17 the supply wiring, the wiring that fed power to this fixture
18 that was located up in the recessed space.

19 Q Did you determine that was a significant finding?

20 A Yes.

21 Q Why?

22 A Again going back to arc mapping, we even arc map within
23 an appliance, looking for the arc that's located the farthest
24 from the power source. And this arc damage that we found in
25 this, on this circuit, is the farthest from the power source,

1 farthest from the breaker, and is located deep within the
2 motor.

3 Now if we were going to think that maybe perhaps fire
4 was impinging on the fan itself and up in the ceiling space,
5 remember that the wire that leads power to this fan is
6 exposed. Remember this component is deep inside a metal
7 enclosure inside the fan, and so that's indicative as the
8 fire is developing in the area of this motor first.

9 Q Now in addition to the fan, did you have the opportunity
10 to examine the other electrical items recovered from the fire
11 scene?

12 A I did.

13 Q And if you could explain to the jury what other items
14 were recovered from the fire scene of an electrical nature?

15 A So you recall me speaking of all the artifacts that we
16 recovered as we worked our way from the doorway in the two
17 year old classroom all the way into the bathroom. So we took
18 the light fixtures, we took the switches that supplied those
19 light fixtures, we took the wiring for the -- there was a
20 ceiling fan that came out of the ceiling in the two year old
21 room, out in the center of the two year old room, and this
22 was just like a big paddle fan, we took that as well as the
23 wiring for that and the switch that controlled that, and we
24 examined all those in the lab also.

25 Q And let's talk about the five light fixtures that you

1 examined. What are you looking for when you examine a light
2 fixture?

3 A There is several things that we look for. There are
4 potential failure modes in fluorescent lighting. And to
5 start out with, the first thing we look for is witness
6 statements. Right. So we have witness statements that we
7 talked about that someone was in that room but no power
8 fluctuations to the lighting. The lighting was on, and in
9 fact we found the switch on. Obviously the lights are right
10 above your head, so if there is a problem with the lights as
11 far as power going off, we should notice that right away.

12 As far as failure modes, there is a couple potential
13 failure modes in those. One of the things that can happen is
14 the terminals with the light, fluorescent light tubes
15 connected to the sockets of the light can fail. And when
16 that happens, it's usually pretty obvious because you have an
17 arcing fault right there when you're looking up through the
18 light diffuser and people describe that you have a fault
19 right there, they see it, you can visually see it.

20 The other thing that can occur that's another fault that
21 occurs in these is they have what's called a ballast, and
22 it's a piece of electronic equipment inside the center
23 portion of the fluorescent light. And what that ballast does
24 is that it changes the voltage so that it can strike an arc
25 in the fluorescent tube and it increases the voltage

1 actually. And if you have a failure in that ballast, it
2 could fail, and when it does fail, what it will do is arc a
3 hole right through the ballast, the steel ballast case, and
4 sometimes right straight through the rear of the light
5 fixture itself.

6 If you have something that's a light combustible right
7 against that, it could potentially ignite it. So we're
8 looking for evidence of these kind of failures. You could
9 have a high resistance connection in one of the junction
10 boxes. And so we examined it for any evidence of that and we
11 found no evidence. So we didn't find any arcing in the
12 fixtures, we didn't find any damage consistent with a failure
13 of any of the fixtures. And in addition to that, we have no
14 witness account of a problem with the lighting.

15 Q Now, I'm showing you what's been marked P48A. Do you
16 recognize that document? You may want to clear that. There
17 you go.

18 A I do.

19 Q What is that?

20 A That is the arc map that I produced for this fire.

21 Q You prepared this diagram?

22 A I did.

23 Q What were you trying to show in this diagram?

24 A So what I'm showing in here is what the procedure was I
25 just described to you and what I did to determine where those

1 circuits ran. And what you see here is, and I'm just going
2 to draw a series of arrows to show you, is again this is the
3 circuit breaker panel in this picture. The wire comes out
4 into the hallway to a junction box, and that would be -- so
5 the circuit breaker panel, junction box in the hallway, which
6 is those wires, are running conduit, metal pipe. So we have
7 multiple circuits and conduit.

8 That then comes down to a junction box further down the
9 hallway somewhere there. That's close. And then we have MC
10 cable that I described to you that came out of the junction
11 box and ran down to the light switch, which is here. And I
12 think you can follow that line that goes down through there.
13 That then comes up out of the light switch and went to the
14 fluorescent ceiling fixture that was located in the bathroom.

15 You recall when I got there the ceiling fixture was not
16 there, but what you see on this diagram is where that
17 connection occurred. That's a little bit far back but I'm
18 pointing to that area. They then went from that connection
19 inside the ceiling, fluorescent ceiling fixture, to the
20 exhaust fan. And that's located here. And the reason they
21 did that was so that when you throw the switch on, both the
22 light and the fan come on at the same time. And then what
23 you see is an X, and I don't know if you can see it in your
24 diagram because I know where it is and I'm having a hard time
25 seeing it in mine.

1 Q You can maybe put a circle around.

2 A I can try. So there is a red X inside that fan, and
3 that X is what I'm marking as the arc damage at the motor
4 windings inside the fan. And recall that we do not find any
5 evidence of electrical arcing all the way back that path I
6 just described to you. The only arc damage that I found was
7 inside that fan.

8 Q And so is it my understanding -- what conclusions did
9 you reach regarding the light fixtures and the electrical
10 items, the wiring that you examined with respect to this
11 area?

12 A Okay. So also on your diagram you see where we have
13 lots of other wire segments that are documented there. And
14 again, I'm examining those fixtures, those light fixtures,
15 the junction boxes, the ceiling fan, and the switches and the
16 interconnected wires.

17 Now recall that these light fixtures and these wires are
18 run in that void space. And we talked about the construction
19 a little bit. We have the bottom chord of the truss out in
20 the two year old room. You have the fiberglass bed stapled
21 up to that. And then you have a void space in the dropped
22 ceiling. And the fluorescent light fixtures are located
23 right in the panels of the dropped ceiling as you can
24 imagine.

25 And the wiring, this is typical because it's the easiest

1 place to put the wiring. They run the wiring in the void
2 space, that's where the wiring is located. So I'm examining
3 that wiring and I find several locations of melt damage. And
4 we talked about the difference between melt and arcing. And
5 the arcing we know is occurring because the electricity's
6 involved. And whereas melt damage, whether it's pure fire
7 heat or got an alloy involved, they're both just heat, not
8 electrical activity. I found several locations of melt
9 damage to this other wiring on these circuits in the two year
10 old room.

11 Q And based on your examination, did you rule out the
12 light fixtures, the junction boxes, the wiring, all of the
13 other electrical items in that area?

14 A I did. And you recall, recall the arc mapping for a
15 second. We talked about how arc mapping can be the arc is a
16 result of fire impingement, fire developing in that area. So
17 we have the fire. At some point in time we know the fire
18 developed in that area because all the insulation is burnt
19 off and we've got damage. You can get arcing again just from
20 the path of fire, doesn't mean something failed. So if we
21 envision that we have fire damage in this area, we would
22 expect, right, to find arc damage. The problem with melting
23 is that and the alloying is that if there was an arc there,
24 it could cover it up.

25 Now if that arc is not located at the junction or inside

1 a fixture or somewhere where you would expect to have a
2 potential failure mode, that could again just be like me
3 lighting up a piece of wire from the fire heat. The point
4 I'm trying to make is that if we found an arc, we would
5 expect an arc that trips a breaker. With the alloy damage
6 that we found, that could potentially have covered up an arc.

7 So what's the next step? Now the next step is, okay,
8 well, so I had this damage. Could that have started this
9 fire? We talked about this process, hypothesis, theory, and
10 do the statements line up? And does the evidence line up?

11 And so that's our process. And the first thing I go to
12 is did anybody talk about the lights not working or the fan
13 not working or a problem with electrical, and we know that's
14 not true.

15 The next thing I talk about is, okay, where is this
16 wiring. It's not up in the attic. It's not up in the
17 fiberglass. It's down in that void space, right above the
18 ceiling tiles, right above the light fixtures. So if you
19 have a raging fire out in the classroom, remember she's
20 walking through this area with kids, even though we have no
21 witness statement that talks about that.

22 The third thing that I talk about is, okay, if I have a
23 fire that's supposedly starting in this area, again is this
24 rule in or rule out? How does the fire that's developing in
25 the classroom that she's present in somehow get down inside

1 this fan when she first sees fire? How does that happen?
2 How can I get fire developing out in that classroom all the
3 way over and into the fan and create the arc inside the motor
4 windings of that fan? And I can't get that to happen. And
5 so we do have melt damage. We do not have any sign of an
6 electrical failure. We know that all those wires were
7 protected by the proper sized circuit breakers. And we have
8 no witness statements that corroborate fire in that area. So
9 I was able to rule out that wiring in that area.

10 Q Based on everything you examined and talked about here,
11 what is your opinion in this case?

12 A My opinion is that that fire --

13 MR. DUGGAN: Objection. Objection to form.

14 THE COURT: Sustained as to the form.

15 Q What is the opinion you've reached in this case, sir?

16 MR. DUGGAN: Same objection, Your Honor.

17 THE COURT: Sustained.

18 Q Did you reach an opinion in this case, sir?

19 A I did, yes.

20 Q And if you could explain to the jury what opinion you
21 reached with respect to the fan.

22 MR. DUGGAN: Objection, Your Honor.

23 THE COURT: That's improper form. Reasonable
24 degree of certainty.

25 MR. PAOLINI: I'm going to ask that, Your Honor.

1 Q All the opinions that you've reached in this case, were
2 they given to a reasonable degree of engineering certainty,
3 sir?

4 A Yes.

5 Q Are there any opinions that you have that you haven't
6 offered yet? Do you have any other opinions?

7 A Yes, I do.

8 Q Okay. What is your --

9 MR. DUGGAN: Objection, Your Honor.

10 THE COURT: Sustained as to form.

11 MR. DUGGAN: Your Honor, may we be seen at sidebar
12 and be able to explain my concern?

13 THE COURT: Yes.

14 (Sidebar discussion held on the record.)

15 MR. DUGGAN: I'm not trying to give you a hard
16 time. But that question he can just say anything about
17 anything.

18 THE COURT: That's right.

19 MR. DUGGAN: If it's a particular topic, that's
20 fine, at least we know what's coming.

21 MR. PAOLINI: Yes.

22 THE COURT: Reasonable degree of certainty as to
23 causation, et cetera. So he knows.

24 MR. PAOLINI: I will.

25 MR. DUGGAN: Okay, thank you.

1 (Sidebar discussion concluded.)

2 BY MR. PAOLINI:

3 Q Mr. DeMatties, did you reach a conclusion with respect
4 to the cause of this fire?

5 A Yes, I did.

6 Q Can you tell the jury -- did you reach that conclusion
7 to a reasonable degree of engineering certainty?

8 A Yes, I did.

9 Q What is the conclusion that you reached?

10 MR. DUGGAN: Objection to foundation, Your Honor.

11 THE COURT: Overruled.

12 A My conclusion is that the fire originated inside the
13 exhaust bathroom fan in the two year old room.

14 MR. PAOLINI: Thank you. No further questions.

15 THE COURT: Cross-examine, sir?

16 MR. DUGGAN: Yes, Your Honor. Thank you.

17 CROSS-EXAMINATION BY MR. DUGGAN:

18 Q Good afternoon, Mr. DeMatties.

19 A Good afternoon.

20 Q We've talked a fair amount so far in this trial about
21 NFPA 921. And I know you were here today and I think a
22 little bit yesterday when you heard that, right?

23 A I did, yes.

24 Q And this is actually the 2008 edition of NFPA 921 that
25 would have applied to this investigation that you and others

1 did in 2009, right?

2 A That's correct.

3 Q And would you agree with me that NFPA 921, the fire
4 guide, I think Mr. -- we've had people talk about it as the
5 Bible, the Holy Grail, I think one of the witnesses said.
6 This is what you try to follow, right?

7 A And that's one of the documents. There are other
8 documents, but that is certainly one of the documents that we
9 use, yes, sir, for fire investigation.

10 Q And would you agree with me that NFPA 921, Section 24,
11 says that very frequently the cause of a fire cannot be
12 determined?

13 A That's correct, yes, sir.

14 Q And, in fact, you've had that experience yourself, have
15 you not?

16 A I certainly have.

17 Q It's fairly common?

18 A It's not rare, let's put it that way. It's not a rare
19 occurrence.

20 Q And the reason that it's not a rare occurrence is that
21 the fire itself destroys the very evidence that would lead
22 you or others to come to the conclusion as to what was the
23 initial instigating force of the fire, true?

24 A Well, I would say that the fire destroys evidence as
25 well as creates evidence.

1 Q Of course.

2 A In that context, yes, sir.

3 Q But one of the reasons that it's not uncommon to be able
4 to call a fire undetermined is that the evidence is gone?
5 Perhaps destroyed in the fire? Perhaps destroyed by the
6 firefighters doing overhaul? Perhaps any number of things
7 could happen before investigators have an opportunity to get
8 all together and look carefully at the physical evidence,
9 true?

10 A True.

11 Q And, in fact, NFPA 921 states that one of the findings
12 that an investigator could come to is undetermined, right?

13 A That's correct, sir.

14 Q And NFPA 921 also says something else, there is a
15 section here about expectation bias, is there not?

16 A They do.

17 Q And expectation bias is actually very early on in the
18 document, right, right up front?

19 A It is.

20 Q Because it's very important to avoid expectation bias,
21 is it not?

22 A I agree.

23 Q And as a matter of fact, one of the reasons that this
24 section was put in to avoid expectation bias is because
25 professionals knew that this was a real problem in the

1 industry, wasn't it?

2 A I agree.

3 Q People were coming to the fire scene and within an hour
4 or two coming to a conclusion about how a fire started
5 without actually looking at all of the evidence, right?

6 A Unlike this, which had several days of fire scene
7 examination and several days of lab examination, I agree.

8 Q But that was happening, wasn't it?

9 A What was happening?

10 Q People were coming to the fire scene, and before they
11 left the fire scene that very day coming to an opinion or a
12 conclusion as to what happened?

13 A That can happen.

14 Q And that's why NFPA 921, Section 4.3, cautions very
15 strongly against it, right?

16 A I agree.

17 Q And, in fact, it says, "Expectation bias is a
18 well-established phenomenon that occurs in scientific
19 analysis when an investigator reaches a premature conclusion
20 too early in the study without having examined or considered
21 all of the relevant data." Right? You agree with that,
22 don't you?

23 A I agree.

24 Q And then it goes on to explain the reason for that.
25 "Instead of collecting and examining all of the data in a

1 logical and unbiased manner to reach a scientifically
2 reliable conclusion, the investigator uses the premature
3 determination to dictate their investigation processes,
4 analyses, and, ultimately, they're conclusions." Right?

5 A If you're reading it word for word.

6 Q You agree that that's why expectation bias can be so
7 damaging in a fire investigation, correct?

8 A I agree.

9 Q And so in a fire -- would you agree with me in a fire
10 such as the one in Victor, Jack 'n Jill in Victor, there is
11 no way a thorough investigator could come to a scientific
12 conclusion about the cause or origin of this fire on the very
13 day that he left the scene, is there?

14 A I would say not, no, sir.

15 Q You agree with that?

16 A Yes.

17 Q One of the things you did was when you went out there on
18 September 23rd, you were alone at that time, were you? Or
19 you were with Nick Tochelli?

20 A I was.

21 Q He was also hired by Philadelphia Insurance Company?

22 A Yes.

23 Q And the other investigators, other potential parties
24 were not there, just you and Mr. Tochelli, right?

25 A The first day that I went, I believe it was myself and

1 Mr. Tochelli.

2 Q And you took a bunch of photographs of the scene, just
3 document the scene, correct?

4 A That's correct.

5 Q I would like to put D34, image 8934 before the jury.

6 THE COURT: 8934?

7 MR. DUGGAN: 8934, I believe.

8 Q And I was wondering if you might be able to help us out.
9 This is your photograph of the scene in the two year old
10 playroom or the two year old classroom looking in which
11 direction, sir?

12 A That would be looking east, I believe, sir.

13 Q So, in other words, you see in the lower left-hand
14 corner, sort of dark there, but that would be where the
15 entryway to the bathroom would be, correct?

16 A I agree with that.

17 Q And I thought that one of the things that somebody
18 indicated, I think it was Investigator Harloff, it's helpful
19 to locate, get a fixed position so we can locate ourselves.
20 And maybe you could help me do that with respect to that
21 diagram?

22 A Okay.

23 Q You understand there was truss construction. And I
24 think when Mr. Paolini was asking you some questions you were
25 explaining that there was truss construction over the ceiling

1 in the two year old room, correct?

2 A That's correct.

3 Q And, in fact, in the whole building is truss
4 construction?

5 A I agree.

6 Q And the truss construction is basically triangle, chord
7 on the bottom and two diagonals that go up to help form the
8 roof structure?

9 A That's correct.

10 Q And we see -- so these pieces down here are the chords
11 of the truss, correct?

12 A That's correct.

13 Q And then those are the diagonals up at the top,
14 sometimes called the rafters?

15 A Agreed.

16 Q And then in the middle that ran up and down this would
17 have been stringer, correct?

18 A That's correct.

19 Q Are the stringers used by the contractors to keep the
20 truss chords 2 feet on center?

21 A They are.

22 Q And so does this diagram, which we marked as D36,
23 accurately reflect how this would have looked prior to the
24 fire in terms of the construction?

25 A It looks accurate. I think that's, yes.

1 Q And this shows the red dotted square is an illustration
2 of the two year old room, correct?

3 A Yes.

4 Q And then the blue bathroom is over here in the blue
5 square?

6 A I agree.

7 Q And we have located, identified to make it easy for
8 everybody all of the stringers -- all of the truss chords by
9 number, there are 16 of them from left to right, in other
10 words, from east to west?

11 A Correct.

12 Q And we know --

13 THE COURT: Just a second. You can come down here.

14 MR. DUGGAN: I'm sorry.

15 MR. PAOLINI: I didn't want to interrupt you. I
16 was just trying to see.

17 Q And the blue squares in our diagram depict the
18 electrical junction boxes that you photographed in the
19 photograph now that's before the jury, right?

20 A That's correct.

21 Q That would be on truss number 10, and then this is truss
22 number 9, and this is truss number 8, right?

23 A Correct.

24 Q And we see that a stringer is right in the middle next
25 to the junction box that's on truss number 10, that's this up

1 here, right?

2 A Correct.

3 Q And that would go back this way. And we labeled the
4 stringers 5 to 1 going in a line to the bathroom, right?

5 A Okay, I see it, yep.

6 Q So this stringer here that goes back here heading
7 backwards would be stringer 4 because we know truss 10 is
8 here and then the stringer goes back, fair enough?

9 A I believe so, yes.

10 Q The one right next to it, to the left as we're looking
11 at your picture, is part of stringer number 3?

12 A Yes.

13 Q But it doesn't go all the way down even to the very next
14 truss, does it?

15 A No.

16 Q That has been burned away, hasn't it?

17 A It has.

18 Q And that indicates that there is some pretty severe
19 burning in that area?

20 A Agree.

21 Q And then if we can follow little bits and pieces of that
22 stringer line all the way down into as you get closer to the
23 bathroom, see a couple pieces as we get closer. Can we zoom
24 in? There is one right here, isn't there, right near this
25 junction box? See it?

1 A I do, yes, sir.

2 Q And that would be on truss 7. On truss 4. Truss 5, I'm
3 sorry. And then this is truss 4 where this junction box is
4 here and that would be this one here?

5 A Agree.

6 Q As you get to truss number 3, there is something really
7 interesting, isn't there? That's interesting to you as a
8 fire investigator, isn't it?

9 A It is.

10 Q That's a completely burn through of that truss?

11 A It looks like it's a burn, if not all the way through
12 but very close.

13 Q Very close to it, right?

14 A Correct.

15 Q That truss had more heat, more fire, more damage than
16 some of the others way back at the other side of the room,
17 didn't it?

18 A Looked like there is more heat, more damage in that
19 particular truss, yes.

20 Q Right near the junction box?

21 A That one's down a couple from the junction box.

22 Q Two down?

23 A Yes.

24 Q And then 1, truss number 1, there is burning down but it
25 doesn't go quite all the way through, right?

1 A Correct.

2 Q So that number 1 wouldn't have seen as much heat and
3 burn damage as number 2, right?

4 A Correct.

5 Q Let's go in and look at the truss, or the stringer
6 rather, in the bathroom.

7 A Okay.

8 Q You took some pictures of the stringer in the bathroom,
9 too, didn't you?

10 A I did.

11 Q Now let's go and take a look at I think it's D34, 9015.
12 And then, Your Honor, I'm also going to refer to 9016. This
13 is in the corner, so the jury can understand, right here, is
14 it not, sir, where we've labeled the trusses now A, B, C, D
15 and E?

16 A It is.

17 Q And this is the stringer, the first stringer in this
18 line heading east to west, so stringer 1, right?

19 A That's correct.

20 Q And what we're looking at here is in this corner right
21 here basically at the A1 junction?

22 A That's correct.

23 Q And you see at the A1 junction, this is the stringer,
24 you see some burning right there. This is truss A and this
25 is stringer 1, right?

1 A Correct.

2 Q And you see some burning right there, correct?

3 A Yes.

4 Q And then as you move to the east, in other words, closer
5 to the fan, there is very little damage on the remaining part
6 of that stringer, isn't that so?

7 A That's so.

8 MR. DUGGAN: And then if we go, this being the B to
9 the 6, 9016, this is also your photograph, is it not, sir?

10 A It is.

11 Q And if we go from B, this is the A, B, and then if we go
12 from B to C, that part of the stringer is completely
13 undamaged, isn't it?

14 A A little soot damage on that.

15 Q A little soot. That's basically some remnant of soot.
16 But the wood isn't damaged?

17 A Correct. It's mostly soot on there that I see.

18 Q That did not see much heat or fire at all, did it?

19 A No.

20 Q And then if we go to the next, which is down here, C, D
21 truss space?

22 A Yes.

23 Q Our exhibit number D36, that's this one right here,
24 right?

25 A That's correct.

1 Q That part of the stringer is almost totally undamaged,
2 not even much soot, right?

3 A Agreed.

4 Q That didn't see any fire at all?

5 A On the bottom surface, correct.

6 Q Now, and you tried to place the fan, later you tried to
7 figure out where the fan was?

8 A I did.

9 Q And you know the fan was right about there right
10 underneath this stringer, wasn't it?

11 A Approximately, yes.

12 Q The one right in between these two, the one where there
13 is almost no damage on the stringer?

14 A That's correct.

15 Q Another then I wanted to ask you about on this
16 photograph. This curlicue circular thing here, this is an
17 indication of a remnant of a duct, correct?

18 A Yes.

19 Q Now, you were very careful, I appreciated that, when
20 Mr. Paolini was asking you questions about whether or not
21 that was connected to anything prior to the fire. You don't
22 know, do you?

23 A I do not know.

24 Q Because it doesn't look to you like it would fit this
25 fan, does it?

1 A It would fit over the fan.

2 Q But it wouldn't fit on the duct adaptor?

3 A No, it would fit on it. It could be a little bit larger
4 than the duct adaptor that was in place on the fan but it
5 would still go over.

6 Q It would certainly go over but not tightly. This is not
7 designed for the 3-inch duct?

8 A If it were to go over, it would have to be secured with
9 some tape or, you know, duct tape or some other material, or
10 tie wrap or some way to secure it, otherwise it would not
11 stay on.

12 Q Or, you know, with enough duct tape you can control the
13 world, right?

14 Did you take any pictures of any other fans that were in
15 the building?

16 A Yes, sir, I did.

17 Q And I have a couple here for you, I think. This is your
18 picture at 8954. Which is also D34, Your Honor. And this is
19 one of the pictures that you took after the fire, isn't it?

20 A It is, sir.

21 Q And that was how the fan was installed in this bathroom,
22 right? When you saw it anyway, that's what you could see?

23 A Essentially the same, that's correct.

24 Q And is this in the bathroom, toilet room number three
25 just behind this bathroom?

1 A Let's refer to the diagram to make sure I know which one
2 you're speaking of.

3 MR. DUGGAN: May I approach, Your Honor?

4 THE COURT: Yes.

5 Q I'm going to show you 120. This diagram was drawn by
6 Carl Natale?

7 A Yes.

8 THE COURT: Drawn by who?

9 MR. DUGGAN: Carl Natale.

10 Q And actually Mr. Natale is the gentleman sitting back
11 there in the courtroom over on the left-hand side?

12 A The good looking one.

13 Q Looking at Mr. Natale's diagram, P120, what I want to
14 know is the fan that we just saw with the jury, was that in
15 this toilet room here? Perhaps we could show it again,
16 please.

17 A I believe that was in toilet room number three.

18 Q So that would be --

19 A Is that the one you were saying?

20 Q Yeah.

21 A I think that was the toilet number three.

22 Q It's a late day for me too. So, in other words -- so if
23 I may just take it to the jury. This was taken from toilet
24 room number three, which is behind toilet room number two
25 that we spent so much time talking about for the past couple

1 of days. And you notice that there is no damage at all to
2 the dropped ceiling here, right?

3 A That's correct.

4 Q Very little damage above where this fan was, right?

5 A I believe that photo shows Sheetrock ceiling, so yeah.

6 Q But you went in to look to see how the other fans were
7 installed?

8 A I did.

9 Q And did you take this down to see how it was installed?

10 A I don't recall if that was already down when I first
11 arrived or not.

12 Q Whatever. In any event, you notice that it doesn't have
13 a duct, right?

14 A That's correct, sir.

15 Q This was just pushing air into that void space that we
16 were talking about?

17 A Agreed.

18 Q And did you actually look at another bathroom fan?

19 A I did, sir.

20 Q And was that in the next toilet room over, toilet number
21 two?

22 A I believe that was in toilet room number two, yes. Let
23 me just double check the diagram.

24 Q Absolutely.

25 A I don't want to misstate that.

1 Q No, I understand.

2 A Yes, sir, that's my recollection.

3 Q And this one wasn't ducted to anything either, was it?

4 A It was not.

5 Q In fact, none of the bathroom fans that you saw when you
6 did your inspection of the whole building were ducted to
7 anything, were they?

8 A I can only say that the two in the toilet room number
9 two and three were not. The one in the two year old bathroom
10 I cannot say definitively whether it was or not.

11 Q You don't know one way or the other. And the reason for
12 that is you got this coil coming down and you can't figure
13 out what it was or what it was doing?

14 A It was no longer attached in any photo that I saw or
15 when I saw it.

16 Q Can we go back to the last picture, which was 9016? And
17 there was another duct. This is that corner that we were
18 talking about before, correct?

19 A Be more specific. We've been talking about a couple of
20 them.

21 Q This is the two year old bathroom?

22 A Agreed.

23 Q And what we're looking at right here is the wall that
24 separates the two year old bathroom from the office space on
25 the other side?

1 A Agreed.

2 Q And we have the stringer that we've been talking about
3 with trusses A, B, C and D right to left, right?

4 A Agreed.

5 Q And in between truss B and truss C there was an air
6 diffuser here, correct, in this general area?

7 A I believe it was in that general area. I just want to
8 make sure that it wasn't over a little bit more.

9 Q Sure. It may be helpful to call -- I'm so old fashioned
10 with these blowups, Your Honor. But this is Exhibit D3, EMO
11 photograph 292.

12 A That's much better. Thank you, yes. That will be
13 easier to describe.

14 Q Sorry about that. And this thing at the top of this
15 photograph, that's an air diffuser?

16 A That's correct.

17 Q That's for bringing hot air in winter and cold air in
18 the summer in through this and diffusing it in a small space?

19 A That's correct.

20 Q And this fan was right next to this air diffuser, wasn't
21 it?

22 A Agreed.

23 Q And that would be so the air diffuser is here in the B,
24 C truss and the fan is in the C, D truss or underneath it?

25 A Agreed.

1 Q And there is some void space there between the dropped
2 acoustic tile and the bottom of the truss, there was a void
3 there, wasn't there?

4 A Agreed.

5 Q And the insulation that we see in photograph 292 was
6 actually stapled at least in most places to the bottom of
7 these trusses which is how it's held in place?

8 A In most places.

9 Q In most places?

10 A Correct.

11 Q And after the fire, the insulation in the B, C, the C, D
12 truss, this one here, that's this space here, right?

13 A That's correct.

14 Q And that insulation is basically intact and there is
15 even some paper of the paper backed insulation still there,
16 didn't you tell us that?

17 A I did not tell you.

18 Q Didn't you say there was some paper and pointed?

19 A I said the char remains of paper. That's two different
20 things. When that paper burns, it could leave basically like
21 a film, so if you were to touch that, basically that char
22 remains just goes away. So it's not unburned paper backed
23 insulation, there is charred remains and part of it's gone.

24 Q Part of it's gone and part of the paper, or char, if you
25 will, is still on this insulation?

1 A The charred remains, correct.

2 Q And the fan was down some distance below that?

3 A That's correct.

4 Q Did you measure how far below it?

5 A When I was there, it did not look like that. Is that
6 what you're asking me?

7 Q Well, okay. When you were there all of the ceiling was
8 gone? It looked like this as you see it in the photograph?

9 A That's correct.

10 Q The fan was gone, the insulation that was there was
11 gone, and the diffuser was gone, right?

12 A It was not in place like that photo.

13 Q And were you ever able to locate the diffuser?

14 A I believe the diffuser was located just outside the
15 bathroom door.

16 Q You located a diffuser just outside of the bathroom door
17 but you have no way of knowing if it's the diffuser?

18 A I don't know definitively that it was the diffuser that
19 was in that location, correct.

20 Q There was all sorts of diffusers up and down the hallway
21 and up and down this room?

22 A That's correct.

23 Q And by the way, the same with the light fixtures. You
24 mentioned I think -- did you look at your deposition before
25 you came in to testify today?

1 A I did.

2 Q Because I remembered reading your deposition before I
3 went to sleep last night.

4 A Did it help?

5 Q No. And you were asked a question very much similar to
6 the one Mr. Paolini asked you about, about the light
7 fixtures. And do you remember saying under oath in your
8 deposition that you don't know how many light fixtures were
9 in the two year old room?

10 A I don't know for sure, correct.

11 Q And there could have been four or five, you just don't
12 know?

13 A Based on my reconstruction, I believe it was four. But
14 definitively I would agree that we do not know for sure.

15 Q And you also don't know for sure whether the light
16 fixture in the bathroom that was right next to the fan that
17 was removed was ever recovered or preserved, isn't that true?

18 A Well, again, based on reconstruction, I believe there
19 were four in the two year old room and one more in the
20 bathroom and we recovered five fixtures. But when I
21 recovered them, they were down on the floor.

22 Q All of them were on the floor sort of pushed off to the
23 corner in one place?

24 A No, they weren't pushed in the corner. You can see in
25 my diagram exactly where I located them and I placard them in

1 place where I located them.

2 Q Do you remember being asked on page 79 of your
3 deposition, "Were you able to determine in any fashion which
4 fixture had been in the bathroom?" Do you remember that
5 question?

6 A I don't, but you can go ahead and I'll tell you if I
7 remember what I said.

8 Q Well, I'm happy to show it to you first.

9 A Go, go ahead.

10 Q I'll represent to you, and I hope you take my word for
11 it, that I read that question properly. And your answer was,
12 "No, not with any certainty." Do you remember that?

13 A That sounds accurate.

14 Q Okay. And then the next question was, "Why not?" And
15 your answer was, "Because they were no longer -- well, number
16 one, they were no longer in place or connected, and number
17 two, they were potentially moved?"

18 MR. PAOLINI: I'm going to object. I don't know
19 that he -- he is just reading that transcript at this point.

20 THE COURT: I think he is on point, though.
21 Overruled.

22 Q I'm happy to have you look at it, but does that sound
23 right to you?

24 A That sounds like what I would have said, correct.

25 Q And is that your testimony today?

1 A That's my testimony.

2 Q So you don't know whether there were four or five light
3 fixtures with any certainty and -- right?

4 A Well, like I said, based on my reconstruction, it
5 appeared there were four fixtures in the two year old room
6 and there was one more fixture found in the two year old
7 room. And let me qualify some of those were interconnected
8 and I documented that. It sounded like you said some of them
9 were. Not all of them, some of them were connected.

10 Q You were given a chance to read over your transcript and
11 change it?

12 A I was.

13 Q Did you change that part of your transcript?

14 A I don't recall if I did or not. Maybe I have.

15 Q Do you have it with you?

16 A I don't believe I do have it with me, as a matter of
17 fact.

18 Q Will you accept my representation that we never got any
19 change to that?

20 A I did do a change sheet but I don't know whether you
21 received it or not.

22 MR. UNDERWOOD: Well, if I can approach, Your
23 Honor?

24 THE COURT: Yes.

25 Q We did get a change sheet and it's actually on page 94.

1 A See, I told you I gave a change sheet.

2 Q You did. Would you tell the jury if you changed that
3 part of your testimony on page 79?

4 A There is no change there.

5 Q So anyway, as we were preparing for this case, your
6 testimony was in the deposition, "I don't know definitive how
7 many light fixtures and none of them were connected so I
8 couldn't tell which went where?" Right?

9 A Well, I would rather have you just read it into the
10 record.

11 Q Will you accept your testimony?

12 A Yeah, sure.

13 Q Because -- all right, I've already done that, it's
14 getting late. So anyway, we can agree that you don't even
15 know if the bathroom light fixture that was next to the fan
16 was actually recovered at all, do you?

17 A Again, based on my reconstruction and based on the
18 number of fixtures, I believe it was.

19 Q But you don't know to a scientific certainty because you
20 can't -- by the time you got there, things were on the floor
21 that had been removed and you found some out in the two year
22 old?

23 A I recovered what remained, correct.

24 Q Of course. You couldn't do any more than that?

25 A That's my testimony.

1 Q You could recover what you could, you could document
2 where it was when you found it. But you certainly can't to a
3 scientific certainty put it back to where it was before
4 because you have no basis to do that?

5 A True.

6 Q Did you ever make any effort to determine whether any of
7 the burn patterns on the ones that were found matched the
8 burn pattern that the jury has seen on that light fixture?

9 A I did.

10 Q Could you do it?

11 A There was a significant amount of corrosion, additional
12 corrosion on the fixture that we received after being there
13 for that period of time.

14 Q So your answer is no, you couldn't do it?

15 A That's correct.

16 Q Now you talked -- you were testifying to questions by
17 Mr. Paolini about seeing melt damage at several places on the
18 conductors in the two year old room, right?

19 A I did.

20 Q Could you, if I come over with His Honor's permission,
21 point out to me on D36 where you saw the melt damage?

22 A Sure.

23 Q Put your finger and then I'll turn it around. Unless
24 you want to do it some other way. I'll show it to His Honor
25 first.

1 A It's located in the area of the junction box number 4.

2 Q The junction box number 4. So you put your finger right
3 there, would that be fair?

4 A Yeah, that's fair.

5 Q Okay. There was some melt damage out here on truss
6 number 4 close to where that junction box is?

7 A Correct.

8 Q Where else?

9 A There was some melt damage located on the wiring that
10 ran from this junction box going over toward the north wall.

11 Q This would be junction box on truss 4 heading over to
12 where the arrow is for the two year old room?

13 A Is there -- yeah, it's closer to the door. But yeah,
14 heading in that direction, correct. Kind of in that
15 direction from, say, 4 toward 6, that direction.

16 Q So about here, somewhere like this?

17 A I believe it was a little more closer to the door.

18 Q You can just put your finger there.

19 A Somewhere probably we'll say around between 6 and 7.

20 Q Between 6 and 7, right there?

21 A Yeah, approximately.

22 Q Any other areas of melt damage on the conductors?

23 A Yes.

24 Q Where was that?

25 A That was located -- if you could come over here.

1 Q Yeah, sure.

2 A That was located somewhere between probably between 6
3 and 7, in this area.

4 Q Right about there?

5 A Approximately.

6 Q Approximately, I understand that. How close to this
7 stringer, where the stringer was prior to the fire, was there
8 melt damage that you saw between trusses 6 and 7?

9 A I believe that that was -- that melt damage was on some
10 wiring that was already down, so I don't know.

11 Q The wiring was on the floor so you couldn't tell
12 specifically?

13 A So I can't tell you specifically.

14 Q Any other?

15 A I believe that's -- I think that's it. Maybe one more
16 location in that same general vicinity.

17 Q In between trusses 6 and 7?

18 A I believe so, yes, sir.

19 Q Is that the area where the stringers just burned away
20 entirely?

21 A There is no stringers. There's a couple pieces but most
22 of that stringer is gone there.

23 Q Sir, would you agree with me that light fixtures can
24 cause fires?

25 A I think I described that light fixtures can cause fires,

1 yes, sir.

2 Q Would that include even Edison bulbs?

3 A Even Edison bulbs can cause fires under obviously
4 certain conditions.

5 Q Sure. And are there Edison bulbs that carry 500 watts?

6 A You would have a hard time getting one today. They're
7 pretty stringent about Edison bulbs nowadays. And the inside
8 of this structure I would be surprised to find a 500-watt
9 Edison bulb.

10 Q Why is that?

11 A That's a fairly high wattage bulb. Most people don't
12 want something like that running in their structure, but
13 that's possible.

14 Q If that's something that was at the scene, you as a fire
15 investigator, I would take it, would definitely want to look
16 at before you would rule it out?

17 A It would depend on where it was.

18 Q Assuming it was, for example, in the two year old room
19 over in the truss area that we were just talking about, would
20 that be something that you should at least look at?

21 A Up in the trusses?

22 Q Yeah.

23 A I don't recall seeing an Edison bulb up in the trusses.

24 Q I'm not saying you do. I'm saying if there was one
25 there, it should have been preserved for the investigators to

1 look at and examine, wouldn't you think?

2 A If there was an Edison bulb in the trusses?

3 Q Connected to conductors.

4 A Yeah. Yeah, I would say if there was an Edison bulb up
5 in the trusses, I would wonder why there was an Edison bulb
6 in the trusses, yes.

7 Q And you would have to at least be able to preserve it to
8 examine it so you could rule it out?

9 A If we could find it, we would preserve, correct.

10 Q Great. When you were preparing for your testimony
11 today, did you actually see a photograph with an Edison bulb
12 in the truss space?

13 A I did not.

14 Q Could we have I think it's photograph 290? Now, this is
15 in the -- you recognize what's shown here, do you not? I
16 apologize for the purple.

17 A I'm trying to locate it. I believe that is the east
18 wall of the two year old room.

19 Q I might be able to help you out. Yes. What we see here
20 is actually in the lower left-hand corner of the picture is
21 the doorway to the bathroom, correct?

22 A That's correct.

23 Q And over here at the top in the middle of the
24 photograph, more or less, is a top plate, isn't it?

25 A Well, the top plate would be on top of a wall and there

1 is no wall in that location.

2 Q Do you know, did you do any research into the history of
3 the building?

4 A I know the building was renovated in 2002, approximately
5 2002-2003.

6 Q And did you learn in the course of your investigation of
7 this that when the building was renovated, they took a wall
8 down from that area?

9 A I don't recall that, but that could be possible.

10 Q Well, certainly from your expertise looking at this it
11 sure looks like it, because that's a four-by-four as opposed
12 to a truss?

13 A I agree with that.

14 Q Okay. And there is an awful lot of heavy charring?

15 A I shouldn't agree there was a four-by-four, I can't tell
16 that from the photo. But it was either a two-by-four or two
17 two-by-fours nailed together.

18 Q It would be two two-by-fours. That would be consistent
19 with the top plate where you have two two-by-fours nailed
20 together?

21 A I agree, yes.

22 Q And that certainly looks like that to your eye, doesn't
23 it?

24 A It does.

25 Q And that for our shorthand purposes anyway, can we agree

1 to call that a top plate?

2 A If you want to call it a top plate, we can call it a top
3 plate.

4 Q Thank you. That top plate is really heavily charred
5 from underneath, isn't it?

6 A There is some charring in that area, yes.

7 Q Well, not just charring, that's pretty deep charring?

8 A I agree there is a decent amount of charring there, yes.

9 Q That's a lot more heat and a lot more fire than anything
10 on the other side of that wall, isn't that true?

11 A Well, I would agree that there is more fire and heat on
12 that piece of the wood.

13 Q So if you were to find something of an electrical
14 conductor, an Edison bulb, for example, in this area, you
15 would certainly want to look at it to rule it in or out,
16 wouldn't you?

17 A I would want to look at it, yes, sir.

18 Q Why don't you look right over here to the right. Can we
19 zoom in on that? In the upper right-hand corner of this
20 photograph 290 taken by the EMO investigators, that's a
21 500-watt Edison bulb, isn't it?

22 A Well, it does appear to have a fairly good sized
23 filament on it.

24 Q Consistent with a 500-watt bulb, isn't it?

25 A It could be a 500-watt bulb. It has a good sized

1 filament on it.

2 Q And it's connected to some conductor here?

3 A You can't tell it's connected to the conductor. It's in
4 the vicinity of the conductors but from the photo I can't
5 tell it's connected to the conductors.

6 Q The only that you would know that is if the
7 investigators on the scene actually looked at it, examined
8 it, and determined whether that or anything else that's
9 connected with these conductors was related to this fire,
10 isn't that true?

11 A Well, I did not see that, that's correct.

12 Q Just a couple of more questions before we finish.
13 You've never actually tested a Nutone fan, isn't that true?

14 A Well, I've run Nutone fans, if that's what you're
15 asking.

16 Q Yeah. We asked you in your deposition have you ever
17 tested a Nutone fan to see if you could get it, you know, to
18 start a fire. Your answer to that was no, right?

19 A Well, that's a different question, I think.

20 Q If I posed the wrong question, I apologize. I've been
21 doing that all day. Will you agree with that?

22 MR. PAOLINI: Objection.

23 MR. DUGGAN: I don't blame you.

24 A Restate the question.

25 Q Sure. You never tested a Nutone fan to cause a fire?

1 A I have not.

2 Q Do you know anything about the motor in the fan that is
3 the subject of this case?

4 A Well, I read obviously lots of paperwork that's been
5 involved with this case, so I have some familiarity with some
6 of the motor, yes.

7 Q It's called the Jakel 5138?

8 A It is.

9 Q And that's the model number, is that correct?

10 A That's my understanding, yes.

11 Q And you never tested one of those to see if you can get
12 it to start a fire either?

13 A I have not, sir.

14 Q One more thing, Mr. DeMatties. I keep saying that but
15 one more thing.

16 A I think there used to be a TV show named that.

17 Q That's true. If I were to start -- you're an expert.
18 I'm going to ask you a hypothetical. If I were to start a
19 fire with a lighter here and put it on this paper right in
20 the middle.

21 A Okay.

22 Q The flame would spread in both directions evenly, would
23 it?

24 A It depends on if -- there is a couple things. One it
25 will depend on airflow, right.

1 Q Well, I'm going to assume that we don't have a lot of
2 airflow here today.

3 A Well, I mean, you're asking me a technical question, so
4 it will depend on airflow.

5 Q Right.

6 A And it would depend on if there is anything blocking the
7 flame to spread in one direction or another.

8 Q Sure. But with my little model here with my piece of
9 paper, you don't see anything blocking?

10 A That's right.

11 Q So if I started a flame here, it would spread evenly in
12 both directions?

13 A Again, based on those criteria it would tend to spread
14 evenly.

15 Q Thank you.

16 MR. DUGGAN: I don't have any further questions.

17 THE COURT: Redirect?

18 MR. PAOLINI: A few questions, Your Honor.

19 *REDIRECT EXAMINATION BY MR. PAOLINI:*

20 Q Mr. DeMatties, you were asked about the area above the
21 fan that where there was no burn. Do you recall that? In
22 the truss system?

23 A The exhaust fan?

24 Q Yeah.

25 A In the two year old bathroom?

1 Q Yep.

2 A Yes.

3 Q Do you have an opinion as to why there was no burn in
4 that area?

5 A Yeah. Can we put the photo up, please?

6 Q Is this the one?

7 A Yeah, that will work.

8 Q 34, for the record. You were asked about this
9 photograph?

10 A Yes.

11 Q And you were about to explain why you see no burn right
12 in this area?

13 A Correct. So what we're looking at there is the stringer
14 that he is talking about. Recall from the previous photo
15 when the insulation was still there that that particular
16 surface is protected by the fiberglass insulation and it
17 would be right up in that piece. So if there is fire
18 spreading across the paper backed insulation below, that
19 section is protected. What's going to occur in a space like
20 that where you have basically an enclosed structure and you
21 have paper backed insulation burning, and what it's going to
22 do is it's going to seek any void to get out of that space.

23 And this is why you saw the technicalities of why I'm
24 talking about specifics of whether the paper backed
25 insulation was stapled or not. When you have a fire like

1 that, it's seeking to go up and out and it is seeking oxygen.
2 So at this point obviously we don't know if that was a
3 continuous piece of paper backed insulation. You can see
4 based on how that construction is that they have holes
5 punched in the Sheetrock for wiring, they have holes coming
6 in for the venting for the HVAC, and they have holes for the
7 exhaust that was obviously there. Whether it was connected
8 or not is another -- is something that I was not able to find
9 it connected still.

10 In any event, my point is this, is that any separation
11 in that paper backed insulation is where the fire's going to
12 go. It's going to find an opening and go up and out. And
13 that's why you have protected areas where the fiberglass
14 batting is still in. And you can actually see where some of
15 that fiberglass batting has come down and you start to get
16 the burn areas. And in that one corner toward the corner of
17 the door, you can see we have heavy burning and the stringer
18 is burnt through in that area.

19 And so this is why arc mapping becomes important because
20 we have to decide when did the burning occur. Did it occur
21 early in the fire or did that burning occur later? And it's
22 my opinion that the burning in the bathroom is occurring
23 early due to the arc mapping.

24 Q You were asked a lot about the stringers in certain
25 areas that were missing.

1 A Yes.

2 Q Do you believe that the fact that there were stringers
3 missing in certain areas of the classroom is indicative of
4 fire originating in the classroom and proceeding toward the
5 bathroom?

6 A Absolutely not.

7 Q Why not?

8 A Let me just say, we know from the damage that we have
9 there now that that whole area become well involved in the
10 fire. We know that. Now the question becomes when did it
11 occur. Did it occur early in the fire or did it occur later?

12 Now if we were to say it occurred early in the fire,
13 that fire has to travel. Again you're going to learn that
14 they're saying that the fire is up in that attic space. So
15 it's got to go up into that attic space the entire length of
16 that structure, at the peak of the roof. Remember heat wants
17 to go up and out. And it's going to run the entire length of
18 that roof before it somehow comes back halfway down the
19 building and drops down somehow getting into this recessed
20 space above the bathroom to create that arc in the fan,
21 according to their theory.

22 So we know that we have the burn damage. The question
23 is it when did it occur. Is it likely to have occurred while
24 she's walking in the room and she hears nothing above her and
25 there is no problem with the light, there is no electrical

1 problems whatsoever? Or is it likely it happened later on
2 once that door opens up and there is more ventilation and now
3 you have a well involved fire? So I believe it has nothing
4 to do with when it occurred.

5 Q Okay. And the light fixtures, did you examine all the
6 light fixtures you found in the area of the classroom?

7 A I did, sir.

8 Q Were there any other light fixtures in the building that
9 were just laying around that you didn't examine?

10 A There was only one other fixture that was connected in
11 the hallway, it was down but it was still connected to the
12 wiring, so I was able to examine that. I did examine that at
13 the fire scene and it was from the hallway.

14 Q Again, if one of the light fixtures caused the fire,
15 what would you have expected to see or hear from the
16 witnesses?

17 A Number one, they're going to -- if the fire is in the
18 lamp holders, and I described, I've had fires like that and
19 they say, oh, I see the fire. I'm looking up and I see this
20 browning and then burning and then it's right there in the
21 fixture. If the fire's occurring in the ballast, and it's an
22 arc through failure, they will usually hear an arc through
23 failure. Because remember you're talking about a metal box
24 that's in the ceiling above your heads, and that's arcing
25 through the actual case of the ballast on the light fixture,

1 and it makes a lot of noise and usually your right lights are
2 flickering and the light goes out. And we had no reporting
3 of that.

4 Q And the space between where the exhaust fan was
5 installed and the paper backed insulation was above it, do
6 you know approximately how much space was between the two?

7 A About a foot.

8 Q About a foot?

9 A That's my recollection, yes.

10 Q You were asked about the various areas where you
11 observed melt damage?

12 A Yes.

13 Q And you had an opportunity to examine that melt damage
14 in a lab setting?

15 A I did.

16 Q And what determination did you make regarding that melt
17 damage?

18 A Again, and I described this alloy effect, and my notes
19 reflect this, it looks like alloying. Can alloying cover up
20 an arc bead? In other words, you have an arc that occurs
21 from electricity first and then alloying occurs later, yes,
22 that's common sense. If the heat's heating up later on, it
23 can cover it up.

24 Now remember even if it's an arc bead, if the fire's in
25 that area and the power's on, which we know it was, that's a

1 normal occurrence to find an arc bead. So we have to go by
2 these other factors that I'm talking to you about, the
3 witness statements, the arc mapping, the burn patterns and
4 the fire dynamics, all those together. Okay. That's how
5 we're ruling that out.

6 MR. PAOLINI: If I could just have one minute, Your
7 Honor. I have no further questions.

8 THE COURT: Recross?

9 MR. DUGGAN: No, nothing further, Your Honor.
10 Thank you very much.

11 THE COURT: You may step down, sir. Have you got
12 another witness?

13 MR. PAOLINI: Judge, the next witness that we would
14 call is going to be on the stand for quite some time.

15 THE COURT: Well, let's get him started.

16 MR. UNDERWOOD: The plaintiff calls Kevin Lewis.

17 THE CLERK: State your full name for the record.

18 THE WITNESS: Kevin Howe Lewis.

19 KEVIN LEWIS, called as a witness and being
20 duly sworn, testifies as follows:

21 DIRECT EXAMINATION BY MR. UNDERWOOD:

22 Q Good afternoon, Mr. Lewis. Could you introduce yourself
23 to the jury.

24 A Kevin Howe Lewis.

25 Q And Mr. Lewis, where are you from?

1 A Seattle, Washington.

2 Q And how are you employed, Mr. Lewis?

3 A I'm a forensic engineer.

4 Q And who do you work for?

5 A I work for a company called CASE Forensics.

6 Q And what type of business is CASE Forensics?

7 A Similar to what Mr. DeMatties said, we are a forensic
8 engineering firm. We're a tad larger. We have essentially
9 eighty people in offices in Anchorage, Hawaii, Denver,
10 Portland, Seattle, Utah. A little bit bigger firm but do a
11 lot of the same things.

12 Q What is your position with CASE Forensics.

13 A I'm the president.

14 Q And how long have you been with CASE Forensics?

15 A 17, 18 years.

16 MR. UNDERWOOD: Your Honor, may I approach?

17 THE COURT: Yes.

18 Q Mr. Lewis, I'm going to show you a document we have
19 marked as P81. Do you recognize what that document is?

20 A Yes, I do.

21 Q What is it?

22 A It's a copy of my CV or resume, curriculum vitae.

23 Q Will that assist you as I recount your qualifications?

24 A Probably. I don't remember everything.

25 Q Could you please explain to the jury or give them a

1 little bit of an overview of your education background?

2 A So my background's in metallurgical engineering, or
3 actually material science in engineering. So I've been
4 trained in the understanding of metals, plastics, ceramics,
5 composites to understand how they are affected by various
6 things, including electricity, heat, thermal damage,
7 mechanical stresses, if you bend something or break
8 something.

9 Q Where did you attend college?

10 A I went to Washington State University.

11 Q When did you graduate?

12 A 1988.

13 Q And did you obtain a degree there?

14 A I did. A Bachelor's of Science in
15 metallurgical/material science engineer.

16 Q Are you a professional engineer?

17 A I am, yes.

18 Q And where are you registered as a professional engineer?

19 A California, Colorado, Idaho, Montana, Nevada, Oregon,
20 Washington, and I think now Illinois as well.

21 Q And since you graduated could you give the jury a bit of
22 an understanding of your work history?

23 A Sure. So the first year that I got out of college, I
24 went and did mechanical design work. We designed what was
25 referred to as Aro stands and I worked for a metal

1 fabricator, so I did a lot more stress analysis in my first
2 year.

3 My second year I went to a company called Pacific
4 Testing Laboratories where I did forensic work. And I
5 started doing forensic work at that time where we were
6 looking at a lot of different things, broken parts and
7 pieces, but really where I was focusing on as a metallurgical
8 engineer was really doing fire investigation. There was a
9 study and some work going on called Auger Analysis, which was
10 a very specialized study of arc beads. So I got in to do a
11 lot of work on electrical arcing and really understand a lot
12 about electrical arcing, how did it occur, what did it look
13 like, what were you able to determine from electrical arcing.

14 That was some of the first things I did right around
15 1990. I started doing that work looking at a lot of
16 different electrical things. And of course that led into
17 looking at electrical failures of appliances, and I started
18 doing contact work. Contacts are like your light switch that
19 open and close. As a metallurgical engineer I'm the kind of
20 guy that would design that light switch. I would tell you
21 what kind of materials you would want to use for that switch,
22 how it would open, how it would close, what coatings you
23 would put on it. So my work was looking at those arcs and
24 how electrical arcs affected metals.

25 Particularly at that time, as Mr. DeMatties said, an

1 electric arc is a very catastrophic event. When it occurs
2 it's about 8,000 degrees Fahrenheit, so it's very
3 destructive. But if it happens very quickly it extinguishes,
4 so it doesn't cause a lot of damage to the switch so you can
5 open and close a lot. So that's what my study was.

6 Q What period of time you were employed with Pacific
7 Testing Laboratories?

8 A I got there 1989 and I left in 1995.

9 Q What was your position there?

10 A Well, I had lots of positions. Essentially I was there
11 as a metallurgical engineer doing failure analysis, but by
12 the time I left I was manager of the forensic department
13 doing this kind of work, a lot of electrical failures, and
14 fire work was primarily what I was doing. But I was managing
15 that department along with a couple of others.

16 Q And what types of failures and fire cases did you
17 investigate while you worked at Pacific Testing Laboratories?

18 A A wide variety. So I looked at lots of electrical
19 control systems, lots of home wiring, appliances like we see
20 here. In fact, one of the clients that I worked with is a
21 heater manufacturer that employs or uses shaded-pole motors.
22 So I was helping them with that product that they had.

23 Doing some design work. Mostly failure analysis,
24 looking at parts, things that were burning. I was having
25 people bring in all sorts of pieces of really electrical

1 equipment to try to figure out why they were failing and how
2 they were potentially causing fires or other issues including
3 electrocution or shock.

4 Q And did you work in a litigation context like now?

5 A Sometimes. Some of it was people had products, so, you
6 know, one of the things that I did was like microelectronics
7 circuit boards and circuit board failures, all essentially
8 the same thing. You trying to find where the current is
9 going, following the paths, finding out where it gets off.
10 And so I spent time looking at circuit boards and
11 microelectronics as well as, you know, power electronics,
12 120-volt, 12 to 240-volt range.

13 Q And you went to CASE Forensics in 1995?

14 A It wasn't called CASE Forensics then. It was Schaefer
15 Engineering, but, yes, that's exactly right.

16 Q When you first went to Schaefer Engineering what was
17 your position and what were your responsibilities?

18 A I went to work for a guy who was an electrical engineer.
19 His name was Ed Schaefer. And he owned the business when I
20 got there. And he had a Master's Degree in electrical
21 engineering and taught at Notre Dame as well as the Naval
22 Academy. So I worked with him and he and I did electrical
23 fires together as a team for a number of years. So he was
24 somebody that I worked with.

25 And I helped him, because an electrical engineer, you

1 know, they see wires and where the current's going. A
2 metallurgical engineer is really the guy that figures out
3 where the failure is occurring and why. So if the insulation
4 on a wire, for instance, in breaking down, the thermal
5 insulation is breaking down, now you get an arc. If I was to
6 touch this here I would get an arc. If there was insulation
7 on here, the question would be why is that insulation
8 failing. So as a material scientist my job would be to
9 figure out why the insulation is failing, and then when the
10 arc occurred, when it actually occurred, how much energy was
11 released and was that energy enough to be able to start and
12 ignite a fire.

13 So that's really where my focus was. His job was to
14 look at electrical systems and figure out how the wiring
15 went, which I understand as well. I mean, we get that in
16 basic engineering, we all have to take classes in electronics
17 and physics that help us with that. But my job was figuring
18 out what kind of energies are released from electrical
19 arcing, what is being developed from the arcs, and really a
20 lot more specific with the actual failure that's occurring
21 that's causing the fire.

22 Q And you mentioned some of your training in electrical
23 engineering. When you were in college back at Washington
24 State University, did you have schooling in electrical
25 engineering?

1 A We did. It came in the form of material science
2 classes. So we had classes in electronic materials. We had
3 to understand obviously coppers, aluminums, the conductivity
4 of these materials. We looked at actually electrical
5 failures. We actually were tutored in circuit board failures
6 because at the time obviously the circuit boards in the '89
7 time frame were very big. You got a lot of different
8 materials on them. You've got fiberglass and epoxies on
9 these circuit boards with copper and as they expand and
10 contract, they could fail. That's why computers don't work
11 forever. Our job was to study those as part of your
12 curriculum. So that was the focus of the work I did in
13 college.

14 Q What sort of on-the-job training have you had in
15 electrical engineering or electrical analysis?

16 A You know, a lot. I probably looked at over 2,000
17 electrical fires like the one that we're talking about today.
18 I stopped counting at about 2,000 which was a couple years
19 ago. So I spent my time digging out fire scenes like we see
20 here, collecting the evidence, going through it and
21 evaluating that electrical evidence. What might be there?
22 What kind of arcing do we have? Do we have arcing? Is it,
23 as Mr. DeMatties said, is it alloying, technically melting,
24 as we refer to it on the metallurgical side? Do we have some
25 of these things going on? Could these things potentially

1 have started the fire?

2 Q And although you have a metallurgy degree, do you have
3 experience in analyzing appliance values?

4 A Yes. I've looked at a lot of appliance values. You
5 have a fire in the kitchen, it burns down the kitchen, how
6 many appliances do you have? You got the stove. You got the
7 microwave. All of those things have to be analyzed.

8 So in the process of doing one fire, you end up with
9 five or six different appliances, including light fixtures,
10 can openers that have shaded-pole motors like we're talking
11 about here today, ventilation fans. So if you do a fire, you
12 typically have to look at a lot of different products.

13 Q Do those products include bathroom ventilation fans?

14 A Yeah. They have over the years, yeah.

15 Q Is that fairly frequent in your experience?

16 MR. DUGGAN: Objection.

17 THE COURT: Overruled.

18 A You know in my early time frame, we didn't see that many
19 of them. But here really within the last since about 2005
20 we're seeing a lot more ventilation fans like we have here,
21 yeah.

22 Q In what areas do you hold yourself out as an expert,
23 such as in which you'll be testifying in this case?

24 A So I would be an expert in metallurgical
25 engineering/material science. I'm also -- we haven't gone

1 over this, but I'm also a licensed origin and cause
2 investigator. So I've taken training and I hold
3 certifications for certified fire investigator from the IAAI,
4 which you heard earlier, the International Association of
5 Arson Investigators, as well as NAFI, the National
6 Association of Fire Investigators. And so I am a CFEI, which
7 is a Certified Fire and Explosion Investigator. I'm a
8 certified fire vehicle investigator. I am a certified fire
9 instruction -- or, investigator instructor as well.

10 Q Are there any standards or guidelines that govern the
11 type of investigations you perform as a forensic engineering
12 expert?

13 A Well, again, as Mr. DeMatties said, there's a lot. I
14 think the general one for most fire investigations is the
15 NFPA 921. But there is others and there is a lot of
16 different codes and standards that may apply to particular
17 products that you're looking at.

18 Q And what type of training have you received in the
19 guidelines that are set forth in NFPA 921?

20 A So the certified fire investigator, the certified fire
21 and explosion investigator, the certified vehicle
22 investigator all goes over NFPA 921. This happens to be the
23 2011 edition. We're on the 2014, but this is the one I more
24 commonly use.

25 Q And you indicated that you're a certified fire

1 investigator?

2 A I am.

3 Q And as a certified fire investigator, are you expected
4 to follow the guidelines set forth in NFPA921?

5 A Yes. But again, as they're guidelines, you know, there
6 is no unfortunately road map to doing fire investigation
7 exactly. They're all slightly different. There is different
8 things that you have to do for them. But yeah.

9 Q Do you teach any classes or courses?

10 A I do. I've taught a lot of classes and courses over the
11 years. I teach at the University of Washington. They have a
12 failure analysis class that I teach part of on electronic
13 failures. And then I have given lots of seminars over the
14 years on electrical fire investigation, as well as several
15 seminars on what I refer to as shaded-pole motors, or the
16 type of motors here, to different groups in seminar bases. I
17 was invited at the National Conference of International
18 Association of Arson Investigators to present a seminar on
19 shaded-pole motor fires that have occurred.

20 Q When you mention the term shaded-pole motor fires, why
21 do you mention that as being important particularly in this
22 case?

23 A Well, that was certainly one of the items that needed to
24 be looked at to determine whether or not it potentially
25 started a fire. And so, you know, it was something that I

1 have expertise in.

2 Q Does the Broan-Nutone fan that's issued in this case
3 feature a shaded-pole motor?

4 A It does. It's the motor that we've seen earlier, kind
5 of got the steel around it and Mr. DeMatties was talking
6 about the windings and that's referred to as a shaded-pole
7 motor.

8 Q Have you ever taught any courses related to the topic of
9 electrical failure?

10 A Yes. So I've given several seminars to various groups
11 of fire investigators and forensic engineers on electrical
12 failures. In general, I've given very specific expertise on
13 the metallurgical aspects of electrical arcing and failures
14 that most of them don't have.

15 Q Do you have any training with regard to the National
16 Electric Code?

17 A I do. I've attended at least I think two seminars on
18 the forty hour seminars on the National Electric Code. One
19 very long ago and I think one in 1990s time frame.

20 Q What training have you received in the identification of
21 electrical sources of ignition fires?

22 A Well, a lot, right. So when you teach, you actually
23 learn a lot when you teach. So any time you have to teach a
24 course, you learn a lot. But I've been taught by some very
25 good people. Ed Schaefer was probably one of the best people

1 I could learn from in this business. And I generally learn
2 from a lot of the other investigators as well. But I've had
3 a number of seminars over the years that talk about failure
4 and failure analysis, particularly to electronic failure
5 analysis.

6 THE COURT: Okay, we're going to call it quite at
7 this time. Members of the Jury, remember your duties as
8 jurors about discussing this case or watching anything on it.
9 We'll see you in the morning at 9:00.

10 (Court adjourned at 5:00.)

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C E R T I F I C A T I O N

I, EILEEN MCDONOUGH, RPR, CRR, Federal Official
Realtime Court Reporter, in and for the United States
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Federal Official Court Reporter

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

-----x
PHILADELPHIA INDEMNITY INSURANCE COMPANY,

Plaintiff,

vs.

12-cv-181

BROAN-NUTONE, LLC,

Defendant.
-----x

JURY TRIAL - June 25, 2014 - Volume III

100 South Clinton Street, Syracuse, New York

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United States District Judge, Presiding

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1 (Court convenes at 9:30.)

2 THE COURT: Good morning, Members of the Jury.
3 We're ready to proceed. Mr. Lewis is from Washington and he
4 is testifying on his expertise. You may proceed.

5 *CONTINUED DIRECT EXAMINATION BY MR. UNDERWOOD:*

6 Q Mr. Lewis, as you will recall yesterday we were talking
7 about your qualifications and background. I just have a few
8 more questions about that.

9 A Okay.

10 Q What is a shaded-pole motor?

11 A A shaded-pole motor is like we're talking about here.
12 Again, it's a small motor with a series of metal plates
13 called laminations, it makes up the core, and around that
14 core is a series of windings. And it's those windings that
15 run electrical current through the winding that generate a
16 magnetic field, and it's the magnetic field that spins the
17 rotor. And without too much of an explanation, there is a
18 couple of poles that are shaded that makes sure it turns in
19 the right direction. So we refer to it as an open coil or
20 shaded-pole motor or sometimes a C-frame motor.

21 Q What experience do you have in the analysis and
22 investigation of the shaded-pole motor?

23 A Like I said yesterday, I've looked at a lot of these.
24 I've had other cases that we've looked at where we've had to
25 deal with these. And a lot of times you'll get in a fire,

1 like I said, in a kitchen or in a bathroom, it's something
2 that you have to analyze. So I've probably looked at least a
3 thousand of them over the years because you'll find them in
4 vent fans, oscillating fans, can openers, microwaves in some
5 cases. They're in many different places. Heaters, little
6 wall heaters, which I do work for a company that actually
7 designs those.

8 Q Have you taught any courses regarding the failure modes
9 of C-frame or shaded-pole motors?

10 A I have. So again, I was invited to the national
11 conference of IAAI, International Association of Arson
12 Investigators, to provide information to the other engineers,
13 forensic engineers and fire investigators, about the
14 operation of shaded-pole motors as well as their failure
15 modes. And I've given a presentation like that to several
16 other groups as well.

17 Q Now you testified yesterday that you're from the
18 Seattle, Washington area, correct?

19 A That is true.

20 Q And that's where your company's headquarters is located?

21 A It is. And that's where, again, we've got offices in
22 Utah, Portland, Denver, Alaska, Hawaii. But our main
23 laboratory, our large laboratory where we have our scanning
24 electron microscopes and chemistry lab and metallurgical,
25 most of the metallurgical stuff, is centralized in the

1 Seattle area. But we have those items as well.

2 Q Now the equipment in the laboratory that you described,
3 is that a location, are those appliances or equipment that
4 you've used in the analysis of shaded-pole motors?

5 A Yeah, on many occasions. And we had to use that here.
6 So any burning that we've done, any sort of plastic analysis,
7 any of the metallography was all done in the Seattle area.

8 Q And in terms of the analysis of shaded-pole motors, have
9 you ever disassembled a shaded-pole motor?

10 A Yes, on many occasions, both burned and unburned.

11 Q And how many shaded-pole motors have you taken apart and
12 analyzed over the years?

13 A Well, like I said, I think it's probably close to a
14 thousand that we've ended up looking at in some fashion or
15 form as part of our fire investigation. Again, if it's in a
16 room and you're looking at what potentially could start a
17 fire, that would be something that you would have to look at
18 and typically you do some sort of examination on it.

19 Q And what experience do you have in the analysis of the
20 component parts of shaded-pole motors?

21 A Quite a bit. So we've studied the laminations, which is
22 the iron core. The iron core is not just a solid piece of
23 metal, it's a bunch of plates of metal are put together and
24 they're riveted. And it's something to keep eddy current
25 losses from happening. So there is a certain kind of steel

1 that's used for that higher than silicon. So we've analyzed
2 the steel to see whether or not there is an issue with steels
3 and how that steel might heat and produce heat in the core of
4 a motor.

5 Q And have you performed an analysis of the windings of
6 shaded-pole motors?

7 A We have. So we've looked at windings in the past.
8 Winding failures can occur. In this case they're using a 27
9 gauge aluminum winding that has a two-layer insulation on it.
10 And we've looked at winding failures before, particularly in
11 heaters, to see whether or not because they produce a little
12 bit more heat initially and therefore you've got a shorter
13 life span, looking at those to how the windings might degrade
14 and potentially cause a failure of those windings in the fan.

15 Q And have you performed any testing on bathroom
16 ventilation fans?

17 A Yeah, we've performed quite a bit of testing.

18 Q What has that testing consisted of?

19 A Well, it's varied. I mean, again, one of the things
20 we've done is looked at the steel laminations to see if the
21 steel that has been used in bathroom ventilation fans is
22 correct. We've looked at the aluminum windings. Looked at
23 the insulation on the windings. We've done a study of the
24 thermal cutout, that's the safety device that we're going to
25 be talking about. And we've done studies of the plastic

1 materials that comprise the entire vent fan and how those
2 materials might ignite, burn and spread fire.

3 Q Are you familiar with accepted testing standards?

4 A I am.

5 Q And what is the basis for your familiarity? First of
6 all, what are accepted testing standards?

7 A Well, there is a wide variety of testing standards. You
8 know, the ones in this case are from Underwriters
9 Laboratories, which is a company that produces a standard,
10 and you have a product and you go out and have your product
11 tested to that standard to see if it meets these minimum
12 requirements. But there is also groups such as NFPA, ASTM,
13 ASME, American Society of Mechanical Engineers. They also
14 have standards. And so these various things that you have,
15 if somebody has a product or a piece like the steel that's
16 being made in these motors would go up to an ASTM standard
17 steel, so you would test it to that standard.

18 Q Do you have any experience in performing acceptance
19 testing?

20 A Yes. As I said earlier, in my first, one of the first
21 jobs in forensics in testing was at Pacific Testing
22 Laboratories between 1989 and 1995, so six years of doing
23 that kind of work.

24 Q You testified yesterday that you're a professional
25 engineer, correct?

1 A That's true, yes.

2 Q In what specialty?

3 A Metallurgical engineering.

4 Q I think you also indicated that you first began
5 performing engineering investigations back in 1986?

6 A I did. That's actually my first investigations were
7 actually done in college. I was working with professors that
8 were doing failure analysis. Metallurgical engineers, that's
9 really what we're suited to do is mostly failure analysis,
10 trying to figure out why something is breaking and failing.
11 So in college I worked on several projects with my
12 professors. One was a break case, one was actually a heating
13 element case, and that's really where I got my introduction
14 into failure analysis.

15 Q I think you testified a little bit yesterday about fire
16 investigation. What training did you have in fire
17 investigation?

18 A Well, so, I've got certifications by IAAI, the
19 International Association of Arson Investigators, NAFI, the
20 National Association of Fire Investigators. I am a certified
21 instructor. I've also got certification by the Wildland Fire
22 Coordinating Group. I do wildland fire work, the ignition
23 scenarios that occur in wildland fires. There is usually a
24 time in which somebody alleges that pieces, hot metal pieces
25 have landed on a forest floor and started fire from heavy

1 equipment. So I'm somebody who comes out with a specialty to
2 examine those pieces of equipment to try to determine the
3 ignition scenario. And that's part of what we're going to be
4 talking about today, the ignition scenario, what's capable of
5 igniting what.

6 Q Approximately, we don't need to exactly, but
7 approximately how many fire investigations have you performed
8 over the years?

9 A I think I said yesterday it's over 2,000.

10 Q Have you previously been accepted by courts as qualified
11 to testify as an expert?

12 A Yes.

13 Q In what fields?

14 A You know, primarily failure analysis, electrical fire
15 investigation, origin and cause. And then what I would say
16 is more of a global fire science, spread of fires, how fires
17 originate, how they can burn certain fuels, how those fuels
18 burn.

19 Q How many times have you testified as an expert in court
20 like we're seeking to have you testify today?

21 A I think there is 19 or 20 times in my career, about once
22 a year.

23 Q Has a court ever prevented you or excluded you from
24 testifying in a case?

25 A Never.

1 Q Has a court ever limited your testimony?

2 A Never.

3 Q Have you previously investigated fires in which you
4 determined that the fire originated in a bathroom ventilation
5 fan?

6 A Yes, I have.

7 Q Have you investigated fires in which it was initially
8 suggested that the fire originated in a bathroom ventilation
9 fan but you came to another conclusion about the cause of the
10 fire?

11 A Yes, absolutely.

12 MR. UNDERWOOD: At this time plaintiff asks that
13 the Court recognize Mr. Lewis as an expert in the fields of
14 metallurgical engineering, fire science, fire investigation,
15 shaded-pole motor analysis and failure analysis?

16 THE COURT: Mr. Duggan, any objection?

17 MR. DUGGAN: No, Your Honor.

18 THE COURT: Okay. You may testify. Keep in mind
19 this is an expert witness. Listen to his testimony and the
20 other testimony that you've heard and you're going to make a
21 decision as to how much you will accept or reject.

22 MR. UNDERWOOD: Your Honor, I think it's covered by
23 fire science and fire investigation, but we also seek to have
24 Mr. Lewis as to cause and origin.

25 THE COURT: Any objection on that?

1 MR. DUGGAN: Yeah. Can we be seen at sidebar on
2 that one, please?

3 THE COURT: Do you want to voir dire?

4 MR. DUGGAN: No, Your Honor. I just have another
5 issue on that one.

6 THE COURT: Okay.

7 (Sidebar discussion on the record.)

8 MR. DUGGAN: But he was not offered as origin and
9 cause expert in this case, in the discovery of this case.
10 That was Mr. DeMatties and a guy named Tochelli, but not him.
11 In fact, he specifically said, unless I'm mistaken, in his
12 deposition he said he wasn't an origin and cause in this
13 case.

14 MR. PAOLINI: He was at the scene.

15 MR. DUGGAN: He was at the scene but he was not
16 offered as origin and cause expert, and, therefore, when
17 Mr. Barrer took his deposition, I don't think he asked him
18 any questions about origin and cause.

19 MR. UNDERWOOD: He asked him about the origin of
20 the fire. And also his report specifically goes in length
21 about how the fire originated in the fan and then progressed
22 from there.

23 MR. DUGGAN: I don't think so. But I mean --

24 MR. UNDERWOOD: We can review his report. We had
25 the opportunity to do that. He talks at length about how the

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1 fire originated in the fan and was able to progress from that
2 location.

3 MR. DUGGAN: They already had two origin and cause
4 guys testify already. They had Mr. Harloff and they had
5 Mr. DeMatties. Specifically for that reason, I mean, and I
6 don't -- am I wrong? But I don't think he was designated as
7 origin and cause. If I'm wrong --

8 THE COURT: When you gave his notice to him what he
9 was going to testify about, did you say cause and origin?

10 MR. UNDERWOOD: We indicated that he would -- he
11 was going to talk about all the things that are in the
12 report. He was testifying about the cause of the fire, which
13 is an ignition inside of the fan, fire progresses out of
14 that, and how does it get to there. The testimony we
15 provided so far with Mr. Harloff, who we didn't retain, he
16 indicates that the fire starts in the area of the fan. And
17 Mr. DeMatties, generally speaking, the electrical systems
18 throughout the building. He indicated he can eliminate the
19 other parts. Mr. Lewis will step in and say, yes, it starts
20 in the fan and it progresses, this is how it progresses out
21 of the fan given the fuel loads that are located in there.
22 And he has to testify regarding what fuel loads are in there
23 to explain to the jury how it gets from that location out to
24 the other areas. It's all combined.

25 THE COURT: It seems to be you're hung up with the

1 terms cause and origin.

2 MR. DUGGAN: Exactly.

3 THE COURT: Not what the testimony is going to be
4 so much because you had no objection.

5 MR. DUGGAN: Right. He can testify as to --

6 THE COURT: Just forget cause and origin.

7 MR. PAOLINI: Just fire investigation and that
8 covers it.

9 MR. UNDERWOOD: Yeah.

10 MR. DUGGAN: Yeah.

11 THE COURT: That's already in, fire investigator.

12 MR. DUGGAN: That's fine.

13 (Sidebar discussion concluded.)

14 BY MR. UNDERWOOD:

15 Q Mr. Lewis, are you being compensated for your appearance
16 here today?

17 A I am.

18 Q And what is your hourly compensation rate?

19 A Testifying is \$435 an hour.

20 Q And, obviously, you're appearing on behalf of the
21 plaintiff here today, correct?

22 A I am. You called me.

23 Q You didn't fly here just on your own volition, right?

24 A Syracuse is beautiful, but no.

25 Q Have you -- in the past have you worked as an expert on

1 behalf of defendants?

2 A I have, yes. Yes.

3 Q And have you worked on behalf of defendant product
4 manufacturers like the defendant in this case Broan-Nutone?

5 A Yes. The last trial was actually for a product
6 manufacturer.

7 Q And when were you first retained in this case?

8 A I think it was December 10th, 2013, this past December.

9 Q And it was our office that retained you?

10 A Yes, it was.

11 Q And what did we ask you to do?

12 A Well, you asked me to come in and take a look at this
13 fire to determine, you know, really what might the cause
14 might have been. I think it had been insinuated that the
15 vent fan started the fire. And I told you, if I'm not
16 mistaken, well, that's great, I want to look at all the
17 evidence. And so you started sending me photographs and then
18 I got an opportunity to actually fly out here to Syracuse to
19 Mr. DeMatties' office and take a look at the entire volume of
20 evidence, plus all the photographs that were provided so that
21 I could have a better understanding of really what was going
22 on and whether or not I really truly thought the vent fan was
23 the cause of this fire.

24 Q And without going into too much detail about what you
25 actually did on each of the occasions, how many inspections

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1 did you attend in this case?

2 A So, it turned out to be two. The first one was the one
3 for two days at Mr. DeMatties' office where essentially
4 myself and a Broan representative, who is here in the court
5 today, went through the fan on one day and then I went
6 through the rest of the evidence on the second day, and then
7 there was a follow-up examination.

8 Q And based upon your evaluation of all the information
9 that we sent you and your own investigation, did you prepare
10 a report in this case?

11 A I did.

12 MR. UNDERWOOD: Your Honor, may I approach?

13 THE COURT: Yes.

14 Q I'm going to show you a document that we marked as
15 Exhibit P54.

16 A Okay.

17 Q Do you recognize that document?

18 A I do, yes.

19 Q Is that a copy of your report?

20 A Yeah. All 56 pages.

21 Q Now, if you need to refer to your report, obviously,
22 it's 54 pages, if you need to refer, feel free to do so?

23 THE COURT: 54 or 56?

24 MR. UNDERWOOD: Excuse me, it's 56.

25 THE COURT: So the answer is?

1 THE WITNESS: 56.

2 Q Now after you were retained by us, you indicated that
3 you reviewed documentation that we sent to you, correct?

4 A I did, yes.

5 Q And you also attended some examinations of evidence?

6 A I did, yes.

7 Q Now the before you attended those examinations, did you
8 review photographs of inspections that had taken place before
9 you were retained?

10 A I did. I reviewed photographs that were taken from the
11 fire scene, as well as previous inspections that had been
12 done so that I could see kind of what everything had been --
13 what had been looked at, what it looked like. So I went
14 through the entire volume of all the evidence, yes.

15 Q And --

16 A Photographically.

17 Q You indicated a few minutes ago that you first attended
18 an inspection of the evidence here in Syracuse, correct?

19 A That is true, yes.

20 Q When did that inspection take place?

21 A So that was January 15th and 16th of this year, 2014.

22 Q And where did you conduct that exam?

23 A Again, at the offices of Forensic Failure Analysis here
24 in Syracuse, Mr. DeMatties' office.

25 Q Is that the same Mr. DeMatties who testified yesterday?

1 A It is, yes.

2 Q And you indicated that you were there with
3 representative from Broan as well?

4 A I was, yes, for the first day.

5 Q And who was that person?

6 A Dave Farchione. And I'm sorry if I mispronounced your
7 name. But he was there for the first day while I was
8 examining what's been referred to as the subject vent fan
9 motor.

10 Q Based upon your review of the information we sent you,
11 did you have an understanding of where that vent fan motor
12 had been found?

13 A Well, it was the vent fan hanging in what's referred to
14 as the two year old bathroom. In the first photographs taken
15 by Mr. Harloff it's hanging by its Romex conductor, that's
16 the conductor that supplies power to the fan. It's a plastic
17 insulated conductor, and it's hanging down, and you see like
18 some of the original photographs in the bathroom. That's
19 where I understand it was found. It was originally of course
20 up in the ceiling but during the fire dropped.

21 Q Now based upon your review of the photographs, were you
22 able to review photographs of what the fan and the motor had
23 looked like after it was originally found at the fire scene?

24 A Yes. So, obviously, I saw the photographs that
25 Mr. Harloff took of it hanging, and then after it was cut out

1 there was a series of photographs taken of the fan, thousands
2 of photographs, if I'm not mistaken, of the fan afterwards,
3 kind of in the scene and then during its disassembly process.
4 So I had an opportunity to see how that was all done and it
5 was taken by many different experts.

6 Q I'm going to show you a photograph we marked as P77N.
7 Do you recognize what's depicted in that photograph?

8 A I do. So what you're looking at there is the bathroom
9 vent fan from the two year old bathroom that people have
10 referred to as the subject vent fan. You're seeing it from
11 basically the bottom up. If you were looking straight up
12 into the vent fan and took off the grill, that's the view you
13 would see of the fan. You can see that there is soot
14 deposits on the upper portion of the vent fan and then you
15 can see the vent fan motor, it's the kind of the metallic
16 centered mass that has the windings around it, and then you
17 can see two pieces of wood. And that was taken in
18 Mr. DeMatties' office.

19 Q Were you able to identify the type of motor that was
20 installed in the vent fan?

21 A We were. It was a shaded-pole motor made by Jakel, it's
22 J2390505138 shaded-pole motor.

23 Q And were you able to identify the model of fan it was?

24 A Yes. So that motor made by Jakel is installed in the
25 Broan 696RN R02 fan.

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1 Q And how are you able to determine that?

2 A Well, that material is steel stamped on that cover
3 plate, so if you scrape it off you can see it.

4 Q I'm going to show you a document we marked as P87AA. Do
5 you recognize what's depicted in that photograph?

6 A Yes.

7 Q And you testified a few seconds ago about information on
8 the fan housing that would indicate the manufacturer and some
9 additional information. Is that information depicted in this
10 photograph?

11 A Yes, it is. So if you look in the lower left corner of
12 that photograph, you can see the word steel stamped in there
13 that says Nutone, Cincinnati, Ohio, 696N-R02B unit. Then it
14 has the voltage rating, which is 115/120-volt. 60 hertz
15 refers to the cycle of AC power. And then it says .9 amps,
16 50 cfm, cubic feet per minute, and then 4 sones, which is a
17 sound rating.

18 Q Were you able to determine the date when the fan was
19 manufactured?

20 A I was.

21 Q How were you able to do that?

22 A So I believe it's in the upper left corner, you can't
23 see it, there is a steel stamping in that that has two digits
24 and a letter, and those two digits were 02M, which stands for
25 December 2002. They don't use I, so A is January and go

1 through the alphabet.

2 Q Now I'm going to show you a machine. Hopefully you
3 understand what it is.

4 MR. UNDERWOOD: Your Honor, may I approach?

5 THE COURT: Yes.

6 Q Can you explain to the jury what this is?

7 A I can. And may I stand?

8 THE COURT: Yes. What is the number on that,
9 please?

10 MR. UNDERWOOD: It's just for demonstration
11 purposes, Your Honor.

12 A So this is -- this is a Broan 696 vent fan. And what
13 you see here going through the components is the motor, which
14 is labeled, you can see on here, it's a J2390505138 motor.
15 So this is the same style of motor that we had in this
16 particular case. This is the same housing so this is what we
17 would refer to as an exemplar.

18 Now, it's a new exemplar. It hasn't really been used,
19 it's clean, doesn't have any lint or dust or debris in it,
20 but this is what a new one would look like.

21 Q Could you explain for the jury how that motor and fan
22 would work?

23 A Sure. First and foremost is that you have to get power
24 to the fan. And so the first thing that we have to do is we
25 have to connect a wire in here to get power. And in this

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1 case the way we did that or in this particular situation is
2 that there was a plastic covered insulated wire that went
3 from this vent fan to the bathroom light. And Mr. DeMatties
4 talked about that yesterday. Such that when you turned on
5 one switch in the bathroom, it illuminated the fluorescent
6 light in the bathroom and it sent voltage and power to this
7 vent fan. So at that point you have actual power going into
8 this box on the vent fan through this hole.

9 All right. And the way you actually make this work is
10 you take that Romex wire and you stuff it into this little
11 wiring box here that's under this unit. This pops out.
12 There is a junction box in here. And so I can open up this
13 junction box and I make the wiring connection to the
14 receptacle. I use wire nets typically. I make this
15 connection to the Romex wire through this hole that you see
16 right here and I make that connection. And then I take this
17 and I pop this back down in place. And now I've got power to
18 this little receptacle right here. And this would be a wall
19 receptacle. You could run your hair dryer off it if you
20 wanted to. You would have to take the grill off but it works
21 exactly the same way.

22 And then what you do is this fan then gets its power
23 through this cord. So you basically have these two
24 conductors and these two conductors have a small plug that
25 can go in either way. This is a polarized plug, which means

1 one of the spades is a little bigger on the receptacle. But
2 this plug is not polarized, so it can go either way.

3 Basically what you do is you plug this into the
4 receptacle, and when you do that now this coil has the
5 ability to have power going to it. So when I turn on the
6 light switch, I put voltage, 120-volts, and then I run
7 current through here. And this things says .7 amps of
8 current, and it varies. The testing done by Broan was about
9 .65 to .69 amps. A current runs through this coil. And this
10 is a coil that is made up of about 315 feet of 27 gauge
11 magnet wire. 27 gauge magnet wire is like thread, and it's
12 315 feet long and it wraps around this coil 1,125 times. So
13 1,125 times there is that many wraps or turns that we call it
14 in this motor.

15 Q Now the coil, it appears to be there is a plastic
16 section that's right near where the coil is. What is that?

17 A Well, so this is nylon, and I'll go to that in just a
18 second. But what the coil does is as I'm running electrical
19 current through that coil, it sets up a magnetic field in
20 this motor here. And this spins this rotor right here. You
21 can't see -- I'll do the best I can, but you can see that the
22 fan blade spins. And so by running a magnetic field through
23 this core, this core is the laminations that I talked about
24 earlier. This is a piece of steel but it's made up of plates
25 of steel. It's about twenty plates of steel that are riveted

1 together. If you looked at it carefully, though it looks
2 like a solid piece, you'd actually see all those discrete
3 platelets.

4 And basically I'm running a magnetic field through this
5 motor and spins the fan. And the fan spins in the direction
6 I'm showing you, it's counterclockwise. And the way it
7 works, so as I'm running current through here, this magnetic
8 field spins the fan, it sucks air, so it would be mounted
9 like this, it sucks air up into the fan, and it expels it out
10 this opening. I can tell you it comes out like a blow dryer.

11 There is a lot of air coming out of here. I haven't used a
12 blow dryer for years but it would still work on me as well.

13 Q When you performed your examination looking at the fan
14 and some other things -- first of all, in addition to the
15 fan, did you look at other evidence during your initial
16 inspection at Mr. DeMatties' office?

17 A I did.

18 Q And what was the purpose of looking at that evidence?

19 A Well, like anything, my job here is to find out what
20 happened. You know, what started this fire. And there is
21 always a bunch of potential causes for a fire. And so when
22 you asked me to look at this fan, I said, well, all right,
23 I'll look at the fan. But I want to look at everything else.
24 I want to see if there is anything else that started this
25 fire. I did not want to go in and testify today in front of

1 a jury of people and say, you know, I don't know what started
2 this fire or could have been this or that. I wanted to see
3 all of it and be able to tell you what I thought started the
4 fire. So I did.

5 Q And when you were looking at that evidence including the
6 fan, what were you looking for in terms of specific evidence?

7 A Well, again, my background is metallurgical engineering.
8 That is what I've been trained to do is find failures and
9 find out what's really going on on a very microscopic level.
10 So I looked at all the wiring that Mr. DeMatties pulled out.
11 I looked at these areas where he called it melting to
12 determine if, in fact, it might have been electrical arcing.
13 And I looked for electrical arcing in the lights, light
14 fixtures, ballasts. So in a lot of ways I redid exactly what
15 Mr. DeMatties had done to make sure that I could substantiate
16 for myself his conclusions that the fire had started at this
17 vent fan.

18 So, again, I went through all of that material and came
19 to the same conclusion that he did, that there was no
20 electrical activity in any of the wiring, particularly in
21 some very crucial areas as part of his arc mapping.

22 Q And you said you were looking for evidence of electrical
23 failures. What specifically were you looking for?

24 A Well, so like Mr. DeMatties talked about yesterday,
25 you've got fluorescent lights. Every fluorescent light has a

1 tombstone, where you put the light in, you've got tombstone
2 failures that can happen in the fluorescent light. So if you
3 have a tombstone failure, then it can start, potentially
4 start a fire. But generally when that happens one will see
5 arcing at the tombstone. And two, most importantly, the
6 witnesses of the fire will tell you, well, the fluorescent
7 light started on fire, the diffuser is burning, they'll see
8 smoke in that area, the smoke will be down low, a bulb will
9 go out, you'll have some issues. So I checked the tombstone.

10 THE COURT: What's a tombstone?

11 THE WITNESS: When you put a fluorescent light bulb
12 up in there and you have to turn the light bulb, they look
13 white initially, that's what it clicks in. That's what a
14 tombstone is.

15 A So I checked those and the wiring that went to it. And
16 then I checked the ballast itself to make sure that there
17 wasn't any arc holes in it. If A ballast fails a lot of
18 times because they run at higher voltage, you'll actually get
19 a perforation through the case of those. There was no
20 failure in the ballast. Of course, the witnesses did not see
21 any lights going out. So with no failure in the ballast, no
22 failure of the tombstone, it's pretty clear that the
23 fluorescent lights didn't start the fire.

24 We're then left with the wiring. I looked at where the
25 melting damage was that Mr. DeMatties found, and it would be

1 consistent with heat from a fire, not electrical activity
2 that would start a fire.

3 Q What did you determine from finding that?

4 A Well, so at that point we've excluded really -- they
5 took all of the electrical evidence for the most part that
6 was in that area of the two year old room, and from what I
7 could tell there was nothing in there that could start this
8 fire.

9 Q Now Mr. DeMatties testified yesterday about performing
10 arc mapping at the scene. Did you perform any arc mapping as
11 part of your laboratory examination?

12 A Absolutely. That's a cornerstone for what we do in this
13 business.

14 Q Is that one of the processes that are typically used by
15 fire investigators according to NFPA 921?

16 A NFPA 921 recognizes four ways to determine origin of a
17 fire. The first one is witness accounts. You talk to
18 witnesses. All right. This case we had Ms. Suffredini
19 putting the fire at the vent fan. All right. And the next
20 thing is burn patterns. You look at burn patterns and
21 determine what you see with the burn patterns. We did that.
22 I believe the burn patterns are consistent with the fire.

23 We then have arc mapping. And arc mapping is, as
24 Mr. DeMatties described yesterday, it's where is the arcing.
25 Where do you find it? And then you look at the last thing

1 which is called fire dynamics. How did that arcing get
2 there? Why did that arcing occur where it did? And so you
3 have to put all of that together. You can't just look at one
4 component and say, well, I looked at this component and this
5 component may or may not have failed. You have to look at
6 the component in the context of the entire fire. Where was
7 it? How did it fail? What was going on? How did the fire
8 spread from this area to this area? And how did it get into
9 the building and cause the damage. So that's typically what
10 I do.

11 Q And did you perform arc mapping with regard to the
12 wiring that you examined and also with regard to the remains
13 of the fan?

14 A I did. And one of the -- there is really two crucial
15 pieces of evidence. Mr. DeMatties had a document up
16 yesterday, I don't know if you can get it up, that shows the
17 lights. So this is the wiring that was up in the ceiling
18 space that Mr. DeMatties pulled out.

19 THE COURT: For the record, you're looking at P48A.

20 MR. UNDERWOOD: P48A.

21 A I'm not sure I know how to do this but I'll do the best
22 I can. But this wire right here, which I'm going to put an
23 arrow on, this wire right here, right in through this area is
24 the feed to the bathroom circuit. And Mr. DeMatties
25 basically said that he looked at this wire right here and

1 didn't find any evidence of electrical activity. And this
2 goes down into the light switch and then back up into the
3 fan. And I agree, I looked at this wire plus this wire right
4 here, and then this wire right here. These are critical
5 wires because one of the allegations that's been made in the
6 opening statements by the defense and is typical as is that
7 if the fire --

8 MR. DUGGAN: Objection, Your Honor.

9 THE COURT: Sustained.

10 A The fire may have started in the attic space and spread
11 to this fan. It's is always a possibility.

12 MR. DUGGAN: Your Honor, I objected to that.

13 THE COURT: Yeah. Start your question again.

14 Q As part of your analysis of the wiring at the laboratory
15 with Mr. DeMatties, did you analyze the possibility that the
16 fire could have originated at a spot outside the two year old
17 bathroom?

18 A Yes, absolutely.

19 Q And what analysis did you perform?

20 A So I looked at the burn patterns as well and tried to
21 judge whether or not I thought the fire was approaching this
22 fan or whether the fire originated it at the fan. And for me
23 it's pretty clear that the fire originates in the fan and
24 escapes out of the two year old bathroom and into the
25 ceiling. It's very difficult for the fire to go into a

1 closed space. That area above the bathroom vent fan in the
2 two year old ceiling is closed. There is only one opening,
3 which if you pull out the demonstration we can show you where
4 it is. Fires don't go in to a closed space. There is no
5 reason for it to. They'll spread out of there if the fire
6 originates but they won't go into it.

7 So in this particular case when you look at where the
8 bathroom vent fan is and you look at what's burning, the fire
9 has to be coming out of that space, it certainly wouldn't go
10 in there. But the most key piece of evidence, and this is
11 one that really is undisputed, that is the arc mapping.

12 Okay. Because if the fire is going to go down and attack
13 this fan, the first thing that it has to do if it's going to
14 go into the ceiling of the two year old bathroom is it has to
15 pass by these wires. And if the fire passes by these wires,
16 it will heat the insulation and the insulation will melt and
17 you will get an arc. And if you get an arc in these wires,
18 it typically trips the circuit breaker and you don't have any
19 arcing in the fan. The fan then becomes deenergized just
20 like I turned it off.

21 And Mr. DeMatties said yesterday he found arcing in the
22 fan, which I think we'll talk about, but it's very important.

23 Q And your review of the photographs, did you have an
24 opportunity to review the photographs that were taken by
25 Investigator Harloff?

1 A I did, yes.

2 Q And is the Romex wire that you're referring to depicted
3 in the photographs that he took?

4 A It is. The fan is hanging from it.

5 Q I'm going to show you a photograph marked as Exhibit
6 P26. Now you've referenced a couple times today the power
7 line that would be installed into the fan housing. Is that
8 power line depicted in the photograph that we've marked as
9 Exhibit P26?

10 A It is.

11 Q Can you show the jury where that wire would be located
12 or where that wire is located?

13 A That's the wire. So this is what's referred to as a
14 Romex wire. It's plastic coated. It's solid conductors.
15 And that's what brings the power from the light over here
16 into this fan. And we know the fan is on. They've testified
17 that the fan was on at the time.

18 And so if you've got an encroaching fire, the first
19 thing that it's going to attack is that wire. Right. And so
20 in many occasions you'll find arcing in that wire, but then
21 you won't find any other arcing inside the fan. It's because
22 it's deenergized. And that would be typical. And at that
23 point you would have a case where the vent fan didn't start
24 the fire. That's not what we have here. I mean, we have the
25 opposite.

1 Q Now you talked about arcing and doing arc mapping. Is
2 it possible for the arcing to occur on the windings for the
3 fan motor?

4 A Absolutely, that's possible.

5 Q How can that occur?

6 A Well, so these windings have 120 volts attached to them
7 like we talked about. And if you take two wires -- can I
8 show that demonstration.

9 MR. UNDERWOOD: Your Honor, I think the witness
10 would like to just take a piece of paper and draw a
11 demonstration for the jury.

12 THE WITNESS: Well, I actually have that wire
13 that's arced.

14 MR. UNDERWOOD: We actually have a demonstration, a
15 piece of wire.

16 THE COURT: Any objection?

17 MR. DUGGAN: No, Your Honor.

18 A I'll do the best I can. But this is a wire. Imagine
19 it's got a receptacle on it and I've plugged it into a wall
20 receptacle just like that. That's how we created this. And
21 if I have this over a fire, if you can see right here you can
22 see where I've burned the insulation in this area. And if
23 you look carefully right here where my finger is pointing
24 with a pen, right here, you can actually see an arc. I'll
25 try to put something white behind it so you can see it. All

1 right.

2 And so that creates electrical activity. And that's the
3 kind of arcing that you would typically find in a wire. And
4 I can tell you that when we created this arc, it tripped the
5 circuit breaker. So this is what you would find in the Romex
6 wire. And that's what 120 volts will do when it arcs. It
7 leaves behind a telltale sign.

8 As a metallurgical engineer I've done a lot of study of
9 this. What an arc is is a sharp line of demarcation between
10 molten and non-molten metal. Just a fancy way of saying that
11 in this area the heat is so hot, it's like 8,000 degrees
12 Fahrenheit, that arc, it's so hot it not only melts the
13 copper, it vaporizes it. It's above 3,000 degrees at that
14 point. It boils it away. But the minute the energy is gone,
15 it quickly dissipates. And what happens is a conductor's not
16 only a great conductor of electricity, it's also a great
17 conductor of heat. And it cools it down and rapidly
18 solidifies that. And it's the rapid resolidification of that
19 melted material that identifies an electric arc.

20 So an arc is really nothing more than voltage going from
21 in this case what we'll be talking about one wire to the
22 other. If I have enough voltage and I have enough current, I
23 can create localized melted areas of the wiring that damages
24 it and gives us an identification that it is an arc. And
25 that's a key part of this. Because if we can identify what's

1 an arc, then we know where the furthest point from the fire,
2 furthest point of power is to the point which where the fire
3 started. And that's what we're looking for.

4 With Mr. DeMatties' map we're trying to find out the
5 areas furthest away from the distribution panel and explain
6 why those areas arced. And in this case the furthest area
7 away we find arcing is inside the windings, in fact deep
8 inside the windings.

9 Q Thank you. As part of your investigation you indicated
10 that you reviewed photographs from some laboratory
11 examinations that took place before you were retained, right?

12 A Correct.

13 Q And did you review some photographs before the motor had
14 been disassembled?

15 A I did, yeah. By the time I saw it they had not wound
16 it.

17 Q I'm going to show you an exhibit we've marked as Exhibit
18 P119R. Is this one of the photographs that you examined as
19 part of your review of the evidence in this case?

20 A It is.

21 Q What's depicted in this photograph?

22 A So you can see the windings here. So when you see these
23 windings, if I was to cut the paper off of this exemplar,
24 they would be copper colored, but it's just a coloring. It's
25 just a varnish on top of it. They're actually silver,

1 they're aluminum windings. And what we're seeing right here
2 is what it looks like as the motor is being disassembled.
3 This is referred to as the I bar, this piece, and this piece
4 comes off. I can take this piece off. And these are the
5 windings here. I'm trying to make an arrow. These are the
6 windings.

7 But what we see as critical are these spots right here.
8 These spots are where electrical arcing has occurred on the
9 outer wrap of the windings. All right. And I suspect there
10 is going to be testimony about whether or not you can
11 actually have arcing in these windings, and, in fact, you
12 can. But it's not from one winding side by side. It's from
13 a winding above and a winding below.

14 I think I told you earlier that there was like 1,125
15 wraps of wire around this. Well, if I wind up a motor, and
16 I'll do this the best I can. If I wind a motor it's like
17 wrapping wire or thread on a spool, so I would have a spool.
18 This is what we refer to as the bobbin, so if you can
19 imagine.

20 If I start here it takes me seventy wraps to get to one
21 side and seventy wraps to get to the other. That's 140
22 wraps. Now if I take 140 wraps and I divide it by the total
23 number of wraps, which I said was 1,125, right, and I
24 multiply that by the voltage, the voltage between one wrap
25 and the other, the one on the top and the one below, is 14.9

1 volts. And at 14.9 volts I can generate an electric arc.
2 That's higher than your car battery. So if you don't believe
3 me, you can go out and take the two wires in your car battery
4 and short them together and see whether or not you can
5 generate an arc. You can't.

6 So what you're looking at here is the result of an
7 electric arc. I also examined those beads very carefully
8 under a microscope to determine that they weren't made by
9 melting. And you can also see that they're very localized in
10 areas. They're not spread out throughout the entire winding.
11 There is not a huge amount of damage, say, in this area here
12 or this area here, it's very localized, which is what
13 electrical arcing does. We also end up finding another arc
14 way down deep in the motor.

15 Q You made mention of the term beading. If you could just
16 clear off the marks you have on there now. You made mention
17 of the word beading. Can you explain to the jury what
18 beading is?

19 THE COURT: Are you saying beating or beading?

20 MR. UNDERWOOD: We're not beating anyone, Your
21 Honor. It's beading, like a bead.

22 A So if you were able to look at this more carefully and
23 I'm if allowed be happy to pass it around. If you look at
24 the areas of solidified metal after the arc occurs, it forms
25 a sphere. Everything wants to be a sphere. If you ever

1 looked at a rain drop, it's never a square or a flat disk,
2 it's a sphere. It's the least amount of surface tension for
3 the volume. So everything wants to become a sphere.

4 So what happens when this material arcs is it vaporizes,
5 it liquefies, and when it resolidifies, it forms a, quote,
6 bead on the surface. So that's one of the things we look at
7 is the beading. But we also spend time looking at the
8 transition point between the bead and the wire. Right there
9 in that area we call that the sharp line of demarcation
10 between molten and non-molten metal. And that's the area
11 we're looking for to identify arcing. And that's exactly
12 what I've been doing for the last twenty years, is looking at
13 an arc to tell you what is and isn't an arc.

14 Q Did you find evidence of the beading that you described
15 on the windings that are depicted in Exhibit P119R?

16 A Absolutely.

17 Q Can you show the jury where that evidence of beading is?

18 A I think I just showed it to them, but I'll show it again
19 is. That area. And you see some there. Most of it was
20 along the left side of the windings.

21 Q Did you also review photographs that were taken while
22 the motor had been in the process of being disassembled?

23 A I did, yes.

24 Q I'm going to show you photograph marked as Exhibit
25 P119U. Can you explain the jury what's depicted in that

1 photograph?

2 A Now you're looking at the windings. It's been -- again,
3 if I take the windings off, this I bar, as we've talked
4 about, it's just pressed fit on here. So if I grab it with a
5 pair of vice grips, which is what we typically do, I can pull
6 off the I bar. So what you're seeing here is now the I bar
7 has been removed and the windings are still wrapped around
8 the I bar. And they've been partially unwound at this point.
9 You have to take them off individually. And everywhere you
10 get to one of these areas where there is arcing, the winding
11 separates, so you get a short piece of wire and then you have
12 to keep going. Because again there is 315 feet of wire that
13 you end up having to take off.

14 But what you're seeing right here a couple of really
15 important pieces, is you're seeing electrical arcing right
16 here in this area and right here on this winding. So those
17 are areas where the insulation failed and you had voltage and
18 current going from one conductor above to one conductor
19 below, and the energy released by that was enough to melt and
20 basically vaporize the winding. So it was generating
21 temperatures well above the melting temperature of aluminum,
22 which is 1,220 degrees Fahrenheit. That's the melting
23 temperature. Vaporization temperature is over 2,500 degrees
24 Fahrenheit. So when this is happening, the electrical energy
25 generating there is very high and it's sufficient to ignite

1 certain fuels.

2 Q Now as part of your investigation when you came to
3 Mr. DeMatties' office, did you take a look at the wire after,
4 the winding wires after they had already been un-spooled off
5 of the bobbin, off the I bar?

6 A I did. They had many of them, they were in bags.

7 Q And did you document that examination?

8 A I did. I think I took a couple thousand photos, close
9 to it.

10 Q I'm going to show you a photograph we've marked as
11 Exhibit P87WW. Can you explain to the jury what's depicted
12 in that photograph?

13 A So these are two of the aluminum windings, two that
14 happened to be out. But these two windings were together and
15 fused at the other end, the insulation was fused. And you're
16 seeing electrical arcing on these windings right here. So
17 this area right here actually has electrical arcing and it
18 went from one wire to the other. So that's evidence that
19 there was electrical activity there.

20 And what that tells us is a couple of things. One, now
21 I've got something there that's generating a lot of heat that
22 can ignite certain fuels, so I've got an ignition source.
23 And two, the motor windings have power to them. All right.
24 And that's a very important part of this. How would the
25 power be there if the fire attacked this fan from the ceiling

1 dropping down? It would be very difficult, if not impossible
2 to do. Right. So now I have to be looking at something
3 that's very close to the origin of the fire, the initiator of
4 the fire when you look at the damage to these windings.

5 Q I'm going to show you a photograph we marked as Exhibit
6 P87ZZ. Can you explain to the jury what's depicted in that
7 photograph that's been placed on the projector screen?

8 A I can. So, again, you're seeing the same arcing in this
9 area. This winding right here is arced. And I think you see
10 some beading right here as well.

11 Q I'm going to show you a photograph marked as Exhibit
12 P88. Now is this a photograph that you took, Mr. Lewis?

13 A It is. It's a magnified photo I took with my camera.

14 Q And there is a circle that's on the photograph, right?

15 A Correct. That's right out of my report.

16 Q Is that a circle that you added to the photograph?

17 A I did. It wasn't in the picture at the time.

18 Q What's depicted in photograph Exhibit P88?

19 A Again, this is another bit of evidence of electrical
20 arcing. But this arcing is different than the stuff that we
21 had before.

22 Q And how is it different?

23 A Well, so this is a winding that was pulled off of the
24 very bottom of this coil, so it was one of the last windings
25 that was pulled off and it was discontinuous. It was

1 discontinuous with this and a couple other windings in this
2 general location. But it was near a spot right adjacent to
3 the I bar.

4 Q Where is that located within the motor coil?

5 A So, again, you have to see this in cross section, and I
6 hope that you can. This is the I bar right here. And you
7 can see this white material that Mr. Underwood asked me about
8 earlier. This is nylon 66. It's got a pretty high melting
9 temperature. But for the arc to occur that we're talking
10 about, that arc actually occurred between the I bar in the
11 center of this motor right down to the core, which we'll show
12 you in a second. But for that to occur, I've got to melt
13 away and/or degrade the nylon so that this entire winding can
14 actually touch that I bar. So this nylon material, which is
15 a protectant, was gone when that arc occurs. And it's in the
16 center of this motor right down at the bottom.

17 Q Now did you perform any examination of the I bar while
18 you were at Mr. DeMatties' facility?

19 A We did. I had a chance, I saw the arc, and we had a
20 chance to look at it under a microscope. It wasn't detailed
21 enough there but we ended up looking at it for a time, yes.

22 Q I'm going to show you a photograph we marked as Exhibit
23 P87RR. Can you explain to the jury what's depicted in this
24 photograph?

25 A I can. So this is the I bar when all the windings have

1 been removed. And what's not shown is that you have a little
2 bit of charred nylon material that actually is part of the
3 burned bobbin. And then you can see right here, this is
4 essentially where the windings would be kind of go -- and
5 actually that's not quite correct. Essentially kind of goes
6 right about through here. Right about through here.

7 Q And did you observe any evidence of arcing on the I bar?

8 A We did. If you look right here there is a little nick
9 right to the left of where the white line ends. If you look
10 carefully at that, that's an area where the steel liquified.

11 Q I'm going to show you a photograph we marked as Exhibit
12 P87TT. Can you explain to the jury what's depicted in that
13 photograph?

14 A It's a little better picture. It's a little closer of
15 the same thing. Again, you can see right here in this area.
16 You're looking at a divot in the steel. And what happened is
17 that winding, that aluminum winding made contact, and the
18 electrical energy that was released was enough to vaporize
19 the aluminum and vaporize the steel. So you're at
20 temperatures over 3,000, 4,000 degrees Fahrenheit at least in
21 this area.

22 Q Now when you were performing your examination in
23 Mr. DeMatties' office, did you say that there was a
24 representative from Broan there?

25 A There was, Mr. Farchione.

1 Q Now did the additional examinations of the I bar take
2 place at another location?

3 A Right. I think at our request we wanted to see this
4 more carefully. And I wanted to take it back to our lab in
5 Seattle to do what's called scanning electron microscopy, a
6 scanning electron microscope, which is a fancy term for a
7 microscope that uses electrons rather than light. But it
8 gives us the ability not only to look at something really up
9 close and get a better vision on it. One of the cool things
10 about electrons is when the electrons hit something, it gives
11 off characteristic like the light, radiation. And so as
12 electrons hit, they actually if you analyze the wavelengths
13 of light coming off, you can find out what's in something.
14 You can do what we refer to as an elemental analysis. You
15 can do chemical analysis in very discrete small areas to find
16 out what's there.

17 Q Now did you take photographs or screen captures of the
18 images that you obtained from the scanning electron
19 microscope?

20 A Well the scanning electron microscope is hundreds of
21 thousands of dollars and it does have the ability to take
22 photos, yeah.

23 Q I'm going to show you a photograph marked as Exhibit
24 P89. Can you explain for the jury what's depicted in
25 photograph P89?

1 A So this is a scanning electron microscope image. This
2 is what an SEM image looks like. You can see there is
3 writing down at the very bottom. It's telling us kind of a
4 working distance. It's telling us the magnification. But
5 this is an image that's created by electrons. One of the
6 things that we did, like I said, there is a tool that comes
7 with an SEM, it's an energy dispersive spectrometer is what
8 it's called. It's measuring the wavelength of light that's
9 coming off of this image and it's collecting data.

10 So what we did is we did a chemical analysis in this
11 area right here. And we found in that area really only two
12 primary things. We found iron, which is what makes steel.
13 Steel is 99 percent iron essentially. And aluminum mixed
14 into the surface. So we know that the aluminum arced to this
15 I bar and made this mark and it was there from arcing. It
16 was welded to that. That's really what the conclusion was is
17 that there was aluminum right here in this area. So we know
18 that there was a welding process going on, which means we
19 liquified the steel, we liquified the aluminum. There's no
20 doubt that this is an electric arc. And I'm not sure there
21 has been an objection to that.

22 Q Now based upon your examination that was performed with
23 the scanning electron microscope and the other evidence that
24 found evidence of arcing on the I bar, were you able to form
25 an opinion regarding whether the fire could have originated

1 at another location outside the two year old bathroom and
2 caused this type of damage?

3 A I was able to come to that determination. And no. If
4 you've got a fire approaching a fan like this, as
5 Mr. DeMatties said, you've got electrical power that has to
6 go from a distribution panel, through the ceiling, through
7 this cabling, over these areas where the joists are charred.
8 It then has to go down to the light switch. It has to go
9 back up to the light. It's got to go in a Romex plastic
10 conductor over that to this junction box. It's got to then
11 make connections inside this junction box. And these wires
12 are little plastic wires as well inside here that are against
13 this steel. It then has to go through this receptacle right
14 here and then into the windings. All right. And we've got
15 an arc deep down in the center of this winding. There is no
16 way that an approaching fire is going to cause that damage.
17 I mean, it's not probable.

18 Q And why is that? Why could a fire not cause the damage
19 you're seeing at the I bar?

20 A You would expect arcing damage along the way. You would
21 expect to find arcing damage. And in most cases the circuit
22 breaker will trip far before you ever get there. And in this
23 case the way this fan is mounted, particularly with the
24 situation of what they're seeing. I mean, they're seeing
25 fire essentially coming from this vent fan in the area of

1 where the windings are. Right. That's all very consistent
2 with this fire starting at these windings. And that arc
3 right there proves to us that this I bar was getting very
4 hot. Right. And it had to burn away or melt away this nylon
5 to create that arc.

6 Q Now as part of your analysis in this case, did you
7 investigate whether there were any safety features or
8 components in the Broan 696 fan?

9 A They do. They're required to have what is called a
10 thermal cutout, or we refer to it as a TCO. But it's a
11 device that's intended to keep this motor from overheating.
12 If you don't have this device and this rotor starts to slow
13 down or if there is insulation on here, these windings will
14 overheat. You're putting electrical current in here. Right.
15 And so it's generating heat. When things run, they're
16 running at like 94 C, 90 C, that's what they tested in their
17 UL testing. That's like almost 200 degrees.

18 It's getting hot. So if you slow the fan down, if there
19 is insulation on here, these windings will get hot enough to
20 clearly melt this nylon and cause electrical arcing. So they
21 have to have a device, they're required to have a device in
22 here called a TCO, a thermal cutout, that's intended to shut
23 this fan off and open up to prevent these windings from
24 overheating. It's just like a little switch, a little light
25 switch that opens up and it stays open. It doesn't reclose.

1 So once that goes off, you basically have to throw this out
2 and start over and get a new one.

3 Q I'm going to show you a photograph marked as Exhibit
4 P119F. Now referring to Exhibit P119F. Can you explain to
5 the jury what's depicted in this photograph?

6 A This is just another view of the subject two year old
7 bathroom fan. And what you're seeing is just kind of a
8 side-view. And that again we recognize that the rusted iron
9 in there is the laminations. But now you can see the
10 windings. Right. And one of the things that we want to
11 point out is there appears to be some paper on the outside of
12 the windings right here. That's really not paper. That is
13 what we refer to as a VO rated wrap. VO means something that
14 won't burn. It doesn't support combustion. It's actually a
15 micro impregnated fibrous material. So it's not going to be
16 burned. I just don't you to be fooled to think it's paper on
17 here and somehow it survived. It's not paper that would
18 burn.

19 But what you can see and what's not here is the nylon
20 that would have been around here is gone, melted, consumed.
21 And what you're looking at is the side of the windings right
22 in this area right here. That's essentially kind of in the
23 areas of where some arcing occurred. And then what you see
24 in this area right here is the TCO, the thermal cutout. It's
25 a little square phenolic black box that has two leads going

1 into it and a piece of solder in there. And that solder is
2 designed to melt when it reaches a very prescribed
3 temperature. It's a controlled metallurgical device that's
4 designed to melt at a very specific temperature.

5 Q I'm going to show you a photograph marked as Exhibit
6 P99. Can you explain to the jury what's depicted in Exhibit
7 P99?

8 A I can. So this is a brand new TCO that I obtained, but
9 it's the exact TCO that they used in this particular fan,
10 that Jakel uses in this fan. And what you're seeing are
11 leads that start here on the outside on the left side of the
12 photo, and these leads run in to the TCO box. So this is an
13 enclosure. This black stuff that you see around the
14 perimeter here is the phenolic enclosure. And it would have
15 had a cap on it, and what I did was I ground that cap off so
16 that you can see inside the TCO.

17 I will also point out that this is an epoxy seal. So
18 this is what keeps air from getting in there. We'll talk
19 about that in a bit. But you're looking in this area and
20 unfortunately it looks like my circle has shifted slightly,
21 but what you can see is that at the ends of these posts right
22 here, there is a piece of material that goes across here.
23 That is what we refer to as the fusible link. And that is a
24 piece of solder made of a material called indium, tin and
25 lead. It's a mixture of three alloys that is designed to

1 melt at 136 C, which is about 276 degrees Fahrenheit. That's
2 what you're looking at here.

3 Now this TCO hasn't been heated. It hasn't been used.
4 It's brand new. This is what it looks like new. The other
5 thing I'm going to point out to you is right along this
6 fusible link right here, you can kind of see in the circle
7 right here yellow paste. That yellow paste is flux. If
8 you've ever soldered, you generally need flux to help melt
9 the solder. It breaks down the oxide layers on solder.
10 That's what it designed to do.

11 So the yellow paste that you see here is a flux. And
12 all of this is inside this little phenolic box. And this
13 little phenolic box gets wrapped to the motor and it is
14 sitting -- I'll try to do the best I can to point to it.
15 It's sitting right down in this area. It's on the external
16 side of the windings. If I cut off this is that, quote,
17 paper that's fibrous noncombustible micro impregnated piece.
18 If I cut this off you would see the TCO right down here.
19 It's a little square box. And again it's intent is if this
20 motor gets to 136 degrees C, 276 degrees F, it's supposed to
21 open and stop this motor from getting any hotter and keep it
22 from overheating to the point in which the nylon can break
23 down, the wiring can break down, the windings can break down.
24 So it doesn't arc and doesn't fail. That's what it's
25 designed to do.

1 Q What's supposed to happen inside the thermal cutout once
2 it reaches its operating temperature that you just described?

3 A What it's supposed to do is when it reaches 136 degrees
4 C, it's supposed to melt. And remember what I showed you
5 with this wire, when anything becomes liquid it wants to form
6 a sphere. Again, it's the least amount of volume for the
7 surface area. So the surface tension wants to make a sphere.
8 So when it melts what you should see is you should end up
9 with kind of two balls of solder right here. And you should
10 have a big gap in between. And that's what stops the current
11 flow going to the motor and that's what prevents this motor
12 from overheating.

13 Q I'm going to show you a photograph we've marked as
14 Exhibit P100. Mr. Lewis, what's depicted in Exhibit P100?

15 A So this is another TCO that we had, another brand new
16 one. Again I've sanded off and opened the top. You can see
17 the top of it here. But this TCO we heated up to I think it
18 was about 140 C, about 285 degrees Fahrenheit. And it
19 opened. So we put it in an oven and we were measuring the
20 voltage across these, and when the continuity opened we knew
21 that the switch had activated, the TCO had opened. And once
22 we knew the TCO opened, we opened the box and looked inside.
23 So this is what you're seeing. You're seeing the box inside.

24 If you look right here under the red circle, you can
25 kind of see this sphere. You can see part of that. The rest

1 of the solder on the right side didn't quite form a sphere.
2 It actually liquified to the point in which it ran down the
3 post. But the big thing to see here is that there is a very
4 large gap from one side of this to the other. That's how you
5 open the switch. That's how you make sure the switch is
6 open. So that's what we did.

7 Q Now as part of your investigation, you indicated that
8 you brought some evidence back with you to the Seattle area
9 to your laboratory, correct?

10 A We did, yes.

11 Q Was the TCO from the subject fan a part of that
12 evidence?

13 A We did. Not only did we bring back the windings and the
14 I bar to look at the those on the scanning electron
15 microscope and spend more time with them, we brought back the
16 TCO to look at it. Because the pattern on the TCO, quite
17 frankly, was disturbing when we looked at it. It didn't look
18 like it activated so we wanted to, at least I did, wanted to
19 look at that.

20 Q What did your examination consist of when you brought it
21 back to your lab?

22 A So we brought it back. One lead had been pulled out at
23 some point either during manipulation of the fan or at one
24 point a lead gets ripped out of the TCO. And there is
25 another half of it in there. So we went ahead and did the

1 reconstruction and basically put it back together and looked
2 at the distances between the post and measured whether or not
3 there was an opening. But then further I looked at the
4 surfaces, the mating surfaces of the TCO pieces, to see
5 whether or not they were in contact at the time of the fire.
6 And I believe they were. I believe that what we had was a
7 fractured surface, not a melted surface. Not something that
8 opened up during the fire. It looks like it broke probably
9 after the fire when somebody manipulated that wire.

10 Q As part of your evaluation, did you document what you
11 just described to the jury?

12 A We did, yes.

13 Q I'm going to show you photograph marked as Exhibit P91.
14 Can you explain to the jury what's depicted in Exhibit P91?

15 A This is our initial kind of putting the leads back
16 together. And so what you can see here, this is the subject
17 TCO. Now this lead right here that I'm going to mark right
18 here with the white had been ripped out of the box. And so
19 we had to essentially put it back in place. And it's not
20 quite in the right position. But we ended up kind of taking
21 some photographs of it and determined that based on the
22 pattern below here, that this lead was moved up just a tad
23 bit more, so a tad more in this direction.

24 But what you're looking at are here's the two leads.
25 Right. Here that we described earlier. And now if you look

1 very carefully, you can see a solder mass that goes like
2 this. Okay. Now this went through a fire. It burned the
3 nylon off. All right. It definitely got above 250 degrees
4 in that bathroom. It shouldn't look like this. It should
5 have two solidified balls on the post if it melted properly
6 and opened. It didn't.

7 Additionally, the separation that we have occurred right
8 here in this area. And I looked at that under the scanning
9 electron microscope and determined there was a fracture
10 surface there. Not a melted surface. It wasn't melted, it
11 was fractured. So as far as I'm concerned, this TCO at the
12 time of the fire or moments before the fire was intact and
13 current was flowing into the motor. Right. And it was still
14 operating, which is essentially as far as our theory goes for
15 the fire, is absolutely correct. Right. The TCO hasn't
16 failed, the motor's running, and yet you have a fire coming
17 from the fan. So it's consistent.

18 Q If the TCO did not operate were there any other
19 components in the fan that would prevent the fan motor from
20 overheating and causing a fire?

21 A No. I mean, the only thing that happens then is you
22 wait for the windings to arc and separate. And if it can,
23 which they don't always do, then the motor will continue to
24 run until, obviously until it catches on fire.

25 Q You testified a few minutes ago in explains to the jury

1 that you had done a comparison between what you were seeing
2 in the TCO that was removed from the two year old bathroom
3 and one that would operate correctly, is that right?

4 A Right. And we also did testing of another one that we
5 pulled out of another fan that we had and actually ran
6 heating tests on that TCO.

7 Q And what were the results of that testing?

8 A So we took one that looks -- we took one that looks like
9 this. It was in a fan that had been operated for several
10 years, and we basically put it in a test tube and put heated
11 oil around it. And we started to monitor the temperature of
12 the oil. While we're monitoring the continuity, which is
13 basically putting a little voltage across the limit switch,
14 and it tells us the moment the switch opened. So we heated
15 that limit switch. And that limit switch got to 260 degrees
16 C, over 500 degrees Fahrenheit, and it still hadn't opened.
17 More than double what it was supposed to prescribe open.

18 So it's pretty clear that the way the TCO is set up, if
19 you have some issues, you build up an oxide layer that
20 prevents it from opening.

21 Q Now the test you just described, what type of fan was
22 the TCO taken from?

23 A The same, it was a Jakel J2390505138 fan.

24 Q And what type of or what model of fan was it?

25 A The same, 696.

1 Q I'm going to show you a photograph marked as Exhibit
2 P93. What's depicted in the photograph marked Exhibit P93?

3 A So this is a comparison of what one should look like
4 when it's open and one that doesn't open. So you can see on
5 the left that's the one that we had earlier that you can
6 clearly see the balls of material right here and here, and
7 then here's the subject one out of the two year old bathroom.

8 Q Now as part of your investigation, did you make a
9 determination of why the thermal cutout in the fan in the two
10 year old bathroom did not work?

11 A Why?

12 Q Yes.

13 A Yeah. It's pretty complicated but, yeah, we did. It's
14 an interesting system. What you've got is a piece of indium
15 solder. I think I said that's primarily made of indium. And
16 I referred back to the picture that I told you it has got
17 flux there, it's got yellow flux. Here's the deal about
18 indium is that it's corrosive. All oxides, and there is tin
19 in there that's corrosive. The flux has corrosive product in
20 it. It's got chlorine, chlorine acid, hydrochloric acid in
21 there. And that acid is intended to break down the solder
22 oxide layer on the solder. But if you leave it there too
23 long, and this fan had been heated and used for six years.
24 If you leave it there too long, what it does is it causes
25 corrosion on the outside surface of this TCO to the point

1 which it actually creates kind of a hardened layer on the
2 outside of the TCO. And that hardened layer keeps the thing
3 from melting and separating.

4 So it's a situation where you're allowing this corrosion
5 to occur inside of here. Plus you're allowing, I think at
6 some point we'll talk about this, I think that this box got
7 cracked and then you're allowing oxygen to get in there and
8 oxygen and chlorine cause corrosion to these things. And
9 it's that harder shell that you get that keeps this thing
10 from separating when it should.

11 Q Now with reference to the exhibit we marked P99, can you
12 explain to the jury about this formation of oxides on the
13 solder?

14 A Well, again, so going back, this is the flux that we see
15 right here. This is the solder. Right. I mean, this thing
16 is kind of sort of a cylinder when you first see it.

17 Remember what I showed you what it looked like afterward,
18 it's all crackly and things. That's the corrosion that's
19 actually occurring on the surface of this. So this stuff
20 where I've got the arrow is again a flux that's got chlorine
21 in it. If I can crack this box right here, cause any damage
22 and allow oxygen to get in there, I don't need to, but if I
23 can also crack it, now I can guarantee that I'm going to have
24 corrosion on that fusible element. I'm also going to be
25 subjecting it to higher temperatures. If it's at 100 C,

1 that's 200 Fahrenheit. That also promotes corrosion. What
2 happens is the longer this thing sits in the motor, you can
3 go an oxide layer on there that can prevent it from opening
4 when it needs to.

5 Q As part of your evaluation in this case, did you review
6 documents that were provided to the plaintiffs by the
7 defendants?

8 A I did.

9 Q And did you review any documents that related to the
10 manufacturing or installation process for the TCO?

11 A I did. So Jakel, the motor manufacturer, has a document
12 that states how they install or how they're supposed to
13 install this TCO into the motor. And one of the things that
14 you're not supposed to do, is you're not supposed to bend
15 these leads right here. So these leads right here aren't
16 supposed to bend. Because if you do, you can crack this
17 seal. Right. If you crack the seal of the housing, now
18 oxygen's going to get in there and it's going corrode just
19 like a piece of steel on a roadway.

20 Q Show you document marked Exhibit Defense 14.

21 A Yes.

22 Q Can you explain to the jury what that document is?

23 A I can. So this is a document that was created by Jakel,
24 the motor manufacturer, and it talks about soldering and
25 bending fuse leads. So it's essentially a procedure, an

1 application procedure on how to install this TCO into that
2 fan motor, how to stick it right down here and what you're
3 supposed to do with it.

4 Q And what did you determine after reviewing that
5 document?

6 A Well, I don't think they did it right.

7 Q And what do you base that opinion on?

8 A There is a diagram on this.

9 Q On which page?

10 A So I've got it on page BR005053. 53. It's page 8 of 12
11 of this D14 document.

12 Q What does this diagram show?

13 A So this shows the installation of that TCO against the
14 motor windings. So I'm going to just draw a box right here.
15 This is the motor windings. And you would be looking at the
16 motor windings, depending on kind of how you do it, it's sort
17 of like this. Okay. So if you're looking at the windings
18 like this, the TCO is down here kind of at the bottom. And I
19 will now kind of draw out where the TCO is and then clear
20 this out. This is the TCO right here, thermal cutout. Do
21 you see that? Okay.

22 The important thing is this number right here. What
23 that says is you can't bend the lead within a little bit over
24 an eighth of an inch or so away from the TCO. If you bend it
25 right up against that epoxy, you can crack it. So if the TCO

1 is bent against that area, you can crack it. And again, if
2 you crack it, you're letting oxygen in. You've already got
3 an acid on something that is susceptible to corrosion. So
4 this document shows us that you're not supposed to bend the
5 TCO in that area.

6 Q Now as part of your review of the TCO at your
7 laboratory, did you make a determination whether the TCO had
8 been installed in accordance with Jakel's required
9 installation procedures?

10 A It wasn't. They bent that lead right at the bottom.

11 Q I'm going to show you a photograph marked as Exhibit
12 P87II. Can you explain for the jury what's depicted in this
13 photograph?

14 A Well, it's just what we saw sort of upside down. But
15 again, this is the TCO right here. And the lead that we're
16 talking about, I'll try to highlight here, is this one. It's
17 the circular shaped one that's bent 180 degrees back on
18 itself. And one of the things I would say is that you have
19 to pay careful attention to this area right here, right where
20 the lead is. That shouldn't be bent. It should be straight
21 coming straight off that TCO. It's not. So you can tell
22 there has been a crack that's occurred in that area because
23 of that.

24 Q I'm going to show you a photograph marked as Exhibit
25 P87LL. Can you explain for the jury what's depicted in this

1 photograph?

2 A I can. So again, that's that same epoxy seal that you
3 see. And you can actually see, this isn't -- I'll show you,
4 first of all, this lead was supposed to come off of here
5 straight. It's not. It's bent. You can also see this area
6 right here I'm trying to highlight with the arrow there, what
7 appears to be like a crack. You can see blue through it.
8 That means that this lead was bent probably even further.
9 That's been bent back after the fire. So that's why that
10 crack is there. But you can actually see cracks in the box
11 here and along this seam. Which I believe are indicative of
12 when they put it in, they cracked the seal that allowed
13 oxygen to get into this TCO and not allow the TCO to work
14 right.

15 And this really isn't that difficult. I mean, you saw
16 the way it's supposed to open. We have a diagram that shows
17 the way these things are supposed to open from the
18 manufacturer, which is like the one that I showed you.
19 Supposed to have two spherical balls. It's not supposed to
20 have material that is coming together in any way. Right.
21 And we know that it got hot enough in the fire to have melted
22 it, so it should have had two spherical balls if it worked
23 right. It didn't.

24 MR. UNDERWOOD: Your Honor, I'm not sure when the
25 Court is planning for a break.

1 THE COURT: It's about time. We'll take the
2 morning recess at this time, Members of the Jury.

3 (Recess at 11:00.)

4 (Reconvene at 11:30.)

5 MR. DUGGAN: I made an objection earlier, Your
6 Honor, that Mr. Lewis was not designated as an origin and
7 cause expert because I thought they only used the other two.
8 Apparently they're using three. And I apologize to the Court
9 and to my friends from the Philadelphia Insurance Company
10 because he was designated as an origin and cause expert. I
11 still object on the grounds that we already heard from two
12 others.

13 THE COURT: Do you think it's cumulative, do you?

14 MR. DUGGAN: Yes, I do.

15 THE COURT: Hopefully this is the last cause and
16 origin person.

17 MR. UNDERWOOD: Your Honor, I want to make sure
18 it's clear for the jury, because they heard me ask that he
19 qualified as an expert in cause and origin and then nothing
20 happened.

21 THE COURT: You're fast and you're fast. Save my
22 court reporter. You need to slow it down a bit.

23 (Jury present.)

24 THE COURT: Okay.

25 MR. UNDERWOOD: Your Honor, again, I would like to

1 offer that the Court recognize Mr. Lewis as an expert in the
2 field of fire cause and origin determination.

3 THE COURT: Is there an objection, Mr. Duggan?

4 MR. DUGGAN: The same objection, Your Honor.

5 THE COURT: Overruled.

6 *BY MR. UNDERWOOD:*

7 Q Mr. Lewis, we talked a little before about your review
8 of documents that were provided by defendant Broan-Nutone.
9 Did review any documents that originated with the supplier of
10 the thermal cutout that was used in the two year old bathroom
11 fan?

12 A Yes. I looked at a number of documents from them over
13 the years.

14 Q And what did those documents consist of or specifically
15 what were you relying on in forming your opinions in this
16 case?

17 THE COURT: Now, this is from the manufacturer of
18 the thermal cutout?

19 MR. UNDERWOOD: It's from the supplier.

20 THE COURT: Supplier, excuse me. Okay.

21 A Well, there is several things in there. First and
22 foremost, they again describe what we've already talked about
23 where when the TCO melts, it's supposed to have these two
24 spherical balls. They've got a diagram that shows how that
25 works. In addition there is an additional TCO that's also

1 there that could have been an alternate type of TCO that
2 could have been used.

3 Q I'm going to show you a document we've marked as Exhibit
4 P66.

5 MR. UNDERWOOD: Can I approach, Your Honor?

6 THE COURT: Yes.

7 Q Can you explain to the jury what Exhibit P66 is?

8 A So this is a document that was produced by Advanced
9 Products, basically the supplier of the TCO. And this is a
10 document that was given to us via Jakel and Broan and it
11 explains essentially how to install and use and how these
12 TCOs operate. But there was some very interesting
13 information in this document and we had a chance to look at
14 it.

15 First and foremost, if you look at I think it's -- it
16 doesn't have a page number on here but it shows the
17 construction. I don't know if everybody can see it.

18 MR. UNDERWOOD: Your Honor, if you want, I can take
19 and put it on the --

20 THE COURT: Yes.

21 Q What does this diagram depict?

22 A So, again, what we've been talking about, the upper TCO
23 that we see right here is what it looks like essentially when
24 it's in the closed position. This is what it should like as
25 they say thereafter functioning. So it basically talks about

1 sealing material, which is the epoxy we talked about, that's
2 this item number 4 here. We can see it talks about the resin
3 down here and it basically gives us all the information that
4 we've talked about already. But this is the manufacturer's
5 description of how the TCO was supposed to work.

6 Q Now based upon the examinations you performed at -- let
7 me go back first.

8 At the inspection which took place in Seattle, was a
9 representative from Broan-Nutone in attendance during that
10 examination?

11 A Yes. They had an electrical engineer there at the time
12 with me.

13 Q What was his name?

14 A Jim Finneran.

15 Q Based upon your evaluation of the evidence of arc
16 failures inside the fan and your evaluation of the thermal
17 cutout, have you reached an opinion based upon your
18 experience as a cause and origin investigator and as a
19 metallurgist about how the fire occurred and then progressed
20 out of the fan?

21 A I have, yes.

22 Q What is that opinion?

23 A Well, I think we'll show a picture of maybe the exemplar
24 windings. Do you have that?

25 Q Sure. I'm going to show the photograph marked as P87F.

1 Can you explain what is depicted in P87F?

2 A So this is the vent fan that was taken out of the
3 bathroom. I think it was called bathroom three, but I would
4 call it the staff bathroom. This is within several feet, ten
5 from where the other bathroom was. Mounted in the ceiling
6 essentially the same way. First of all, it didn't burn. The
7 fire somehow didn't get into the top of this bathroom and
8 cause any damage to this fan, yet it's within feet of the
9 other fan.

10 The other thing is that what you're seeing on the
11 outside surface is, you know after it's been removed and
12 photographed, that the encrustation of lint on the outside
13 surface of this motor. And what's that doing is creating an
14 insulative barrier around the windings. It's like putting a
15 coat on it. So now the windings are going to get hot. I
16 told you that when you run this motor, you're running current
17 through there. And if you're running current through there,
18 the windings are getting hot.

19 Now what it's doing is as it's essentially gathering
20 lint you're picking up more heat or containing and confining
21 more heat. So the windings are getting hotter and the
22 winding in the insulation material, which is a
23 polyamide/polyurethane material that begins to break down.
24 And it's through that heat that you end up getting a fire
25 occurring.

1 Also you can see that the nylon material that we talked
2 about, that will get hot right around the I bar because the I
3 bar has now become insulated as well, so it can't dissipate
4 as much heat. There is heat going into that steel and that's
5 what essentially begins to cause degradation of the nylon
6 material and then the insulation material.

7 Q Now, once the insulation material is degraded from the
8 windings, what happens then?

9 A So once you get degradation, if you have enough voltage,
10 which I already showed you, you have 14.9 volts between the
11 top layer and lower layer. And once you get that voltage,
12 then you can strike an arc, which we talked about. And that
13 arc has the capability of igniting this. This is lint, lint
14 just like out of your dryer, we refer to as a cellulosic
15 fuel. It's basically like cotton balls is the way to
16 describe it.

17 And an arc has the ability with its flash and the
18 expansion of hot gases, and remember we're arcing aluminum so
19 we know it's over 1,200 degrees Fahrenheit, to ignite the
20 lint on a motor. That's one of the very first fuels. So
21 once the arcing occurs, we get burning of the lint. And then
22 this nylon material I keep talking about right here is the
23 second fuel that's involved. So this nylon material will
24 burn. It is -- it does self-extinguish but not right away.
25 One of the curious things about this nylon that they use in

1 here, when it's on fire and burning it drops liquified drops,
2 so it's like flaming drops of plastic. And what I've seen in
3 the past is that liquid drops hits the grill and begins to
4 burn the plastic grill that we don't have in front of us but
5 the grill catches on fire.

6 So, again, the motor would be mounted up in the ceiling
7 in this configuration here. What happens is as you strike an
8 arc in this area, you start to get the lint burning. Right
9 now the lint is burning. If you have lint on the outside of
10 the motor, you're also going to have lint on the fan blades
11 and you're going to have lint inside this case, this steel
12 case, and you're going to have lint coming out of here. Lint
13 is transitory, it actually gets picked up and sucked out and
14 it gets blown around places. That's one of the things that
15 I've done in my dryer work over the years.

16 So what happens is if you start this fire, the lint
17 catches on fire and the nylon catches on fire and it begins
18 to drip down on the grill. Right. And if you notice where
19 the motor is in relationship to the grill, it's right here.
20 It's essentially right here. So it's consistent with
21 Ms. Suffredini's testimony that when she comes up, she sees
22 fire in the grill and she points to an area approximately in
23 this area, that's where the fire is. What's happening is the
24 lint has caught on fire, the nylon's caught on fire and that
25 material it dripping down to this grill. Now this grill is

1 made of polystyrene. Polystyrene burns very well. So once
2 the grill catches on fire, it will continue to burn. It's
3 also got lint on it typically. So it will begin to burn and
4 spread. So now I've got a fire that's burning around the
5 grill. I've also got the nylon burning. But at the same
6 time that fire is now moving up into the fan area. Now it's
7 burning up in the fan and it's burning the lint and material
8 inside of here. And it gets to the fan blade, which we've
9 talked about.

10 And the fan blade is made -- this fan blade is made of
11 polypropylene. It also burns very well. You probably hear
12 that these materials are fire rated. They're called HB
13 plastic. It means it's horizontal burning. It means if I
14 put it down horizontally it will burn at a slow rate. If I
15 turn it vertically, it burns very fast. So this plastic will
16 burn, so will the grill.

17 The other thing that burns is this duct. This is made
18 generally of ABS material, and when it catches on fire it
19 will also burn. That's how the fire gets out of the fan.
20 But early on in this fire what you have is the lint catches
21 on fire and basically it's burning in this area, and it
22 catches the lint and you basically got fire coming out of
23 this vent.

24 Now there is a discussion about whether or not there
25 might have been another vent on top of here. Right. There

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1 is the corrugated vent that we've seen photos of. That could
2 have been duct taped to this and it might have been zip-tied
3 to this, or it might have been just been nearby. But that
4 corrugated vent that we found the spiral wire of is very
5 combustible, so that burns very well as well. It's another
6 fuel source right in the immediate area. And it might have
7 just been coiled around here or it might have been right
8 around this. But in dryer fires, you typically see if there
9 is a fire in the dryer, you will typically see that material
10 burn behind the dryer because it's the same thing, if it's
11 got lint in it, it's more fuel. So this fuel gets burning.
12 And once this fuel gets burning, it then spreads under the
13 insulation. Can we use that mock-up?

14 MR. UNDERWOOD: Your Honor, we would like to pull
15 the mock-up over.

16 THE COURT: All right.

17 A So this is a mock-up that was made by the defendants in
18 this case. Some of this we agree with, some of this we
19 don't. A couple of things. First of all, from the
20 photographs this is an insulated vent, so this is where HVAC
21 air would either go blowing into the bathroom or being sucked
22 out, depending on how it is. This is insulated. At least in
23 the photographs that I saw. I didn't see any of these
24 insulated like this one is.

25 Additionally, this vent which here has got this aluminum

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1 foil material on it -- by the way, somebody has zip-tied this
2 down just like it could have been on output of this fan. But
3 this is aluminum foil with insulation under it. Inside of
4 here, it's fiberglass insulation just like this. Imagine if
5 this is compressed down, that's what this is made of in here.
6 And inside there is plastic and there's a spiral winding that
7 goes around here. It's bigger in diameter. If you look in
8 the photos you can see that spiral winding.

9 The issue is I don't see any of this insulation. And
10 several of these ducts up there, and this is an important
11 part of this, were not insulated. Not every duct that you
12 have that goes out there is an insulated duct. So it doesn't
13 necessarily mean that it was an insulated duct. It could
14 have been no different than the accordion piece that we've
15 talked about that was up here.

16 The other thing about this mock-up that's of issue is
17 really the direction of this fan. So this is the fan. And
18 this is the Romex wiring wire that would be coming out of it.
19 They have it so that the output is pointing this way. Well,
20 nobody really knows because we find it hanging like this.
21 Right. The other option is, is that it's pointed more in
22 this direction. Right. Such that now if I have a fire and
23 the fire is coming out of this vent and it's burning this
24 material, what it's going to do is it's going to catch this
25 paper on fire. This is the craft paper right here that we've

1 been talking about. You can see these edges and things of
2 this paper. Once this paper's on fire, now I've got fire in
3 this cavity. It's being contained by this, but I've got fire
4 in this cavity. And the only place for the fire to really
5 get out of this cavity, imagine that entire bathroom. I've
6 got this dropped ceiling, that's what this is, and then I've
7 got this space. So I've got fire burning, I've got this
8 paper burning, which I think everybody agrees that the paper
9 will burn. But I've got all this heat burning up in this
10 area but I don't have a lot of oxygen. At some point what
11 happened is the fan stops working. The electrical activity
12 occurs and the fan stops working.

13 But the fire's now burning in this area. So where does
14 the fire go? Well, it's going to go right out here. It's
15 coming out of this area because this is the opening in this
16 fan. And what would be right here is we keep seeing a wall.
17 They keep showing you a wall where if I was to go into the
18 two year old bathroom, I would go into the opening right in
19 through here. And this would be a wall. Right. And so they
20 keep showing us joists that are burned out in this area, it's
21 right in this location.

22 So all of that heat that would be coming out of the fan
23 and from the burning paper and all of the burning fuels are
24 coming out in this area. So you get a lot of heat damage.
25 And what heat damage looks like is the insulation turns

1 white. So if you look up in the corner up there, you see
2 white insulation. This is where the fire's coming out is
3 through this area, through this opening. And it's
4 essentially burning between this layer because of the paper.

5 And then the fire starts to spread essentially
6 throughout the building. And there is some things that
7 haven't been brought up. There is some piping, some copper
8 piping that runs east and west through this building that we
9 talked about. There was plastic foam, the black foam
10 insulation that you can buy at Home Depot on those copper
11 pipes. And those copper pipes ran right down the center of
12 the two year old room and right over this area. And those
13 saddle burns that you see in the copper pipes are from the
14 burning insulation on the copper pipes burning. It's right
15 in this general area. The pipes pass through this space and
16 that's why you get fire burning out of that area and why it's
17 spreading up in that place.

18 Q Did you have an opportunity to review this photograph
19 that defendants have marked as D34?

20 A Yes.

21 Q Now, there is some wood that's depicted over the
22 left-hand side of the photograph. Do you have an
23 understanding of what that wood was?

24 A Yeah. That's this essentially a flat two-by-four that's
25 running, a stringer he calls it, over the head on the joists.

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1 THE COURT: He refers to it as what?

2 THE WITNESS: A stringer.

3 Q There has been discussion in the testimony that took
4 place yesterday about the lack of burning on the wood there.
5 Do you have an understanding based upon your review of the
6 case why that wood is not burned?

7 A Yeah.

8 Q Why is that?

9 A Well, there is insulation here. So when you look at
10 Mr. Harloff's first photographs, this area is covered with
11 insulation. The reason why this board isn't burned is it's
12 got this insulation protecting it. Right. I mean,
13 insulation is glass. Glass melts at a very high temperature
14 and glass is a good insulator. Even though I'm burning the
15 paper on the bottom of this, even though I'm burning that,
16 the heat is not getting up into the wood and it's not
17 charring the wood. The insulation is doing what it's
18 supposed to do. It burned on the bottom side but it didn't
19 burn these.

20 If you look carefully this one is burned because the
21 insulation was down. So you can see that this next space
22 over on the stringer is actually burned. These aren't. But
23 also it appears that these are not only insulated from the
24 bottom up like we have here --

25 MR. DUGGAN: Your Honor, can I move?

1 THE COURT: Absolutely.

2 A This is how it would be protected. So as the fire is
3 burning, it's not burning this. But additionally there is
4 insulation on top of it. So these stringers in this area are
5 covered in insulation. That's what this piece is. This
6 blackened material, since I do fire investigation a lot, is
7 insulation. And this stripe right here was over top of this,
8 it's been pulled. And so this piece of wood, it looks like
9 it's not been through a fire, but it has. It's got
10 insulation on both sides of it.

11 So it's something that you have to consider when you
12 consider the entire volume of all the evidence, these are
13 things that you have to look at. And one of the things I
14 point out again, look at the damage in this corner. Look at
15 the damage in this burn. And there is a saddle burn in this
16 joist right here. This is the area where the fire's coming
17 out. That's this area right here. So that joist went right
18 through this area and that's what burned. It burned almost
19 completely through right out of this area.

20 And one of the things that hasn't been mentioned is
21 ventilation. To have fire, you've got to be oxygen. If you
22 don't have oxygen, things don't burn. So I can have -- I can
23 have imagine a Rubbermaid container filled with gas. You
24 know that it would burn. But if I don't have any oxygen in
25 there, I could put a flame in there and nothing would happen.

1 At some point what happens during fires is that we
2 generate so much vaporized fuel. If I was to set this room
3 on fire and close all the doors, this carpet material and the
4 chairs that you were sitting in would be off gassing because
5 of the heat and it would be producing essentially flammable
6 vapors. But those vapors if it's closed off can't burn very
7 well. We have to have oxygen mixing with them to be able to
8 burn rapidly. You see this if you ever put logs in the
9 fireplace, close the dampers and close everything down and
10 the fire goes gown. Open the dampers and open the door and
11 the fire burns very vigorously.

12 That's what you're seeing. And the reason why this fire
13 doesn't look, maybe doesn't present itself on first blush as
14 being very critical, that is because there's not a lot of
15 oxygen to burn. Once this fan catches on fire and once this
16 paper burns, I've got essentially a fuel rich area in here
17 that can only spread fuel and fire out of this space. And
18 when it gets the out here, it burns a lot more vigorously.

19 And what did I say was running right through here?
20 There is copper pipes with insulation on them, plastic foam
21 insulation. It's in the photographs. The copper pipes have
22 been moved by the time everybody takes photos of them. But
23 you can see where they were running because they start in the
24 other bathroom on the east end and they run all the way to
25 the kitchen. And there is photographs with them insulated.

1 So we know that they had insulation. So that insulation
2 helps take the fire out into the room. But additionally what
3 happens is at some point they leave the building, Suffredini
4 and others take the kids out. What do they do? They open
5 the door. Right. Now I'm putting oxygen into the two year
6 old room, so it's going to burn very vigorously in the two
7 year old room. And by the time the fire department gets it
8 out we see damage in that room. But that damage from my
9 perspective is not consistent with the damage that we see in
10 this compartment and where the fan is. There's no way the
11 fire that's up here is going to drop down through that duct.
12 What they're saying is essentially --

13 MR. DUGGAN: Can we have maybe a question and
14 answer?

15 THE COURT: Yes. Please why don't you get us back
16 on track. It's just a narration covering a myriad of
17 various. Break it down to one thought process at a time.
18 It's very difficult for the court reporter to take down a
19 narration like that.

20 Q Mr. Lewis, based upon your review of the testimony of
21 Ms. Suffredini, is what she saw or what she reported seeing
22 consistent with your findings in the case regarding the cause
23 of the fire?

24 A Yes, absolutely.

25 Q And how is that?

1 A Well, again, what she sees and what's presented is a
2 fire in the grill, and she's pointing to an area very
3 probably under the windings of the motor. So she's seeing
4 the fire very early on burning and it's burning the grill.
5 And then the fire spreads from that point into the space
6 above the two year old room and then moves out of that space.
7 So as far as I'm concerned, it's consistent. But the other
8 layer to add to that is the arc mapping. Right. The wire
9 that we see sticking out of this -- and, Judge, may I
10 approach? I promise to be direct.

11 THE COURT: All right.

12 A This wire, no matter how you slice it, no matter how the
13 fire gets in here, this wire is going to be one of the first
14 things attacked. If the fire gets in here, it's going to
15 attack this wire. Yet there is no arcing in any of these
16 conductors, it's only in the fan motor.

17 Q Now, do you have any opinion regarding whether flammable
18 plastic should have been utilized in the 696 fan?

19 A I'm sorry, I wouldn't call it flammable. Flammable
20 refers to gasoline style vapors. I would say they're
21 combustible.

22 Q Do you have an opinion regarding whether combustible
23 plastics should have been utilized in 696 fan?

24 A Well, I would qualify that. There is all sorts of
25 combustible plastics. Plastics can be non-HB rated, which

1 means they have absolutely no fire inhibitors in them,
2 they're raw plastic. And then you can go all the way from
3 there to a v0 plastic, which is something that doesn't burn
4 at all. And so I'm of the opinion that this fan should have
5 been made with plastics that had a higher flammability rating
6 to prevent the spread of fire outside the steel case.

7 Q Now do you have any opinions regarding whether the
8 warnings provided, if any, for this fan were adequate?

9 A Well, there was no warnings provided. No warnings on
10 the maintenance of this fan. One of the things that I think
11 is the first fuel for this fire is accumulated lint. There
12 is nothing on the fan that tells you that you have to clean
13 it. The only time that you ever see your vent fan is if
14 there is a problem because people don't always look up and
15 notice whether or not there are spiders or things growing
16 around there. So not everybody cleans it and there is no
17 warnings on this fan to clean it.

18 Q I'm going to show you what we marked as Exhibit P86.
19 Mr. Lewis, could you explain to the jury what P86 is?

20 A So this is the exemplar fan in what is the preschool
21 bathroom. Notice the lint. Notice the lint material around
22 this fan. That's the accumulation of lint. Notice the Romex
23 conductor that we've been talking about in the fan. Now this
24 fan was within several feet of the other fan, yet it's not
25 burned, it didn't catch on fire. It's got a similar vent

1 right next to it, so it has the same opening that that vent
2 would have had, yet it didn't catch on fire. And you can
3 just see essentially how dirty these fans get. And there is
4 no warning on there to accumulate or to take the accumulated
5 lint off.

6 Q Now, you mentioned about warnings. Are there any
7 warnings on the grill?

8 A No. I mean, that's what you would essentially want a
9 placard for and there is nothing on here.

10 Q What sort of warning should be provided on the grill, in
11 your opinion?

12 MR. DUGGAN: Objection, Your Honor. He is not
13 qualified on warnings. He wasn't offered as a warnings
14 expert, there's no qualification on that.

15 MR. UNDERWOOD: Your Honor, the question is just
16 the complete lack of warnings, not whether the warning would
17 be something that somebody would be heeding in this
18 situation.

19 THE COURT: Say that again.

20 MR. UNDERWOOD: Your Honor, it's the question about
21 the complete lack of warnings, not question of whether the
22 warnings was phrased in a way that would be likely to be
23 heeded by a particular person. There is no warning at all.

24 THE COURT: Well, there are no warnings, that's it,
25 is there?

1 MR. UNDERWOOD: That's right, there's no warnings.

2 THE COURT: Okay. I sustain your objection. You
3 got your answer.

4 Q Now, have you performed any testing to determine whether
5 a fire originating at the location outside the fan could burn
6 over and into the fan and cause the electrical failures
7 you've observed inside the motor?

8 A Yes. So, again, as part of NFPA 921 we're supposed to
9 test hypotheses. We're supposed to actually do testing to
10 figure out whether something can or can't happen. So in this
11 particular case, because the allegation has been made before
12 that a fire approaches these fans and can cause damage to
13 them, we took a fan like this and we put it on a propane
14 burner essentially. We had a propane burner showering heat
15 around the outside of the fan. And during that test we had
16 thermal couples, little devices measuring the temperature, at
17 various portions of the fan, in and around the fan motor, the
18 windings, the receptacle housing as well as the case right
19 here. So we had fire directly impinging on a vent fan like
20 this. And we were measuring those temperatures.

21 And at some points the temperature of the steel was at
22 1,600, 1,700 degrees Fahrenheit. The motor was under
23 200 degrees, not hot enough to cause any arcing, 200 degrees
24 Fahrenheit, 100 C. So you have 1,600 degrees out here,
25 you've got very low temperatures on the fan when it's

1 running. So the idea that somehow a fire could approach this
2 fan, a running operating fan and cause the arcing damage is
3 not correct.

4 Because what will happen is as the fan is running, it is
5 pulling in cool air from the room. Right. When
6 Ms. Suffredini walks in and sees the vent fan on fire, she's
7 not talking about any heat in her head, her hair isn't on
8 fire. Anything like that. She walks in, it's working
9 normally. It's actually at the time it's actually still
10 moving some air she says. If that's the case, an external
11 fire can't cause this damage. There's no way that's going to
12 happen, that you are going to get external damage to the
13 windings that causes the flame that Mrs. Suffredini says from
14 an external fire.

15 Q Now, Mr. Lewis, was this product, the 696N fan, tested
16 by Underwriters Laboratories?

17 THE COURT: Tested by who?

18 MR. UNDERWOOD: Underwriters Laboratories.

19 A Well, it was eventually listed by Underwriters
20 Laboratories. But in fact Broan did the testing themselves
21 in-house of this particular fan.

22 Q What are you basing that opinion on?

23 A So there is a UL test report done some time in 2001
24 where they had their own in-house client survey, so they
25 actually ran the test for UL, Broan did, so they were testing

1 their own fan.

2 Q You rendered an opinion today that the fan is defective,
3 is that right?

4 A Well, the fan's defective and caused this fire, yes.

5 Q Can you explain to the jury how it's possible that a
6 defective fan could still be UL listed?

7 A Well, UL sets the minimum guidelines for what a product
8 needs to be made. You can always make a product better than
9 the guidelines. But UL doesn't necessarily create guidelines
10 that envision all future failure modes. I mean, they do
11 basic testing on products to try to make sure that the
12 products that are sitting out there are for the most part
13 good, but there's always gaps in that testing, particularly
14 longevity testing that might show discrepancies in products.

15 Q Mr. Lewis, you've rendered a number of opinions today,
16 including opinions regarding the cause and origin of the
17 fire, in fact, the fire was originating inside the fan. Are
18 all those opinions that you've rendered in this case, have
19 they been rendered within a reasonable degree of engineering
20 and scientific certainty?

21 A Yes.

22 Q Mr. Lewis, just to go back. One issue we've addressed
23 today at some length was with regard to the thermal cutout.
24 Have you identified any alternative designs for the thermal
25 cutout that would have prevented this type of failure

1 scenario?

2 A So there is other manufacturers of TCOs that could have
3 been used. Up until 1999 or there Broan used to use a TCO
4 called Ellison. It had a different property of opening. It
5 had what we call a sublimating pellet. It's basically a
6 pellet that gets to a certain temperature and dissolves.
7 When that pellet dissolves, it opens a set of contacts. It's
8 a fairly reliable way of making a TCO. TCO's of this ilk had
9 been used on many occasions in different products, so there
10 was different varieties. There is also different types of
11 fusible link TCOs that they could have used.

12 Q And what type of TCOs would there be?

13 A So a competing manufacturer named A.O. Smith that makes
14 motors uses I believe an AOAUPO fusible link TCO that doesn't
15 seem to have these same problems.

16 Q And were those types of thermal cutouts available back
17 in 2002 and 2003?

18 A Yes, I believe they were.

19 Q And what type of materials were used in those types of
20 thermal cutouts?

21 A It's similar materials, but the case, the outer case is
22 a ceramic cylinder as opposed to phenolic case.

23 Q Do you have an understanding of the relative costs
24 between the type of TCO that was utilized in this case and
25 the TCOs that are utilized that you described a few seconds

1 ago?

2 A They should be within pennies of each other. They're
3 basically the same.

4 MR. UNDERWOOD: Nothing further, Your Honor.

5 THE COURT: Okay. Mr. Duggan.

6 *CROSS-EXAMINATION BY MR. DUGGAN:*

7 Q Good afternoon, Mr. Lewis.

8 A Good afternoon, Mr. Duggan.

9 Q Why don't we start where Mr. Underwood just left off.

10 And I will try to give our friend the stenographer a break by
11 talking a little more slowly.

12 A I will as well.

13 Q The fan in this case 696N R02 is listed by Underwriters
14 Laboratories, is it not?

15 A It is, yes.

16 Q And that means that it has to pass a number of standards
17 that are set by Underwriters Laboratories, an independent
18 testing laboratory company, true?

19 A Partially true.

20 Q And does Underwriters Laboratories have it's own group
21 of engineers?

22 A They do.

23 Q And do you know what the standard is for fans that
24 Broan-Nutone must pass to obtain an Underwriters Laboratories
25 listing?

1 A Yes, there is many. But 507 is the overall global
2 document and then there is underwriting documents for various
3 components within the motor.

4 Q But UL 507 governs all of the fans. If a manufacturer
5 wants to have its fan listed by UL and get the UL sticker, it
6 must comport with those UL requirements, true?

7 A Right. It doesn't have to test it there, they didn't do
8 that here. But it has to meet the standards.

9 Q I thought my question was it has to comport with all of
10 the UL standards for 507, isn't that correct?

11 A That's true.

12 Q Okay. And isn't it also true that to do that, to get UL
13 listing, Nutone had to submit its product for testing by
14 Underwriters Laboratories, whether in Chicago where UL is
15 listed or UL can come up to Cincinnati where the product was
16 manufactured, true?

17 A No. There's a third alternative, and that is what they
18 did in this case is they allowed the customer to do the
19 testing for them, they had a customer compliant part.

20 Q To their standards, is that not correct?

21 A True. They had to meet the standards.

22 Q And is it also not correct that every quarter, every
23 ninety days a UL engineer will show up at the plant and do
24 random testing on the products that come off the assembly
25 line, isn't that true?

1 A I think testing be loose, but I understand that they
2 show up on a quarterly basis, yes.

3 Q And they have a right to go into every single plant, and
4 in this case Cincinnati, and say I would like to see that fan
5 or that fan or that fan and test it for compliance with the
6 UL standards, isn't that right?

7 A Right. If they feel they must, yes.

8 Q And then when they do that, they get the UL listing, and
9 they have to keep allowing UL to do that to maintain the UL
10 listing, true?

11 A That's true, yes.

12 Q Now you also mentioned that there was something about a
13 component part manufacturer for Underwriters Laboratories?

14 A Correct.

15 Q And that means the things, the components that you
16 talked about at some length this morning, they're all
17 examined by Underwriters Laboratories, too, are they not?

18 A Yes, they're recognized components, they have to be
19 tested.

20 Q So for in this case the motor manufacturer is Jakel.
21 Jakel manufactured this motor, correct?

22 A Yes. That's what everybody believes, they do.

23 Q And this is a 5138 motor, right?

24 A Yes.

25 Q Model 5138.

1 A Well, it's a J2390505138.

2 Q Okay. I'll just use the last four digits.

3 A I understand.

4 Q And for Jakel to obtain a UL recognition -- because
5 component parts don't get listed, they get recognized,
6 correct?

7 A Correct.

8 Q So for Jakel -- and you know, do you not, that Nutone
9 required the manufacturer to have a UL recognition before it
10 could be included in its product?

11 A Right. That's part of the process, correct.

12 Q And for Jakel to get a UL recognition, it had to submit
13 its motor to UL for testing, true?

14 A It did, yes.

15 Q And that testing, do you know what standard applied
16 there?

17 A There is a couple at the time, but it's generally 2111.
18 2011, excuse me.

19 Q UL 2111, correct?

20 A Okay.

21 Q And UL 2111 is a standard that, among other things,
22 measures locked rotor, correct?

23 A Yeah. They do a bunch of things but that's one of the
24 tests is a locked rotor test, on a new fan, though.

25 Q The reason that they subject the motors to what's called

1 a locked rotor test is that that is really the most
2 significant potential failure mode for a motor like this,
3 isn't that true?

4 A It's actually the same failure mode, but you're
5 basically just impeding or stopping the airflow as we talked
6 earlier, so you're not getting airflow across the windings.
7 You're not allowing the motor to spin and freeze it, so the
8 windings heat up and that's when they test the TCO. But
9 that's done on a new motor.

10 Q My question was pretty simple. The reason they require
11 a locked rotor test is because that's the most significant
12 failure mode, isn't it?

13 A Well, that's one of the failure modes that UL wants to
14 test. I don't believe they test all of them, but that's one
15 strenuous test that they run.

16 Q And that's the most significant one. And the way they
17 do that is they energize the motor and they somehow stop,
18 what you haven't talked about, is the rotor from turning.
19 The rotor has a shaft that goes up and then an impeller that
20 goes around, and I think we might have a model to use, like
21 this, right?

22 A Correct.

23 Q And the shaft is in here and this piece which the fan
24 blades on is called an impeller, right?

25 A Yes.

1 Q And the impeller turns around when the motor is
2 energized?

3 A That's right.

4 Q And the motor is energized by plugging this plug into
5 the socket that is on the fan housing?

6 A Correct.

7 Q And you mention that this plug could be plugged in
8 either if you put it this way or that way?

9 A It's a nonpolarized plug.

10 Q That's a nonpolarized plug. So the jury understands, a
11 polarized plug is one of those plugs where you can only put
12 it in one way, and if you try to put it in the other way, it
13 won't go in the socket, right?

14 A That's correct.

15 Q But in this case it can go in either way?

16 A Correct.

17 Q In any event, when the fan is energized, the rotor turns
18 and as the rotor, which is in here, it's as part of the
19 motor, correct?

20 A Yep.

21 Q It turns the shaft?

22 A Yep.

23 Q Which in turn turns the impeller?

24 A Yep.

25 Q That impeller does a couple things. One, it takes air

1 and puts it out of the duct port?

2 A It does.

3 Q And the second thing, it drives cooler air in?

4 A It keeps the motor cooler.

5 Q Down, it keeps the motor cooler. So to duplicate the
6 most potential serious problem, you want to heat up the
7 windings, you lock the rotor and then energize the product,
8 right?

9 A Correct.

10 Q And they test that to make sure that when there is a
11 locked rotor, this motor will not get too hot? Isn't that
12 what that test is about?

13 A No.

14 Q That's what happens in the UL test 2111 test, isn't that
15 true?

16 A No. What they're testing with the locked rotor is
17 they're testing whether the TCO that we talked about here
18 will open. And so that's really the test because the
19 windings are on a trajectory to get very hot.

20 Q We'll talk about the windings in a minute. But what
21 they're testing is to make sure that there is a temperature
22 that the TCO will open at and that will keep the motor from
23 getting any hotter?

24 A Yes. It's supposed to open and prevent the motor from
25 following that high trajectory of heat.

1 Q And before Jakel could get a UL recognition, it had to
2 submit its motor to Underwriters Laboratories for a locked
3 rotor test or a series of locked rotor tests to make sure
4 that it complied with the UL standards, true?

5 A That is true.

6 Q And you know that Jakel did that, right?

7 A Yeah.

8 Q And they have a file in the court right now, a UL file
9 that shows that Jakel passed all of the UL testing?

10 A Right, on new motors.

11 Q Did they pass the testing or not, sir?

12 A On new motors, yes.

13 Q And, in fact, then they --

14 THE COURT: Is this not a new motor? Are you
15 saying this is something different?

16 THE WITNESS: Well, when they run the UL testing --

17 THE COURT: No, just yes or no. Is this different?

18 THE WITNESS: It's different than our failure
19 scenario.

20 MR. UNDERWOOD: Your Honor, I don't mean to
21 interrupt. If I understand the question was whether this is
22 a different model motor. I don't know, Judge, if that's what
23 you're asking.

24 THE COURT: I'm asking, I'm getting the impression
25 that this doesn't apply to what you're saying the testing is.

1 THE WITNESS: It's sort of apples and oranges, Your
2 Honor.

3 THE COURT: Go ahead.

4 Q And then Jakel had the same obligation to UL to maintain
5 it's UL recognition, did it not, that Nutone does? In other
6 words, the UL engineers can come to Jakel's plant and pick
7 any motor every quarter and test it for the locked rotor to
8 make sure that the TCO opens at a safe temperature, true?

9 A They can.

10 Q And you've seen records in this case that, in fact, they
11 did, every quarter?

12 A I don't know that they ran that test on locked rotor
13 condition every quarter, but they did it on a periodic basis
14 they had to do it every several years.

15 Q Well, actually you know that they have to maintain their
16 UL recognition so that it gets into the product, don't you?

17 A I do. But that doesn't mean that they have to test the
18 product every quarter. The engineer comes in and evaluates
19 whether or not it may need to be tested and whether or not
20 they built it like the previous years.

21 Q They come in every single quarter and they have the
22 right if they wish to pick any motor off the assembly line
23 and test for compliance with 2111 at Jakel, do they not?

24 A I would agree with that, but that doesn't mean that they
25 do.

1 Q And you know that from the time this motor was
2 manufactured way back -- do you know when it started being
3 manufactured?

4 A I think we have stuff in the late '80s, but I don't know
5 if it goes beyond that.

6 Q Let's assume that it's 1999. From 1999 all the way up
7 to December of 2002, every single quarter Jakel had to let a
8 UL engineer come in and test its motor for compliance with
9 the 2111 standard, is that not true?

10 A If the engineer wanted to do it. I'm not sure that it
11 happened, but they had the right to do that.

12 Q Okay. And Jakel had to let them?

13 A Yes, sure.

14 Q And you've been provided with all these documents that
15 we see before the jury, right?

16 A Yes.

17 Q Have you seen a single time when Jakel did not pass the
18 2111 locked rotor test, a single time?

19 A I've seen where it's close but I have not seen one.

20 Q My question was, sir, was there a single time when the
21 motor did not pass the 2111 locked rotor test, one time?

22 A Not that I found.

23 Q Now, in addition to the motor having to pass the UL test
24 requirements, every single component part in the motor that
25 has electrical characteristics is UL recognized, is that not

1 true?

2 A It is, yes.

3 Q And that would include the tape that goes around the
4 motor coil?

5 A Yes.

6 Q And that would include the bobbin where the motor coil
7 is wrapped on, the white thing?

8 A Yes.

9 Q And you know that this bobbin is nylon zytel?

10 A It's nylon 66, yes.

11 Q And you would agree with me that that's a perfectly
12 appropriate component for this application, wouldn't you?

13 A Not quite, I wouldn't agree with that.

14 Q You have never given us any opinion that you had any
15 problem with the nylon bobbin in this case, have you?

16 A Well, I think you could have had a different fire
17 inhibiting rating. I do agree that it's a V2 rating and that
18 it will self-extinguish but it does drop a flaming component.

19 Q So you would agree with me that the nylon bobbin
20 comports with UL requirements?

21 A Yes.

22 Q And underneath that are the magnet wires you talked
23 about, right?

24 A Correct.

25 Q And the magnet wires are in this case manufactured by a

1 company called Magnetech?

2 A Yes.

3 Q And Magnetech has its own set of engineers, don't they?

4 A Oh, yeah.

5 Q And the magnet wires are made out of aluminum in this
6 case?

7 A It is.

8 Q And aluminum is a perfectly appropriate application used
9 for this application, is it not?

10 A It's allowable.

11 Q And, in fact, there are tens of millions of small motors
12 like this all over the place with aluminum magnet wires,
13 aren't there?

14 A Correct.

15 Q Now if you just put magnet wires around a bobbin like
16 this, you couldn't run the motor, could you?

17 A No.

18 Q Because you have to have an insulation over the
19 windings, right?

20 A Correct.

21 Q Because otherwise, you know, they would be separated and
22 there wouldn't be a current flow?

23 A That's correct.

24 Q So the magnet wire has a certain rating, doesn't it, UL
25 rating?

1 A It does.

2 Q Now the insulation system in this motor is a class B
3 insulation system, is it not?

4 A It is.

5 Q And that means to you that it is required to be able to
6 operate at 136 degrees, I think you said, Centigrade, without
7 beginning to degrade? That's basically what that means,
8 isn't it?

9 A Not quite. Degradation occurs with heat over time, so
10 it's a matter of heat exposure over time on the polymers that
11 are used, but it's intended to run for a considerable period
12 of time without degrading at lower temperatures.

13 Q You looked at the records for Magnetech aluminum wiring,
14 have you not?

15 A I have.

16 Q You know, don't you, that the magnet windings that Jakel
17 included in its motor actually are higher than class B
18 insulation, don't you?

19 A I think they were like 150 to one something, 55 C.

20 Q 155 C, that's class F insulation, is it not?

21 A Yes.

22 Q That's 25 degrees higher than would be required for a UL
23 recognition, isn't it?

24 A Correct.

25 Q And the TCO manufacturer, we talked about that, that's

1 Tamura in this case?

2 A Yes.

3 Q And Tamura also had to submit its TCO for UL testing
4 before it could be recognized, is that not true?

5 A It did.

6 Q And you've seen the UL file that Tamura has submitted,
7 haven't you, in this stuff?

8 A I don't know that Tamura submitted a file. We've seen
9 some of the information from Tamura.

10 Q And you know that Tamura went through the same process
11 with its engineers, drew up documents, submitted them to UL,
12 submitted its TCO for testing to UL, correct?

13 A It did.

14 Q And Underwriters Laboratories gave Tamura a recognition,
15 right?

16 A They did.

17 Q So the TCO, the bobbin, the motor windings, the
18 impeller, forgot about the impeller. The impeller is a 94 HB
19 rating, right?

20 A It is.

21 Q And that comports with UL requirements too, does it not?

22 A It's allowable to have HB plastics in these fan motors,
23 yes.

24 Q My question was did it comport with the standards of
25 Underwriters Laboratories?

1 A I thought I answered that. I apologize. Yes.

2 Q Thank you. So every single component part of the motor,
3 of the impeller, and of the fan were all designed by separate
4 engineering staffs, weren't they?

5 A I would assume. That may not be correct, but yes.

6 Q And they were all independently tested by UL, right?

7 A Correct.

8 Q The component parts were recognized by UL, right?

9 A They were.

10 Q And the fan itself has a UL listing?

11 A It does.

12 MR. DUGGAN: Your Honor, would this be a good time
13 for lunch?

14 THE COURT: Yes. We'll start up again at 1:30.

15 (Recess at 12:25.)

16 (Reconvene at 1:35.)

17 THE COURT: Mr. Duggan, you are still on
18 cross-examination, sir.

19 MR. DUGGAN: Thank you, Your Honor.

20 BY MR. DUGGAN:

21 Q Good afternoon, Mr. Lewis.

22 A Good afternoon, Mr. Duggan.

23 Q As part of your investigation into this case, you spent
24 some time trying to learn what the eyewitnesses saw and
25 heard, right?

1 A Correct.

2 Q And what they didn't hear, right?

3 A Correct.

4 Q And you know that Ms. Suffredini took a little girl,
5 Elizabeth Davis, who is about two years old, into the two
6 year old bathroom at about ten minutes to 5, 4:50?

7 A That is correct.

8 Q And when she did that, she turned the light switch on?

9 A That's what she says, yes.

10 Q That's the only testimony we have that the light was off
11 and she turned it on?

12 A Right. It seems consistent.

13 Q And when she turned it on, the fan also came on because
14 it was on the same electric circuit with the light, correct?

15 A That is correct.

16 Q And Mrs. Suffredini when she turned the light on heard
17 the fan?

18 A That's correct.

19 Q Heard it come on?

20 A She did.

21 Q Heard it operate?

22 A She did.

23 Q Heard it operating normally?

24 A I don't know about that part, but I know she heard it
25 operating.

1 Q I thought you were in court when she testified. Did I
2 miss that?

3 A You did. I wasn't here when she testified.

4 Q Well, if I represent to you that she said it was -- it
5 sounded normal as it always had, will you accept that?

6 A Yeah.

7 Q And that's, in fact, what she said in her deposition.
8 You said you read her deposition in preparation for your
9 testimony, right?

10 A I did.

11 Q And so you know that when Ms. Suffredini went in, she
12 turned the light on and the fan came on at the same time,
13 right?

14 A Yes.

15 Q And she heard no unusual noises, true?

16 A Correct.

17 Q And then nothing happened. She didn't see anything
18 unusual in the ceiling at that time, did she?

19 A She didn't report anything. I'm not sure it didn't
20 happen, but yeah, that's what she said.

21 Q I thought my question was she didn't see anything
22 unusual in the ceiling. If I didn't say that, I apologize.
23 But she didn't see anything unusual when she turned the light
24 on, did she?

25 A That's what I guess her statement is, yes.

1 Q And that was her testimony, right?

2 A I understand that, yes.

3 Q And then she left for five minutes, right?

4 A Correct.

5 Q And then when little Elizabeth came out of the bathroom,
6 Ms. Suffredini went over to help her get a puzzle in the two
7 year old room, correct?

8 A Correct.

9 Q That took about a minute, right?

10 A Somewhere around that time, yes.

11 Q And then Ms. Suffredini walked back toward the bathroom
12 because there was a counter there, right?

13 A Yes.

14 Q And it's about the distance from that wall to where I'm
15 standing, maybe 15 feet, to where that puzzle, something like
16 that?

17 A It's in the room.

18 Q Not only just in the room. I mean, the room in a long
19 room, right?

20 A Well, I think there is a question of what door she came
21 in to the counter. I'm not sure if it was 15 feet. I would
22 say that's in the ball park.

23 Q Fair enough, in the ball park. So she walks back the
24 15 feet. That would take another ten seconds if you were a
25 slow walker?

1 A Probably.

2 Q And then she looks up and she sees something come out of
3 the ceiling she thinks?

4 A Well, I think she described it as like a spark or
5 something. She thought it might have been a bee or something
6 in her deposition dropping down from the grill to the floor.

7 Q She thought it might have been a bee. So she looked
8 down and she saw nothing on the floor, right?

9 A Right.

10 Q Now she then looked up and she saw nothing dripping from
11 the grill, did she?

12 A I thought at that moment she talked about a candlelight
13 flame burning in the grill.

14 Q She talked about a candlelight flame. But that wasn't
15 again my question. She didn't see anything dripping down,
16 did she?

17 A I'm not sure that she testified to that, no.

18 Q Well, let's assume that that's what she said.

19 A Okay.

20 Q Take that, that I'm being honest and truthful with you,
21 okay?

22 A All right.

23 Q She then went over and got her friend, Ms. Dattilo?

24 A Yes.

25 Q Who was in the room across the hall?

1 A Correct.

2 Q And Ms. Dattilo came and looked up at what was in the
3 ceiling, right?

4 A Right.

5 Q And you know that Ms. Dattilo saw a glow underneath the
6 grill?

7 A Again I'm not sure that I would agree with that specific
8 statement. I thought she saw a glow in the fan.

9 Q Under the grill?

10 A Well, that's above the grill in the fan.

11 Q Above the grill then, up toward on the other side of the
12 grill?

13 A Right. In the fan cavity.

14 Q Again nothing dripping down, right?

15 A Well, again, I think the material that fell off was
16 probably dripped down, but all right.

17 Q Well, did not Ms. Dattilo in part of your review in
18 preparation to come in here and testify before these good
19 jurors, did not you know that she testified that she didn't
20 see anything dripping from the grill?

21 A I don't recall. But I'm not sure I recall her being
22 asked that question either.

23 Q Will you assume for the moment that here in court she
24 said she didn't see anything dripping down?

25 A Okay.

1 Q And will you assume also that she didn't see anything on
2 fire. Okay?

3 A I think a glow is a fire. I think the glow that she's
4 seeing is combustibile material burning in the fan.

5 Q I wasn't quite asking you for her interpretation of her
6 testimony. I'm sorry if I'm not being clear. I just said
7 assume for a moment that she did not testify that she saw
8 anything burning from the grill. Okay?

9 A Okay.

10 Q All she saw was a glow.

11 A Okay.

12 Q And she heard the fan still running?

13 A She did, yes.

14 Q And that's about, we're about now eight minutes after
15 Ms. Suffredini flipping on the light switch, right?

16 A I'd say rough time frame, yes.

17 Q And then the two of them leave. They get the children
18 and they leave the building?

19 A Correct.

20 Q Out the door that is immediately around the corner just
21 like this, right?

22 A Yeah. If I'm in the bathroom, you know, in rough
23 estimate, yes.

24 Q Five, 10 feet away?

25 A Okay.

1 Q And they go outside, correct?

2 A Correct.

3 Q And they already see smoke coming out of the roof, you
4 know that, right?

5 A No. I understood that they saw smoke coming out of the
6 eaves by the heat pump.

7 Q And you know that within two minutes they saw smoke
8 coming out of the roof?

9 A Two minutes from that point. But the first smoke was
10 beyond the heat pump which is directly across from the
11 bathroom.

12 Q Let's take your two minutes. We're now ten minutes
13 after Ms. Suffredini turns the light switch on, correct?

14 A Okay.

15 Q And at that point did you know -- you've seen Exhibit
16 Number D01, have you not?

17 A I have seen it, yes.

18 Q And did you know that both Ms. Suffredini and
19 Ms. Dattilo said this is what they saw ten minutes after
20 Ms. Suffredini turned the light switch on? Are you aware of
21 that?

22 A If that's what they testified to.

23 Q And you will agree with me, won't you, that the impeller
24 was still turning when Ms. Dattilo was in the bathroom before
25 they left six or seven minutes after Ms. Suffredini turned

1 the light on?

2 MR. UNDERWOOD: Your Honor, I'm going to object to
3 that. I think that misconstrues Ms. Dattilo's testimony. I
4 don't think she was clear exactly whether the fan was
5 operating or not.

6 THE COURT: I'm not sure. You can clear it up. Go
7 ahead.

8 A I'm sorry. Could we repeat the question?

9 Q Sure. At my age it's easy to lose my train of thought.
10 I'll try it again. You know, sir, that Ms. Suffredini said
11 the light came on and operated fine, right?

12 A That's what she testified to, I understand, yes.

13 Q Well, you don't have any doubt about the light operating
14 fine, do you?

15 A No. I think the light was working fine. I'm not sure
16 the fan was at that time.

17 Q You know that she testified that the fan was operating
18 fine, too? You know that, right?

19 A I understand she testified that she heard the fan
20 running.

21 Q And that she heard the fan making no unusual noises,
22 just like it always did, right?

23 A That's what I understand she said, yes.

24 Q And you know that when Ms. Dattilo came by two minutes
25 later or so, she also heard the fan running and heard it

1 making no unusual noise, right?

2 A I understand that she heard the fan running.

3 Q Will you assume that she testified for purposes of these
4 questions -- you understand as an expert, and you did this
5 when my friend Mr. Underwood was asking you all those
6 questions, you had a lot of assumptions, and you can do that
7 as an expert, right?

8 A I can.

9 Q And you know that because you've testified a lot of
10 times in court?

11 A I have.

12 Q So I'm asking you to assume that Mrs. Dattilo said she
13 heard the fan running and it sounded just like it always did.
14 Okay?

15 A Okay.

16 Q And then two or three minutes later we have what's
17 depicted on D01 the smoke pouring out of the whole roof line,
18 right?

19 A I haven't been established the timeline of that photo,
20 so if you could provide me with the date and time that that
21 photo was taken, that would be great.

22 Q Well, you know, or did you know, did you make any
23 investigation before you came in here today as to when that
24 photograph was taken?

25 A Well, it was on that day, but the exact time in which

1 that photograph was taken I'm not aware of.

2 Q Well, do you know that the two witnesses who you just
3 weighed so heavily your opinion on have testified that in a
4 couple minutes after they left the building it looked like
5 that?

6 A Again, I'm taking your word for it. But I understand
7 that's what they said. I would like to know as a fire
8 investigator the time of that. We have some similar
9 photographs taken by Mr. Harloff when he arrives and there is
10 a time stamp on it.

11 Q And you know that Mr. Harloff -- well, anyway, again
12 you've thrown me off course, congratulations.

13 But my question is, in that ten minutes you know that
14 you could never get to a conflagration like what is shown in
15 D01 after someone simply turning on a working fan?

16 A Yeah, I disagree with that. There is assumptions that
17 you made in that statement that inaccurate.

18 Q I'm asking you to assume that the fan was working and
19 accept the witness's testimony. I'm asking you to accept the
20 witness's testimony. And that there is about ten minutes
21 between the time the light switch comes on and the time this
22 picture is taken. And you'll agree with me, won't you, that
23 you will never be able to get this picture in ten minutes
24 after somebody turns on a working fan?

25 A I have an issue that they would understand whether or

1 not there is a problem with the fan by simply hearing it.

2 Q Try my question, sir. My question is, if the fan was
3 working and didn't make any unusual noise, and the witnesses
4 who you rely on so heavily for your opinions here have
5 testified that it operated as it always did, and further
6 assume that the impeller was turning, you will never be able
7 to get from a switch, someone switches the light switch on
8 and the fan on to this in ten minutes?

9 A I don't agree with that. I think it could, certainly.

10 Q Well, can I ask you about your opinions on or your
11 assumptions on first fuel? And by the way, you have been
12 testing fans, these fans, I think you told us earlier when we
13 took your depositions in April for like seven or eight years?

14 A I have.

15 Q And in that seven or eight year time frame, have you
16 ever got a fan, in that period of time all the way up to when
17 your deposition was taken, did you ever get a 5138 motor to
18 ignite with a moving impeller, did you?

19 A No, I haven't had to. I've had enough field examples
20 that show failures and fires.

21 Q It's not my question, sir. You're a scientist?

22 A Right.

23 Q And you have come in here and told His Honor and the
24 jurors that you have to prove your theories under NFPA 921,
25 correct?

1 A Correct.

2 Q And NFPA 921 and your obligation as an independent
3 scientist is if you can't prove your theories in your
4 laboratory, you've got to think of something else, right?

5 A No, that's not what it says. What it says is that you
6 have to do the testing and the testing could be two things.

7 Q Wait a minute, sir.

8 A It could be laboratory testing and cognitive testing.

9 Q Okay. You try -- you've been testing these for seven to
10 eight years, have you not?

11 A Various motors and styles of Jakel fans for different
12 things, yes.

13 Q And you have never -- and in that seven, eight year
14 period all the way up to your deposition in April, you have
15 never got a fan with a moving impeller with a 5138 motor to
16 ignite ever, have you?

17 A No. Like I said, I've seen plenty of examples in the
18 field and testing this was done --

19 Q Sir --

20 THE COURT: Sir, he didn't ask you any explanation
21 other than whether or not any time in your scientific life
22 had ever had a fan like that ignite. Yes or no. I think you
23 said no, you have not.

24 THE WITNESS: I have not.

25 THE COURT: Okay.

1 Q Now, I want to talk a little bit about your ignition
2 sequence. I think your testimony was that the first, you
3 think the first fuel ignited to make your theory work here
4 was some lint that was on the motor?

5 A Correct.

6 Q Oh, and before I go to that, we have to go one step
7 back. You used the model that we made here?

8 A I did.

9 MR. DUGGAN: May I, Your Honor?

10 THE COURT: Yes.

11 Q You will agree with me, sir, that the space over the two
12 year old bathroom was constructed with an acoustic tile
13 dropped ceiling, correct?

14 A I will, yes.

15 Q And then there was a space of some distance before you
16 got to the bottom of the truss chords?

17 A Correct.

18 Q Which we've labeled as truss chord C and B in the
19 bathroom space. And we've heard a lot about that?

20 A Yes.

21 Q And at least on some of it you had paper backed
22 insulation that was stapled basically to the bottom of the
23 truss chord, similar to what we've seen in the model?

24 A Yes. Obviously it had some exceptions to it, but yes.

25 Q And in this void space in between, the motor was mounted

1 on some one-by-fours like this, right?

2 A Yes.

3 Q With a Nutone fan like this, 696N R02?

4 A Correct.

5 Q And it was mounted so that it could just drop over a
6 hole that was cut in the acoustic tile?

7 A That's correct.

8 Q The way this was mounted, whoever installed it, could
9 mount the duct adaptor or duct port so that it pointed east,
10 right?

11 A Yeah.

12 Q Or north would be this way. In other words, close to
13 the area where the kids left the room after they saw the
14 glow, right, that's the direction?

15 A Correct. I'm not sure if we had enough room between the
16 wall to actually be able to point it north. I think you had
17 east/west choices.

18 Q Did you measure it?

19 A I think there wasn't enough left of the ceiling tile to
20 be able to determine that.

21 Q You don't know. It could be pointed north, east, south
22 or west? You just don't know?

23 A I think you had two options, east or west.

24 Q Because actually there is a light fixture over here to
25 the east that was -- I mean to the north that was pointing

1 toward the exterior, directly toward the soffit?

2 A I don't know if it's pointed toward the soffits. I
3 think the lights are running parallel, the fluorescent light
4 is running parallel, the bulbs are.

5 Q My question simply was this. To orient myself here,
6 you've got the light fixture, the fluorescent light fixture
7 would be here in between the edge of the building, the soffit
8 and where the fan is?

9 A Yes.

10 Q So you think it probably wasn't pointed that way because
11 it would have been pointed right into the housing of the
12 light fixture?

13 A I think that based on what I saw, I thought you couldn't
14 turn that. It was closer to the wall so you wouldn't be able
15 to turn the fan in that direction based on the wood. It's a
16 possibility, I don't think it's a probability.

17 Q It's a possibility. You just don't know. You don't
18 think it's probable, you don't know?

19 A I would say it's less than 50 percent chance.

20 Q Fair enough. Or it could be pointed this way to the
21 right, which is dead west, right?

22 A That's correct.

23 Q So, in other words, the duct port would be pointing
24 directly into the HVAC vent and duct that was right there?

25 A Yes.

1 Q Directly at it?

2 A Yeah.

3 Q And you don't know one way or the other whether the
4 person that installed this pointed this duct at this HVAC
5 duct or pointed it away from the HVAC duct to the east, which
6 faces the other way? You just don't know?

7 A I don't think that's true. I think based on the burn
8 patterns and the probability of what we saw, I believe it was
9 facing to the west.

10 Q I understand that's what you believe. My question is,
11 you have no scientific basis at all, you have no basis for
12 pointing it left or you think the guy who put this in --

13 A My scientific basis is the burn patterns. So I believe
14 based on the science that it's turned to the west.

15 Q The burn patterns you mean in the two year old room?

16 A No. The burn patterns in the very corner of the
17 bathroom where you've got the charred insulation between
18 essentially truss wood A that's not shown and B.

19 Q Where the A1, where the stringer, stringer 1 and the
20 truss, truss A, intersect? That would be about here where my
21 hand is?

22 A Not that far over.

23 Q Here?

24 A Keep going.

25 Q How far? Two feet, here?

1 A Yeah.

2 Q Just in this direction, right?

3 A Yeah.

4 Q And this burn pattern over here is what you base your
5 conclusion on that this duct port was pointed directly at the
6 duct, the HVAC duct, right?

7 A It was pointed that direction. We don't know, like I
8 said, the actual configuration of the duct.

9 Q Sir, my question is your belief that the duct port was
10 pointing towards the west right at the HVAC duct is based on
11 this burn pattern, right?

12 A Yeah.

13 Q Isn't that true?

14 A That's my basis, my scientific basis.

15 Q Now I want to talk about the first fuel. You talked
16 about the lint you said was ignited?

17 A Yes.

18 Q Can I have the picture that you used when Mr. Underwood
19 was asking you questions? Mr. Lewis, this was the
20 photograph, it's Plaintiff's Exhibit 87F, that you relied
21 upon in coming to an opinion or conclusion that lint was the
22 first fuel lighted, right?

23 A Yeah.

24 Q So the jury can understand what we're looking at here, I
25 hope, you think you see lint right up here. This square part

1 here is part of the laminations?

2 A Yeah. That's the C frame motor that's covered by lint.

3 Q And the stator? Do you know if that's called a stator?

4 A Yeah, those two side pieces, yes.

5 Q And over here on the other side underneath that is the I
6 bar, right?

7 A Correct.

8 Q So you've got some lint here to the top of the picture,
9 right?

10 A Correct.

11 Q And you've got, there you've got the end cap, right?

12 A That's the bearing end cap, yes.

13 Q And actually there is so little dust or dirt on that you
14 can even read, if your eyes are better than mine, Jakel
15 Motors?

16 A You can.

17 Q And to the left, that is the motor coil on the bottom?

18 A Yes.

19 Q And this is the bobbin at the top and the bottom, the
20 bottom flange, right?

21 A Correct.

22 Q And what I'm pointing to now is the coil wrap that you
23 testified about right here, correct?

24 A Correct, yeah.

25 Q And that coil wrap goes on the outside, and you

1 mentioned that that's also a UL rated product?

2 A It has been tested, it's VO.

3 Q And it wouldn't be on the motor unless it was UL
4 recognized, right?

5 A Presumably.

6 Q And just to the left of that you can still read on this
7 the sticker with the name of the motor and stuff. It's a
8 little blurry here, but you can still see the writing on it
9 from here, can't you?

10 A I can.

11 Q The only place you've got any lint at all really is a
12 little bit on the top of the bearing cap?

13 A Well, there is lint on the sides of the windings,
14 particularly on the other side that you don't quite see, but
15 there is lint, and then there is lint around again
16 accumulating around the nylon sides.

17 Q Did you ever try to measure that lint? Because you
18 could do that in your laboratory, couldn't you? You could
19 measure that lint, how much was there, if you wanted to?

20 A Sure. It would require taking it off the exemplar.

21 Q Did you do it?

22 A I didn't.

23 Q Did you try to figure out how much heat energy could be
24 released if you ignited that lint?

25 A I haven't done it on this particular case, no.

1 Q Okay. Would you agree with me that you think you're
2 using this to tell this jury what the motor in the two year
3 old bathroom looked like?

4 A I think they're obviously going to have some
5 differences, but I'm going to say categorically that's a
6 similar style motor, may not have lint deposits that are
7 exactly the same, but it's similar to what you would expect
8 for lint buildup.

9 Q And you told us in your deposition that there wasn't, in
10 your professional view there wasn't any -- isn't it true,
11 sir, that it's your opinion that the motor was not lint
12 encrusted?

13 A Which motor?

14 Q The motor in the two year old bathroom.

15 A No, I don't think that's true. There is lint inside the
16 material inside the housing.

17 Q Did you not -- well, I'm going to get to that in a
18 minute?

19 A Okay.

20 Q I promise you. But did you not say in your deposition
21 when you were asked in April, this did not appear to be a
22 situation where the motor was covered with a very thick layer
23 of lint? Is that what you told us under oath?

24 A Correct. That on this exemplar is not what I would
25 consider a thick layer of lint. I mean, I've seen them so

1 encrusted that you can't see the motor.

2 Q I'm talking how about the motor that you think -- the
3 motor that was in the bath fan, the two year old bathroom?

4 A Two year old bathroom subject fan, yes.

5 Q There wasn't much lint there at all, was there?

6 A I think there was that much in it if not more.

7 Q The best you can tell us is there may have been as much
8 lint as you see on P87, right?

9 A Correct.

10 Q And you didn't measure it, right?

11 A No.

12 Q You didn't try to calculate the BTUs that you could get
13 if you burn that?

14 A I didn't.

15 Q The ignition point of pure cellulose, sir, is
16 451 degrees Fahrenheit, is it not?

17 A No.

18 Q Oh, the book is wrong? Wasn't it Fahrenheit 451? It's
19 in the 450 range?

20 A It's lower. The ignition temperature of lint is
21 dependent upon time and temperature. So if you put something
22 in an oven and get it hot for a long period of time, the
23 ignition temperature actually goes down. It's called
24 pyrolysis. It depends on time and temperature.

25 Q It depends on time and temperature. But pure cellulose

1 ignition temperature is around 450?

2 A Pure cellulose, it's less than that. It depends
3 entirely on whether or not there has been any preheating. If
4 it's brand new and fresh, nothing on it, it would be in the
5 range I would say of about 425 degrees Fahrenheit.

6 Q That would be about 228, 230 degrees Celsius?

7 A You're a faster calculator than me, but I would say it's
8 somewhere in that ball park, yes.

9 Q Did you ever try to ignite this much lint that you
10 haven't calculated with a moving impeller on a rotor with any
11 type of cellulose on a 5138 motor? Have you ever tried to do
12 that?

13 A Have I ever tried to do that? Yeah, I have.

14 Q On this 5138 motor, sir?

15 A Yes.

16 Q You tried to duplicate that?

17 A Yes.

18 Q You were not able and you've never been able to
19 duplicate what you've testified here in your laboratory?

20 A No, that's not true.

21 Q Isn't it true, sir, that you told us now here in this
22 courtroom and also before in your deposition that you never
23 were able to get ignition on a 5138 motor?

24 A Well, that's two different scenarios. One setting fire
25 to it and seeing whether or not you can go a fire spreading

1 from the lint and burning, another one is getting the fan to
2 fail front of you and actually igniting the lint.

3 Q Am I correct, sir, that you have never been able to get
4 a fire on a 5138 motor?

5 A I haven't. I haven't been able to set up the test to do
6 it, but I have seen enough empirical in fans from the field
7 to show --

8 Q Sir, my question was, seven or eight years you've been
9 testing these, you've never been able to get an ignition on a
10 5138 motor like this one, have you?

11 A It would require thousands of tests and I'm in the
12 process.

13 Q Now try my question. You've never been able to do it?

14 A Not yet.

15 Q Okay. But you're bound and determined, I'll bet?

16 A I'm working.

17 Q I'll bet you are. I want to talk a little bit about the
18 TCO. You testified one of the pictures that you had of the
19 TCO when Mr. Underwood was asking you questions, the one
20 where you saw the things bent.

21 A Yeah, the installation.

22 Q Doesn't matter. When you were going through it, I
23 didn't write it down. Anyway, I think you testified, sir,
24 correct me if I'm wrong, that one of the leads was bent when
25 you saw it?

1 A That's right.

2 Q One of those, one of the wires going into the housing of
3 the TCO?

4 A We're talking about the one that had the 180-degree loop
5 that's bent into the housing, yes.

6 Q That one that has that bend that went in. I think you
7 testified, sir, that when you saw it five years after the
8 fire, you thought it was bent in an unusual manner, right?

9 A I did say that. And I also said that afterward you
10 could see where somebody had looked like they tried to
11 straighten it.

12 Q So someone had actually manipulated the lead?

13 A Yes.

14 Q Before you saw it?

15 A Yes.

16 Q So you don't know?

17 A It would have been --

18 Q You can argue with me after I ask my question.

19 A All right. Very good.

20 Q So, sir, you see a TCO -- by the way, so the jury
21 understands, the TCO is about yay big, isn't it?

22 A No, I think it's bigger than that.

23 Q My finger's not that fat I don't think. How big would
24 you think? You put fingers how big?

25 A Are you talking the thinness or width?

1 Q Width and length.

2 A It's bigger than that. It's like that big. Let's give
3 the jury that big.

4 Q Okay. Is this fair enough?

5 A I think that's fair.

6 Q That's the TCO. Width and length?

7 A Yeah.

8 Q From we'll call it the elevation side, it's really thin
9 though, it's thin like this?

10 A It's a thin little box.

11 Q And you first saw it five years after it had been
12 subjected to the fire that this jury saw in a picture in D1,
13 right?

14 A Right. I also looked at photographs taken after it was
15 out in the field, within the year that it was taken out by
16 Mr. -- well, a couple of people. But we had a chance to look
17 at the photos and it looked appreciably the same.

18 Q But someone by the time you saw it had tried to
19 manipulate the thing? You just told us that it had been
20 bent.

21 A Somebody tried to bend it back or it got bent before it
22 was ever photographed by a guy named Matt Johnson.

23 Q Somebody tried to bend it in another direction. And who
24 bent it before you got it?

25 A I don't know.

1 Q When was it bent before you got it?

2 A It might have been bent even as the fire department was
3 collecting and moving the evidence. Stuff is fragile. When
4 you take it out, the phenolic is fragile. So as the motor
5 drops, things can come apart. It could be destructed just
6 from the fire and moving the fan out.

7 Q The phenolic, so the jury understands, the phenolic is
8 the hosing of that TCO. That's what I was having troubles
9 with my fingers moving up this way?

10 A Odd figured, yes. You've got it about right now.

11 Q It's that black box?

12 A It is, the black box.

13 Q That's the leads go in?

14 A Yes.

15 Q And while I'm on the subject, I promised you and I
16 promised the jury that we would talk about the lint that was
17 left in the fan after the fire.

18 A Okay.

19 Q So I don't want to lie to you. There was actually when
20 you saw the fan, right, five years after the fire, four and a
21 half years after the fire, there was still a little lint in
22 the housing, wasn't there?

23 A There is.

24 Q Now when you first got the TCO and took it out of the
25 box, was the TCO open or closed?

1 A It was open. One of the leads, as I think we discussed,
2 one of the leads had been at some point ripped out of the
3 bottom of the phenolic housing.

4 Q So that we understand what we're talking about here, if
5 the two leads that are at the top connected by a fusible link
6 that you talked about --

7 A Yes.

8 Q -- are not connected, that's an open TCO, right? It's
9 open?

10 A Well, if they're not connected? No, that's not
11 necessarily true. Open refers to an electrical term whether
12 or not you can pass current through those leads.

13 Q Let me ask you a question.

14 A So you could even have that open and still pass some
15 current through.

16 Q When you first saw it, it was open, you could not pass
17 current from one to the other, could you?

18 A Somebody had pulled the lead out, yes.

19 Q Well, you know that the lead was out and so it certainly
20 was open. You couldn't measure the resistance from one end
21 to the other because it was not closed, isn't that true?

22 A Well, there was a lead out so I can't measure it. It's
23 like opening an open wire.

24 Q So it was open?

25 A Yes.

1 Q And then I think what you did, I'll try that picture,
2 because you tried to figure out how this whole thing went
3 back together?

4 A We did.

5 Q And I'll take the picture that I think Mr. Underwood
6 showed you. This was taken by you or someone at your
7 laboratory, wasn't it?

8 A It was taken by me. Our first look at the TCO after it
9 came apart.

10 THE COURT: What's the exhibit number here?

11 MR. BLACK: D38G.

12 MR. DUGGAN: D38G, Your Honor.

13 THE COURT: All right.

14 Q So we understand what we're looking at here, this at the
15 top is one of the leads to the TCO, right?

16 A That is correct.

17 Q And this at the bottom is the other lead to the TCO?

18 A Correct.

19 Q And this is the phenolic housing?

20 A That is correct.

21 Q And you've taken off the top?

22 A Well the top, the leads are laying on the top.

23 Q But this is -- there would be a cover over this that's
24 not here now, you've taken it off?

25 A Yeah. That part that you have the laser on is the

1 bottom that has side edges around it, and then you can see
2 the leads. The top is under the leads on the other side.

3 Q Right. I understand.

4 A Okay.

5 Q But it's been taken apart?

6 A Why, yes, it has.

7 Q And then you lay the top lead and the bottom lead
8 together, right?

9 A To get a general shot of how they were there.

10 Q And that's open, isn't it? Right there it's open?

11 A Yeah. That's not the reconstructed picture, but yes. I
12 just placed it in there to get that shot.

13 Q The TCO in this configuration is open. It would not
14 conduct electrical current, would it?

15 A That would not be the position where the leads were at
16 the time.

17 Q That would not conduct electrical current?

18 A That's actually not true. It would because you've got
19 charred phenolic that would actually conduct electricity, but
20 it's not a great conductor but it will still conduct
21 electricity.

22 Q But that one's open, we can at least agree in this
23 configuration, correct?

24 A It's like our first shot of trying to put everything
25 back, to get stuff back together.

1 Q So you put this into the box and you got this, which is
2 D38D?

3 A Correct.

4 Q That's the top lead? That's the bottom lead?

5 A Against the side housing, correct.

6 Q That's the bottom lead that I'm pointing to?

7 A Correct. Against the side housing.

8 Q That's the top lead, right?

9 A Correct.

10 Q It's still open?

11 A There is an opening there, yes.

12 Q Okay. And then after you figure you got this point, you
13 said, oh, this isn't going to work, so you touched them and
14 put them both together and you got them to overlap, right?
15 That's what you did, didn't you?

16 A Well, that's what we took the photo, but we had it based
17 on the lead distance. So the leads come at a certain
18 distance, and I took a series of photographs showing the
19 leads moving closer together. And then what we did is we
20 matched the lead distance to what was on the exemplar TCOs
21 and other TCOs that we had.

22 Q I'm going to talk to you about that in a minute. All
23 I'm saying is when you put it back in this housing at this
24 time, the TCO is still open, is it not?

25 A In that case right there there is a gap, yes.

1 Q Now so to fix that problem you had to put them back
2 together and you got them to overlap, right?

3 A They did overlap, yes.

4 Q And do you remember how far you got them to overlap when
5 you pushed them back together?

6 A Not exactly.

7 Q If I tell you it's .006, six-thousandths of an inch,
8 does that sound about right to you?

9 A That's six-thousandths of a sheet of paper. A piece of
10 paper is about six-thousandths of an inch, that would be
11 right.

12 Q Six-thousandths of an inch. What's the manufacturing
13 tolerance of that TCO?

14 A It's probably within that range.

15 Q By the way, what's the width of a human hair?

16 A I would say it's about a thousandths of an inch.

17 Q All right. Now you also talked about, a little bit
18 about the rosin.

19 A I did.

20 Q I'm going to spell that. It's actually two different
21 spellings; R-O-S-I-N or R-E-S-I-N. And they're different
22 materials aren't they, sir?

23 A Yes.

24 Q And the rosin in this case, who manufactured it?

25 A I'm not sure who actually manufactured the rosin used by

1 Tamura. We analyzed it so we know what its composition is,
2 but I don't know who the manufacturer is of the rosin.

3 Q If I tell you it was U.S. Rosin WW. U.S. Rosin, does
4 that sound right to you?

5 A Could be.

6 Q Did you get a MSDS sheet on the rosin?

7 A I didn't.

8 Q I want to talk sir --

9 THE COURT: What does MSDS stand for?

10 MR. DUGGAN: Material Data Safety Sheet.

11 THE WITNESS: Material Safety Data sheet.

12 MR. DUGGAN: Excuse me. That's my dyslexia.

13 Q Sir, let's talk a little bit about timing. You
14 evaluated a number of records from Broan-Nutone and Jakel?

15 A I evaluated what I've been given.

16 Q And there is thousands and thousands of records?

17 A Right. And they all suddenly started 1999, you don't
18 have any before that, but yes.

19 Q Well, because this product came in in 1999, right?

20 A Actually you said that before. That's not necessarily
21 true. The product had actually been built earlier than that.
22 They made changes to the motor through that time, but it was
23 the same style of motor, had the same number on it.

24 Q And you know that Nutone did a number of tests itself on
25 this fan and these motors to make sure that it met its

1 specifications, correct? You saw them?

2 A I've seen those tests.

3 Q Quality assurance testing?

4 A Yeah. There is a quality assurance report that talks
5 about running the fan.

6 Q Let's talk about the quality assurance testing records
7 that were from the 2002 range, same year as this fire, all
8 right?

9 A Okay. I'll do the best I can.

10 Q You saw it? I have a copy here in case that will help
11 you.

12 A That's always helpful.

13 Q Excellent. We'll talk about, if we might, Exhibit D10.

14 MR. DUGGAN: May I approach, Your Honor?

15 THE COURT: Yes.

16 Q This is the copy.

17 A Thank you.

18 Q You're welcome. This is not the first time you have
19 seen this quality assurance, Nutone quality assurance lab
20 report, right?

21 A I've seen it in other cases, yes.

22 Q You've seen it, it's the one that applies to this,
23 right?

24 A Yes, I believe so.

25 Q Now I want you to go to page 2.

1 A Okay.

2 Q And you know that Nutone requires its motor supplier, in
3 this case Jakel, to comply with the locked rotor test, right?

4 A I see that, yes.

5 Q And they did a locked rotor test on these motors, these
6 motors that are listed here this Exhibit D10, correct?

7 A Correct.

8 Q And the locked rotor test passed?

9 A Yeah, in these tests.

10 Q Right. And again, locked rotor would not have the motor
11 plate, which is this metal assembly. It would just have the
12 motor and not the impeller, right?

13 A During the locked rotor test?

14 Q Yeah.

15 A They could do it any number of ways. They're just
16 stopping the motor from spinning.

17 Q And then they clamp the rotor, this part down here, the
18 impeller shaft, this part down here so that it can't spin?

19 A Yeah. They could do it any number of ways.

20 Q And then they time how long it will take for the motor
21 to reach a temperature where it will, the TCO will open,
22 right?

23 A It does.

24 Q In this test, the locked rotor test -- and these are the
25 results at the top, right?

1 A Yeah. For these motors on that day. There is different
2 results for different motors on different days.

3 Q Of course there are. Nothing is 100 percent the same
4 all the time, you know that?

5 A No. But the temperatures are also significantly higher
6 than other days.

7 Q All I'm going to get at, I don't want to talk about the
8 temperature yet.

9 A Okay.

10 Q Because this can go up -- to pass the Nutone spec and
11 the UL spec, it has to open within an hour at less than
12 225 degrees Centigrade, correct?

13 A Actually it's less than 200 C in this test.

14 Q In this test Nutone sets it down by another 25 degrees
15 for safety?

16 A Yes.

17 Q But the UL standard is 225?

18 A It is.

19 Q Nutone actually takes it down to 200 to give them
20 another margin of safety?

21 A They do.

22 Q And in these tests here you have 160 degrees and
23 167 degrees when the TCO opens?

24 A That's degrees C, so that's roughly 340 Fahrenheit, yes.

25 Q And we are talking like 55 degrees Centigrade under what

1 UL considers a safe temperature, correct?

2 A It has do that in the first hour, and then after that
3 there is a test that goes on longer.

4 Q If it doesn't open in the first hour, then it has to go
5 to open it can't reach 200 degrees, right?

6 A I think for UL and then it's 175 here for their testing.

7 Q For Nutone's, they take it down another 25 degrees?

8 A Yeah.

9 Q But UL is 225 to 200?

10 A Yeah.

11 Q Nutone shifts it down a phase to 25 C for safety?

12 A This is all done on a brand new fan motor that's been
13 pulled off the line.

14 Q Was I correct or not?

15 A Well, again, just clarify.

16 Q Was I correct or not?

17 A I think so.

18 Q Well, would you like us to read it together?

19 A No. I think I'm fine, I get it.

20 Q Then both of these motors passed this test well under
21 the Nutone's lower 200-degree Centigrade standard, correct?

22 A These two motors. Again other tests show higher --

23 Q I'll get to some others and they'll have a little bit
24 higher numbers for you, just to make you happy?

25 A All right.

1 Q Let's take these two motors first.

2 A Okay.

3 Q And so where 160 degrees C and 167 degrees C when the
4 TCO opens, right?

5 A On these degree C, 340-ish ball park Fahrenheit.

6 Q No doubt in anyone's mind that is a safe operating
7 temperature, isn't that true?

8 A No, I don't agree with that.

9 Q Okay. Well, you would agree that UL says it's a safe
10 operating temperature anyway, right?

11 A Right. The idea is this is a locked rotor test and this
12 is when the motor locks. So it's safe if the TCO opens. If
13 it doesn't, these currents continue on and the motor
14 obviously can get much hotter than that.

15 Q That's the whole point for doing the test, you have to
16 make sure that the motor won't let the thing continue on?

17 A That's the whole point of the TCO, that it's designed to
18 shut off the motor in the event it gets hot?

19 Q That is the point of doing the test, so you can see that
20 the TCO operates within the scale, limitations first by UL
21 and then lower by Nutone?

22 A They've got a lower standard than what the UL would
23 require, yes.

24 Q Now, as you can see here, first tell the jury how long
25 it took under a locked rotor condition for the first motor to

1 open? Do you see that?

2 A Yeah. There was a graph, I see here they've got 13.5
3 minutes.

4 Q So from the time the rotor is locked and they energize
5 the motor, it took 13.5 minutes for this to get to
6 160 degrees Centigrade, didn't it?

7 A Correct. On a brand new motor off the line.

8 Q It took 13 and a half minutes to get to 160 degrees
9 Centigrade, which is below the ignition point of lint?

10 THE COURT: Which is?

11 MR. DUGGAN: Below the ignition point of lint.

12 A Below the ignition point of new lint. Pyrolized lint
13 can ignite at lower temperatures.

14 Q The next test at 167 degrees, tell the jury how long it
15 took the motor to get to 167 degrees.

16 A 14.5 minutes.

17 Q And you wanted to talk about some higher temperatures,
18 so I pulled out another one because I thought you might.

19 A All right.

20 Q We'll go to D10, which is the October 4 testing. And,
21 unfortunately, I was not prepared enough to bring a copy for
22 you. So I'm going to read it to you and then I'm going to
23 ask you if it sounds right to you. Although you can see it
24 on the screen in front of you. Bates number 244. This is
25 one of those higher temperatures you wanted to see, right?

1 A Correct.

2 Q And this one also, both of these motors also passed the
3 locked rotor test, didn't that?

4 A They did.

5 Q They passed, the top one passed 6 degrees under Nutone's
6 200 degree requirement, right, or limit?

7 A Correct. It was on the border of making it.

8 Q Of Nutone's. But it certainly wasn't on the border of
9 UL's. UL's is another 25 degrees after that?

10 A It is.

11 Q And the second one didn't get up to within 20 degrees of
12 that. That one opened at 177?

13 A It did.

14 Q How long did it take this motor to get to 194 degrees?

15 A 17 minutes, according to this.

16 Q 17 minutes. And how long did it take the motor to get
17 up to 177 degrees C?

18 A 14.5 minutes.

19 Q 14.5 minutes. And by 14.5 minutes, sir, Mrs. Suffredini
20 and her children are already well outside that building,
21 aren't they?

22 A Apples and oranges.

23 Q Try my question. By 14.5 minutes, sir, Mrs. Suffredini
24 is already, and her children are already outside the
25 building, aren't they?

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1 A I don't know their exact exit time, but they probably
2 would have been out of the building within minutes of seeing
3 the fire in the fan.

4 Q By 14.5 minutes after she turned on the fan, sir,
5 Mrs. Suffredini and her children were out of the building,
6 weren't they? Weren't they?

7 A I believe that's correct.

8 MR. DUGGAN: May I approach, Your Honor?

9 THE COURT: Yes.

10 Q I did burden you with one of my documents.

11 A You did. I'm happy to give it back.

12 Q Mr. Lewis, thank you very much for your time. Thank
13 you, Your Honor.

14 THE COURT: Redirect.

15 *REDIRECT EXAMINATION BY MR. UNDERWOOD:*

16 Q Mr. Lewis, Mr. Duggan asked some questions about the UL
17 testing for the TCOs and motors that come off the line. Do
18 you remember that questioning from Mr. Duggan?

19 A I do, yeah.

20 Q Now if Underwriters Laboratories was coming in for
21 regular checks of either the TCO manufacturer or the motor
22 manufacturer, do you have an understanding of how the type of
23 TCO that you saw had a crack in it could possibly make it
24 through --

25 THE COURT: Would you start again with your

1 question?

2 Q You were asked some questions about the UL testing
3 process and the monitoring process and the manufacturing
4 that's done by both the TCO manufacturer and Broan-Nutone.
5 Do you remember those questions by Mr. Duggan?

6 A I do.

7 Q Now in this case you've rendered an opinion that you
8 think that the TCO was cracked during the manufacturing
9 process. Did I understand that right?

10 A Yes.

11 Q Do you have an understanding or opinion regarding how a
12 TCO with that sort of cracking can make its way through the
13 UL monitoring process?

14 A Sure. So what would happen is that the TCOs are
15 essentially shipped. They're made by Tamura, the
16 manufacturer of those. And they're essentially shipped in
17 boxes. And so when you get them it's a little small box with
18 a couple of leads like these paperclips sticking off from the
19 bottom. Right. And so you've got this long lead that you
20 can bend and essentially apply a lot of force, it's a lever
21 force, it's like using a crowbar to lift something up, but
22 you would have leads like that.

23 So it's possible that the cracking occurs during
24 handling of the TCO at Tamura or when Jakel receives it. But
25 the more likely possibility is what they have to do is they

1 literally, like I show you here with this paperclip, they
2 have to bend the TCO. If my fingers represent the TCO and
3 this is a lead coming off of it, if I bend it and if I bend
4 it too close to the edge, I could crack that TCO. And so
5 that happens during the manufacturing process.

6 And then what they would do is they would end up
7 crimping on a connector and a wire and this would get slipped
8 into it. There is a little bag that it kind of goes around
9 and it's supposed to then lay against the winding. So unless
10 somebody cut open the motors to inspect for cracks, you may
11 not see it.

12 Q Now with regard to the analysis or auditing that's done
13 by UL, through your understanding do they examine every
14 single thermal cutout that comes out of the manufacturing
15 process?

16 A No. It's like everything you sample. So they're just
17 taking a sample and trying to ensure that, you know, either
18 Broan or Tamura or Jakel are building to the specifications.
19 But that doesn't mean every motor was inspected. That
20 certainly doesn't mean like this motor was ever inspected or
21 anybody really looked at it after it was manufactured.

22 Q Now there was some questioning from Mr. Duggan earlier
23 which related to the testing that UL performs on the various
24 components. Do you remember that question?

25 A Yes.

1 Q And I think there was some discussion between you and
2 Mr. Duggan regarding the difference between a new fan and an
3 old fan. Do you remember that question?

4 A I think so, yeah.

5 Q Now is there a difference in the type of testing or the
6 results in the testing that would occur depending on whether
7 you tested a fan right off the line as opposed to a fan
8 that's been in place for six or seven years?

9 A Well, what happens to all things, anything, wood,
10 plastics, cellulose, if you subject them to heat they dry
11 out, they change. They do what we call pyrolysis, they break
12 down. So something new can withstand a lot more heat, a lot
13 more current than something that's been aged, oxidized,
14 heated over time subjected to water. These are things that
15 break things down. It's a physical phenomenon. It's the
16 natural chaos or decay of something. So what you see is
17 these windings and things can fail over time due to
18 progressive heat failure.

19 Q How would the testing be different on an older fan as
20 opposed to a newer fan. What would the results be likely?

21 A That's exactly what we tested when we tested the TCO on
22 an older fan and it didn't open. So if you had put that TCO
23 in the motor and run the same UL test, it would have never
24 opened. It would have just continued to get hotter and
25 hotter and hotter, you know, and at some point probably would

1 have burned up the entire phenolic, but it never would open.

2 Q Is Underwriters Laboratories a government agency?

3 A No. It's essentially a private company.

4 Q And do they do their -- do they offer their services for
5 free?

6 A No. You pay to have UL audit your system and to get
7 your UL registry.

8 Q When you say you, you don't mean me or a citizen off the
9 street, do you?

10 A No. You as in Broan and/or Jakel would pay for that
11 service.

12 Q Do you have an understanding of how much they would pay
13 in order to obtain that service?

14 A I don't. It's not cheap but I don't have an exact
15 amount.

16 Q Now, there was some additional questions regarding
17 proving your theory in conjunction with some testing. Is it
18 possible to prove your theory regarding the cause of this
19 fire without recreating the exact failure scenario in a
20 laboratory setting?

21 A Oh, absolutely.

22 Q How would you do that?

23 A NFPA 921, which is the guide that we keep talking about,
24 it's very difficult to buy a fan. If I have to go out and
25 buy a fan, there is probably literally millions of these fans

1 out there, and I would probably have to buy at least 10,000
2 fans to get a statistical representation and run them for a
3 period of seven to eight years to get a failure mode that
4 would occur like this.

5 So what I've done is we've tested the components. We
6 show what can happen to the components when they degrade and
7 age. Rather than test 10,000 fans, that's what we do. But
8 also I've got empirical knowledge of other fan failures, very
9 small localized fan failures that show the modes of failure
10 that we're talking about right here. And so I've pulled them
11 out of homes. I have them. I've got photos of them, and it
12 shows exactly what I've said.

13 MR. DUGGAN: Excuse me, Your Honor, may I see you
14 at side bar?

15 THE COURT: Yes.

16 (Sidebar discussion held on the record.)

17 MR. DUGGAN: Your Honor, I consider that a
18 violation of this Court's order on our motion in limine that
19 those things not be raised or discussed.

20 THE COURT: I thought that.

21 MR. UNDERWOOD: In regard to that one case.

22 MR. DUGGAN: No. That was in regard to all the
23 claims.

24 THE COURT: What relevance does other fans have to
25 this fan?

1 MR. DUGGAN: And now I've got a problem because I
2 can't cross-examine on this, I've not prepared for it. I
3 don't know how I can rectify this. I'm moving for a
4 mistrial. I would have addressed this in my opening
5 statement and I have no way of doing that any more. I mean,
6 I'm really angry about this. And I'm sure that this is not
7 what these guys have done. These guys are the nicest, most
8 honorable men. I don't think this same opinion of the
9 witness. I know he did that intentionally. I am now
10 horribly prejudiced.

11 MR. UNDERWOOD: He was talking specifically about
12 testing, not talking about other Broan cases in which he
13 investigated.

14 THE COURT: I got the impression he is saying I
15 formed a basis of what I know based on other testing I have
16 done. If I was going to do it right, I'd take 10,000 fans.
17 And particularly I have done testing on fans over time, other
18 fans, and the result.

19 MR. UNDERWOOD: He just said he did testing. The
20 question was before trial was the issue of other Broan
21 losses, other Broan cases. I didn't ask him a question about
22 other Broan cases.

23 THE COURT: You brought up about other manufactured
24 fans. How could that be? You're saying it's relevant and
25 proper to bring in testing on other fans other than Broans?

1 MR. UNDERWOOD: No.

2 THE COURT: What are you saying?

3 MR. UNDERWOOD: I'm asking a question, as I recall
4 the question was --

5 THE COURT: Members of the Jury, let's take about a
6 ten minute break.

7 (Jury excused for recess.)

8 THE COURT: Mr. Duggan, what part are you looking
9 for, the last couple of questions?

10 MR. DUGGAN: The last two questions and answers.
11 And specifically he says -- well, you know, Mr. Underwood
12 asked him a question about how -- I don't remember
13 specifically, how he can come to the conclusion based on
14 testing or not having tested the whole thing. He says I have
15 empirical knowledge of other fan failures that we've gotten
16 from small fans or small fires from other homes. That is
17 exactly what we dealt with in our motion in limine and that
18 is exactly the reason so we wouldn't have to be here. I am
19 now in a position that I can't rectify this.

20 MR. UNDERWOOD: Your Honor, if I --

21 MR. DUGGAN: I'm not finished. As long as the
22 Court will hear me. I would have dealt with it in my opening
23 argument or statement. And that's why we do these things, so
24 we're not in this kind of position. Now I'm horribly
25 prejudiced and I don't have any way to rectify it.

1 And it can't be, as Your Honor pointed out, that he
2 was talking about A.O. Smith Motors or some other fan,
3 because how would that possibly be relevant. This jury now
4 hears that he has empirical knowledge of all these other
5 claims. I don't know where they're from. I don't know how
6 the fire started. I don't know anything about the
7 installation. I don't know anything about the maintenance.
8 I don't know anything about the fan history of however many
9 there were. And how am I going to cross on that now? I
10 mean, I'm astounded, because I thought we had this one done.
11 So anyway, Your Honor, I move for a mistrial.

12 MR. UNDERWOOD: Your Honor, can I be heard?

13 THE COURT: Yes.

14 MR. UNDERWOOD: The only thing I would add, before
15 we review what the question and what the answer was, is that
16 during his qualification we asked Mr. Lewis, what is your
17 experience and how do you have knowledge regarding these
18 fans. And he said during his qualifications, I have a long
19 history of investigating fires involving motors and fans,
20 generally speaking. He did not say anything specifically
21 with regard to Broan-Nutone.

22 And the Court's ruling prior to the case was
23 specifically with regard to a single case, *Brides By*
24 *Demetrios*. And he did not mention at all a specific case.
25 He didn't mention at all a specific manufacturer. He is just

1 trying to explain to the jury I've been doing this for twenty
2 years, it's not as though I just fell off the turnip truck
3 and I'm doing this one case.

4 Mr. Duggan asked him questions about did you
5 recreate your scenario in the lab. He is trying to say,
6 look, I'm not limited to the lab. I can't just put aside the
7 fact that I've been doing investigations for twenty years.
8 That was my understanding of what he was saying.

9 THE COURT: Let's have Eileen read it back.

10 (The record was read back by the court reporter.)

11 MR. UNDERWOOD: Your Honor, I think that's
12 consistent with what we elicited from him when he was being
13 qualified, which is he has a long history of working with
14 forensic investigation with these types of motors. He didn't
15 say a specific one. He didn't say Broan. He didn't say this
16 fire and it was caused by this.

17 THE COURT: He said he has empirical knowledge
18 based on the other things he has done that supports his
19 decision in this case.

20 MR. UNDERWOOD: Your Honor, this is background. He
21 is not saying -- he didn't say I investigated five fires that
22 were caused by Broan and they looked exactly like this. He
23 didn't open up that. It's not going to be a trial within a
24 trial, which I think is what the essence of the Court's
25 ruling was on the *Brides By Demetrios*.

1 THE COURT: Is your position still the same?

2 MR. DUGGAN: It is, Your Honor. I'm sorry, I
3 really am. I'm totally at a loss, which is not normal.

4 MR. UNDERWOOD: Your Honor, the ruling was
5 specifically with regard to other losses, specific losses
6 involving this defendant. Mr. Lewis did not mention the
7 defendant at all. He didn't mention a specific loss.

8 THE COURT: Well, he has already said that he never
9 did find a case, in his testimony he has never been able to
10 find a case where in Broan that there was a malfunction. I
11 think he did say that, didn't he?

12 MR. DUGGAN: He testified that he was never able to
13 get ignition, the fact that he has been running the test for
14 several years.

15 THE COURT: That's what this case is about,
16 ignition.

17 MR. DUGGAN: That's exactly right. But it's not
18 ignition in all these other cases in which he has empirical
19 knowledge. I mean, how could I even take voir dire or
20 discovery or anything? And now the jury is left with,
21 without a doubt the jury is left with the impression that he
22 has a bunch of other cases from a bunch of other homes where,
23 gee, people might get hurt. That I know it sort of reminds
24 me of a line in Hamlet, really. I don't know what else to
25 say, Your Honor, but I think you have to have a mistrial

1 here, I really do.

2 MR. UNDERWOOD: Your Honor, when we qualified him,
3 he explained that he had been working for thirty years
4 investigating fires involving appliances, involving all sorts
5 of different things. He never mentioned specifically the
6 cases that he worked with involving Broan. Although there
7 may have been many, no mention of that. He mentioned
8 appliances in general. We can't just wipe his mind at this
9 point and say, okay, you're going to start fresh.

10 THE COURT: We're not trying to wipe his mind.
11 Trying to just don't say things that are prejudicial in this
12 case.

13 MR. UNDERWOOD: That wasn't prejudicial. And again
14 we're talking about --

15 THE COURT: He has empirical evidence of this fan.

16 MR. UNDERWOOD: He said fans. He did not say this
17 fan. Again, if I heard that correctly from what the court
18 reporter read back to us, he said I have empirical knowledge
19 from a history of dealing with fans and I'm using that to
20 come to these conclusions. And Mr. Duggan opened up this
21 issue because he asked him specifically, have you been doing
22 testing and did that support your conclusion. And I'm trying
23 to simply say you don't have to recreate in a lab setting,
24 you can have your experience. NFPA specifically says that.

25 THE COURT: Read that one more time, please.

1 (The record was read back by the court reporter.)

2 THE COURT: Read that one more time.

3 (The record was read back by the court reporter.)

4 THE COURT: That's pretty poignant about this case,
5 isn't it? Exactly what we've talking about here.

6 MR. UNDERWOOD: Your Honor, the specific motion in
7 limine that came up before trial centered on other losses.
8 And the only loss that we were mentioning was the *Brides By*
9 *Demetrios* case involving a Broan-Nutone fan. His testimony
10 didn't mention Broan-Nutone. It didn't mention *Brides By*
11 *Demetrios*. It didn't mention any specific loss. All he says
12 generally is I have empirical knowledge because of my
13 experience with fans. That's exactly what we qualified him
14 on. That's what almost every witness has testified here so
15 far in this trial, is that they have experience with fan
16 fires. And he talked about experience with appliance fires
17 and all sorts of other things.

18 THE COURT: He is not talking about other fires.
19 He is talking about right now fans and the issue before this
20 jury, that's it.

21 MR. UNDERWOOD: He didn't say this fan though; he
22 just said fans.

23 THE COURT: He said the issue -- read it one more
24 time, please.

25 (The record was read back by the court reporter.)

1 MR. UNDERWOOD: So, Your Honor, I think that's the
2 mode of failure, and that's the question that Mr. Duggan was
3 relating to; can you create the mode of failure in a
4 laboratory setting. And he is saying, look, I don't have to
5 recreate it in a laboratory setting, that's the question
6 about the mode of failure. I've seen the mode of failure,
7 I've been doing this for 25 years.

8 Mr. Duggan opened up the door on this by saying
9 your theory doesn't make any sense because you haven't
10 recreated it in a lab. He is saying I don't have to do it in
11 lab, I have experience.

12 MR. DUGGAN: That's exactly the reason that we had
13 the motion in limine. It is exactly the issue. And I did
14 not open that up at all. It has nothing to do with that.
15 When he said I have empirical evidence of these fans and he
16 took the fan -- he took fan, which is an exemplar fan, a 696N
17 R02, and he held it up and he showed it to the jury, I would
18 have to buy 10,000 of these fans. And the jury is left with
19 absolutely no doubt about what he is talking about.

20 And I don't know what happened in those other
21 cases. I don't know what happened in those other fires. I
22 don't know how they were installed. I don't know what the
23 electrical circuitry was. We would have been taking
24 discovery for ten years on this. And that's exactly why we
25 did this.

1 And so, I mean, Your Honor, I think Your Honor's in
2 support of this, it was absolutely planned. And I also have
3 to say that I don't think that this had anything to do with
4 Mr. Underwood and Mr. Paolini, who are honorable gentlemen.
5 And I mean that. But I also believe that that was no
6 accident by this witness.

7 MR. UNDERWOOD: If I can add one last thing?

8 THE COURT: Yes.

9 MR. UNDERWOOD: When he said I have to buy 10,000
10 of these fans, he is simply responding to what Mr. Duggan had
11 asked him about why you can't recreate this scenario in a
12 lab. He is saying if you wanted me to try to recreate this
13 scenario, I would have to buy 10,000 Broan fans to do it.
14 When he was referring to these fans, he is talking about --
15 when he said these fans, he is referring to what he would
16 have to purchase in order to redo the laboratory setting. He
17 didn't say I've investigated 6,000 fans like this one, this
18 Broan fan, and come to the conclusion there were defects
19 because of what I've seen in the other cases.

20 THE COURT: I'm going to take a recess.

21 (Recess.)

22 (Reconvene at 3:20.)

23 THE COURT: Mr. Duggan, I'm going to reserve at
24 this time on your motion. I intend to give a curative
25 instruction. Counsel, if you agree with this. Mr. Lewis

1 testified he had empirical knowledge of other fan failures
2 that support his theory. Disregard all that testimony. It
3 is not relevant to this case. In fact, this witness has no
4 empirical knowledge whatsoever of any fan failure of the 696
5 model Broan as is alleged in this case.

6 MR. UNDERWOOD: Your Honor, if you could --

7 THE COURT: Is that true?

8 MR. UNDERWOOD: Empirical knowledge.

9 THE COURT: Of the 696 model as it is alleged in
10 this case.

11 MR. UNDERWOOD: I think if we can adjust that so
12 that is says he has no knowledge or presenting no testimony
13 relating to 696 cases, other 696 cases.

14 MR. DUGGAN: That doesn't do it. Actually, Your
15 Honor -- I'm sorry, are you finished?

16 MR. UNDERWOOD: That's my concern, Your Honor.

17 THE COURT: Is it okay this way or not then?

18 MR. UNDERWOOD: Well, Your Honor, if that's the
19 curative instruction, I think that will be fine with us.

20 MR. DUGGAN: Your Honor, I actually would ask that
21 the Court also tell the jury that the parties were instructed
22 that these matters were not to be given out and not to be
23 addressed. And the reason is that it's two reasons; one,
24 it's unfair, and second, it would be a lot longer for them
25 that we would be in trials within trials and we would be here

1 for weeks.

2 But I think the Court has to instruct, because
3 otherwise, the problem now, Your Honor -- and I appreciate
4 Your Honor's attempt, I really do, but the problem now is by
5 giving a curative instruction like that, we just highlighted.

6 THE COURT: Well, I'm going to have faith in the
7 jury that they'll be able to follow it and disregard it.

8 MR. DUGGAN: I have the utmost faith in the
9 American jury, I have to tell you that. I think this is an
10 honorable institution. But when a witness, when a witness
11 just flaunts a federal court order, I really get upset about
12 it. And to my detriment and to my client's detriment, I'm
13 very upset about it. I think this has put Broan-Nutone in a
14 horrible prejudicial position, which we cannot cure right
15 now.

16 So I ask that Your Honor instruct the jury that you
17 had given a previous order, the parties had addressed this
18 issue. And I also ask if you would, Your Honor, give me the
19 rest of the day to do a little bit of legal research on this
20 issue. It's not going to lengthen the trial more really than
21 we already had intended anyway. I really need some time to
22 think about this. Because I really right now, as you
23 probably can gather, I'm a little bit upset.

24 THE COURT: Listen, I was a trial lawyer. You get
25 upset, you suck it up and move on.

1 MR. DUGGAN: I understand, you're right. But if I
2 could have, it's only going to be another hour.

3 THE COURT: I want to get through this witness.

4 MR. PAOLINI: I was actually before Your Honor
5 ruled on any issues going to ask for actually a very similar
6 request, because it is obviously -- even on what the cure
7 would be, because I'm not sure that saying he has never had
8 this type of loss specifically, I don't know if that's
9 actually accurate, because he may have. And that's not what
10 he said. So I don't know.

11 THE COURT: I read what he said. He ties it right
12 into this case and it supports what he is saying here.
13 That's what he says.

14 MR. PAOLINI: We're fine with the instruction.

15 THE COURT: Would you rather I not give an
16 instruction at this time, Counsel, both of you?

17 MR. DUGGAN: Can I have just a minute? My client's
18 in the back.

19 THE COURT: Sure. Does your witness have knowledge
20 of failures of Broan fans, the 696 model, as it is alleged
21 here, the failure you're claiming here?

22 MR. UNDERWOOD: I don't think it's the same, this
23 exact same one.

24 THE COURT: Well, then I'm not wrong when I say,
25 when I tie it to the 696.

1 MR. PAOLINI: That was the only question I had. I
2 didn't know if that's -- the cases that were specifically
3 referenced in the motion in limine was the only issue,
4 because there was specific Broan cases that were subject to
5 the motion.

6 MR. DUGGAN: There was a number of different
7 things. Specifically there is *Green* and *Brides of Demetrios*,
8 and then there is also another one addressed to all other
9 potential, all the other claims or other fires. And in Your
10 Honor's order you pointed out that would end up with trials
11 within trials and we would be prejudiced and that would serve
12 no probative value.

13 MR. UNDERWOOD: Your Honor, the curative
14 instruction could be, could specifically state you are to --
15 to the extent that the witness has said anything about other
16 fans, other investigations, you are to disregard it as based
17 upon what his statement just was.

18 Your Honor, the other issue, we've had the go back
19 and forth and we've had to read this transcript I think four
20 times to us to try to figure out what he said. I don't think
21 that the jury really picked up on what he said.

22 THE COURT: I don't know. The record is the record
23 is what it is. You've got to assume that the jury did pick
24 up on it.

25 MR. UNDERWOOD: I don't think that the jury would

1 assume on what was said that this is referring to these.

2 MR. DUGGAN: I think you certainly can. I think
3 particularly when the witness was waving in front of the
4 jury, I'd have to buy 10,000 of these fans. He pointed to it
5 and he put it in front of the jury. What are they going to
6 take out of that? I mean it's --

7 THE COURT: Well, that was him in response to what
8 he would have -- he obviously didn't do the testing, here's
9 the reason why. There is 10 million of them out there, or
10 millions, I would have to take 10,000, it would take me seven
11 to eight years to do it, to do the testing. And that's why
12 then he goes back to the empirical knowledge.

13 MR. DUGGAN: Anyway, Your Honor, I simply ask, I'm
14 okay with the proposed order as long as Your Honor would also
15 instruct the jury that the parties have been instructed not
16 to get into this and any such issues.

17 MR. UNDERWOOD: We have to define what that is.

18 MR. DUGGAN: Because otherwise the problem from my
19 standpoint is, of course, now all we've done is highlight,
20 make a bad situation even worse for Broan.

21 MR. UNDERWOOD: Your Honor, the concern I would
22 have is Mr. Duggan's suggested instruction would suggest that
23 we did something wrong.

24 THE COURT: Well --

25 MR. DUGGAN: No, the witness did.

1 THE COURT: Well, your witness did I think. He
2 buttressed his testimony by bringing in his outside
3 investigations and knowledge and saying it applied to what he
4 said here.

5 MR. UNDERWOOD: But --

6 THE COURT: I didn't say you did it. He did it.

7 MR. UNDERWOOD: I understand.

8 THE COURT: So you want me to instruct them that
9 the witness -- the parties were instructed not to go into
10 outside things? I think I'm satisfied with what I'm going to
11 say. You may have an exception. Bring the jury in, Joe.
12 Can you have the witness come back in?

13 MR. UNDERWOOD: Before the jury comes in, can we
14 make sure, I don't want this to happen again.

15 THE COURT: All right. Hey, Joe.

16 MR. UNDERWOOD: Not that anything happened but I
17 just want to steer clear of any issues. Can we go talk to
18 the witness?

19 THE COURT: No. Bring him in, have him sit down
20 here.

21 (Witness present.)

22 THE COURT: Let me ask you a question. Do you have
23 any empirical that there has been failures of the 696 model
24 Broan fan as is alleged in this case?

25 THE WITNESS: From other cases? Other cases or

1 this case?

2 THE COURT: From your knowledge of the 696.

3 THE WITNESS: Yes.

4 THE COURT: You do?

5 THE WITNESS: Yes.

6 THE COURT: All right. You really were out of line
7 in going outside and talking about other cases you had and
8 saying how that therefore supports your knowledge in this
9 case, because you're bringing in other matters that I had
10 already ruled could not come in. Bring the jury in, please.
11 Don't mention any other case.

12 THE WITNESS: Understood.

13 THE COURT: You're here for this case.

14 (Jury present.)

15 THE COURT: Members of the Jury, we took a recess
16 to talk to the lawyers. This witness testified toward the
17 end here that he had empirical knowledge of other fan
18 failures that support his theory in this case. I want you to
19 do this. Disregard everything he said along those lines. It
20 has nothing whatsoever to do with this case and what happened
21 in Victor, New York with that 696 Broan fan. He has been at
22 this for years and years, that's wonderful. The fact is he
23 is talking about this case and that's the only issue. So
24 just disregard that as far as anything else. Go ahead. .

25

1 BY MR. UNDERWOOD:

2 Q Mr. Lewis, you had some questions regarding your
3 recreation of the interior of the TCO that you found from the
4 two year old bathroom. Do you remember that questioning?

5 A I do, yes.

6 Q How did you go about recreating the conditions that you
7 believed existed inside the TCO, and specifically with regard
8 to the connection at all between the two leads that were
9 inside the TCO?

10 A Yeah, there were marks on the inside where you could see
11 where the leads actually layed on the phenolic box so you
12 could reposition that, and then you could match those
13 positions again with the position of the other leads to come
14 up with what the most probable lead distance was for that
15 gap.

16 Q And how did you go about doing that?

17 A Like I said, we compared the other units, the other TCOs
18 that we had with that.

19 Q What is the difference between new and old lint?

20 A Well, something that's new is scraped initially off of
21 your clothes, so that material is not pyrolized, it doesn't
22 have the ability to ignite easier. So something that's
23 pyrolized, like you put something in the oven, turns brown so
24 therefore it has an easier chance of igniting.

25 MR. UNDERWOOD: Thank you, Mr. Lewis. Thank you,

1 Your Honor.

2 THE COURT: Recross?

3 MR. DUGGAN: Nothing further for this witness, Your
4 Honor.

5 THE COURT: You may step down. Members of the
6 Jury, we're going to recess at this time for the day. I'll
7 see you tomorrow morning at 9:00. Remember your rules of
8 conduct as jurors and we'll see you tomorrow. Is there
9 anything you need in the jury room? Everything's okay?
10 We're in recess.

11 (Court adjourned at 3:35.)

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C E R T I F I C A T I O N

I, EILEEN MCDONOUGH, RPR, CRR, Federal Official
Realtime Court Reporter, in and for the United States
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EILEEN MCDONOUGH, RPR, CRR
Federal Official Court Reporter

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

-----x
PHILADELPHIA INDEMNITY INSURANCE COMPANY,

Plaintiff,

vs.

12-cv-181

BROAN-NUTONE, LLC,

Defendant.
-----x

JURY TRIAL - June 26, 2014 - Volume IV

100 South Clinton Street, Syracuse, New York

HONORABLE NORMAN A. MORDUE

United States District Judge, Presiding

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1 (Court convenes at 9:20.)

2 THE COURT: The clerk told me you wanted to make a
3 motion before the jury comes in?

4 MR. DUGGAN: I can't do anything yet until my
5 friends over here do something.

6 MR. PAOLINI: Your Honor, the plaintiff rests,
7 subject to we've agreed that we're going to work out the
8 exhibits and make sure that everything is squared with that.
9 We had some stipulations but I think there's an agreement
10 among counsel there is no dispute that Philadelphia Insurance
11 Company has the right to subrogate this matter. Subject to
12 that, the exhibits, introduction of exhibits, the plaintiff
13 rests.

14 THE COURT: Okay.

15 MR. DUGGAN: Yes, Your Honor. I move for a
16 directed verdict on all counts. And the motion is based upon
17 this. It's based on Mr. Lewis' testimony yesterday.
18 Mr. Lewis said, we agreed with 100 percent of what he said,
19 and this is the only thing before the jury, that you had an
20 operating motor properly operating with a turning impeller,
21 two witnesses who heard the impeller turning, no evidence of
22 bearing failure, no evidence of any type of a problem with
23 the bearings.

24 And under those circumstances there is no
25 scientific basis and he provided no scientific basis for

1 saying it could get anything to ignite. On cross-examination
2 even he had to admit two things. One is that the ignition
3 point of the cellulose that he said may have been present,
4 although it wasn't present on the picture that he brought on
5 board for the jury, is 232 degrees Centigrade. And the
6 operating temperature of this motor is 90 degrees Centigrade.
7 And under those circumstances there's no way that you can get
8 from this, what you see with an operating impeller, to
9 anything igniting on the lint. And without that the
10 plaintiff cannot and has not met its burden of proof of
11 causation. So, therefore, I move for a directed verdict.

12 THE COURT: All right.

13 MR. UNDERWOOD: Thank you, Your Honor. Mr. Lewis
14 explained at length that the only explanation for the cause
15 of the fire was an electrical failure deep inside the core of
16 the motor. He identified evidence of a failure on the I bar.
17 He was not questioned about that issue at all on
18 cross-examination. That issue is undisputed.

19 Our witnesses, as Your Honor will recall, talked at
20 length about arc mapping and the explanation that the only
21 source of the arcing that they're seeing in the motor is if
22 it suffered a malfunction and ignited the fire. Mr. Lewis
23 further testified that there was a malfunction of the thermal
24 cutout, which is identified as the sole safety feature in
25 this motor, and that if the thermal cutout does not operate

1 as it's designed to do, that you will get runaway heating and
2 ignition or you get failures on the windings and eventually
3 ignition of the fire.

4 As I said, the witnesses have testified at length
5 that the only reasonable explanation for the cause of the
6 fire is a failure within the very core of that motor, and
7 that if a fire traveled from any other location to the
8 location where this fan was, power would be shut off and
9 there would be no possibility of arcing deep inside the
10 windings where that I bar is located.

11 Therefore, Mr. Lewis and the other witnesses have
12 established arc mapping and the scientific testimony that the
13 fire originated within the fan. Mr. Lewis testified at
14 length about the various defects. Therefore, we believe the
15 defendant's should be denied.

16 THE COURT: I'm going to reserve. Ready to go?

17 MR. DUGGAN: Yes, Your Honor.

18 THE COURT: Bring the jury in, Mike.

19 MR. DUGGAN: We have one other issue that
20 Mr. Barrer wants to --

21 MR. BARRER: Just very briefly. In view of the
22 Court reserving on the motion for directed verdict, we move
23 to strike the damages for the lost rent for 14 Framark Drive,
24 LLC, on three separate grounds. One, there has been no
25 testimony as to what the fair market rent should be for that

1 property. What Ms. LoMonaco said, she paid inflated rent
2 because she wanted to have a 15 year mortgage instead of a
3 thirty year mortgage, and there is an acknowledgment it was
4 too high. We don't know what it should have been, so it
5 would be speculative for the jury to render any verdict on
6 that element.

7 Second, 5-703 of the New York General Obligations
8 Law, New York Statute of frauds. And for a lease of this
9 term, it must be in writing in order to be enforceable. So
10 there was no legal obligation to pay and, therefore, it's a
11 gratuitous payment by Philadelphia.

12 And third, most importantly, Ms. LoMonaco testified
13 that the Jack 'n Jill corporate entity, other divisions of
14 Jack 'n Jill paid this rent to 14 Framark Drive, and
15 Mr. Wright had no idea whether that was so. And he conceded
16 that she would know better than he did who paid what. So,
17 therefore, we move to strike that element of the damages.
18 Not the Jack 'n Jill lost profit, the 14 Framark Drive, LLC
19 rent damages. Thank you.

20 MR. UNDERWOOD: Your Honor, as Your Honor recalls,
21 we argued this issue to a certain extent after Ms. LoMonaco
22 was on the stand. She indicated that she wasn't quite sure
23 where the money had come from. Mr. Wright testified that he
24 reviewed their documents, indicated very clearly that the
25 money had come from the insurance company and that the 14

1 Framark entity had suffered a loss, and he quantified that
2 for the Court and for the jury.

3 Therefore, in terms of the obligation, I think that
4 would be an issue more in terms if one of the parties wanted
5 to enforce it against the other. It's clear from
6 Ms. LoMonaco's testimony that there was an agreement. She's
7 the person who's involved with both companies, agreement
8 between the two of them that the rent be paid between the two
9 of them and there was evidence that was done. So, therefore,
10 we ask that the defendant's motion be denied.

11 THE COURT: I'm going to reserve.

12 (Jury present.)

13 THE COURT: Good morning. At this point in time
14 we're ready to proceed with the plaintiff's case.

15 MR. PAOLINI: Your Honor, the plaintiff rests.

16 THE COURT: You rest, okay. What that means,
17 Mr. Paolini said he feels that plaintiff has established
18 their case satisfactory for you to resolve it in their favor.
19 Now it's the opportunity of the defense if they wish to call
20 any witnesses.

21 MR. DUGGAN: And, Your Honor, I renew the motion.

22 THE COURT: I just wanted him to rest in front of
23 the jury. You already rested in court, but I just wanted him
24 to rest the case in front of the jury.

25 MR. PAOLINI: Your Honor, we obviously rest it

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1 subject to what we discussed.

2 THE COURT: We had motions about it.

3 MR. PAOLINI: Yes.

4 MR. DUGGAN: And yes, Your Honor, Mr. McConnell.

5 THE CLERK: State your full name and spell your
6 last name for the record.

7 THE WITNESS: Jon McConnell, M-C-C-O-N-N-E-L-L.

8 JON MCCONNELL, called as a witness and being
9 duly sworn, testifies as follows:

10 DIRECT EXAMINATION BY MR. DUGGAN:

11 Q Good morning, Mr. McConnell.

12 A Good morning.

13 Q Could you introduce yourself to His Honor and the
14 jurors?

15 A My name is Jon McConnell. I was chief of the Victor
16 Fire Department at the time of the call.

17 Q And that was when?

18 A 2009, September.

19 Q And you're talking about the fire at the Jack 'n Jill
20 Daycare Center?

21 A Yes.

22 Q Mr. McConnell, where do you live?

23 A I live at 15 Winston Drive in the Village of Victor.

24 Q How old are you, sir?

25 A I'm 46.

1 Q You said you were the chief of the Victor Fire
2 Department in 2007?

3 A Yes, I was.

4 Q How long did you hold that post?

5 A At the time I was starting my second term, which lasted
6 three years previous to that. I was chief for four years.
7 And I was not chief for three years in the middle there.

8 Q Is this a rotating position?

9 A It is an annually elected position.

10 Q And can you tell me, Chief, if I may call you that, how
11 long were you -- is the Victor Fire Department a professional
12 or volunteer fire department?

13 A We are professionally volunteer. We are 100 percent
14 volunteer but we take our training serious.

15 Q How long have you been on the Victor Fire Department?

16 A I have been a member since December 1989.

17 Q Can you tell us a little bit about that training that
18 you were telling me about that you take seriously?

19 A We train formally as a department every Monday night.

20 THE COURT: Are you still a firefighter?

21 THE WITNESS: Yes, I'm still very active in the
22 fire department.

23 Q You've been there for now 15 years or more?

24 A I've been there 22 years.

25 Q Oh, 22 years?

1 A 22, 23.

2 Q And what types of training did you have before you
3 joined the Victor Fire Department?

4 A I was a volunteer in North Carolina two years
5 previously, plus I had multiple state courses, and we
6 continue our own in-house training consistently.

7 Q And are you still a member of fire department today?

8 A Yes, I am.

9 Q Can you tell me, sir, roughly how many fires have you
10 responded to over the course of your 22 years with the Victor
11 Fire Department?

12 A I never really thought about that. Quite a few,
13 probably thirty, forty.

14 Q And when you were chief when you were on site, what were
15 your duties and responsibilities?

16 A My duties and responsibilities were to establish that we
17 had enough manpower on scene to accomplish the goals, to
18 establish tactics to extinguish the fire, and then ensure
19 that if it was an actual fire, that I called to have an
20 investigation done as far as what happened with the fire.

21 Q When the chief of a fire department such as yourself is
22 on scene, are you known as the incident commander?

23 A Yes, I am.

24 Q And what does that mean?

25 A That means I'm in charge of the scene.

1 Q Now, Chief, in September, on September 17th of 2009, did
2 you become aware of a fire at the Jack 'N Jill Daycare Center
3 in Victor, New York?

4 A Yes.

5 Q How did you get that call?

6 A Over our pagers we were alerted that we had a fire.

7 Q Where were you when you were paged for the call at the
8 Victor Jack 'n Jill Daycare Center?

9 A I was at my residence.

10 Q Could I ask that D2 be put on. Chief, I've just put in
11 front of you and the Court what we previously marked as
12 Exhibit D02, down there on the right-hand corner?

13 A Okay.

14 Q Do you recognize what this is?

15 A Yes. This is an overview of the central portion of the
16 Village of Victor.

17 Q Does this map show where the fire department, fire
18 station is?

19 A Yes. It's at the start of the blue line.

20 Q I think you can just put your finger right there and
21 show us.

22 A Right here, this is 34 Maple Avenue, that's where the
23 fire hall is.

24 Q Does the map also show where the Jack 'n Jill Daycare
25 Center is?

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1 A Yes. That would be this area right here.

2 Q How long is it from the fire department to the Jack 'n
3 Jill Daycare Center?

4 A Probably just around half a mile at the most.

5 Q And where is your house? Is your house depicted on --

6 A My house is just off of the map. It's just off of this
7 by about 500, 600 feet.

8 Q So do you remember at what time you received the page
9 for the fire?

10 A I believe it was right around 5:00 or just before that.

11 MR. DUGGAN: May I approach, Your Honor?

12 THE COURT: Yes.

13 Q Chief, I'm going to show you what we've marked earlier
14 as Exhibit D4.

15 A Okay.

16 Q Do you recognize what that is?

17 A Yes. This would be the radio run sheet from the fire
18 dispatcher's office.

19 Q For the fire involved at the daycare center?

20 A Yes, sir.

21 Q Now on D4 did your car have a particular number?

22 A Yeah, my designation down at the bottom would be the
23 third down, F270.

24 Q Over on the left-hand side?

25 A On the left-hand side, yes.

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1 Q So the designation, first designation 27, can you tell
2 the jury what that is?

3 A That is our fire department. That was the initial
4 dispatch time.

5 Q In other words, for the Victor Fire Department that
6 means 27?

7 A That's Victor, yes.

8 Q And then the number 8 underneath that, is that a
9 different fire department?

10 A That would have been mutual -- automatic mutual aid.
11 That would have been Farmington Volunteer Fire Department.

12 Q And the next one down, F270, that is yours as the chief?

13 A That is my chief car designation, yes.

14 Q And what time were you called? What time?

15 A 32 seconds after 5:00.

16 Q Does this show what time you arrived on the scene?

17 A Yes. 1704.

18 Q When you arrived on the scene, can you tell His Honor
19 and the jurors what it was that you saw?

20 A As I was approaching the scene, the first time I saw the
21 building coming down School Street, there was a lot of smoke
22 coming from the building. It was a lighter white to light
23 gray color.

24 Q Can I interrupt you there, Chief, for a second?

25 A Yes.

1 Q Let's go back, if we could, to Exhibit D2, the map.
2 Because you were talking about School Street?

3 A Uh-huh.

4 Q Can you show the jury where School Street is on the map?

5 A School Street is right along here.

6 Q I have to tell you, Chief, for all the witnesses we've
7 had, you are, maybe we can stipulate, the most effective at
8 using that. Yeah. So you came down School Street toward the
9 Victor Jack 'n Jill Daycare Center?

10 A Yes, sir.

11 Q And you were telling us that you observed some smoke.
12 Where were you when you observed smoke coming out of the
13 building?

14 A I was just about in this area here. Oops, that's my
15 hand. Right there. Because of the trees that were to the
16 left of that point, I wasn't able to see the actual structure
17 at that point.

18 Q Just as you got past the trees as you were heading to
19 the structure, you were able to see smoke coming out of the
20 building?

21 A That's correct.

22 Q And you said that smoke was what color?

23 A It was light color smoke. It was -- wasn't completely
24 white, but it wasn't gray at the point.

25 Q And about what time was it that you actually were on the

1 scene?

2 A It was four minutes into the call.

3 Q So by the --

4 A 1704.

5 Q So by the time four minutes into the call, you were
6 already seeing white smoke coming out of the building before
7 you even arrived?

8 A That's correct.

9 Q What happened next?

10 A Well, as I continued there's a Stop sign right in this
11 area, right here at the intersection. And when I was at that
12 point as I was clearing the intersection, I looked back at
13 the building and the smoke had changed to a brown-ish color
14 and became a bit more profuse. And from that point I turned
15 into the parking lot of the Jack 'n Jill Daycare Center and
16 it had transitioned once again into heavy black smoke.

17 Q Was that when you arrived at the scene it turned into
18 heavy black smoke?

19 A That's correct.

20 Q And that was did you say four minutes past 5:00?

21 A Just past four minutes, yes.

22 Q Now I'm going to show you what we've marked as
23 Defendant's Exhibit D01. You can clean the points off there
24 if you hit the lower left hand corner.

25 A Beautiful.

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1 Q Do you recognize, Chief, what is shown in D01?

2 A Yes. That is the structure very shortly after I
3 arrived, within a minute.

4 Q Does this fairly and accurately depict the way the
5 structure looked within a minute after you arrived at the
6 daycare center on September 17 of 2009?

7 A Yes, sir, it does.

8 Q Does this picture D01 contain or show where your car
9 was?

10 A Yes, it does.

11 Q Can you circle?

12 A Right there.

13 Q As we look at the picture, the vehicle on the lower
14 left-hand corner is your chief's car?

15 A Yes, it is.

16 Q There is also another car in this picture. Whose is
17 that?

18 A This vehicle here would be my first assistant chief at
19 the time.

20 Q And his name was?

21 A Phil Lavery.

22 Q And was this taken before any of the fire trucks showed
23 up?

24 A That was within thirty seconds of the first truck
25 arriving on the scene, the ladder truck.

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1 Q That would be about 5:05?

2 A Yes, it would be that time.

3 Q Can you tell me, Chief, when you arrived at the scene
4 and you saw what's on Exhibit D01, could you see what part of
5 the building the heavy black smoke was coming out of?

6 A At the time it was -- it just appeared to be the roof
7 structure.

8 Q Up on top of the roof?

9 MR. PAOLINI: Objection. Leading, Your Honor.

10 THE COURT: Overruled.

11 A I believe it was just coming from the roof structure.
12 The majority of the smoke's coming from the middle of the
13 structure.

14 THE COURT: The middle did you say?

15 THE WITNESS: That's what it appears from the
16 picture here.

17 Q Can you refer to Exhibit D02, the run sheet?

18 A Yes. D04.

19 Q Yeah. When you arrived did you report to the
20 dispatcher?

21 A Yes, I did.

22 Q And what did you report to the dispatcher?

23 A I reported that I arrived on the scene. Probably gave a
24 description of the building and said that I had heavy smoke
25 showing and declared a working fire.

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1 Q At some point did you declare also that there were
2 flames through the ceiling, through the roof?

3 A Yes, I did. I think it was about the time that the
4 first truck arrived and started to get breakthrough, just on
5 the back side of the peak.

6 Q And that would have been on the north side of the
7 building? In other words, the other side from what you can
8 see from the parking lot?

9 A Yes.

10 Q And about what time was that?

11 A Probably 5:05, sometime around that time.

12 Q So after five minutes past five and you had observed
13 open flames coming through this, the roof structure, what did
14 you do?

15 A I called for additional support at the scene. I
16 asked --

17 Q Why did you call for additional support at the scene
18 after you saw the fire coming through the roof?

19 A Because I had declared a working fire, I knew I had one
20 truck on the road and I would need more manpower to
21 effectively handle the situation.

22 Q And so is this part of the mutual aid system?

23 A We automatically had a second crew coming out of
24 Farmington, but I also wanted to get a FAST team in place.

25 Q Could you tell the jury what a FAST team is?

1 A A FAST team is a team that we designate just in case
2 there is a firefighter that goes down in the building, gets
3 trapped in the building, they're just there specifically for
4 the purpose to rescue our people.

5 Q And who was the FAST team that showed up?

6 A I can't remember right off the top of my head. It's in
7 some of the documentation I had, but I don't have it with me.
8 It was either Fishers Fire Department or Egypt, I can't
9 remember which one of them that I assigned that task during
10 the day.

11 Q Now after you called for the FAST team, what did you do
12 next?

13 A I spoke with the initial attack team and we went over
14 our initial tactics first that I wanted them to try and find
15 the seed of the fire and put the fire out through the front
16 door and we were going to vent through the back window at the
17 same time.

18 Q Was the initial attack team from the Victor Fire
19 Department?

20 A Yes, it was.

21 Q And who or what vehicle came from the Victor Fire
22 Department?

23 A Our vehicle designation is 2781 is our ladder truck.

24 Q And was Sean McAdoo as part of, on that truck?

25 A Yes. He was the person on the nozzle, he was the lead

1 firefighter.

2 Q He would have been the first in firefighter?

3 A Actually not first probably. There was one other guy
4 that was going in the doors and making entry, forcible entry,
5 but once they established the interior, he was the lead man.

6 Q How long did you stay at the fire scene, sir?

7 A We were released at 1950; 7:50.

8 Q 7:50 p.m.?

9 A Yes.

10 Q And did you have any further responsibilities, any
11 further work with suppressing the fire after, say, 8:00 p.m.
12 on that evening?

13 A Yes. We were called back the following day for a
14 rekindle. There was some fire and smoke that reignited in
15 the attic, in the roof assembly again.

16 Q And then after that did you do any further -- did you
17 have any further responsibilities with respect to fire
18 suppression in that building?

19 A Not with respect to fire suppression.

20 MR. DUGGAN: Thank you very much, Chief.

21 THE COURT: Cross?

22 MR. PAOLINI: Just a few questions.

23 *CROSS-EXAMINATION BY MR. PAOLINI:*

24 Q Good morning, Chief McConnell.

25 A Good morning.

1 Q Just want to clarify a couple issues.

2 A Yes, sir.

3 Q I show you -- do you have P21 in front of you, the call
4 sheet?

5 MR. PAOLINI: If I may approach, Your Honor?

6 THE COURT: Yes.

7 A D04.

8 Q It looks to me. I'm going to put this up on the board.
9 I'm going to put P21 up. Now a minute ago you indicated, I
10 just want to understand, what time was the first fire truck
11 arriving to fight the fire?

12 A Could you specify fire truck? Would that mean my
13 vehicle as incident commander?

14 Q You were on site what time?

15 A I was on site, it says F270, I was on site 1704:39.

16 Q Who arrived next?

17 A Right behind me was my first assistant chief. He was
18 basically right on my bumper.

19 Q And who was that?

20 A That would be Phil Lavery.

21 Q And what type of vehicle was he driving?

22 A In the original picture that was shown he was the blue
23 Suburban.

24 Q And we're going --

25 A Parked beside my vehicle, the other side of the

1 driveway.

2 Q And then who arrived next? Feel free to review the
3 exhibit.

4 A Basically it's not shown here. I would say that it
5 would have been my ladder truck one minute later.

6 Q And what do you base that on?

7 A We had an internal document that we did going over the
8 fire, lessons learned, and how the scene unfolded. And it
9 was from that that I have the documentation to know that the
10 ladder truck was right behind me by a minute.

11 Q Did you review that document here this morning?

12 A I think I reviewed it a couple weeks back when I was
13 subpoenaed.

14 Q Why did you decide to review that document?

15 A Because this happened several years ago.

16 Q Did somebody ask you to review that document?

17 A No. I just figured if I was subpoenaed I had to refresh
18 my memory on what was going on.

19 Q Sure. If you could, tell the jury what is it that you
20 believe based upon the review of that document as to who
21 showed up?

22 A It would have been myself, my first assistant chief, and
23 my ladder truck, and some time in that time I believe that
24 the chief from Farmington Fire Department was on the scene.

25 Q What would the number have been on the ladder truck?

1 A I had a driver and three firefighters, I do believe.

2 Q And what would their role have been?

3 A They would have been initial fire suppression at that
4 point, establishing water.

5 Q They all would have been to establish the hydrant and
6 things like that?

7 A Correct.

8 Q What group would have been responsible for actually
9 fighting the fire inside?

10 A They were.

11 Q They were as well, okay. Now, does that document
12 reflect, P21, when you actually left the fire scene, you
13 yourself, sir?

14 A Yes, it does.

15 Q And what time did you leave?

16 A It shows under F270, under the column, 1098, that would
17 be the time that I called us clear of the scene, we left the
18 fire, and 2006 is when we were back in service in the fire
19 department.

20 Q So you left the fire scene at 2006?

21 A We left the fire scene at 1950:04.

22 Q Were you the last person to leave the fire scene?

23 A I generally am, yes.

24 Q Generally you are, okay. Now you indicated that you
25 reviewed what was the document again, sir?

1 A We had an internal document that we used reviewing
2 lessons learned from the Jack 'n Jill fire.

3 Q We're going to get back to that in one minute. I just
4 want to clarify one thing.

5 A Okay.

6 Q Showing you what's been marked D1. What time was this
7 picture taken?

8 A It shows that I arrived on scene at 1704. That would be
9 between the time I arrived on scene at 1704 and my ladder
10 truck was a minute after, so that would be in between that
11 time frame.

12 Q The ladder truck?

13 A 2781. It's not shown on this call sheet. They only
14 track the first vehicle from each fire department to arrive
15 on scene.

16 Q So did 2781 arrive at 1705 you said?

17 A Yes.

18 Q Or 1707? If I represented to you, sir, that that report
19 that you're referring to indicates, and I'll show it to you,
20 I'll be happy to show it to you. Let me get it for you to
21 refresh your recollection. Would you have any reason if the
22 report indicated that that group arrived at 1707, would you
23 have any reason to disagree with that, sir?

24 A The report you're referring to, is that our internal
25 document?

1 Q Yes.

2 A If you go back to the beginning of that document, there
3 is a time difference between what that says the initial
4 dispatch time is and the official run sheet. It just means
5 what we were keeping time at our dispatch was a difference, I
6 believe it was either three minutes different than what the
7 official county run sheet was.

8 Q Now, in terms of that photo, where were you standing --
9 where were you at the time this photo was taken?

10 A I'm just off frame. I would be behind my vehicle.

11 Q Do you know who took this photo?

12 A No, I have no idea.

13 Q And do you recall exactly where you were standing when
14 it was taken?

15 A Yes. As incident commander, I always took up right
16 behind my vehicle because I have extra radios for
17 communication. My first assistant chief, I just sent him to
18 do a walk-around about that time I would say.

19 Q But the first assistant chief didn't take that photo?

20 A No.

21 Q Do you know who took this photo?

22 A I have no idea who took that photo.

23 Q To your knowledge did anybody from the fire department
24 take this photo?

25 A To my knowledge nobody from the fire department took

1 that photo.

2 Q Did you see the person taking this photo?

3 A No, sir, I did not.

4 Q So you don't know what time the person actually took the
5 photo, to the best of your knowledge?

6 A To the best of my knowledge, I do know what time roughly
7 the photo was taken because when my ladder truck arrived, it
8 would have been right dead center where that driveway.

9 Q We know it was taken before the ladder truck arrived?

10 A Right. Other than that, I do not know pinpoint what
11 time.

12 Q Okay. And in terms of at the point this was taken, you
13 were standing behind your vehicle?

14 A Yes, I was.

15 Q And there was a lot of smoke?

16 A Yes. There is a lot of smoke there.

17 Q And it was coming from the center of the building?

18 A That's what it appears in the picture, yes.

19 Q And that's what I thought I heard you say. So you
20 couldn't see the entire building, I assume, because of the
21 smoke?

22 A Not at that point, no, sir.

23 Q You mentioned a rekindle as well, is that correct?

24 A Yes, sir.

25 Q So the fire department had to go back out?

1 A The following day, yes.

2 Q To make sure the fire was out?

3 A Correct.

4 Q Not uncommon, is that right?

5 A No, it's very typical.

6 Q Did you make any observations regarding this structure
7 as part of your efforts to fight this fire?

8 A I had been in the structure several times and I
9 basically, I knew the basic layout of the structure.

10 Q Did this fire -- did the makeup of the structure impact
11 the way you had to fight this fire?

12 A Yes. I don't know how to answer that question, but yes.

13 Q The makeup of the structure was conducive to a rapidly
14 spreading fire, is that correct, sir?

15 A Yes. From the design of the structure, yes.

16 MR. PAOLINI: Thank you.

17 THE COURT: Redirect?

18 MR. DUGGAN: No. Thank you, Your Honor. Thank
19 you, Chief.

20 THE COURT: Call your next.

21 MR. DUGGAN: Captain McAdoo.

22 THE CLERK: State your full name for the record.

23 THE WITNESS: Sean McAdoo, M-C-A-D-O-O.

24 SEAN MCADOO, called as a witness and being
25 duly sworn, testifies as follows:

1 DIRECT EXAMINATION BY MR. DUGGAN:

2 Q Good morning.

3 A Good morning.

4 Q May I please have your name?

5 A My name is Sean McAdoo.

6 Q And Mr. McAdoo, can you tell me where you live?

7 A I live 8 Ambassador Drive in the Village of Victor.

8 Q I see that you've got a uniform on.

9 A Yes, sir.

10 Q And that is a uniform of what entity?

11 A I am a code enforcement officer for the Town of Victor.

12 Q How long have you lived in the Town of Victor?

13 A In the town, I moved originally in 1999.

14 Q And you've been there since?

15 A Been there since.

16 Q Have you also been a member of the Victor Professional
17 Volunteer Fire Department?

18 A I have volunteered for the Victor Fire Department since
19 1999, with the exception of one year when I had taken a leave
20 of absence.

21 Q When was that?

22 A Approximately 2003, 2002 time frame.

23 Q So you were a member of the department on September 17
24 of 2009, when the fire at the Jack 'n Jill Daycare Center
25 occurred?

1 A That's correct.

2 Q Do you presently maintain a position at the Victor Fire
3 Department?

4 A I am currently the first assistant chief.

5 Q Then I apologize for calling you captain.

6 A That's okay. I was captain before.

7 Q Chief, I now have a favor to ask?

8 A Sure.

9 Q We have a stenographer in front of us and we've been
10 driving her crazy, we've all been speaking too fast. So
11 we'll try to be a little slower.

12 A Very good, I will try.

13 Q When did you assume the duties and responsibilities of
14 the assistant chief?

15 A It would have been in May of 2013 when I first became
16 first assistant.

17 Q Chief, can you tell me a little bit about your training
18 with the Victor Fire Department?

19 A I'm a nationally certified firefighter one firefighter.
20 I am also a national certified New York State State Fire
21 Instructor Level I. In addition to that those trainings, I
22 also maintained various specialties that go with my training
23 and my work with Victor Fire Department.

24 Q Can you give us a couple of examples, please?

25 A For example, I'm trained as a FAST team member. I am

1 certified as an engine company operator, a pump operator.
2 I'm trained also as a safety officer, I'm the safety officer.
3 Various credentials that go with it over the years that I've
4 done.

5 Q Great. Now, Chief, what rank did you hold in September
6 of 2009 at the time of the fire at the Jack 'n Jill Daycare
7 Center?

8 A At that time I was a lieutenant.

9 Q And were you assigned to a particular vehicle?

10 A On that day or just in general?

11 Q In general.

12 A In general we don't get assigned particular apparatus.
13 When you respond to a call, you simply get on the next
14 apparatus assigned to the call. So in this case I would have
15 just been a lieutenant showing up to the fire call.

16 Q What truck were you assigned to on the day of the fire?

17 A When I arrived I was the second ranking officer, and I
18 was assigned to the rider position of 2781, the ladder truck.

19 Q The rider position. Could you tell the jury what the
20 rider position of the ladder truck is?

21 A Certainly. The ladder truck's equipped with six seats.
22 You have the driver, the officer seat in the front. In the
23 back you have four rider positions. In generic terms you're
24 one of the rank and file firefighters assigned to do various
25 tasks.

1 Q What was the task that you were assigned to do when you
2 got to the Jack 'n Jill Daycare Center?

3 A As we arrived the truck officer assigned me to the
4 nozzle position, which would have been on the nozzle, the
5 fire hose, initial attack.

6 Q Who was the fire officer?

7 A Joe Murphy, then captain.

8 Q He was the officer in charge of the ladder truck?

9 A He would be my team leader, correct.

10 Q About what time was it when the ladder truck pulled in
11 to the Jack 'n Jill Daycare Center?

12 A A couple minutes after the chief arrived.

13 Q And you heard, you were here when the chief just
14 testified?

15 A I was.

16 Q He arrived about 1704?

17 A Correct.

18 Q You were there about 1705 or 6?

19 A Correct.

20 Q When you arrived did you have a chance to look at the
21 building?

22 A I took a quick look at the building as I got out of the
23 truck before I took off my glasses and put on my face piece.

24 Q Can you tell His Honor and the jurors what you saw six
25 minutes past 5:00 as you were pulling into the parking lot at

1 the Jack 'n Jill Daycare Center?

2 A We had pulled directly in, nosed in, if you will, in the
3 driveway and stopped. I was on the right-hand side. I
4 stepped out, looked up and I observed heavy smoke showing
5 from the roof of the structure. At that point I turned
6 around to take off my glasses to get the rest of my gear on.

7 MR. DUGGAN: Can I have Exhibit D01, please?

8 Q Chief, I'm putting in front of you and the Court what we
9 have previously marked as Exhibit D01. Do you recognize
10 what's shown in this picture?

11 A I do.

12 Q What is it?

13 A That's the scene on September 17th, 2009 of the Jack 'n
14 Jill fire. In this case approximate time we pulled up was
15 consistent with what I saw when I arrived.

16 Q Does Exhibit D01 fairly and accurately depict about what
17 you saw when you pulled into the parking lot on September 17?

18 A It does.

19 Q And this is actually a little bit before you pulled in,
20 is that right?

21 A Yes. Because we would have been in the driveway right
22 in front of the building there.

23 Q I didn't ask that question very well, so I'm going to
24 try it again. I apologize. Could you point out to me where,
25 and the jurors, where your truck was when you pulled in?

1 A We were positioned right about that location. We had
2 pulled in, straight in, and stopped just as we just got on to
3 the driveway.

4 Q For the directional purposes of the jury and my own
5 directional purposes, is the part of the left-hand side, is
6 that where the main entrance of the building?

7 A Correct. You can see on the left a portion of the
8 porch, that would be the front.

9 Q Where is School Street?

10 A School Street is off to the left as you're looking at
11 the building in that direction.

12 Q Would that essentially be west?

13 A Yes.

14 Q And so you're in here, the truck was parked on the south
15 side where you've marked it?

16 A Correct.

17 Q And was where you've marked that D01, put the arrows on
18 it, from this vantage point did you have a chance to look at
19 the roof of the structure?

20 A I glanced at it at the time, yes.

21 Q And could you see heavy black smoke coming out such as
22 you see in the photograph?

23 A Consistent with heavy black smoke from the roof or the
24 eaves, depending.

25 Q You talked about smoke coming out of the eaves. I'm

1 going to ask you a couple questions about that. The eaves,
2 could you just point to us where the eaves are on this
3 picture?

4 A Lined up, just above my line here would be the eaves of
5 the structure, the portion of the roof that overhangs the
6 side of the wall.

7 Q Is there soffit vents there?

8 A There are to my knowledge.

9 Q And is it significant to you -- was it significant to
10 you in your duties and responsibilities as trying to
11 extinguish the fire that there was already smoke coming out
12 of the soffit vents?

13 A It is significant to me that my observations suggested
14 that there was fire in the attic space.

15 Q And why is it important to you to know that by 1706 on
16 September 17th there was already fire in the attic space when
17 you pulled up and marked where you marked on D01?

18 A It's significant to us because as I do my own size up,
19 which every firefighter does, takes a quick accountability
20 where he believes the fire is, and to start that mental map
21 as you approach the inside of the fire to know as you go in
22 there is probably fire above you.

23 Q Why do you want to know before you're entering the
24 building that there might be fire above you?

25 A When you make the entry into the building, you want to

1 take an assessment of the situation. And if you go in the
2 building and you know there is fire above you, you also want
3 to know if there is fire in the floor in front of you to get
4 an assessment of how dangerous it may be going in. Once you
5 get inside, it is usually thick with smoke, very dark, very
6 hard to see, so you want to make as much estimate as you can
7 going into the building what you might be facing.

8 Q Were you a member of the first attack team?

9 A Correct.

10 Q Could you tell the jury what it means to be on an attack
11 team?

12 A Certainly. The attack team is assigned to suppress the
13 fire, meaning fire attack, which is a hose line advancing
14 into the fire, find the seed of the fire and extinguish what
15 you can find.

16 Q And what position did you have on the first attack team
17 at the Victor Daycare Center?

18 A I was on the nozzle. I was the one operating the nozzle
19 and leading the team in as far as location to go.

20 Q When you say on the nozzle, for those of us who are not
21 firefighters, what does it mean to be on the nozzle?

22 A You're the one who opens the bale of the hose, which of
23 course opens the water stream, and then directs the flow
24 towards the fire or to wherever you think you need to find
25 the fire.

1 Q Which door did you go in to begin your fire attack?

2 A We went in the front doors, what we would consider are
3 the School Street side, or we would call side B. We letter
4 the sides of every structure that we're in with side A being
5 the front, and then you go around the building to the left
6 would be B, C is on the rear side, and D is on the right.

7 Q So if I understand your lettering system, looking at the
8 building on the south side, that would be the A side?

9 A Correct, that would be the A side.

10 Q And then B is over on the west side of the building?

11 A Correct.

12 Q Flip side is C?

13 A Correct.

14 Q North side. And then D is over on east?

15 A Correct.

16 Q Which door did you take to begin your attack to put out
17 the fire that we see in D01?

18 A The door on the B side, the front doors.

19 Q Could you show the jury by some method on that?

20 A Right under my line there you can see the porch that
21 covered the B side doors.

22 Q Did you have some trouble as you began to enter the
23 building?

24 A The doors were locked. There is two doors. There's a
25 vestibule door system in there. The first door the team

1 leader took the job of forcible entry, so he essentially
2 forced his way into the first set of doors.

3 Q The team leader, that was Captain Murphy?

4 A Correct.

5 Q I'm sorry.

6 A So Captain Murphy forced the first set of doors and then
7 as we got to the second set he had to force the second set of
8 doors as well. Which essentially means he had to break into
9 the doors so we could go in.

10 Q And after Captain Murphy broke into the second set of
11 doors, who was the first in firefighter?

12 A He went in to clear the door and I followed in right
13 behind him, right behind Captain Murphy, and then got into
14 the hallway.

15 Q After you went into the hallway after getting into the
16 second door, what did you see?

17 A When we got in it was completely black. Captain Murphy
18 at that time realized he couldn't see. He said he was going
19 to move forward to look for the door to move in. As I waited
20 for a moment at my left low down there was flames coming out
21 into the corridor where I was sitting.

22 Q Can I refer you to what we marked as Exhibit D34, image
23 8921, please?

24 A Okay.

25 Q Chief McAdoo, do you recognize what's shown in Exhibit

1 D34, 8921?

2 A That is the central corridor hallway of the Jack 'n Jill
3 at the time of the fire.

4 Q And you said -- and which way are we looking here? Are
5 we looking -- which way are we looking here?

6 A It looks to me that we are looking toward side D from
7 the B side.

8 Q In other words, you're looking east?

9 A Down the hall. Looking down the hall east, correct.

10 Q And where was it that you came in?

11 A It was on the side B.

12 Q And is the door here on the right the door entryway to
13 the two year old classroom?

14 A I don't know what they're labeled.

15 Q I'm sorry about that. My mistake. I'm showing you what
16 we've marked as Exhibit P120. Do you recognize what's shown
17 in that drawing?

18 A That appears to be the floor plan of the Jack 'n Jill at
19 the time of the fire.

20 Q And can you point out to the jury where the main
21 entrance was on the B side that you went in?

22 A The door right above my line is the entry door for the B
23 side, on the B side.

24 Q And does this also show the second door that you had to
25 brake through?

1 A This floor plan does not show it, no, but there was
2 another set of doors.

3 Q When you went through the second set of doors, you were
4 telling us about the fire that you saw?

5 A Correct.

6 Q Where was the fire that you saw right after you got
7 through the second set of doors?

8 A Just to the left of the arrow I placed there was
9 approximately where the fire was coming out.

10 Q And where was the fire that you saw right after you
11 broke through the doors coming in from the far west side of
12 the building?

13 A I don't understand the question. The fire was -- it was
14 just the fire was at where my arrow was there.

15 Q Was where?

16 A At the arrow there, when I came in.

17 Q Okay. My question was, did you say it was lower or
18 higher?

19 A Oh, the first one I encountered was lower.

20 Q So it was near the floor?

21 A Correct.

22 Q And what did you do?

23 A I turned the nozzle, opened the bale and put water into
24 the area that was coming out.

25 Q Was it important for you to do that?

1 A Correct. The first job is to protect our own way of
2 escaping, so we had to check the corridor. If I had to
3 advance beyond the fire would trap me from getting out.

4 Q What do you mean to protect yourself, the first job?

5 A As you approach the fire, it's important to keep track
6 of exits and protect the area you're going in. If things get
7 to the point that you cannot continue the operations, you
8 have to pull out. And if you get any fire behind you or
9 obstacles fall behind you, you can't get out effectively.

10 Q After you extinguished the fire that was in the hallway
11 where you placed the arrow, were you then able to gain free
12 easy access into the building?

13 A We were able to move down the hall. About that time
14 Captain Murphy identified where the door was to that room and
15 called us forward.

16 Q Did you have any problems, any other problems in the
17 hallway before you got to the doorway?

18 A There was debris in the hallway we were working around.
19 It was not a smooth move in through.

20 Q Could you describe for me what the debris was in the
21 hallway that you were trying to work around as you moved
22 toward the doorway?

23 A They felt like flat objects, they were similar to boards
24 or plywood or drywall type size.

25 Q Was this fire debris already?

1 A I presumed it was ceiling debris or something to that
2 effect, yes. It was not a chair. It was not coats. It was
3 something that felt like a building material.

4 Q Now after you went down to the hallway, what happened
5 next?

6 A We got to the door and we entered the room at that
7 point.

8 Q Can you circle where the door is that you entered?

9 A (Indicating) I put an arrow right there I guess.

10 Q No problem.

11 A That door there under the arrow and squiggle I put is a
12 door I entered in. I had entered the room first and
13 maneuvered the hose into the fire room.

14 Q And what did you see when you maneuvered the hose into
15 the fire room?

16 A The first thing I did when I got into the room was to
17 look back to the left. I knew from memory from just a few
18 moments ago that there was fire coming in the corridor from
19 that side of the room. So first I looked to that corner to
20 make sure the fire was out. I did observe at that point fire
21 still in the corner and I then opened the bale of the nozzle
22 and applied water to that corner again.

23 Q Chief, can I ask you where it was that you saw the fire
24 to your left at this time?

25 A In this room?

1 Q Yes.

2 A It was essentially where my original arrow, put a new
3 arrow, that set of arrows right under the word two in this
4 plan is where that fire was on the ground.

5 Q And did you extinguish that successfully?

6 A I did.

7 Q Then what did you do?

8 A I then scanned to the right and found another small fire
9 on the opposite corner of that room, which would have been --
10 let me mark that on the map.

11 Q Okay.

12 A It would have been in that corner. I moved the hose
13 over at that point and extinguished that fire.

14 Q That's on the northwest side of that room?

15 A Correct. After that was extinguished, I shut the bale
16 down, started surveying the room, and then looked up and then
17 I saw I had open flames in the trusses above my head.

18 Q After you extinguished the fire in the northwest side of
19 the building, where was it that you saw the flames overhead
20 in the trusses?

21 A From my memory I had to almost lean on my back to bring
22 the hose straight up. The hoses that we use with the inch
23 and three quarter line, the hoses are have he stiff, they're
24 not very pliable. So I had to essentially put a loop in
25 front of me and lean back, so it was fairly above my head I

1 was still facing the B or the west side of the room, so I
2 didn't go all the way over my head but it was substantially
3 straight above me.

4 Q And you said you could see fire in the truss system.
5 What did you mean by that?

6 A There was open flame, a significant amount of open flame
7 over several trusses at the same time.

8 Q Was it significant to you in trying to extinguish the
9 fire that you saw a significant amount of open flame in the
10 truss system on the west side of this room?

11 A It was significant in that my observations in the fire
12 was the bulk of the fire was above my head at that point and
13 I believe that's where the fire was I had to work with.

14 Q Did you have a clear view of the truss, of the fire in
15 the truss system as you were trying to extinguish it with
16 your hose?

17 A Correct. I had a free and unobstructed view of looking
18 at the fire.

19 Q I think you told us there was a dropped ceiling as you
20 were coming down the hallway?

21 A I believe so.

22 Q Was there a dropped ceiling in that room?

23 A At the time I did not know that. There was debris on
24 the ground that I had trouble moving over. Afterwards I did
25 observe there was dropped ceiling material on the ground.

Sean McAdoo - Direct - Mr. Duggan

602

1 Q But there was nothing impeding your view of the fire in
2 the trusses directly overhead by the time you got into that
3 room?

4 A Correct.

5 Q How many trusses on the west side of this building were
6 already actively involved in the fire?

7 A By my estimate I would say three to four.

8 Q I'm going to show you what we marked previously as D36.
9 Do you recognize, Chief, this as an illustration of the truss
10 system in the Jack 'n Jill Daycare Center?

11 A Yes.

12 Q And can you see where the illustration is for the
13 entryway into the room?

14 A Yes.

15 Q Which if you look at the truss numbers, which trusses
16 are in the same vicinity as the door?

17 A The door appears to be below trusses 6 and 7.

18 Q And with relation to that, where were you when you first
19 saw fire overhead in the truss system?

20 A By my estimate I had turned slightly, I would say I was
21 in the area of truss 8.

22 Q And when you were at truss 8, you said you saw fire on
23 you thought three, open fire on three truss systems. Can you
24 tell me which of the three truss systems you saw open fire on
25 at that time?

Sean McAdoo - Direct - Mr. Duggan

603

1 A I would definitely 9 and 10, possibly 11, but I know it
2 was -- I can't be 100 percent sure on that, but definitely 9
3 and 10 based on my position in the fire.

4 Q What did you do after you saw this fire on trusses 9 and
5 10?

6 A I opened the bale and proceeded to knock down the fire.

7 Q When you say knock down the fire, you used that by using
8 your nozzle?

9 A Correct.

10 Q Can you tell me how you do that -- try that again. Is
11 the stream that comes out of the nozzle measured?

12 A There is flow meters on the truck, yes.

13 Q Does this come out a certain psi?

14 A Yes. We use an automatic straight stream nozzle which
15 comes at approximately 80 psi.

16 Q And does psi stand for pounds per square inch?

17 A Pounds per square inch, correct.

18 Q Can that be adjusted if you need to adjust it up and
19 down?

20 A The pump operator would do the adjusting. I don't have
21 control on the nozzle. The pump operator would reduce the
22 pressure if I request.

23 Q So you have a radio with you while you're inside and if
24 you needed to adjust it to 100, for example, you would call
25 the pump operator?

1 A Correct.

2 Q Did you have to do that in this fire?

3 A In this case our radios were not reaching outside. We
4 tried the radio a couple of times and for whatever reason our
5 radio would not reach, so I had no radio communication with
6 the outside crew.

7 Q Was that a little intimidating?

8 A Yes.

9 Q Did you continue to try to fight the fire, though?

10 A Yes.

11 Q Were you able to extinguish the fire on the trusses 8
12 and 9, or 9 and 10 that you said you saw?

13 A I did. After a few seconds I didn't see any visible
14 flames, so I shut the bale down again to watch what could
15 happen.

16 Q And after you did that, what did you do?

17 A At that point it appeared I knocked down what I could
18 see of visible flame. I attempted to move forward again
19 deeper into the room to find more fire. And at that point I
20 became snarled on an object that had fallen down.

21 Q When you say deeper into the room, did you mean further
22 west or further east or north?

23 A I was trying to go to the outside wall to find for
24 ventilation, to make sure that the rooms were opened to start
25 ventilate.

Sean McAdoo - Direct - Mr. Duggan

605

1 Q Was the doorway -- was there a door on the outside wall?

2 A Yes.

3 Q Was that door open?

4 A I don't recall at the time if it was or not.

5 Q But anyway, you were -- were you able to see the outside
6 wall?

7 A I could see trees outside, so I could see through
8 something; window, door I don't know what it was I was
9 looking through.

10 Q Were you able to make it all the way over to that window
11 or door?

12 A No.

13 Q What happened?

14 A I had gotten snarled in something. Something had
15 grabbed my tank, my air bottle in the back, which stopped my
16 forward momentum.

17 Q Can I ask you to take a look at what we previously
18 marked as D34, image 8925? Mr. McAdoo, do you recognize
19 what's shown in Exhibit D34, image 8925?

20 A I do.

21 Q What is it?

22 A That is the room of the fire that I was on fire attack
23 with.

24 Q And you mentioned that you got entangled on something as
25 you were trying to make your way over to the north wall?

1 A Correct.

2 Q Does this image show what you got entangled on?

3 A My presumption is one of the wires, the wires hanging
4 down. It was consistent when I pulled it off my tank, it was
5 about that weight of the material.

6 Q Did you say -- you said something material, I didn't get
7 it.

8 A That weight. It wasn't thick metal, it was pliable
9 under my hand when I pulled it off.

10 Q And roughly if you can show us where in this room you
11 were standing when you got entangled with the wires in the
12 two year old room?

13 A Approximately that area was where I was.

14 Q So basically in the center, maybe a foot or two toward
15 the north?

16 A Yes.

17 Q And did it cause you some concern that you were
18 entangled with wires?

19 A Yes.

20 Q Why would that be?

21 A Because now I was becoming trapped, and that is a
22 situation, especially without radio communication, where I
23 was worried I was unable to maneuver.

24 Q Were you able to see the condition of the trusses and
25 the ceiling while you were almost trapped at that position?

Sean McAdoo - Direct - Mr. Duggan

607

1 A I at that point wasn't paying attention. I started
2 focusing on clearing the obstruction.

3 Q And did you do that?

4 A I did.

5 Q What did the ceiling or the trusses look like when you
6 cleared the obstruction?

7 A After that point I looked back up again, the trusses
8 were -- I could not see any further fire, the trusses
9 appeared to be black and dark.

10 Q Were you able to see all the trusses in the room as we
11 see in this picture?

12 A I didn't look down that way.

13 Q Which way were you looking?

14 A I was looking straight up, that's where the fire was.
15 About that time my partner's air bottle was having a low air
16 alarm, which means his bottle was becoming less than
17 25 percent full with air.

18 Q And then so what did you do after your partner's air
19 alarm came off?

20 A At that point we immediately backed out of the structure
21 and withdrew.

22 Q When you said backed out of the structure, did you
23 retrace your steps?

24 A Yes. We followed the hose line out.

25 Q Did you have any trouble as you were trying to get out

1 of the building down the hall?

2 A I remember stumbling a bit over things on the ground. I
3 presume they were the same things I was coming in contact
4 with on the way in the building.

5 Q More fire debris on the west end?

6 A Yes.

7 Q How long did it take you to get out of the building?

8 A My sense of time isn't great. We got out what I thought
9 was pretty effectively. Just as I was exiting, my low air
10 alarm started going off too.

11 Q Did you recharge your air tanks and go back in?

12 A At that point I rotated out and I took over a position
13 on top of the turntable of the ladder truck to operate the
14 ladder.

15 Q Were there other attack teams in the building or had the
16 fire --

17 A There was another attack team, I believe it was from
18 engine 832, Farmington's engine, they worked on the C side of
19 the building and were moving in from that side, from the
20 north side.

21 Q Would that have included the two year old room?

22 A That would have been on the outside wall of the two year
23 old room, yes.

24 Q The outside?

25 A Yes.

Sean McAdoo - Direct - Mr. Duggan

609

1 Q Was the Farmington Fire Department also on the scene?

2 A They were.

3 Q What room were they working in?

4 A We left, they had just gotten their first line out, and
5 from my recollection they were on the outside of the building
6 and then worked into the two year old room from the outside
7 to do their duties.

8 Q How long did you spend inside the two year old room that
9 we see here on Exhibit D34?

10 A My time is skewed when you're in. I would say a couple
11 of minutes, not a long time in my perception.

12 Q Did you go back in to that two year old room at any
13 time -- try that again.

14 Did you go back into the building, any part of the
15 building on that day?

16 A After the fire was suppressed and the investigators had
17 done their initial work, I walked in to look at what had
18 happened.

19 Q And did you go back into the two year old room?

20 A I did.

21 Q And does the Exhibit D34 that we have on the screen
22 fairly and accurately depict what you saw?

23 A Yes.

24 MR. DUGGAN: Chief, thank you very much for your
25 time here. I appreciate it. I have no further questions.

Sean McAdoo - Direct - Mr. Duggan

610

1 THE COURT: Cross?

2 MR. PAOLINI: Just a few questions actually.

3 *CROSS-EXAMINATION BY MR. PAOLINI:*

4 Q Good morning, Chief McAdoo.

5 A Good morning.

6 Q I just have a few questions for you. When you went in
7 to fight the fire, did I understand you to say that the --
8 let me put it up for you. P120. I'm showing you what's been
9 marked P120. Do you recognize the diagram, sir?

10 A Yes, I do.

11 Q And you see the two year old room?

12 A Yes.

13 Q I just want to clarify. Did I understand you to say,
14 Chief McAdoo, that you thought you saw light, that you
15 believed the door was open, the outside door along the north
16 wall?

17 A Correct.

18 Q And also in terms of while you're in there fighting the
19 fire, are others on the outside doing anything, any of your
20 colleagues?

21 A Yes. There is a series of activities that have to be
22 done directed by the incident commander.

23 Q And are they ventilating the building, sir?

24 A Typically those include ventilation, whether it be roof
25 or window.

Sean McAdoo - Cross - Mr. Paolini

611

1 Q Or both?

2 A Or both.

3 Q In this case was it both?

4 A I believe it was both, yes.

5 Q It was both. They were cutting holes through the
6 ceiling?

7 A Yes, at one point. That's why I went after I came out
8 to be on the aerial operation.

9 Q And they were knocking windows out?

10 A Yes.

11 Q And you went in through the front door?

12 A The B side.

13 Q Additional ventilation?

14 A Yes.

15 Q So if I understand it, sir, the front door was open, the
16 door in the two year old classroom is open?

17 A Correct.

18 Q You had firefighters around the building breaking
19 windows?

20 A Correct.

21 Q The firefighters also cutting through the roof?

22 A At one point, yes.

23 Q At one point?

24 A Yeah.

25 MR. PAOLINI: Thank you. No further questions.

Sean McAdoo - Cross - Mr. Paolini

612

1 THE COURT: Redirect?

2 MR. DUGGAN: No. Thank you, Your Honor.

3 THE COURT: Next witness?

4 MR. DUGGAN: Mr. Finneran, please.

5 THE WITNESS: James Michael Finneran;

6 F-I-N-N-E-R-A-N.

7 *JAMES FINNERAN*, called as a witness and being
8 duly sworn, testifies as follows:

9 *DIRECT EXAMINATION BY MR. DUGGAN:*

10 Q Good morning, Mr. Finneran.

11 A Good morning.

12 Q Could you please tell us your name and address?

13 A It's James Michael Finneran, 18925 State Road 1,
14 Spencerville, Indiana.

15 Q How old are you?

16 A I'm 61 years old.

17 Q Can you tell us what you do for a living?

18 A I own a company called ElectroTek Consultants. And I do
19 origin and cause, product failure analysis and consulting.

20 Q When you say origin and cause, what do you mean?

21 A I mean origin and cause of fires dealing with buildings,
22 vehicles. Basically that's it. I don't do wildland fires.

23 Q And what about origin and cause fires do you do as the
24 president and owner of ElectroTek?

25 A I work for various manufacturers, insurance companies

1 and individuals.

2 Q And when you are retained to do an origin and cause
3 investigation, what your practice is of how it goes about,
4 what do you do?

5 A Initially I get hired by somebody and I would be given
6 some background information as to where the fire occurred,
7 when it occurred. I would make arrangements to go visit the
8 scene and do a preliminary investigation of the scene and try
9 to determine an area of origin, a point of origin, and
10 ultimately if possible the cause of the fire.

11 Q Can you tell me what kind of business ElectroTek
12 Consultants is?

13 A It's basically a business that does consulting to
14 various manufacturers, insurance companies, dealing primarily
15 with fire but I also do shock and electrocution cases as
16 well.

17 Q And what do you do with respect to electric evaluations,
18 I think you said you do?

19 A With an electrical fire, for instance, if you're doing a
20 scene investigation, you would actually trace out the branch
21 circuit wiring from an area of origin back to the panel
22 board. The panel board is where you have your circuit
23 breakers or fuses in the home. You would determine what
24 circuit breakers or fuses have tripped or are opened and
25 attempt to determine why that occurred.

1 So, for instance, if you looked at a panel board, if you
2 had a circuit breaker panel in your house and it had twenty
3 circuit breakers in it and if it ten of them were tripped,
4 you try to identify why those ten circuit breakers tripped.
5 You would actually physically trace the circuits throughout
6 the structure and look for evidence of electrical activity.

7 Q Let me stop you there for a minute. Does ElectroTek
8 also do product evaluations, is that one of the things you
9 said you did?

10 A Yes.

11 Q And can you describe in general terms what that consists
12 of in your business?

13 A Well, for instance, I would be hired by a manufacturer
14 to evaluate their product after a fire. So I don't go to the
15 fire scene. I get the product either with a group of people
16 and look at it or in some cases I may look at it by myself
17 and document the product. So you would photograph it or
18 videotape it, depending on what's necessary, and then you
19 would evaluate the condition of the product. You would look
20 at the components inside of it and try to make a
21 determination whether it was fire damaged, meaning the heat
22 of the fire or flame impingement damaged the product, or
23 there was a failure of the product.

24 Q How long has ElectroTek Consultants been in business?

25 A Actually it started as James M. Finneran & Associates in

1 1995. Within a year, year and a half it was changed to
2 ElectroTek Consultants, Incorporated. It didn't change
3 businesses, it just changed names. And that was under the
4 advice of my attorney because my business is on my property,
5 so I became incorporated to protect my property as well as my
6 personal belongings.

7 Q Can you tell us a little bit about your educational
8 background, please?

9 A Well, I received an Associate's Degree in electrical
10 engineering technology in 1983. I received a Bachelor's of
11 Science in electrical engineering technology in 1988. I went
12 to night school for both degrees and worked primarily full
13 time while I was getting my degree.

14 Q Where did you get your Bachelor's Degree in electrical
15 engineering technology?

16 A It was Purdue University, Fort Wayne, Indiana campus.

17 Q And that was in when did you say?

18 A 1988.

19 Q And you did that while you were also working full time?

20 A Yes.

21 Q And what were you doing?

22 A I was working for a company called Barker & Herbert
23 Analytical Laboratories, which was or is a forensic
24 engineering company that does origin and cause investigation,
25 product failure analysis, accident reconstruction. And then

1 they also have a chemistry lab that does accelerant testing
2 on samples, and they also look at lottery tickets to
3 determine how easily you could defraud a lottery ticket,
4 which means making a loser out of a winner.

5 Q What did you do for Barker?

6 A Initially I started there in 1983 and I was basically a
7 trainee. I had no fire background at that time. I had
8 worked for a biomedical company as a field engineer doing
9 product failure analysis, trying to repair items on site.
10 And so they hired me and taught me the fire industry of what
11 I do today, how to do origin and cause and how to look at
12 products that came out of fires.

13 Q Did you say that you were working in a capacity as an
14 engineer?

15 A Yes. I was hired by a company called General
16 Diagnostics as a field engineer with my Associate's Degree,
17 and I did on site repairs of their equipment. And Barker &
18 Herbert also hired me as a field engineer to teach me origin
19 and cause work.

20 Q And what did you do after you left Barker?

21 A I left Barker and started my own business. Basically
22 it's very similar style of business except we don't do any of
23 the chemistry work.

24 Q So how long --

25 THE COURT: What does it mean, field engineer?

1 THE WITNESS: I actually would travel and actually
2 go to the site and do a repair on site.

3 Q How long have you been doing work in the field of
4 electrical engineering technology?

5 A Well, I would say ever since I got my Associate's Degree
6 in 1983, I've been doing electrical repairs and basically
7 that's knowledge and work. And then when I started in Barker
8 & Herbert in 1983, I had been doing a lot more of the
9 electrical analysis of products.

10 Q And has that been part of your duties and
11 responsibilities since 1983 or '84, electrical engineering
12 and evaluation of products?

13 A Yes.

14 Q And what types of products have you evaluated in the
15 past 25, 30 years?

16 A Probably everything that's in your house. So I look at
17 dryers, dishwashers, microwave ovens, furnaces, branch
18 circuit wiring, panel boards, TVs, stereos. Virtually
19 anything electrical that could be in your house I would at
20 one time have looked at. Duplex receptacles in the home is
21 another area that I look at. Almost anything that can be
22 electrical I've been involved in.

23 Q Are you a member of certain professional associations
24 with regard to fire cause and origin?

25 A Yes, I am.

1 Q And could you tell the jury what those are, some of them
2 anyway?

3 A Well a member of the International Association of Arson
4 Investigators. It's an international group that has training
5 dealing with origin and cause investigation. I'm a certified
6 fire investigator through them. I'm also a member of the
7 National Association of Fire Investigators, which is a
8 competing organization. And they have a certificate for
9 certified fire and explosion investigator, which I am
10 certified through them as well.

11 Q Are you also a member of certain societies like ASM?

12 A Yes.

13 Q What is ASM?

14 A ASM is an association dealing with the Society of
15 Materials, and it's a membership that I belong to to get
16 magazines basically dealing with materials. I'm also a
17 member of the IEEE, which is the Institute of Electronic and
18 Electrical Engineers. And ASPM, which is another
19 organization dealing with technical information. I'm on
20 their forensic engineering committee.

21 Q Over the years, sir, have you published certain
22 articles?

23 A I have.

24 Q In what fields?

25 A I believe I've published two articles dealing with

1 failures of coffeemakers, an article dealing with basic
2 electricity, I think it was called Basic 101 Electricity, an
3 article dealing with arc mapping.

4 Q And can you tell us what that was about, the article
5 dealing with arc mapping?

6 A Yes. Arc mapping is a tool that fire investigators use
7 to help narrow down the area of origin. When you're doing an
8 origin and cause investigation, you're trying to narrow down
9 the area that you have to work in. So arc mapping is one of
10 the ways to do it. And what you look at is damage to branch
11 circuit wiring within the structure. And that damage that
12 you're trying to make a determination whether it is an
13 electrical arcing where the conductors actually arced and
14 melted, if they're broken or if they're melted. In some
15 cases you can't distinguish between electrical activity and
16 melting, so you would actually flag both of those areas.

17 Various investigators have different methods on how they
18 do it, but typically you would tag each area that you find
19 melting in, you would trace that circuit back to the panel
20 board or circuit breaker panel and determine that the circuit
21 breaker tripped or the fuse opened. You would ultimately tag
22 the various circuits in the room and document that
23 photographically and say, okay, in this area I have a cluster
24 of damage, that's an indication that the fire may have
25 started there and compromised that circuit first. You don't

1 always get arcing from a fire. So that's why it's a tool.
2 It's not conclusive evidence that you know the fire started
3 here or there.

4 MR. UNDERWOOD: Your Honor, can I see you at
5 sidebar for a second?

6 THE COURT: Why don't we take a recess.

7 (Jury excused.)

8 MR. UNDERWOOD: Your Honor, obviously, I don't want
9 to interrupt Mr. Duggan as we're going through his
10 preliminary process, however, my concern is that in
11 qualifying the witness, we're getting a lot of basically
12 expert testimony being directed to the jury before he has
13 even been qualified in terms of the background information.
14 My concern is if you want to ask him about his
15 qualifications, that's fine, or just in general terms, but he
16 is essentially explaining in an expert capacity to the jury.

17 THE COURT: I agree. Get his qualifications first.
18 You're about there, aren't you?

19 MR. DUGGAN: I was about two questions left.

20 THE COURT: All right. Okay.

21 (Recess at 10:50.)

22 (Reconvene at 11:20.)

23 THE COURT: You may sit down, Members of the Jury.
24 Okay, we're still on direct examination, Mr. Duggan.

25

1 BY MR. DUGGAN:

2 Q Just before we broke you were telling us a little bit
3 about your background. And I noticed that you mentioned that
4 you had two degrees in electrical engineering technology?

5 A Correct.

6 Q Is there a difference between electrical engineering
7 technology and electrical engineering in Indiana?

8 A Yes.

9 Q What's that?

10 A Basically electrical engineering is more of a calculus
11 based curriculum than electrical engineering technology,
12 which is an algebra based curriculum. When I went to Purdue,
13 Fort Wayne, they didn't offer the electrical engineering
14 degree at that time; they offered electrical engineering
15 technology. I took the calculus courses for the double E
16 degree but they didn't offer all of the classes. I took the
17 calculus courses. I actually took the calculus courses, not
18 the algebra classes, for the double E degree.

19 Q Now, have you put that EET degree to use in product
20 evaluation?

21 A Yes, I have.

22 Q And how many products over the course of your 35 years
23 of experience in this industry have you evaluated?

24 A Several thousand.

25 Q And you mentioned that you have certifications in fire

1 investigation?

2 A Yes.

3 Q And how many fire scenes have you investigated over the
4 course of your career?

5 A A rough estimate would probably be about 4,000.

6 Q Mr. Finneran, have you been qualified to give expert
7 opinion in other courts in this country?

8 A Yes, I have.

9 Q And what jurisdictions have you been qualified?

10 A Both state and federal courts.

11 Q And how many, roughly, if you know, how many times?

12 A Well, I've testified between forty and fifty times.

13 Q Has your ability to give expert opinion ever been
14 excluded by any court?

15 A No.

16 MR. DUGGAN: Your Honor, at this time I ask that
17 the Court qualify Mr. Finneran as an expert in the field of
18 product evaluation and cause and origin of fires.

19 THE COURT: Any objection?

20 MR. UNDERWOOD: Your Honor, can I see you at
21 sidebar, please?

22 THE COURT: Yes.

23 (Sidebar discussion on the record.)

24 MR. UNDERWOOD: Mr. Finneran wasn't identified to
25 us as an expert in the field of fire cause and origin. We

1 got an exhibit from the defendants with a witness list,
2 admittedly about a week late, and in the disclosure it says
3 that he will testify regarding evidence retained for
4 inspection and about the appropriateness of the design of the
5 fan and motor. Now, certainly, if he wants to give an
6 opinion about the design of the fan and the motor and his
7 observations of evidence, that's fine, but he can't give an
8 opinion regarding cause and origin because they didn't
9 identify him as such. They identified Mr. Natale as he is
10 going to give the cause and origin.

11 MR. DUGGAN: I was going to do the cause and
12 origin. But to the extent that, you know, you took his
13 deposition, that the product was not involved in causing the
14 fire.

15 MR. UNDERWOOD: I want to make sure, Your Honor,
16 that he is not going to come in and say the fire started in
17 this location.

18 MR. DUGGAN: No, I'm not going to ask him that
19 because he didn't say that in his deposition.

20 MR. UNDERWOOD: I want to make sure it's limited to
21 that.

22 (Sidebar discussion concluded.)

23 THE COURT: You may proceed. Any objection?

24 MR. UNDERWOOD: No objection, Your Honor.

25 THE COURT: Okay. Expert witness, same rules apply

1 here. Listen to what he has to say, compare it with other
2 evidence in the case, and you'll accept or reject whatever
3 part of the testimony you feel is appropriate.

4 MR. UNDERWOOD: Your Honor, there was no objection
5 subject to the issue we discussed at sidebar.

6 THE COURT: Yeah, I understand.

7 MR. UNDERWOOD: Thank you.

8 *BY MR. DUGGAN:*

9 Q Now, Mr. Finneran, were you retained at some point to
10 evaluate the product in this case?

11 A Yes, I was.

12 Q And also to offer an analysis as to whether that product
13 was the cause of this fire?

14 A Correct.

15 Q And when did you first become retained?

16 A I was first hired on July 29th, 2010.

17 Q And I understand that you've done all of your work for
18 free and we very much appreciate that?

19 A Well, actually, the answer to that is no. But I was
20 actually hired July 7th, 2010. I did my first examination on
21 July 29th.

22 Q So I guess someone is paying you for your services in
23 this case?

24 A I certainly hope so.

25 Q Okay. And what's your rate?

1 A \$250 an hour.

2 Q And when you first got retained, what did you do to
3 begin your analysis of the case?

4 A Well, I would be provided with some background
5 information, such as there was a fire and when the fire
6 occurred and who investigated the fire. And I may have been
7 provided with photographs of the fire scene, I don't recall.
8 Ultimately I was, so I would have reviewed the fire scene
9 photographs. And then ultimately a date would have been set
10 to do the artifact examination.

11 Q Can I interrupt you there for just a minute. Can you
12 explain to the jury what an artifact examination is, please?

13 A Yes. Artifact and in this case are artifacts are all
14 the retained evidence that came from the site. So anything
15 that the fire investigator or engineers that were present at
16 the site collected would have been brought back to one of
17 their facilities and then all parties that were notified
18 would have come and examined those artifacts.

19 Q And other than participating in the artifacts
20 examinations that you've just testified -- by the way, how
21 many artifact examinations did you participate in?

22 A I participated in three. One was a one-day examination,
23 one was a three-day examination, and the third one was a
24 one-day examination.

25 Q In addition to those three different evaluations and

1 examinations, what else did you do in preparing your opinions
2 and conclusions in this case?

3 A I would have reviewed all the depositions that were
4 taken and statements that were taken, the fire report that
5 was generated. Any material or documents that were available
6 and provided to me, I would have reviewed prior to writing my
7 report.

8 Q And did you have at your disposal, if needed, certain
9 standards, industry standards?

10 A Yes.

11 Q And what would those have been?

12 A Well, the subject fan in question is a UL listed
13 product.

14 Q What does it mean, Mr. Finneran, that the fan is a UL
15 listed product?

16 A It means it has to go through various tests. In this
17 case the fan standard is a UL 507 standard. That's not the
18 only standard that would be tested to, but that is the
19 standard that the fan would have to go through, the testing
20 it would have to go through to get the UL listing.

21 Q What is the purpose of getting the UL listing?

22 A It is to show retailers that someone besides the
23 manufacturer is testing the product to a standard. There are
24 certain guidelines within the standard that the product has
25 to pass before it can get that listing.

1 Q Was the product involved here, a 696N R02 fan, UL
2 listed?

3 A Yes.

4 Q And there were also some several component parts that
5 were involved in the fan that you examined, were there not?

6 A Yes.

7 Q And what were they?

8 A Well, there is the motor. The fan is a metal housing,
9 and it will have a grill covering it. If you're familiar
10 with a bathroom exhaust fan in your own home, so you have the
11 grill that you actually see in the bathroom. Above that is
12 the metal housing. Within that metal housing is what's
13 referred to as the motor plate. The plate is what the motor
14 is mounted to. And part of the motor is an impeller that
15 moves air in your bathroom. And then you'll have a hole in
16 the side of the metal housing with a duct adaptor on it, and
17 typically you would have a duct attached to the duct adaptor
18 to have the air go out of the building.

19 MR. DUGGAN: May I approach, Your Honor?

20 THE COURT: Yes.

21 Q I'm showing you what we have not yet marked as an
22 exemplar but I'm sure we will. Can you tell the jury what
23 this is? Does this illustrate some of the components you've
24 been talking about?

25 A Yes, it does. This would be the grill. This is the

1 metal housing that I was talking about. This is the duct
2 adaptor. When you take the grill off, now you can see the
3 motor plate, you can see the motor. There is two conductors
4 attached to the coil for the motor that plug into a
5 receptacle. This receptacle would be powered through a
6 branch circuit through this hole. And then the branch
7 circuit would go to a switch so, when you turn on the switch,
8 the fan comes on.

9 Q Mr. Finneran, in addition to the product, the overall
10 fan being UL listed, were some of the other component parts
11 of that fan also tested to UL standards?

12 A Yes.

13 Q And which ones were those?

14 A Well, the motor would be tested. For the listing of the
15 fan, all the components would have to be tested. So
16 everything would have to comply with various UL standards.
17 For instance, the impeller is plastic. There is a UL 94
18 standard that would rate that plastic on the impeller. Then
19 the motor would be tested and there is various tests that
20 would encompass that and it would have to pass those tests.

21 Q And was the motor UL recognized, sir?

22 A Yes.

23 Q And what does it mean to be UL recognized?

24 A Well, it has passed the various standard that is needed
25 and has complied with that standard, so it's actually a good

1 product.

2 Q In fact, were each and every one of the component parts
3 that carry electrical characteristics in the product tested
4 by and recognized by Underwriters Laboratories?

5 A Yes.

6 Q Sir, in addition to looking at UL standards and going to
7 the three artifact examinations, did you have any other
8 documents or materials that you used in forming your opinions
9 and conclusions in this case?

10 A Yes. I looked at various depositions that were taken in
11 this case. There is also other internal testing records by
12 Nutone that give various temperatures of the motor. I also
13 looked at documents that Jakel, the manufacturer of the
14 motor, supplied.

15 Q And after evaluating all of those documents, test
16 results, going to the three artifact examinations and
17 comparing what you had there against UL standards and UL
18 recognition standards, were you able to come to an opinion
19 within a reasonable degree of scientific certainty as to
20 whether or not this 696N Nutone fan caused this fire?

21 A Yes.

22 Q What is the opinion?

23 A My opinion is it did not cause the fire.

24 Q Can you tell the jury why the 696N Nutone fan did not
25 cause the fire at the Victor Jack 'n Jill Daycare Center?

1 A Yes. We have two witnesses that testified that the fan
2 was operating at the time of the fire. An operating fan does
3 not start a fire. There is no indication that the fan was
4 making noise, was not doing its job. It was operating. Both
5 witnesses have testified to that. So if you have a fan that
6 is functioning, that is in of itself tells you it's not a
7 fire cause. A functioning product doesn't start a fire.

8 MR. DUGGAN: Your Honor, may I approach the
9 witness?

10 THE COURT: Yes.

11 Q I'm going to show you another exemplar with a mounting
12 plate and an impeller.

13 MR. DUGGAN: May I have Mr. Finneran come down
14 before the jury?

15 THE COURT: Yes.

16 Q Mr. Finneran, do you recognize what I'm just handing
17 you?

18 A Yes. It's the motor plate with the motor attached and
19 the impeller on the shaft.

20 Q Now you just testified to the jury that it was important
21 in your evaluation of this case that the two witnesses have
22 confirmed that the motor was operating, the impeller was
23 operating, and that is important to you in coming to your
24 opinion. Could you explain why that's important in coming to
25 your opinion?

1 A Well, if the motor is actually operating, the impeller
2 is turning, which is what we were told, that the witnesses
3 actually heard the fan operating. It means that the motor is
4 functioning. We have a motor coil right here. The motor
5 coil is what drives the rotor. The rotor is what drives the
6 impeller. So if this is running, that means the motor's
7 operating, and a functioning motor doesn't start a fire. So
8 we know that the motor's operating based on the witness
9 statements.

10 Q Why would a functioning motor with an impeller like that
11 that's rotating make it impossible to start this fire?

12 A Well, there is no failure mechanism. To start a fire
13 you have to generate heat and you have to generate sufficient
14 heat to ignite nearby combustibles. Combustibles could be
15 the impeller, could be lint accumulation, but you have to
16 generate sufficient heat to do that. And for the motor to
17 generate sufficient heat to become an ignition source, it's
18 not operating. So if the motor is functioning as the witness
19 statements indicate, the motor isn't the competent heat
20 source, and we need a heat source to start a fire.

21 Q What, sir, is the operating temperature of this motor?

22 A Operating temperature is 90 degrees C. It seems to
23 fluctuate in the data, but 90 degrees C seems to be one of
24 the higher temperatures. 90 degrees C is approximately
25 194 degrees F.

1 Q Can I interrupt you? 194 degrees sounds like I would
2 get a sunburn if I was out in the sun. Is that a
3 particularly high temperature for this application?

4 A No, it's not.

5 Q Why not?

6 A Because 194 degrees F is not an ignition temperature.
7 Typical ignition temperatures are in the 450 degree range or
8 451 for paper, for instance.

9 Q Let me ask you, I think I asked that question the other
10 day. Fahrenheit 451 is the ignition of paper?

11 A Yes.

12 Q Okay. So that would be cellulose?

13 A Yes.

14 Q And I'm going to ask you just following up on that, the
15 ignition temperature of lint. I'm going to assume, ask you
16 to assume that whatever lint was there was complete
17 cellulose. What would the ignition temperature of that be?

18 A It's typically referred to as 450 degrees. That's
19 usually the lowest temperature that is used for cellulose.
20 But 450 degrees, 451 degrees, at that point there can be an
21 error in your temperature measurements. But it's not only
22 450 degrees, it's the duration of 450 degrees.

23 Q Before we talk about the duration, I just want to ask
24 you, can we convert that into Celsius so that we're talking
25 apples to apples. If the operating temperature of the motor

1 is 90 degrees C, what's the ignition temperature of
2 cellulose?

3 A Actually I can't convert that in my head. I am not
4 certain what conversion of 450 of cellulose is.

5 Q How about 232? Does that sound about right?

6 A Yes. I wasn't positive, but 232 degrees C is conversion
7 from Fahrenheit to Celsius.

8 Q Now, sir, going back to the model that you're using of
9 the mock-up, is it significant in evaluating whether it would
10 be possible for the motor and the fan in this case to start a
11 fire that the impeller was turning?

12 A Yes.

13 Q Why?

14 A Well, the impeller is moving air.

15 Q And which way is it moving the air?

16 A It is actually sucking air through the grill area, which
17 is below here, out the duct, so you're moving air across the
18 motor. So any heat that's being generated by the motor is
19 being removed by the impeller operating. So no matter what
20 is happening here, if the motor's operating and the
21 impeller's turning, you're removing any heat that's
22 concentrating at the motor.

23 Q Sir, in your review of the materials of the deposition
24 transcripts, of the design drawings and the like, were you
25 able to conclude to a reasonable degree of certainty whether

1 it would be possible for a fan with a motor rated at 90
2 degrees C and operating at that temperature to ignite
3 cellulose lint?

4 A Yes.

5 Q And what's your opinion?

6 A My opinion is it cannot.

7 Q Why not?

8 A Because if the fan is operating, and it's operating at
9 90 degrees C or even slightly higher than that, it's not a
10 competent heat source. A competent heat source would have to
11 get above 232 degrees C to ignite any material around.

12 Q Now you said before I interrupted you, which I'm doing a
13 lot, sorry, that there is something more than just getting to
14 a temperature. You talked about time?

15 A Yes.

16 Q What's the import of time in this analysis?

17 A Well, because it reaches 450 degrees doesn't mean that
18 you're going to ignite the cellulose instantaneous. It has
19 to be at that temperature for a period of time and it still
20 may not ignite it. Testing on cellulose insulation that I've
21 conducted on a hot plate, where you put cellulose on a hot
22 plate at 450 degrees for 12 hours, it still doesn't ignite
23 it. It will char it but it doesn't ignite it.

24 Q And what's the significance to you that your testing
25 showed that your hot plate test of heating cellulose up for

1 12 hours would not ignite it, what's the significance?

2 A Well, temperature plays a factor in the ignition of
3 anything. So the significance is, well, we're dealing with a
4 time frame of probably 15 minutes from the time that the
5 witnesses see glowing or candle sized flame in the fan to the
6 time that they exit the building and we have smoke venting
7 out of the roof. So time is a big issue here.

8 Q Why is that?

9 A Well, it takes a period of time for a fire to progress.
10 If you ever tried to light a fire in your fireplace, you
11 don't stick a match on the log. You may crumple up a bunch
12 of newspaper and light the newspaper and hope that the log
13 start on fire. Well, they may not, you may have to put more
14 paper in. Not only do we have limited fuel in this fan, we
15 have limited fuel around the fan.

16 Q Tell me why you say there is limited fuel around the
17 fan.

18 MR. UNDERWOOD: Objection.

19 THE COURT: Pardon me?

20 MR. UNDERWOOD: For the reasons we discussed at
21 sidebar. I'm objecting with regard to an opinion on cause
22 and origin that is outside the issue of the fan itself.

23 THE COURT: Counsel?

24 MR. DUGGAN: This is squarely within his testimony
25 and his disclosed testimony.

1 MR. UNDERWOOD: Your Honor, this is outside the
2 product. We're talking about the area at the scene and in
3 the building, and that wasn't how we differentiated it when
4 we spoke at sidebar.

5 THE COURT: Did he speak of this in the EBT when he
6 testified?

7 MR. UNDERWOOD: He indicated at his deposition,
8 Your Honor, that he wasn't providing opinion with regard to
9 the origin of the fire.

10 MR. DUGGAN: No.

11 THE COURT: I'm talking about the testimony we're
12 hearing right now, was that discussed in the EBT?

13 MR. DUGGAN: Yes.

14 MR. UNDERWOOD: Your Honor, can we have a sidebar
15 on this issue?

16 THE COURT: Well, if he testified about it at the
17 EBT, there's no surprise. You may have an exception, sir.

18 Q You were talking about the nearby combustibles?

19 A Yes.

20 Q And I think you were explaining why in your view this
21 product couldn't have started the fire because of a lack of a
22 nearby fuel?

23 A Yes.

24 Q I'm asking you what you meant by that.

25 A The fan is mounted in the dropped ceiling. From the top

1 of the enclosure to the bottom of the trusses there is a
2 distance. And it tends to vary in the various depositions
3 but it seems to be about 12 inches. So we have paper backed
4 insulation that's stapled to the bottom of these trusses.
5 And if you look at the size of the box, the box is about 4
6 inches, so we've got an inch gap between the fan at a minimum
7 to the bottom of the paper backed insulation.

8 Several of the scene photographs show that there is
9 still some paper remaining on the insulation adjacent to
10 where the fan's located and the fiberglass is still in place.
11 So if the fire started in the fan, it would have to get
12 through the fiberglass insulation into the trusses and then
13 spread through the building. Well, we still have fiberglass
14 present. So there is not enough fuel to spread this fire.

15 Q Mr. Finneran, can you take your seat, please? Thank you
16 very much. Mr. Finneran, are you familiar with the concept
17 of locked rotor as it applies to this product?

18 A Yes.

19 Q And can you tell me what that means?

20 A The rotor is what spins the impeller. So a locked rotor
21 means that the motor is energized but nothing is moving. So
22 you actually run a test where you prevent the rotor from
23 spinning and that's a locked rotor test.

24 Q And did you consider locked rotor and locked rotor
25 testing in coming to your opinion and conclusion as to

1 whether or not the fan removed from the two year old bathroom
2 was the cause of this fire?

3 A Well, I did, but there is witness statements say the
4 rotor's not locked. The witness statements say that the fan
5 is rotating. So there is no indication that we have a
6 bearing failure or a rotor being locked from any other method
7 because the witness indicates that the fan is operating.

8 Q If there had been a locked rotor or if there had been a
9 bearing failure, would that be one way that you might be able
10 to generate heat at the motor?

11 A Yes.

12 Q Did you see any evidence of either of those things from
13 anyplace in this case?

14 A No.

15 Q And what does that tell you about the temperature of the
16 motor at the time of the fire?

17 A Well, the temperature of the motor's going to be within
18 its operating temperature. There is no indication that there
19 is any reason for the motor to get hotter than 90 degrees C
20 plus or minus whatever percentage error would be in there.
21 So if the motor's in an operating condition and the
22 temperature is 90 degrees C to 100 degrees C, we don't have a
23 competent heat source.

24 Q Now, sir, you mentioned something we talked a little bit
25 about lint. Could I have P87F, please? Mr. Finneran, do you

1 see what we've put on the display as Plaintiff's Exhibit 87F?

2 A Yes.

3 Q And can you tell the jury what it is that we're looking
4 at here?

5 A We're looking at an accumulation of lint or other
6 debris. Looks like there is some soot staining in there, but
7 the majority of that is lint and it's focused around the
8 rotor.

9 Q When you say the rotor, is that in this area here?

10 A Yes. What that circular piece was referred to as a
11 bearing cap and the rotor. One end of the rotor is actually
12 inserted into that, then there will be a metal cylinder that
13 goes through the frame of the motor and a shaft coming out
14 the other side, which you can see the white on the upper
15 right-hand corner is the impeller.

16 Q And could you show the jury that with what you have in
17 front of you?

18 A Here's the impeller area here.

19 Q Now what do you notice about on P87, can you show us
20 where the motor coil is?

21 A Motor coil actually popped up with another arrow and
22 that's right here.

23 Q Is this photograph and what you see here significant to
24 you assuming that there is testimony that the amount of lint
25 on the fan motor from the two year old bathroom was similar

1 to what was here?

2 A Yes.

3 Q And can you explain that to us, please?

4 A Well, that's really not much of an accumulation of lint.
5 The motor coil, you can still see the paper label on the
6 outer wrap and that's this area here. That gives the data
7 for what the motor is. And the paper label is visible so
8 there is not much of an accumulation on the coil itself so
9 there is really no insulating factor.

10 Q What do you mean when you say there is no insulating
11 factor, what do you mean?

12 A Well, trapping of heat. For instance, the coil operates
13 at 90 degrees C, and if the heat is trapped by insulating it,
14 it's going to get hotter. Well, there is no insulating
15 factor on the coil. We can see the outer wrap and we just
16 see minor lint accumulation and most of it is around the
17 bearing cap.

18 Q Is there in your view, sir, enough fuel here to be a
19 source of first fuel to light a fire?

20 A Well, it certainly could be. Outside of what we're
21 looking at here. I mean, there is fuel there, so it could be
22 ignited, but that's not much fuel. Lint doesn't produce much
23 heat and it burns rapidly.

24 Q And so what's the significance of that?

25 A Well, if the lint is ignited, it has to ignite a

1 secondary fuel, and more than likely the secondary fuel is
2 going to be the impeller. There is also the possibility of
3 the bobbin material. The bobbin material is, I'll get it
4 right eventually, in this white-ish area. The coil is
5 actually wrapped on a bobbin, and then inserted on what's
6 been referred to as an I bar. And then joined to the C
7 frame. So the fuel you have in this area is either the
8 impeller or the bobbin material. And both will eventually
9 burn. But we have a functioning fan. The impeller's turning
10 and makes it very difficult to ignite a rotating item.

11 Q Sir, other than the fact that we have a properly
12 operating motor and properly turning rotor and a turning
13 impeller, and that there is the amount of fuel, whatever fuel
14 there is here as we see on this, were there any other factors
15 that led to your conclusion that the fan from the two year
16 old bathroom could not have been the cause of the fire in
17 Victor?

18 A Yes.

19 Q And what was that?

20 A It's the timeline for the fire.

21 Q Can you explain to the jury what you mean by that?

22 A Well, both witnesses testified that -- well, first,
23 Ms. Suffredini testified that the two year old bathroom was
24 used right around 4:50 p.m., and then shortly thereafter is
25 when she became aware of what she saw dropping to the floor

1 but never saw anything on the floor, but something happened
2 that brought her attention to the bathroom. She sees a
3 candle sized flame in the fan. Whether it's a flame or a
4 glow, it tends to vary a little bit but it's a candle sized
5 flame.

6 The 911 call is at, I believe, 5:00 or 4:59. And the
7 fire department arrives at 5:04. At that point we're through
8 the roof already. We don't have the fuel or the spread of
9 the fire from the fan to get through the fiberglass
10 insulation that's still present in the scene photographs to
11 get into the attic and burn the trusses to get through the
12 roof. So the timeline is a very critical issue in my
13 opinion.

14 Q Now, sir, I want to talk a little bit about some of your
15 findings during the examination of the artifacts,
16 particularly the artifact examination in Seattle when you
17 went up to Mr. Lewis' facility.

18 A Yes.

19 Q As I understand it, Mr. Lewis testified that he found a
20 small notch or an arc that he considered was an arc mark on
21 the I bar?

22 A Yes.

23 Q Did you come to an opinion on conclusion as to whether
24 that notch on the I bar was an arc mark?

25 A Yes.

1 Q And what's your opinion on that?

2 A I believe it is an arc mark.

3 Q Can you tell the jury what an arc mark is under those
4 circumstances?

5 A An arc mark is where you actually lose metal. So, the I
6 bar is made up of laminations, and in one area there is a
7 small notch in the lamination. That notch wouldn't be caused
8 by the fire, meaning the fire itself couldn't melt it because
9 it's steel. Steel melts about 3,000 degrees. So to put that
10 notch in the I bar, it's my opinion that the start winding
11 for the coil actually touched it.

12 Q Let me stop you right there, sir. Is it true that that
13 notch on the I bar is proof positive that the fire started in
14 the fan?

15 A No, it's not.

16 Q And could you explain to us perhaps with the aid of one
17 of the models you have there why not?

18 A Well, the arc mark in the I bar, and you really can't
19 see the I bar, but you see this rivet that's kind of shiny,
20 there is another one right here. That makes up the I bar
21 that goes through the center of the coil. So we have an arc
22 on the I bar which tells us that the fan is energized.

23 Q It tells us that the fan is energized when?

24 A During the fire, which we already knew by the eyewitness
25 statements. The eyewitness statements state that the fan is

1 operating and there is no adverse noise or indications that
2 there is a failure at the fan, it's running normal.

3 Well, an arc at the I bar would stop the motor. You
4 would actually sever power to the motor so that it couldn't
5 be running. So if the arc at the I bar actually started this
6 fire, Ms. Suffredini could never hear the fan running and see
7 a candle sized flame in the unit, it's not possible.

8 Q You were about to say something about reversed polarity
9 while we were discussing this and I think I cut you off.

10 What does the term reverse polarity mean in this context?

11 A Well, in this particular setup these two plug blades are
12 identical size.

13 Q What do they go to?

14 A They go to the motor itself. You can see the wires
15 coming off this going to the motor coil and they plug into
16 this receptacle right here. There is no orientation on how
17 this goes in.

18 Q Why is that important in your analysis of the arc mark?

19 A Well, it's my opinion that the thermal protector in the
20 coil opened. The thermal protector, if it's wired the way it
21 would be intended, the first power lead, the hot lead coming
22 off of this plug would go to one leg of the thermal
23 protector. The thermal protector opens, then the coil is no
24 longer energized. If that was the case, you wouldn't get an
25 arc to the I bar.

1 Q So isn't it, therefore, true that there must have been
2 an arc to the I bar before anything else happened?

3 MR. UNDERWOOD: Objection, Your Honor; leading.

4 THE COURT: Overruled. You may answer that.

5 A No. I think the arc in the I bar occurred late in the
6 fire.

7 Q What about you were explaining to us the reverse in the
8 polarity?

9 A Yes.

10 Q What does this impact your opinion?

11 A Well, if you reverse how this is plugged in, which is
12 very easily done, you can plug it in either way, then the
13 energized lead actually goes through the entire coil up to
14 the thermal protector. So the coil would still be energized.

15 Q What do you mean? When would the coil still be
16 energized?

17 A After the thermal protector opens.

18 Q And why is that?

19 A Because we have the energized lead or power lead from
20 the receptacle going through the start winding instead of the
21 finish winding.

22 Q So if I understand you correctly, thermal protector
23 could be open and you could still have electrical potential
24 at the coil?

25 A Correct. You wouldn't have an operating fan but you

1 would have electrical potential at the coil.

2 Q And how does that impact your analysis of when the arc
3 mark on the I bar?

4 A Well, once the thermal protector opens and the coil
5 stays energized and the fire ensues, the bottom material is
6 compromised. The bottom material can char and disintegrate
7 or just char, and 120 volts, which the start winding is going
8 to be at, it could arc through this char and arc to the I
9 bar. So it could arc to the I bar very late in the fire.

10 Q Do you have an opinion, sir, to within a reasonable
11 degree of scientific certainty as to how that mark on the I
12 bar occurred?

13 A Yes.

14 Q And what's that?

15 A I believe that the start winding from the coil actually
16 came in contact with it or arced through the charred bobbin
17 material.

18 Q And do you have an opinion as to when that happened in
19 the sequence of these fire events?

20 A Well, it had to happen late in the fire because we have
21 an operating fan.

22 Q Sir, Mr. Lewis -- can we have Exhibit P119, please?

23 Mr. Lewis also talked to the jury about what he thought were
24 arc marks on the motor coil. Do you see what we -- what's
25 before the jury now as P119?

1 A Yes.

2 Q And do you recognize what's that?

3 A Yes.

4 Q What is it?

5 A In my opinion -- well, what we're looking at is the
6 coil. The outer wrap has been removed from the coil and we
7 have melted turns on the coil.

8 Q And where are the melted turns?

9 A There is an area here, an area here and an area here.

10 Q Sir, tell us why in your view those are melted turns
11 rather than arcs?

12 A Well, first of all, because of the construction of the
13 coil you can't arc from turn to turn, you don't have enough
14 voltage. It takes a certain amount of voltage before you can
15 actually cause arcing to occur. So between turn to turn
16 we're looking at a couple tenths of a volt which is not
17 enough to cause electrical activity. Plus when you do get
18 arcing, you don't end up with large globules of material. An
19 arcing event can be very dramatic and you would typically
20 spew metal away from the arcing event. The damage I see on
21 this coil is indicative of a fire melt to me.

22 Q And what is the difference between fire melt and arcing?

23 A Well, fire melt is the fire environment got hot enough
24 to melt the material. Which typical fires are hotter than
25 what it takes to melt aluminum, which is 1,220 degrees

1 Fahrenheit. So it's very possible that temperatures in this
2 area, since we consumed the bobbin material, we have
3 impingement on the coil, we have fire around it that we ended
4 up with temperatures sufficient to melt the coil.

5 Q Mr. Finneran, we heard a lot about arc mapping yesterday
6 and you mentioned that you actually published an article
7 about arc mapping. Was arc mapping done in this case?

8 A It certainly wasn't done at the fire scene.

9 Q Why not?

10 A Well, arc mapping means you actually trace the circuits
11 all the way back to the panel board. For the most part, the
12 circuits were down on the floor. There is no evidence of
13 reconstruction, putting it back in place and trying to
14 determine where all the damage was. There are various
15 circuit breakers that were tripped and none of that was
16 identified as to why they tripped. So arc mapping is a tool
17 that allows you to visually inspect the circuits within the
18 building and determine where electrical activity took place.
19 That was not done in this case.

20 Q And so does arc mapping play any role in your opinion
21 and conclusion that the fan from the two year old bathroom
22 could not have started this fire?

23 A No, not really.

24 Q And why would it not play any role?

25 A Well, there is so much that wasn't looked at. There is

1 a lot of circuits that weren't analyzed, so there is nothing
2 I can use to say there was evidence of arcing in other
3 portions of the building. There is certainly melted
4 conductors that could have arced but I don't know where they
5 came from, so I can't put a location on where I believe
6 arcing may have occurred.

7 Q Well, as part of your analysis of this case and your
8 work in this case, did you attempt to find other competent
9 ignition sources?

10 A Yes.

11 Q And what did you do in that regard?

12 A I reviewed the fire scene photographs and the artifact
13 examination looking at the various conductors that were
14 recovered from the building.

15 Q Were you able to determine any other potential ignition
16 source, competent ignition source for this fire?

17 A Yes.

18 Q And what?

19 A There is a light fixture that was shown in one of the
20 photographs that's hanging down from the truss area. It's
21 above the dropped ceiling and it's I believe in the southeast
22 corner of the two year old room. That light fixture and
23 wiring was never examined. It is a potential ignition
24 source. I don't know if it is the ignition source, but it is
25 a potential ignition source.

1 Q Why is it significant to you that that -- was that the
2 Edison light fixture that Mr. DeMatties talked about?

3 A Yes.

4 Q And why was that potential ignition source -- why was it
5 important that that potential ignition source was not
6 examined?

7 A Well, I can't determine if it was on or off. It had a
8 bulb in it, and a rather large bulb. I can't determine
9 wattage size but the filament is pretty large in it. And a
10 light bulb is a heat source. So if it happened to be on and
11 it was in contact with combustible materials, it could be the
12 ignition source.

13 Q Were there other potential sources of ignition in the
14 two year old room?

15 A Well, there was other wiring that showed damage.
16 Whether it was electrical activity or just strictly melting,
17 I didn't make a determination. But if it was electrical
18 activity, it certainly could be a potential ignition source.

19 Q Sir, were you able to come an opinion within a
20 reasonable degree of scientific certainty as to whether or
21 not a source of ignition in the two year old room was the
22 cause of the fire?

23 A No. My determination is the fire is undetermined.

24 Q What does it mean that the fire is undetermined?

25 A I didn't find a competent heat source. And certainly I

1 wasn't at the fire scene. I'm only looking at the artifacts
2 that were recovered from the fire scene. I found evidence of
3 potential ignition sources, but I have nothing that I can say
4 was the ignition source. Since I don't have something that
5 is conclusive in my opinion, I classify it as undetermined.

6 Q Now the jury has heard about NFPA 921. Can you remind
7 us what that is?

8 A NFPA 921 is a guideline for fire and explosion
9 investigations, and it covers various aspects of origin
10 determination, cause determination, electrical examinations.
11 The document is a living document, it's growing every three
12 years, so there is more material in it to assist fire
13 investigators and engineers in making determinations as to
14 origin and cause of fires.

15 Q Does NFPA 921 speak to the concept of undetermined fire
16 cause?

17 A Yes. It's one of their classifications for
18 determination on fire origin and cause.

19 Q And what does it say about when it is appropriate to
20 classify a fire as undetermined, cause of fire as
21 undetermined, as opposed to some other classification?

22 A Well, if you don't have a conclusive cause for the fire
23 and you can't eliminate other potential causes, the
24 classification should be undetermined.

25 Q In your experience, sir, for the last 35 years of going

1 to over 3,000 fire scenes, is it uncommon to have fire
2 sources determined to be -- classified as undetermined?

3 A No. I mean, first of all, you have to determine point
4 of origin before you can make a cause determination. So if
5 you can't do an origin determination, you can't do a cause
6 determination.

7 Q Roughly what percentage of the fires that you've
8 investigated over the past 35 years or so ended up as being
9 undetermined causes?

10 A About 60 percent of the fires I work are undetermined.

11 Q Do you know what the percentage is generally in your
12 industry?

13 A Well, it varies between investigators. I've had
14 investigators tell me that they have determined 90 percent of
15 the fires they work. I've had other investigators tell me
16 that they're in the 60 to 70 percent range. So it really
17 depends on who you're talking to.

18 Q Now, Mr. Finneran, you also mentioned that one of the
19 things you were asked to do was to evaluate the design of the
20 696N RO2 fan, correct?

21 A Yes.

22 Q And the Jakel 2380505138 motor?

23 A Yes, I consider it a combination. Without the motor you
24 don't have a fan.

25 Q And did you undertake to do that work in this case?

1 A Yes.

2 Q Can you tell us what you did?

3 A Well, I looked at the design of the fan. I looked at
4 the UL testing of the fan. I looked at the various
5 temperatures that UL has provided in their testing, Jakel has
6 provided in their testing, and didn't find any evidence that
7 would suggest that the fan or motor were not designed
8 properly.

9 Q Which reminds me of one thing that you mentioned and I
10 forgot to get to was the TCO. You mentioned I think that the
11 TCO in this case was open in your view?

12 A Yes.

13 Q What does TCO stand for?

14 A Well, it's a thermal cutoff. A lot of times it will be
15 referred to as a thermal protector. It is a one shot fuse,
16 so when it sees a temperature it opens and shuts off power to
17 whatever the device, and in this case the motor coil.

18 Q And how is it designed to work?

19 A It's designed to work off of temperature, and that
20 temperature is temperature from the motor coil, from current
21 flow through the leads also generates temperature, and it
22 will also open from environmental temperature.

23 Q And how is that set, the temperature?

24 A The temperature is set by the design of the product. So
25 in this particular case it's 136 degree C fusible link inside

1 the thermal protector.

2 Q What does it mean, sir, to be 136 degree Centigrade
3 fusible link?

4 A Well, at 136 degree C it should open, and there will be
5 a variation in temperature. Plus it has to see that
6 temperature for a period of time. So at that time frame it
7 will, the fusible link actually melts and open circuits the
8 motor coil.

9 Q And when it open circuits the motor coil, what happens?

10 A The motor is no longer energized, unless there is
11 reversed polarity, then the coil is still energized.

12 Q Will the coil still be able to provide energy to the
13 rotor so it will still turn?

14 A No. It's not a complete circuit any longer, so once the
15 thermal protector opens, you have an open circuit so the
16 motor doesn't operate but the coil is still energized.

17 Q You mentioned that the TCO that you saw was open. Does
18 the TCO open and look in the same way visually all the time?

19 A No, it does not.

20 Q Why not?

21 A Well, it depends on how the heat affected it. So you
22 can have fusible links that open at various stages. You can
23 have them open completely or partially. So you have a small
24 gap compared to a large gap. And I've never seen two open
25 the same way.

1 Q Well, does it matter if you have a small gap as opposed
2 to a large gap?

3 A No, it does not.

4 Q Why not?

5 A Because at 120 volts you can't arc across air, so once
6 it's open you no longer have any electrical flow through that
7 fusible link.

8 Q So if it's open only by a little bit, it's still going
9 to be open and you're not going to have electrical capacity
10 through the link?

11 A That's correct.

12 Q Can you tell me, sir, why is it that you say that this
13 TCO was open?

14 A Well, there is two things. The lead is loose in the
15 thermal protector body when I examined it.

16 Q When was that?

17 A That would have been July 29th, 2010. That would be the
18 first examination of the fan. And so if it's actually loose,
19 it's no longer connected.

20 Q So it is by definition open?

21 A Yes.

22 Q When you saw this, where were you?

23 A I was at Bud DeMatties' facility.

24 Q That's right here in Syracuse?

25 A Yes.

1 Q Are there ways to check for electrical continuity in
2 conductors?

3 A Yes.

4 Q And what are the ways?

5 A Well, you would use an ohmmeter.

6 Q O-H-M?

7 A Yes.

8 Q What does an ohmmeter measure?

9 A It measures the resistance between two points.

10 Q When you say resistance between two points, can you
11 explain to us who are not electrical engineers what that
12 means?

13 A Yes. For instance, switch contacts. If you wanted to
14 know if the switch was closed, you would measure resistance
15 across those contacts and it would show that there is zero
16 resistance because it's closed. If they were open and with
17 the same measurement, then it would show that there is no
18 resistance, and that tells you that the contacts are open.

19 Q So if you get some resistance, it's closed and it's a
20 measurement for how much. It's resistance to electrical flow
21 basically?

22 A Yes.

23 Q And if it's open, you're going to get no reading at all?

24 A Correct.

25 Q So would it have been possible in July of 2010 to do an

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1 ohmmeter test to determine whether the circuit was open in
2 the TCO?

3 A It would have been possible but it wasn't necessary when
4 you found a loose lead.

5 Q And that was what?

6 A The loose lead indicated that the bridge was no longer
7 connected.

8 Q Well, sir, did you see the photographs that Mr. Lewis
9 took five years later in 2014 of the TCO?

10 A Yes, I did.

11 Q And did you see the piece where he put them in that
12 small little housing?

13 A Yes, I did.

14 Q And did you see what happened when he first put them in?

15 A Yes.

16 Q What happened?

17 A There's a gap.

18 Q There is a gap. What does that mean?

19 A That it's open.

20 Q So even five years later it was still open?

21 A In my opinion, yes.

22 MR. DUGGAN: Your Honor, would this be a good time
23 for our lunch break?

24 THE COURT: No. I think we'll go for a little bit
25 more.

1 MR. DUGGAN: Okay.

2 Q Sir, just to finish that up. Your opinion that the TCO
3 was open in this case, is that an opinion that's offered
4 within a reasonable degree of engineering certainty?

5 A Yes.

6 Q Now, sir, you also were asked to evaluate the design of
7 the 5138 motor, and I interrupted you with that again. What
8 did you do to evaluate the sufficiency of the design of the
9 motor in this case?

10 A I reviewed all the documents that UL had, the testing
11 that UL did for the motor, and Jakel's documents on the
12 testing that they've done, and Nutone quality assurance
13 documents as well.

14 Q Tell me about the Nutone quality assurance documents
15 that you looked at.

16 A There is documents that Nutone actually samples motors
17 coming in-house. So motors from a vendor would be shipped to
18 Nutone and they would pull samples and run tests on a number
19 of samples. They would do the locked rotor test indicating
20 the bearing failure or something that would block the rotor
21 from turning, and show that the thermal protector would open
22 in the specified period of time which would be within the UL
23 listing of the product.

24 Q Did you also -- you said you also evaluated some Jakel
25 testing documents?

1 A Yes.

2 Q And did Jakel have to have a UL recognition file just
3 like Broan-Nutone did for the fan?

4 A Yes.

5 Q And when a manufacturer like Jakel has to maintain a UL
6 listing file, what does that mean?

7 A Well, they keep documents for a period of time of all
8 the testing that has gone on for the motor and then any
9 changes that are made they have to retest the motor. And
10 then UL would look at those documents along with their own
11 testing.

12 Q And did UL maintain that listing and actually test on a
13 quarterly basis?

14 A UL will do inspections on a quarterly basis. And I
15 can't say they will run the same tests, but they will look
16 for any abnormalities during the manufacturing process and
17 then may pull samples and run those tests.

18 Q Right at the plant of the motor manufacturer?

19 A Yes.

20 Q And then you know that the TCO also had a UL listing?

21 A Yes.

22 Q Or recognition. And does that mean that Tamura in this
23 case had to submit its product for examination by UL
24 engineers?

25 A Yes.

1 Q And did they do that?

2 A To my knowledge they did.

3 Q Was it recognized?

4 A Yes.

5 Q And would they also be subject to the same type of
6 quarterly analysis and inspection you've just described?

7 A Yes, they would be.

8 Q What about the magnet wire manufacturer, was that that
9 also UL recognized?

10 A That I don't know.

11 Q But if any component part was recognized by UL, all of
12 those manufacturers would have to go through the same UL
13 examination process and then quarterly inspection process?

14 A Yes.

15 Q Sir, did you come to an opinion within a reasonable
16 degree of scientific certainty as to whether or not the
17 product would comply, the fan complied with UL 507?

18 A Yes.

19 Q And what is your opinion in that regard?

20 A That it did comply with the UL standard.

21 Q Why do you say that?

22 A Well, all the testing that was done on the product was
23 within their specifications, which mean it would comply with
24 the standard.

25 Q And did you come to an opinion to within a reasonable

1 degree of scientific certainty as to whether the motor
2 complies with UL and industry standards?

3 A Yes.

4 Q And what is your opinion in that regard?

5 A That the testing done on the motor complied with the
6 standard to make the listing and that would be that it
7 complied.

8 Q And does that impact your view as to whether or not the
9 motor was reasonably fit for its intended and foreseeable
10 uses?

11 A Yes.

12 Q And what is your opinion in that regard?

13 A I believe it was.

14 Q Can you tell the jury why it is that the 5138 motor was
15 reasonably fit for its use in the Nutone 696N fan?

16 A Well, the motor was tested in various stages and passed
17 the testing that is required by Underwriters Laboratories,
18 and that testing would imply that it could be used for the
19 application it's intended to.

20 Q Mr. Finneran, I have just a few more questions in this
21 regard. I want to put in front of you now what's marked as
22 Exhibit D10. This is a Nutone quality assurance lab report?

23 A Yes.

24 Q Is this one of those documents that you evaluated in
25 coming to your opinions and conclusions in this case?

1 A Yes.

2 Q Let's look at page 2, Bates number 298. If you could
3 zoom in on the locked rotor test. Sir, looking at the
4 results of the locked rotor test on this sample of motors
5 anyway, sample number one says passed, the protector opened
6 at 160 degrees Centigrade, right?

7 A Yes.

8 Q Could you explain for us what that means?

9 A Well, the thermal protector, which is mounted on the
10 coil itself, is heated up in this test and opened at
11 160 degrees C in 13 and a half minutes.

12 Q How does the test -- how is the test done?

13 A The test is that they locked the rotor.

14 Q This is the locked rotor test you're talking about?

15 A Yes.

16 Q What's the purpose of doing a test like this?

17 A Well, one of the purposes would be that a bearing
18 failure could occur, and if the bearing fails at end of life,
19 the motor's locked, the rotor's locked.

20 Q Let me ask you to stop you there. You say the bearing
21 failure could occur. What is a bearing in this regard?

22 A Well, in this motor there is two bearings. There is one
23 on each end, referred to a bearing cap earlier on. The
24 bearing is actually sitting in the cap and the shaft from the
25 rotor on one side is sitting in that bearing, and then

1 opposite side the shaft that has the impeller on it has
2 another bearing.

3 Q Do you have the motor plate? Maybe the motor plate
4 might be easier to use where you can show the jury where the
5 end cap is?

6 A Here's the bearing cap here. Within the bearing cap is
7 the bearing, so we have one here, and we have one here.

8 Q What does a bearing do? What's its purpose?

9 A It allows the rotor to spin freely.

10 Q Now you said I think that a bearing can fail at end of
11 life?

12 A Yes.

13 Q Does that mean it's not designed to last forever?

14 A Pretty much.

15 Q Have you ever evaluated a product that's designed to
16 last forever?

17 A No.

18 Q So when a product like this begins to fail or a bearing
19 begins to fail, what typically happens?

20 A Typically it becomes noisy.

21 Q What do you mean?

22 A You'll hear a noise. It won't be the normal operation
23 of the fan when you turn it on and you'll hear screeching
24 noise, or the fan doesn't start up, the rotor doesn't turn.
25 So there is various indications that I was telling you that

1 you're getting to end of life of the fan.

2 Q So why are manufacturers asked to do locked rotor tests?

3 A Well, it's one of the failure modes that they're aware
4 of, that the bearings wear out, and if it wears out you want
5 to be prepared for it.

6 Q So if the bearing wears out and you hear this noise,
7 it's possible at some point that the rotor is going to
8 actually lock?

9 A Correct.

10 Q And at that point that's the purpose of doing this test,
11 as I understand it?

12 A Yes.

13 Q Because if the bearing locks and the impeller will no
14 longer turn, what can happen?

15 A Well, the coil will start to heat up.

16 Q Okay. And then so what is measured in these locked
17 rotor tests?

18 A Coil temperature. So you're trying to determine how hot
19 the coil gets before the thermal protector actually opens and
20 shuts off power to it.

21 Q And UL actually has restrictions and regulations for how
22 long, how high a temperature can go over what period of time
23 before the TCO has to open in a locked rotor test, right?

24 A Yes.

25 Q And what's that in this case?

1 A I believe the UL test temperature is 225 degrees C.

2 Q Over what period of time?

3 A One hour with a thermal protector.

4 Q So that we understand what that means is for a motor to
5 pass that test, the manufacturer or UL, whoever is doing the
6 test, would lock the rotor, energize the motor, and then
7 check to make sure that over a whole hour the product won't
8 go more than 225 degrees C?

9 A Correct.

10 Q And what happened in the test, number one test that we
11 have here before the jury in Exhibit D10?

12 A Well, with Nutone's quality assurance they actually
13 lower that temperature to 200 degrees for their pass/fail.
14 And in this test it got to 160 degrees C for 13 and a half
15 minutes. So after 13 and a half minutes maximum temperature
16 was 160 degrees C and the thermal protector opened and shut
17 off the coil.

18 Q In coming to your opinions and conclusions in this case,
19 Mr. Finneran, is the time 13 and a half minutes significant
20 to you in determining whether or not this fan could have
21 caused the fire at Victor Daycare?

22 A It is. It's one of the pieces of information that would
23 be utilized. First of all, we know that the motor is
24 turning, it's not locked, based on the witness statements.
25 Second of all, we don't have 13 and a half minutes before we

1 have fire coming out of the roof. And at 160 degrees C
2 that's not a competent heat source. So 160 degrees C won't
3 start a fire.

4 Q Doing the same analysis for sample number three here
5 where it passed, at 167 degrees in 14 and a half minutes,
6 what would the importance of that in your opinion and
7 conclusion that this fan could not have started the fire at
8 the Jack 'n Jill Daycare Center?

9 A Well, at 167 degrees C you're still not a competent heat
10 source. We still are within 14 and a half minutes. So if
11 the fan was the cause of the fire, it would have to have
12 locked up after Ms. Suffredini left the bathroom because she
13 says it's spinning when she's in the bathroom. So it would
14 have to lock up and then go beyond this 167 degrees C to
15 become a competent heat source, but yet the time frame
16 doesn't fit. The time frame in this case is critical for the
17 fire. We use don't have sufficient time to have a fire start
18 in this fan and spread to the attic and do the damage we're
19 seeing based on fire department reports and witness
20 testimony.

21 THE COURT: We'll take the recess at this time.
22 Come back at 1:30.

23 (Recess at 12:30.)

24 (Reconvene at 1:35, jury present.)

25 THE COURT: Mr. Finneran, you're still on direct

1 exam.

2 MR. DUGGAN: No further questions, Your Honor.

3 THE COURT: Okay, cross.

4 *CROSS-EXAMINATION BY MR. UNDERWOOD:*

5 Q Good afternoon, Mr. Finneran.

6 A Good afternoon.

7 Q We have met before previous, haven't we?

8 A Yes, we have.

9 Q Since 2008 -- first of all, you're appearing here today
10 on behalf of the defendant Broan-Nutone, correct?

11 A Yes.

12 Q And since 2008 you've been performing investigations for
13 Broan-Nutone and Jakel, the manufacturer of the motor in this
14 case, correct?

15 A Yes, I have.

16 Q And since that time Jakel and Broan-Nutone have hired
17 you somewhere between 45 and 60 times to handle
18 investigations on their behalf, isn't that true?

19 A Yes.

20 Q And in this particular case you attended four evidence
21 exams. That's what you explained to the jury earlier,
22 correct?

23 A Three.

24 Q Well, the first group of exams consisted of one day in
25 July 2010, is that right?

1 A Correct.

2 Q And then there were three other days that occurred in
3 October of 2010, right?

4 A Yes. But I considered that one examine, it was three
5 days long but it's one exam.

6 Q And those days were full days, right?

7 A Yes.

8 Q And the first day we were there together, that was a
9 full day as well, wasn't it?

10 A Yes, it was.

11 Q Now you testified earlier that based upon your full day
12 examination of the evidence in July 2010, you determined that
13 the TCO that was attached to the fan in the two year old
14 bathroom operated correctly. That was your testimony
15 earlier, correct?

16 A I've testified that it operated correctly. I said that
17 based on our examination the thermal protector lead was
18 loose, indicating it operated.

19 Q And during those four evidence exams, you examined all
20 the evidence in this case, correct?

21 A Yes.

22 Q And after examining all that evidence, you issued a
23 report in September 2013, is that correct?

24 A Yes.

25 Q And after attending those four full days of examination

1 and conducting evidence exams of all the evidence, you issued
2 an opinion set forth in page 2 of your report, and I state as
3 follows, "No evidence of electrical activity was found on the
4 I bar." Isn't that correct?

5 A Yes, it is. First of all --

6 Q Is that your answer?

7 A Yes, it is.

8 Q Now thereafter Mr. Lewis, the plaintiff's expert,
9 performed an examination of the I bar, isn't that right?

10 A That's correct.

11 Q And based upon his examination, he found damage to the I
12 bar, right?

13 A Yes, he did.

14 Q Specifically, he found what I think you described
15 earlier as a notch, right?

16 A That's correct.

17 Q And that notch was in the steel that was used to
18 construct the I bar, right?

19 A Correct.

20 Q Now steel has a melting temperature of about what,
21 3,000 degrees?

22 A That's what I've stated.

23 Q And you agree with Mr. Lewis now that the only way you
24 could have that damage to the I bar is as a result of
25 electrical arcing, correct?

1 A That's correct.

2 Q And you also agree now with Mr. Lewis that the only way
3 that arc damage could occur on the I bar is if the coil had
4 come into contact with the I bar, right?

5 A The coil wire, or through the char of the bobbin
6 material.

7 Q In order for that to occur, you would have to have a
8 breakdown of both the bobbin material and the insulation on
9 the aluminum wire, right?

10 A That's correct.

11 Q Now, in order to comply with your opinion about how the
12 fire occurred -- strike that.

13 To be consistent with your opinion that the fire did not
14 originate in the fan, there would have to be some sort of
15 electrical supply into that location at the I bar at the time
16 that the fire attacked it, is that right?

17 A Correct. The fan would be operating.

18 THE COURT: Now I'm going to ask you to do
19 something I never ask anybody to do; pull that a little
20 closer, that microphone. Okay.

21 Q And you agreed now with Mr. Lewis that the fan was
22 energized at the time of the fire, right?

23 A Yes. I've agreed that the fan was energized based on
24 eyewitness testimony.

25 Q And specifically with regard to the arcing evidence that

1 was found at the base of the coil right where that I bar, it
2 would have to be energized? The power would have had to have
3 been reaching that location for that arcing to take place,
4 right?

5 A That's correct.

6 Q It's also your opinion that the fire did not originate
7 in the fan. You've told the jury that earlier today, right?

8 A That's correct.

9 Q And in order for your failure scenario to be true, the
10 fire would have had to have originated someplace else and
11 then traveled over to the fan, is that correct?

12 A That's correct.

13 Q And you didn't examine the loss site in this case, did
14 you?

15 A I did not?

16 THE COURT: The what site?

17 MR. UNDERWOOD: This site.

18 Q In fact, no one on behalf of Broan-Nutone performed any
19 arc mapping at the loss site, did they?

20 A Not to my knowledge.

21 Q In fact, Mr. Natale, who was the investigator that was
22 on site, specifically didn't perform any arc mapping,
23 correct?

24 A Correct.

25 Q Did you review Mr. Natale's deposition testimony in this

1 case?

2 A I have.

3 Q In fact, at his deposition he stated he didn't perform
4 that arc mapping because he said it wasn't his
5 responsibility. Did you see that testimony?

6 A Yes, I did.

7 Q Now, with regard to your theory, you said the fire would
8 have to originate at some other location and travel over to
9 the fan to char the bobbin and damage the insulation on the
10 windings for the coil, is that right?

11 A That's correct.

12 Q Do you still have the exemplar fan with you?

13 A Yes, I do.

14 MR. UNDERWOOD: May I approach, Your Honor?

15 Q Now you explained to the jury earlier that in its
16 orientation up in the dropped ceiling, the fan would be
17 oriented like this, is that right?

18 A Yes.

19 Q And the bobbin that you described earlier that you said
20 would have to be charred is located here, right?

21 A That's correct.

22 Q And the windings have insulation and they're wrapped
23 inside, and it's under this what appears to be paper, is that
24 right?

25 A That's correct.

1 Q You will agree with me that this paper is fire
2 inhibiting, it doesn't burn like regular paper, isn't that
3 right?

4 A That's correct, because it's not paper.

5 Q What is it?

6 A It's Voltoid material. It's a 5V rated material.

7 Q And that means that it's not supposed to catch fire,
8 right?

9 A Right. It will burn if there is flame impingement on
10 it, but it doesn't burn like plastic would.

11 Q So that location where the arcing took place between the
12 I bar and the coil would be located underneath where this
13 paper is located, right?

14 A That's correct.

15 Q And then also it would be protected or the space between
16 the coil and the I bar would be protected by the bobbin as
17 well, right?

18 A Yes.

19 Q And so in your theory, for a fire to come in and cause
20 damage to this location, it would have to reach down to where
21 this bobbin and the I bar are located, right?

22 A That's correct.

23 Q As the fire progressed to this fan, it would come into
24 contact with a number of other circuits, isn't that correct?

25 A Depends on how the fire progresses to the fan.

1 Q And you don't know how the fire progressed to the fan,
2 do you?

3 A I do not.

4 Q And you have no opinion about how the fire actually
5 entered the fan, right?

6 A I do not.

7 Q And with regard to the fire path, as the fire attempted
8 to reach that location that you described down here, it would
9 come in contact with the wire that supplied power into the
10 top of the fan, correct?

11 A It would eventually, yes.

12 Q But you're not sure exactly because you don't know which
13 way the fire approached this fan, right?

14 A I do not.

15 Q Typically you would agree that fires tend to burn up and
16 out from wherever they start, right?

17 A Typically. But that isn't the way fires typically burn
18 all the time. I mean, you have fire that burns based on the
19 fuel package. So if I have a couch, the fire will burn on a
20 couch going up but it also burns down because of the fuel
21 package.

22 Q Okay. The fuel package would be very close to the floor
23 in that circumstance, isn't that true?

24 A Well, the couch is sitting on the floor, yes.

25 Q Exactly. And in this case we had a fan that was sitting

1 on top of a dropped ceiling, right?

2 A Correct.

3 Q And you have an understanding, even though you weren't
4 at the loss site, that there was an air space between the top
5 of the fan and the bottom chord of the truss above it, is
6 that right?

7 A That's correct.

8 Q Now generally you would agree that heat tends to travel
9 up as well, right?

10 A Well until it hits a barrier. And there is insulation
11 on the bottom of the truss chords, so it's going to hit the
12 insulation layer and move laterally.

13 Q Between that space and the insulation layer, there would
14 be wiring coming into the top here, right?

15 A There would be a branch circuit going into the fan.

16 Q There has been some discussion in this case about
17 different types of cable or wire. This wouldn't that type of
18 armored cable that has the steel jacket on it, is that
19 correct?

20 A Well, it could have been, but I don't believe it is. I
21 believe it is what's been referred to as Romex, which is a
22 PVC outer jacket insulated cable.

23 Q That has essentially like a plastic type insulation on
24 it?

25 A That has PVC, which is a polyvinyl chloride material.

1 Q And in this case you examined that wire that came out of
2 the top of this fan, didn't you?

3 A Yes. What was taken I did examine.

4 Q You found no evidence of electrical arcing on that wire,
5 is that right?

6 A That's correct.

7 Q And then you examined the electrical components inside
8 the fan as well, didn't you?

9 A I did.

10 Q And there is a junction box that's located right here,
11 isn't that right?

12 A Yes.

13 Q And then inside the junction box there is wiring as well
14 that has the similar type insulation that you described for
15 the Romex, right?

16 A Correct.

17 Q You examined the wires that were located in that
18 junction box, didn't you?

19 A Yes, I did.

20 Q You found no evidence of any electrical failure inside
21 there?

22 A That's correct.

23 Q And then you also examined the area where this female
24 outlet is located, right?

25 A Yes. It's all the same area. It's referred to as the

1 wiring compartment.

2 Q And you found no evidence of electrical failures there,
3 right?

4 A I did not.

5 Q You also examined what remained of the male plug and
6 we'll call these power leads, is that right?

7 A Yes.

8 Q You found no evidence of electrical failure there,
9 right?

10 A That is correct.

11 Q Again, my understanding based upon what you told the
12 jury today is that for you to have an electrical failure deep
13 here in the cord, right, power would have had to come in
14 through the top on the Romex wire, in through this
15 compartment, through the female receptacle, across the power
16 cord and the male plug, is that right?

17 A Yes.

18 Q But it's your opinion that somehow the fire was able to
19 come, attack the fan, bypass all of those items and hit this
20 location before it damaged those wires, is that your opinion?

21 A That's my opinion.

22 Q Now there was some discussion earlier on in which you
23 stated that there was insufficient fuel load above the fan in
24 order to allow a fire in the fan to escape it and progress to
25 another location. That was your testimony, right?

1 A Yes.

2 Q But based upon right now you say that there must be
3 enough fuel load to allow a fire coming from somewhere else
4 to come back into that same direction and down into the fan?
5 Isn't that what your testimony is here today?

6 A Yes. And if you look at the burn patterns in the
7 central portion of the two year old room you have a lot of
8 trusses that are almost completely consumed with the
9 stringers.

10 Q My question was related to the fan, the fuel package
11 around the fan. I just want to make sure I was asking that
12 question correctly.

13 A You asked about the fire spreading to the fan. That's
14 my opinion.

15 Q I was asking specifically with regard to the fuel load
16 around the fan.

17 A Well, the fuel load around the fan is the paper backed
18 fiberglass insulation.

19 Q And your testimony earlier was that that fuel load was
20 insufficient to get the fire out of the fan and into another
21 location, isn't that correct?

22 A That's correct.

23 Q But now also your opinion is that that fuel load was
24 sufficient to bring the fire from another location, travel
25 through that spot and then down into the fan, is that right?

1 A No, that's not right.

2 Q Now, with regard to your analysis of the thermal cutout
3 in this case, we reviewed some documentation at your
4 deposition that was supplied by the supplier for the thermal
5 cutout, is that correct?

6 A Yes.

7 Q And this would be that document?

8 A Yes.

9 Q And included with that document, which we've marked as
10 P66, there was a diagram that detailed what the thermal
11 cutout was supposed to look like after operation. Do you
12 remember that?

13 A Yes.

14 THE COURT: Mr. Underwood, it's cutout, right, not
15 thermal cutoff?

16 MR. UNDERWOOD: Thermal cutout.

17 Q Mr. Finneran, you'll agree with me that the information
18 that was provided by the supplier of the thermal cutout, they
19 described what the thermal cutout was supposed to look like
20 before it functioned, right?

21 A Yes.

22 Q And the top diagram would show what the thermal cutout
23 is supposed to look like. You have the leads coming in and
24 then a solder connection across the two leads, isn't that
25 right?

1 A That's correct.

2 Q After functioning, once it hit its operating
3 temperature, it was supposed to form balls at either ends of
4 the TCO housing, isn't that correct?

5 A That's correct.

6 Q You had the opportunity to examine the thermal cutout
7 that was taken from the fan in the two year old bathroom,
8 didn't you?

9 A Yes, I did.

10 Q And you've reviewed the photographs that were taken by
11 Mr. Lewis as part of his investigation in this case, didn't
12 you?

13 A Yes, I did.

14 Q I'm going to show you a photograph that we've marked as
15 P67. Now P67 is a photo of the thermal cutout from this
16 case, isn't it?

17 A Yes, it is.

18 Q And you would agree with me that in that picture the
19 solder that was installed inside the thermal cutout did not
20 form balls at either side of the housing, isn't that correct?

21 A I would agree with that, but it's still open.

22 Q And your opinion in this case is that it operated
23 correctly. That's what I'm supposed to understand from your
24 testimony today, right?

25 A My testimony is that it opened.

1 Q But it didn't operate correctly, did it?

2 A Well, opening is operating correctly. It just doesn't
3 reflect the same picture that is on to the left of your
4 Exhibit 5. I mean forming two balls is an ideal situation.
5 They don't have to form two because to open.

6 Q We had a discussion about this issue back at your
7 deposition in April of this year, isn't that correct?

8 A That's correct.

9 Q And I asked you, "Did you make a determination whether
10 that thermal cutout had operated properly?" And your answer
11 was yes, just as you've said here today, correct?

12 A Yes.

13 Q And I said, "What was your finding?" And your answer
14 was, "It didn't open as thoroughly as one would expect, so
15 I'm not certain if that's improper or proper?" Isn't that
16 right?

17 A It's opened, it just didn't open as thoroughly as one
18 would expect, that's all.

19 Q Now this thermal cutout that is depicted on the right,
20 that has been in a fire, hasn't it?

21 A It's been through a fire, yes.

22 Q And the solder that forms the interior of the thermal
23 cutout is supposed to operate at 136 degrees Celsius, right?

24 A Correct.

25 Q What temperature is that in Fahrenheit, roughly?

1 A I'm not certain if I would know. Probably around 266,
2 270 Fahrenheit.

3 Q And you testified earlier that the damage on the
4 windings for the motor was the result of fire attack. Isn't
5 that what you testified to earlier?

6 A Yes.

7 Q And you further testified that attack that you described
8 on to the windings was the result of temperatures in excess
9 of 1,200 degrees, which is the melting temperature of
10 aluminum. Isn't that what your opinion was earlier today?

11 A Yes, it was.

12 Q And this thermal cutout that was supposed to operate at
13 somewhere around 200 degrees, right, was subjected in your
14 opinion to temperatures of around 1,200 degrees, isn't that
15 correct?

16 A It was probably subjected to something close to that,
17 yes.

18 Q And yet there is still solder almost touching at the top
19 of that thermal cutout, isn't that true?

20 A There is still solder there, but it's still open.

21 Q You further testified at your deposition that you agree
22 with Mr. Lewis that one of the factors that would inhibit the
23 proper forming of those balls in the thermal cutout is the
24 development of oxides in the solder, isn't that correct?

25 A I don't believe I agreed with Mr. Lewis. I said I

1 couldn't refute what Mr. Lewis' theory was.

2 Q And that's because the formation of oxides on the solder
3 material is a probable cause of keeping that solder from
4 melting the right way, isn't that true?

5 A Well, if there is an oxide layer and depending on what
6 the oxide is made of, yes, it could be a higher temperature.

7 Q And in order to form an oxide, a metal has to be exposed
8 to oxygen, isn't that correct?

9 A Typically, yes.

10 Q And in the thermal cutout designed, it's not supposed to
11 have oxygen inside of it, right?

12 A Well, there will be oxygen inside of it. It is a sealed
13 unit, but they don't evacuate the unit, they seal it with
14 epoxy.

15 Q It's not supposed to allow sufficient oxygen into it to
16 allow the formation of oxide, isn't that correct?

17 A If oxygen does form the oxide on it, yes. Right now
18 there is no testing that says if it's exposed to oxygen it
19 will oxide.

20 Q And when the solder is exposed to oxygen and forms an
21 oxide, that will inhibit the ability to form those balls when
22 it hits the proper operating temperature, isn't that right?

23 A Well, the oxide layer would inhibit it melting, not
24 necessarily forming those balls. Once it melts, it opens.
25 So the oxide layer could actually elevate the temperature at

1 what it would melt at.

2 Q Well, in this case your testimony today is that it would
3 elevate the temperature, would activate up to 1,200 degrees,
4 is it?

5 A Actually I don't know. No testing has been done on what
6 the oxide layer is and what it actually will melt at.

7 Q And as you testified earlier, you don't have any ability
8 or reason to disagree with what Mr. Lewis has determined in
9 that issue, right?

10 A Well, I don't have the ability to refute it, but I
11 haven't seen any test that confirms it.

12 Q Now you've testified earlier about arc mapping, isn't
13 that true?

14 A Yes.

15 Q One of the theories that underlies the concept of arc
16 mapping is the idea that the arcs that are farthest along a
17 circuit would be the first arcs to occur in a fire? Isn't
18 that one of the theories that underlies arc mapping?

19 A Yes.

20 Q Now with regard to the circuit on which the fan was
21 located, isn't it true that the I bar inside the fan would
22 have been the furthest point along that circuit, correct?

23 A Yes.

24 Q And, in fact, you found arcing on the I bar which would
25 represent the farthest part along on that circuit, isn't that

1 correct?

2 A That's correct.

3 Q Now there was also some testimony earlier about
4 Underwriters Laboratories evaluations of this product, right?

5 A Yes.

6 Q And you indicated that the product, specifically this
7 fan, was not defective because it passed UL certification,
8 right?

9 A Well, I believe I -- this particular fan is not only UL
10 listed and passed that, we know the fan's operated at the
11 time of the fire.

12 Q Now you testified earlier regarding this testing that UL
13 performs. You would agree with me that UL doesn't perform
14 tests on fans that have been in place and in operation for
15 six or seven years as part of its evaluation that you
16 described, right?

17 A That's correct.

18 Q And they do not evaluate the operation of the fans when
19 they are encrusted with a layer of lint, isn't that correct?

20 A That's correct.

21 Q So basically when UL's performing its evaluation, it's
22 only evaluating a fan that is essentially pristine and coming
23 straight off the assembly line, is that right?

24 A That's correct.

25 Q Now you examined all the evidence that was retained from

1 the loss site, didn't you?

2 A Yes, I did.

3 Q And your suggestion, as you've advised the jury earlier
4 today, is that the fire originated somewhere else but not the
5 fan, right?

6 A That's correct.

7 Q And you would agree with me that if it originated
8 somewhere else, there would have to be some sort of cause for
9 that fire, right?

10 A Yes, I would.

11 Q And you have not determined the cause of this fire, have
12 you?

13 A I have not.

14 Q And you have not identified the area of origin for this
15 fire, isn't that correct?

16 A No. I determined that the two year old room in the
17 central portion of that room is the most heaviest damaged
18 area and could be the area of origin.

19 Q But you're not sure exactly where it originated, isn't
20 that correct?

21 A That's correct. That's why I've called it undetermined.

22 Q And up in that area above the two year old classroom,
23 the only sources of ignition were wiring, isn't that true?

24 A No.

25 Q Isn't it true that the only sources of ignition up in

1 that area were electrical facilities, right?

2 A Electrical wiring and the bulb that was found below the
3 dropped ceiling, that's an ignition source or potential
4 ignition source.

5 Q But you never examined that bulb, did you?

6 A No. It was never retained.

7 Q But you never saw it because you were never out there at
8 the loss site, were you?

9 A Well, I actually I saw it. It's in the photograph.

10 Q But you in every actually physically looked at it, did
11 you?

12 A No. That's because it wasn't retained from the fire
13 scene.

14 Q Now with regard to the wiring that was located up in the
15 area above the two year old classroom, that wiring included
16 wiring to the light fixtures, didn't it?

17 A That's correct.

18 Q Now you would agree with me that if there was a failure
19 on the wiring for the light fixtures, those lights would have
20 gone out, isn't that true?

21 A Depends on the failure.

22 Q Now we had a discussion at your deposition previously
23 that if you had an arc failure on a piece of armored cable,
24 that the expectation would be if someone was standing in the
25 room below it, that that light would go out, isn't that

1 correct?

2 A That's correct. We also had a discussion saying if it
3 was a poor connection, the light wouldn't go out, and that's
4 still a potential ignition source.

5 Q Now we had a discussion at your deposition also
6 regarding the operation of the light fixtures, didn't we?

7 A Yes, we did.

8 Q And you testified at that time that if it there was a
9 failure within the light fixtures that could have caused the
10 fire, that someone sitting or standing below the light
11 fixture, they would have noticed something wrong, isn't that
12 true?

13 A Yes, I believe so.

14 Q Now, for example, if there was a tombstone failure, and
15 we had some discussion about that the tombstones are the ends
16 of fluorescent light fixture that hold the bulb in, isn't
17 that true?

18 A That's true.

19 Q And if those tombstones fail, the people working in the
20 classroom, they would notice a problem, wouldn't they?

21 A I would think so.

22 Q And if you have a ballast problem, the ballast is what
23 governs the flow of electricity through the light, isn't that
24 correct?

25 A It's a high voltage transformer, so it goes from 120

1 volts to 300 volts to cause the fluorescent lights to
2 function.

3 Q Now if you had a problem in that ballast, the people who
4 were standing below the light, they would notice a problem in
5 that light, isn't that true?

6 A Well, the light would go out more than likely. So if
7 that's the problem, yes, they should notice the light going
8 out.

9 Q And as part of your evaluation in this case, you
10 reviewed the testimony of Kristin Suffredini. You testified
11 earlier that you had relied upon your testimony in part,
12 isn't that true?

13 A That's true.

14 Q And you recall that Mrs. Suffredini, when questioned
15 about the occurrences that happened right before the fire,
16 testified that there was nothing out of the ordinary in the
17 room in which she was working immediately before she saw fire
18 in the fan, isn't that true?

19 A That's true.

20 Q And you reviewed the testimony of Ms. Dattilo, who was
21 also working in the school immediately before the discovery
22 of the fire, isn't that correct?

23 A Yes.

24 Q And Mrs. Dattilo testified that immediately before
25 discovering a glow inside the fan, she noticed nothing out of

1 the ordinary in the two year old classroom, isn't that true?

2 A Yes, it is.

3 Q Now you testified earlier regarding the ignition
4 temperature of lint, and you've testified I believe that the
5 ignition temperature of lint is 450 degrees?

6 A Yes. We're talking typical cellulose material is in the
7 450 degree range.

8 Q And with regard to the temperatures that are generated
9 by the formation of an arc, isn't that -- aren't those
10 temperatures measured in the thousandths of degrees?

11 A Yes.

12 Q Now with regard to arcing, you testified earlier that
13 one of the issues in terms of generating ignition is the
14 duration which the arc lasts, isn't that correct?

15 A Yes.

16 Q And in order to get ignition to a particular fuel load,
17 you would have to have enough of a duration of that arc in
18 order to ignite that fuel, isn't that right?

19 A Yes, it would be.

20 Q And you would agree with me that an arc is not
21 sufficient in order to ignite a piece of wood, right?

22 A Yes. Unless it lasted for minutes.

23 Q So a very quick arc wouldn't be sufficient to ignite a
24 wood truss, for example?

25 A That's correct.

1 Q Now as part of your evaluation, you evaluated the
2 electrical facilities that were retained from the area above
3 the two year old classroom following the fire, isn't that
4 correct?

5 A If you're referring to the electrical branch circuit
6 wiring?

7 Q I am.

8 A Okay, yes. You said facilities, so I wasn't positive.

9 Q Now with regard to those facilities that I just
10 described, they included junction boxes, didn't they?

11 A Yes, they did.

12 Q And you would agree with me that thus far no
13 investigator has identified any evidence of an electrical
14 failure within the junction boxes, isn't that true?

15 A Within the junction boxes that were retained, yes.

16 Q Now you also examined the wiring between the fan, the
17 switch that governed the fan, isn't that right?

18 A We have two fans in this case, so the bathroom fan or
19 the ceiling fan in the two year old room.

20 Q We'll start with the ceiling fan in the two year old
21 room. You had an opportunity to examine the ceiling fan that
22 hung down from the ceiling in the two year old room, isn't
23 that right?

24 A Yes, I did.

25 Q And you found no evidence of an electrical failure in

1 that fan that could have started the fire, isn't that right?

2 A That is correct.

3 Q And you also examined the wiring in the -- that ran from
4 the switch in the two year old bathroom up to the light in
5 the fan, isn't that correct?

6 A Yes.

7 Q And you found no evidence of electrical failures in
8 those wires, did you?

9 A That's correct.

10 Q Now there was some discussion earlier on about fuel
11 loads in the immediate vicinity of the fan, isn't that right?

12 A Yes.

13 Q You'll agree with me that included in this Broan-Nutone
14 fan there is an impeller that you described to the jury
15 earlier, right?

16 A Yes.

17 Q And you agree that this impeller supports combustion,
18 doesn't it?

19 A Yes, it does.

20 Q And then there is this duct adaptor, this black item
21 that is pictured here?

22 A Yes.

23 Q This duct adaptor is made out of a plastic material that
24 also supports combustion, doesn't it?

25 A Yes, it does.

1 Q And the bottom material is made of a nylon type plastic?

2 A Yes, it is.

3 Q And it will support combustion but not as well as these
4 other parts, isn't that right?

5 A Yes, it will.

6 Q If I am to understand correctly, according to your
7 theory the fan was operating at the time of the fire, isn't
8 that right?

9 A Well, it's not only my theory, it's witness statements
10 that state that.

11 Q Well, you're stating that the fan would have had the
12 impeller turning around and blowing air out of it at the time
13 of the fire, right?

14 A Yes, I am.

15 Q And it's your opinion that the fire that was coming over
16 and attacking this spot deep down inside the windings where
17 the I bar is located would have come down into the fan, isn't
18 that right?

19 A Would have heated up, but not necessarily the fire, but
20 the heat from the fire would have heat up the metal
21 enclosure, which in turn would have heated the plastic.

22 Q You would agree, though, according to your theory, this
23 fan was operating as the fire was attacking, it isn't that
24 right?

25 A Yes.

1 Q And it was drawing in cool air from down below in the
2 room at the same time the fan was attacking it, isn't that
3 right?

4 A The same time the fire was attacking it, yes.

5 Q So it's your opinion that the heat or the fire was able
6 to get down into this spot even though the fan was operating
7 and blowing cool air across that motor, isn't that true?

8 A Yes, it is.

9 Q Now the fuel load in the immediate vicinity of the fan,
10 I think you described it as the paper backed insulation, is
11 that right?

12 A There is the paper backed insulation, there is the
13 one-by-fours that the fan housing was connected to, which are
14 unburned, and the ceiling tile, which there is no evidence
15 the ceiling tile was involved.

16 Q So there would have been an air gap around this item as
17 it was sitting on top of the dropped ceiling, right?

18 A Not necessarily. The one-by-fours are mounted to the
19 sides and there is a space between the one-by-fours and the
20 metal which would have sat in the opening of the drywall or
21 of the ceiling tile.

22 Q Putting aside the wood that was affixed to the side of
23 this, right, there would have been an air gap around this
24 unit as it sat on top of the dropped ceiling, correct?

25 A Yes, there would have been.

1 Q And as part of your theory about how the fire occurred,
2 it's your theory that as this is sitting on top of the
3 dropped ceiling with the air gap all around it, that the
4 approaching fire came over, jumped that air gap, went down
5 and found its way to this spot deep down inside the windings,
6 is that your theory?

7 A No. The fire does not jump an air gap. First of all,
8 you're super heating the air surrounding this fan completely.
9 It doesn't isolate and pick solely at the fan. You've got a
10 void space between the dropped ceiling and the truss chords
11 where the insulation is mounted. So fire attacking the fan
12 has already spread through this whole area, so it's super
13 heated the air that is in this void space, and because of the
14 metal it's heating up the metal and the metal gets hotter, we
15 have more air entrainment, which in turn will damage the
16 plastic.

17 Q My question was you have to have some sort of heat and
18 fire come from the area above the fan and make its way into
19 this spot right here on the windings, isn't that correct?

20 A Yes.

21 Q That was my question, was you have to get heat to this
22 spot, isn't that correct?

23 A You get heat to the entire fan, not just to that spot.

24 Q Right. You get heat to the entire fan, and that would
25 include the wiring that's coming into the top of the fan,

1 right?

2 A Yes.

3 Q And the heat would attack and affect the wiring inside
4 this compartment as well, wouldn't it?

5 A Yes, it would.

6 Q And the heat would affect this female connector,
7 wouldn't it?

8 A Female connector is a phenolic material, it's not really
9 going to be damaged by heat unless it's super high heat.

10 Q And also the heat and the fire would affect the plug and
11 the power leads, wouldn't it?

12 A Yes, it would.

13 Q And it's your theory although the heat, the super heated
14 air in the air, it didn't affect all those items enough to
15 cut them off and break the electrical supply, but it was able
16 to cause the arcing deep inside this winding, that's your
17 theory, isn't it?

18 A Yes. But it's not just my theory, it's based on your
19 witness statements. The witnesses say this fan is operating.
20 So if the fan is operating --

21 Q I was asking about your theory regarding the physical
22 things that you observed in the space above the two year old
23 bathroom. Okay?

24 A Yes. And my theory is based on the witness statements
25 stating that the fan is operating at the time of the fire.

1 Q And if it was operating, it would be blowing cool air up
2 through it, correct?

3 A You would be sucking air through it, yes.

4 Q And the air would be blowing out this duct, isn't that
5 correct?

6 A That's correct.

7 Q Now there was some testimony earlier regarding the
8 damage that was seen on the windings for the fan motor. Do
9 you remember that testimony?

10 A Yes.

11 Q And specifically you testified regarding some melting
12 that was seen on the windings for the fan motor. Do you
13 remember that?

14 A Yes.

15 Q I'm going to show you the photograph we've marked as
16 P119. Now was your testimony earlier that the melting that
17 was seen on these windings, specifically along the left-hand
18 side there, was the result of the fire that attacked it,
19 isn't that right?

20 A Yes.

21 Q Now specifically you made mention of these locations
22 right here as the locations where the fire attacked the
23 windings, isn't that correct?

24 A Yes.

25 Q And it was your testimony earlier that these aluminum

1 windings will melt at 1,200 degrees, isn't that correct?

2 A I believe I said 1,220 degrees, but that's close enough.

3 Q Give or take, right?

4 A Yes.

5 Q Okay now your theory is that the fire came and attacked
6 these windings, right, and it damaged these locations right
7 here, isn't that true?

8 A Yes. The fire did attack the coil, and in the process
9 of attacking the coil, you're going to damage the insulation
10 on the coil and it is possible that you could get a
11 sufficient damage that you could end up with shorted turns.

12 Q So it's your testimony that the fire came and attacked
13 this entire winding assembly where it was all the windings
14 were aluminum, and it damaged only these two locations, is
15 that correct?

16 A Well, that's not correct, because that's not the only
17 two locations it damaged.

18 Q You'll agree with me that observing this section of the
19 coil that's depicted in this photograph, the only two
20 locations where there are melting that you've identified are
21 these two locations right here, isn't that correct?

22 A No, that's not. If you look all the way at the outer
23 edge, you have melting there also. You have at least three
24 areas on that surface that are melted.

25 Q But the entire coil was subjected to the same

1 temperatures, wasn't it?

2 A Yes. And if you look at other areas on the coil, you'll
3 see more melting.

4 Q But the entire coil has not melted, isn't that true?

5 A That's very true.

6 Q And it was also subjected to the same level of heat and
7 fire as those locations that you've identified, isn't that
8 true?

9 A Well, it may not be.

10 Q Well, you've identified the fire as causing a
11 temperature that would be in the range of 1,200 degrees,
12 isn't that true?

13 A Yes, I have.

14 Q And these locations would be, they're in the same
15 location on the I bar, isn't that true?

16 A They're not in the same location on the I bar. First of
17 all, the I bar is in the center of the coil. This is on the
18 surface of the coil. So just looking at that one photograph,
19 you can see areas that are melted. And in my opinion it's
20 clearly fire melt.

21 Q And it's your opinion that the fire attacking this area
22 melted those locations right there, but did not melt the
23 entire winding assembly, is that what we're supposed to
24 understand?

25 A Yes, you are.

1 Q Now you testified earlier that because this product was
2 UL listed and approved, that it was a safe product. Did I
3 understand that was your testimony early on, right?

4 A I believe I testified that it was a UL listed product
5 and followed the specifications UL made it, which would, in
6 essence, make it a safe product.

7 Q You're not telling the jury here today that simply
8 because a product has become UL listed mean that it could
9 never be defective, isn't that true?

10 A That's true.

11 Q And there have been in the past products that have had
12 UL listing or certification that were then found to be
13 defective, isn't that true?

14 A That is true.

15 Q I think you testified earlier that you had some
16 experience in the evaluation or working with coffeemakers in
17 particular, isn't that true?

18 A I did state that.

19 Q And those coffeemakers that you described, they all had
20 UL listing and certification, didn't they?

21 A I believe they did.

22 Q And there was -- there have been recalls of coffeemakers
23 in the past that have had UL listing and certification, isn't
24 that true?

25 A That is correct.

1 Q And they were recalled because they were defective,
2 isn't that true?

3 A They were recalled because they were potential fire
4 causes. I don't know if UL, or CPSC, or whoever recalled it,
5 actually said they were defective.

6 Q Well, you would agree with me that if an appliance that
7 is in your house is a potential fire cause, that would be
8 classified as defective, right?

9 A In my opinion, yes.

10 MR. UNDERWOOD: I have nothing further, Your Honor.

11 THE COURT: Mr. Duggan.

12 *REDIRECT EXAMINATION BY MR. DUGGAN:*

13 Q I have just a few things on redirect. Mr. Finneran,
14 when Mr. Underwood was asking you some questions --

15 THE COURT: Mr. Underwood, you can come down here
16 and stand.

17 Q Mr. Finneran, when Mr. Underwood was asking you some
18 questions, he was asking you about an attacking fire to the
19 fan box, right?

20 A Yes.

21 Q And the fan was actually -- this is a model of how the
22 installation was at the scene, right?

23 A Yes.

24 Q And the fan was mounted like this with a couple of
25 one-by-fours?

1 A Yes.

2 Q And the fan box in between that?

3 A Yes.

4 Q And that went over, sat over this hole with the grill
5 placed underneath?

6 A Yes.

7 Q And Mr. Underwood's questions, he was asking you about
8 fire attacking from the top and then going through the
9 insulation and down, right?

10 A He was questioning about fire attacking it, yes.

11 Q What's the other avenue of attacking the fan?

12 A Well, you're attacking the fire between the void space
13 of the dropped ceiling and the fiberglass insulation and the
14 void spaces in the fiberglass insulation.

15 Q So the fuel load, in your opinion, if the attack with
16 heat and fire is between the bottom of the trusses and the
17 top of the acoustic tile is what?

18 A It's going to be the paper backed insulation plus the
19 existing fire. Existing fire already has a fuel package
20 that's burning, such as the wood trusses, the stringers, all
21 of that is going to create heat that will get to the fan
22 eventually.

23 Q And the heat would go just to the top or would it also
24 come in from the bottom?

25 A If there was heat in the room itself, it would come in

1 through the bottom as well.

2 Q So the attack isn't just about -- the attack is
3 basically now you've got the fan in an oven. I withdraw the
4 question because it's not properly formed.

5 So, sir, where would in this configuration assume that
6 you have fire coming down and using the paper backed
7 insulation as fuel. And assume further that the fan is still
8 operating. And assume that it's mounted in this
9 configuration here on top of a hole with some spacing in
10 between. With that assumption, sir, do you have an opinion
11 as to where there may be other attack methods to that fan
12 box?

13 A Well, the fan is going to be drawing in the air as well,
14 the heated air between this void space. So if you have gaps
15 between the housing of the fan and the ceiling tiles, any
16 air, heated air in this void space is going to be drawn into
17 the fan as well.

18 Q And all of that heated air that's drawn into the fan,
19 would that have to go past any of these other items?

20 A Yeah. It would ultimately be sucked right through, in
21 through the impeller and out the duct adaptor.

22 Q From which direction?

23 A From the sides. And if any heat was getting into the
24 room, it would be coming through the grill as well.

25 MR. DUGGAN: Thank you, Your Honor. I have no

1 further questions.

2 MR. UNDERWOOD: I just have a couple more
3 questions, Your Honor.

4 *RE-CROSS-EXAMINATION BY MR. UNDERWOOD:*

5 Q Mr. Finneran, I believe you testified earlier that the
6 issue with the heat attacking is that it would radiate down
7 or could radiate down from this void space down on to the
8 fan, isn't that correct?

9 A Well, I don't believe I actually said radiate heat down.
10 First of all, we only have the paper backed insulation in
11 that area that's burning, so you're going to have hot air
12 flames in this void space.

13 Q But your testimony was that the insulation would provide
14 a barrier to keep the heat from going up and that it would
15 then build down on to the unit, isn't that right?

16 A No, I don't believe I ever said that. The insulation
17 would ultimately, it is a --

18 Q If you didn't say that, that's fine. The question I
19 think earlier or the testimony was that this insulation would
20 provide a barrier for the heat trying to escape, isn't that
21 what you testified to?

22 A Yes, I did.

23 Q And as that heat generated and reached this insulation
24 level, it would start to fill in this space and bring as it
25 moved its way back down, right?

1 A That's correct.

2 Q And as it got hotter moving down, it would first impinge
3 upon this wire, isn't that right?

4 A It would impinge on it. I wouldn't say first but it
5 would impinge on it.

6 Q You would expect that the heat that's coming down from
7 the area of the insulation would impinge on this wire first
8 before it became sucked down underneath the housing for the
9 fan, isn't that true?

10 A No, I don't believe that is true. If we have air
11 movement, the movement of the fan sucking air is going to
12 draw in the hot air at the same time it's impinging on the
13 Romex cable.

14 MR. UNDERWOOD: Nothing further, Your Honor.

15 THE COURT: Anything further?

16 MR. DUGGAN: No. Thank you, Your Honor.

17 THE COURT: You're all set, sir.

18 MR. DUGGAN: Mr. Natale, please.

19 THE CLERK: State and spell your full name for the
20 record.

21 THE WITNESS: Carl with a C, J., Natale;
22 N-A-T-A-L-E.

23 CARL J. NATALE, called as a witness and being
24 duly sworn, testifies as follows:

25

1 *DIRECT EXAMINATION BY MR. DUGGAN:*

2 Q Good afternoon, Mr. Natale.

3 A Good afternoon.

4 Q Could you introduce yourself to His Honor and the
5 jurors?

6 A My name is a Carl J. Natale, N-A-T-A-L-E.

7 Q Mr. Natale, where do you live?

8 A I live at 14813 Laguna Drive in Ft. Myers, Florida.

9 Q And Mr. Natale, are you employed?

10 A I am.

11 Q By whom are you employed?

12 A I'm self-employed.

13 Q What is the name of your business?

14 A The name of the company is UBA Fire, Inc.

15 Q And what is the nature of the business of UBA Fire,
16 Inc.?

17 A The nature of the business is to investigate fires and
18 explosions of all types and to represent clients from the
19 insurance industry, manufacturers, primarily manufacturers.
20 And I've done so for 51 years.

21 Q I was just about to ask you. So in the course of your
22 51 years, has it all been with UBA Fire, Inc.?

23 A Originally the company when I founded it was in its
24 infancy and it was under my own name. It went through a
25 metamorphosis of name changes, but I was always the principal

1 and the president of the company.

2 Q Can you tell me when you started in the business of
3 investigating fires and the cause and origin of fires?

4 A Yes. I started gathering my training about 1961 to
5 1962, and from then on I continued through various agencies.
6 Bearing in mind in the '60s not many people really cared how
7 fires started, so fire investigation was limited to arson or
8 not arson, most of which was at the behest of homeowner
9 insurance companies.

10 Q Where was your company founded, sir?

11 A My company was founded in Harrisburg, Pennsylvania. And
12 ultimately I had about 12 other offices over a period of
13 years. And I had a total of 12 at the time I sold the
14 business and continued doing consulting work on my own.

15 Q When did you sell the business?

16 A Let's see. I sold it about ten years ago when my late
17 wife got cancer. It was the time to sell the business. And
18 I took care of her until she passed away. And then after
19 that I started doing consulting work again, but strictly on
20 my own with no other employees except for an office staff and
21 outside consultants as needed.

22 Q And is the consulting work that you're doing now and
23 have done for the past ten years on your own, also in the
24 area of fire origin and cause investigation?

25 A The work has never changed. It has morphed into a

1 scientific laboratory where we did other types of work, but
2 it was all fire and explosion related product testing and
3 that development of new techniques for investigating fires.

4 Q Over the course of more than a half century of doing
5 fire origin and cause investigations, can you tell the jury
6 roughly how many fires you've investigated?

7 A Well, normally say I don't usually keep track, but I
8 happen to have my notebook and it says that this case is
9 9,535. There are other cases that I participated with staff
10 members and laboratory personnel that do not have a number,
11 but I think this is a fair representation of cases that I
12 handled individually.

13 Q Sir, can you take us through your training and
14 experience over the course, briefly over the course of fifty
15 years, from the time when you started investigating fires and
16 the origin of fires up until present?

17 A The earliest training I received was basically on the
18 job because there were no training facilities in the early
19 1960s. At the time I started a small business where I would
20 do fire restoration work, which put me in contact with fire
21 authorities and fire officials. It became an interesting
22 sideline that morphed into a career.

23 From that time I had started a total of five
24 corporations through my lifetime, but I always participated
25 personally in the fire investigation and the fire laboratory.

1 The training primarily came from Pennsylvania State Police
2 fire marshals, the few training classes that were available.
3 That became more available as time went on up into about 1970
4 when subrogation similar to a case like this became more
5 predominant, then there were more schools, classes and
6 training facilities. And I have a complete list of those
7 that I attended which is rather lengthy.

8 Q Can you give me just a number of classes, ball park of
9 the courses you've taken in this area?

10 A I probably attended more than 100 courses, seminars and
11 training facilities. But most of the intense training that I
12 received was through my own laboratory where we hired
13 mechanical engineers, metallurgists, electrical engineers,
14 chemists, people of that nature. And a lot of the learning
15 curve was in my own laboratory and others, but primarily my
16 own where we were testing all types of fire scenarios,
17 testing the fire resistance of materials, testing appliances
18 and products of every description where a fire may emanate.

19 And I have attended and lectured regularly at the
20 Defense Research Institute, the Institute of Gas Technology.
21 I have attended classes and also lectured there on numerous
22 occasions, mostly through the 1990s. Emergency response
23 planning and accident response planning. I did an awful lot
24 of gas and utility work for power companies and gas companies
25 at that time. Also at the Institute of Gas Technology where

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1 I was a regular lecturer, where I lectured and presented a
2 symposium on the twice a year a basis. The National
3 Association of Fire Investigators dating back to the '70s.
4 And I still continue to receive recurrent training there.
5 The American Society for Testing Materials. The
6 International Association of Arson Investigators. And there
7 is a host of others, but they're all similar type training
8 classes. And I'm certified as a fire and explosion
9 investigator through the National Association of Fire
10 Investigators.

11 And I'm also a licensed hazmat inspector. And the only
12 thing I use that license for is to allow me to investigate
13 fires on sites that have been deemed hazardous sites. And
14 for whatever reason our government decided to call the top
15 class A hazwoper. Don't ask me why. But I am a certified as
16 a hazwoper, which is the highest level that they offer so you
17 can make examinations of fires and explosions on hazardous
18 sites beyond asbestos and other contaminants. And I'm also
19 listed as a supervisor in that area.

20 Q Let me interrupt you for a moment. You mentioned that
21 you lectured repeatedly in several of these areas. Have they
22 all been in the area of investigating the cause and the
23 origin of fires?

24 A Primarily that's basically all that I've done. Even
25 though I owned other companies my focus was here in the fire

1 investigation and analysis and the laboratory analyses.

2 Q Were you ever involved in the construction industry,
3 sir?

4 A Yes.

5 Q Can you give me a real thumbnail background of that,
6 please?

7 A I started my life as an employee, so to speak, earning a
8 living by starting in the construction trades. I worked for
9 an engineering firm that was a specialty engineered building
10 products firm. While I worked there I was starting my own
11 business, and very shortly thereafter I left that work and I
12 continued to work on my own.

13 I built a very substantial construction business
14 starting with fire restoration work and going on to general
15 construction and real estate development. And I still own a
16 lot of the buildings that I originally constructed. But my
17 only work now is fire investigation.

18 Q Has your experience, sir, in the construction industry
19 been helpful to you in your work in determining the origin
20 and cause of fires?

21 A Absolutely instrumental. As a matter of fact --

22 Q Can you explain that to me?

23 A I'm not sure how you do this job in today's market
24 without being intimately familiar with the construction
25 techniques. The methods of the National Electrical Code

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1 varies, building codes, and if you haven't done it, it's very
2 hard to try to learn it out of a textbook.

3 And I think fire investigation is all about one thing
4 and that is separating normal from abnormal. If you don't
5 know normal, you're going to have a very difficult time
6 determining abnormal. And I have the privilege of knowing
7 normal. And this is why the local fire authorities asked for
8 our assistance from way back in the early '60s, because they
9 were having trouble knowing normal. So that's how I really
10 got involved in this business and it morphed from that point.

11 Q Mr. Natale, have you been qualified as an expert in the
12 area of the origin and cause of fires in courts around the
13 country?

14 A Yes. I have provided deposition testimony in every
15 state in the union. I have testified in every state of the
16 union with the exception of Alaska.

17 Q When is the Alaska case?

18 A I beg your pardon?

19 Q When does the Alaska case go?

20 A I'm not sure. They keep moving the date.

21 Q Have you been qualified in both federal and state courts
22 as an expert in the area of origin and cause of fires?

23 A Yes. As well as in several countries overseas.

24 Q Has your opinion in any case ever been excluded or
25 restricted?

1 A No.

2 Q By the way, so we know, do you remember a case called
3 Buterini, or something like that?

4 A Buchneri.

5 Q That's it, Buchneri. It's an Italian name, I have a
6 hard time with those.

7 A Yes, I was.

8 Q What happened with that case? Where was it, first of
9 all?

10 A Going by memory, about 35 years ago there was a gas
11 explosion in Western Pennsylvania, as I recall. And it came
12 to trial. And during the trial, for a reason I never
13 understood, the trial court determined that anyone could see
14 we had an explosion and expert testimony was not required.
15 So he did not take expert testimony from anyone in the entire
16 case.

17 While I was on the witness stand a question was asked
18 that required an opinion answer. And after waiting an
19 appropriate period of time, no one said anything, I answered
20 a question. The case was won. And about a year later the
21 man who asked me the question filed an appeal because the
22 court allowed this expert opinion to come in after he said
23 there would be no expert testimony.

24 To this day I don't understand why they don't allow
25 expert testimony. But that's the only occasion. Didn't

1 amount to anything. We tried the case over, testified as an
2 expert. I've testified at least three or four times in this
3 court after that.

4 Q But since the last 35 years you've been accepted in
5 courts, state and federal, around the country as an expert in
6 the origin and cause of fires?

7 A I have, yes, that's true.

8 MR. DUGGAN: Your Honor, I ask the Court recognize
9 Mr. Natale as an expert in the origin and cause of fires.

10 THE COURT: Any objection?

11 MR. PAOLINI: No objection, Your Honor.

12 THE COURT: Mr. Paolini, are you going to be doing
13 cross?

14 MR. PAOLINI: I will be.

15 THE COURT: Same instruction. Expert witness. Use
16 your own common sense, listen to what he has to say, and
17 compare it to the evidence that you find and give it the
18 weight that you feel it deserves.

19 Q Mr. Natale, at some point were you retained to do an
20 investigation into the fire at the Jack 'n Jill Daycare
21 Center in Victor, New York?

22 A Yes, I was.

23 Q And when was that?

24 A Just give me a second to refer to my handwritten notes.
25 The request came on September 28th, 2009 at 2:20 p.m. from

1 Dave Farchione at Broan-Nutone. And he advised me of this
2 case and gave me the particulars, such as the name, address
3 and contact information and the date of loss, and I made
4 arrangements to do the inspection and I did so.

5 Q And the inspection was scheduled at some point?

6 A The inspection was scheduled and the date was moved, for
7 whatever reason, was moved twice. It ultimately occurred on
8 October 29th, 2009 starting at 9:30 in the morning.

9 Q Mr. Natale, when you get retained in a case like this,
10 first of all, are you volunteering your time for the good of
11 me and my friends?

12 A No, I'm not. The only person I volunteer for is my
13 wife. No. Absolutely I'm getting paid.

14 Q What's your rate, sir?

15 A 250 an hour.

16 Q Now, when you get retained in a case like this, do you
17 have a common methodology that you use?

18 A As far as accepting the case, planning the case or
19 investigating?

20 Q Investigating, go about investigating the case?

21 A I do. I make arrangements to go to the site. I contact
22 the investigator in charge and first establish if there is
23 any protocol for how we should proceed with the
24 investigation. I don't recall if I asked in this case, but
25 usually I do, and find out if there are any hazmat

1 requirements, because if it is, then I will bring the
2 appropriate protective gear to wear during the investigation.

3 I don't remember if I asked that or not but it was not a
4 hazmat site. So I proceeded to the scene. I met
5 Mr. Farchione from Broan at the site. I met Mr. Tochelli,
6 who was one of the scene investigators, and Mr. DeMatties,
7 another one of the investigators, at the site. We proceeded
8 from that point. And either Mr. DeMatties or Tochelli, or a
9 combination thereof, gave me a thumbnail description of
10 basically what information he had. It's a very standard
11 procedure for the lead investigator to advise the others what
12 information he has available.

13 Q So after you get retained, you get whatever information
14 you can about the area, the building, so forth, then go to
15 the scene typically as soon as you can, would that be fair?

16 A Yes. And we ultimately did that October 29th of '09.

17 Q When you go to a fire scene, sir, do you have a process
18 or a procedure -- fire scene like the one in Victor -- of
19 diagramming the fire scene?

20 A Yes. I have a procedure for just about everything and
21 diagramming is included.

22 Q Is that important when you're trying to determine the
23 area and the cause of the fire?

24 A I believe it's critical.

25 Q Why is that?

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1 A Once again, I say you have to know normal because you
2 can ascertain abnormal. If you don't know what you're
3 working with, what type of building materials, what the flame
4 spread ratio might be, what the propensity of ignition might
5 be, you're doing a lot of guesswork. And to eliminate all
6 that, I try to establish that as early as possible so I can
7 make accurate determinations.

8 Immediately thereafter I want to find out where the
9 primary utilities are, such as natural gas and electric,
10 propane gas, if there is any, because obviously a propane gas
11 leak could change the dynamics substantially. And if you're
12 making an analysis and don't even know there is gas in the
13 building, you probably will have an incorrect analysis.

14 Q Did you proceed to diagram the loss site, the Jack 'n
15 Jill Daycare Center?

16 A I did do a diagram, a detailed diagram. First I
17 inspected the exterior just to get a lay of the land, and I
18 also took exterior photographs. I collected data from
19 Mr. DeMatties and Mr. Tochelli, and then immediately went to
20 the inside, made a walk-through inspection, and I took
21 several photographs and immediately started a diagram.

22 Q Mr. Natale, I'm showing you and the Court and the jury
23 what we've marked at the very early stages of this case as
24 P120 down in the right-hand corner. Do you recognize what
25 that is?

1 A That is a finished copy of my diagram. I prepared a
2 rough diagram in my notebook, which I bring with me, and then
3 when I get back to my office I sit at my drawing board and
4 make a more detailed presentation diagram. And what you're
5 looking at is the presentation diagram.

6 Q And could you orient the jury to basically what we have
7 in the interior of the space?

8 A Yes, I can. On the upper left-hand corner would be the
9 kitchen. I can point to it I believe with this pointer.
10 This is the kitchen area as you walk in the door. This was
11 my entrance right here, the same entrance that the
12 firefighters used.

13 Q That would be the west entrance?

14 A It is the west entrance. I put this compass rose up
15 here realizing that it's not true north, but I had to orient
16 the building so that we had some assemblance of order. And
17 then immediately on the north wall, it was the two year old
18 room, then the two year old toilet room and office, then
19 another toilet room and a staff toilet. And then further to
20 the right of the east end of the building there is another
21 classroom. And then on the bottom side of the building here
22 or on the south side are other classrooms as well that were
23 not materially affected or at least not to the extent as the
24 two year old room. And then in this area was the mechanical
25 and utility room.

1 Q Let me ask you, in the very north wall in the two year
2 old room I see what appears to be two windows drawn in?

3 A Yes.

4 Q Were there two windows there?

5 A No.

6 Q Do you want to explain that?

7 A Well, yes. I guess I got carried away on my window
8 sketch, but there was only one window and then the door. And
9 I have since, as a matter of fact, almost immediately issued
10 a corrected diagram where I revised it.

11 Q Now I think you said you first did a walk-around the
12 whole building and then a walk-around the interior of the
13 space?

14 A Correct.

15 Q And then what did you do after that?

16 A Then the next thing I did was to find out where the
17 primary utilities. Since I knew natural gas was present,
18 that's always an important factor. Even though it had not
19 been mentioned previously, I wanted to see if the natural gas
20 played any role in this fire.

21 Q And did you rule that out, sir?

22 A I was able to eliminate it. Trace the gas line and the
23 integrity was intact. And when I did my walk-through, I was,
24 for lack of better adjectives, I was absolutely amazed at the
25 condition of the inside of the building. It was a total

1 wreck. And even though we had a fire, you don't usually find
2 them in such disarray. But that's the way it was. I
3 photographed it and then I started my analysis.

4 Q Sir, after you started your analysis, did your attention
5 at some point become drawn to the two year old room and the
6 bathroom?

7 A Yes.

8 Q And how did that happen?

9 A That happened for two reasons. First, when I entered
10 the building, the two year old room is one of the first rooms
11 that I went into. Basically the same path as the first-in
12 firefighter not even knowing that they did the same thing. I
13 didn't know that until today, as a matter of fact. But I saw
14 the level of destruction and I wanted to go through the
15 interior so I could see where is the primary area of
16 concentrated burning. And I located that area in the two
17 year old room up high in the rafters.

18 The next thing I did was to search for the electrical
19 distribution panel and to determine what appliances were fed
20 by natural gas. Mr. DeMatties, I believe, had a ladder
21 present which enabled me to access some areas. He was kind
22 enough to share it with me, and I used it so I could make an
23 examination of areas above floor level I couldn't reach
24 otherwise.

25 And from that point after doing my initial survey I

1 noted that the degree of damage in the two year old room was
2 much more significant than anywhere else. While I was there
3 Mrs. LoMonaco, the building owner or the owner of the school,
4 or both I guess, was present. She made an appearance. And I
5 asked her if she would make me a small sketch, which I have
6 in my notebook, only for the purpose of identifying the rooms
7 so that we knew which room was for what purpose.

8 Q Did you find that helpful?

9 A Very helpful. Otherwise I wouldn't know the two year
10 old room from the toddler room or whatever name they chose to
11 assign to that space, I would be ignorant to that. And I
12 knew we would be referring to it so she was kind enough to do
13 a drawing.

14 Q So at some point did you decide to label the trusses and
15 truss chords in the two year old room?

16 A I did. I did that a bit later. After going through the
17 building for quite a while looking at the disarray, I knew in
18 my heart of hearts that finding a precise cause was going to
19 be difficult or impossible. And immediately after I started
20 making my diagram and dimensions and then the area that I
21 determined was the most significantly damaged is where I
22 started labeling the trusses, measuring where they are
23 geographically and confirming with a tape measure. And I
24 marked those on my notebook and ultimately made a diagram
25 similar to one on the TV.

1 Q The other diagram includes the numbers of the trusses as
2 you go west to east?

3 A Yes. I have a habit of numbering all the trusses
4 because they all look alike and a year from now looking at
5 the photos, it's hard to remember which is which.

6 THE COURT: Push the microphone out a little bit.
7 You're just a little too close.

8 Q You said you numbered all the trusses from this 16
9 through 1, west to east, is that right?

10 A Yes, correct.

11 Q And then did you also use letters to identify the
12 trusses over the toilet room and the office space?

13 A I did.

14 Q Why did you convert to lettering as opposed to numbers?

15 A Well, the issue was originally, either Mr. Tochelli or
16 maybe it was Mr. DeMatties, made me aware of the observation
17 made by Mrs. Suffredini and Ms. Dattilo telling me about they
18 observed some type of a candle sized flame in the fan in the
19 toddler room. So I changed the sequence from numbers to
20 letters so that we would be able to easily separate the
21 toilet room from the classroom.

22 Q And in preparation for your testimony here today, did we
23 convert that drawing into one that has some more colors and
24 diagrams and numbers like this?

25 A Yes. I drew a drawing on my drawing board like that and

1 from that we -- or, you made this diagram, which is perfect.

2 Q And this is the D36. Now, sir, I'm putting in front of
3 you a copy on the screen now of D36. Can you briefly explain
4 to the Judge and the Jury what it is that we see here?

5 A What you see in this diagram is the northwest quadrant
6 of the building. The first diagram that was previously on
7 the screen showed the entire building and this is the
8 northwest quadrant. And after my initial analysis I
9 determined two things. First, this was the area of primary
10 burning and the heaviest level of destruction. And the
11 second thing that I learned was the information that was
12 provided by Mr. DeMatties about where the spark was seen in
13 the toilet room.

14 The rest of the building was much less significantly
15 damaged by comparison, especially in the roof trusses. So to
16 make it easy and cleaner I just did the area where I believe
17 was most critical part of the building.

18 Q Now running down the center of the two year old room on
19 the diagram D36 is sort of a line, it looks like
20 two-by-fours. Can you tell us what those are?

21 A It is a line of two-by-fours and they are marked from
22 number 1 through 5. And what they are are stringers. And a
23 stringer is installed when the building is being built.
24 After the masonry walls are built on all four sides, a wood
25 plate is bolted to the top of the masonry, and that's the

1 resting place for the roof trusses. When they set the
2 trusses, they usually do it with a crane but it's important
3 that they be kept on an equal center, either 16-inches on
4 center but actually 2 feet on center, and these are 2 feet on
5 center.

6 Q Can I just ask you a question I always wanted to know.
7 When somebody says something is 2 feet on center, what does
8 that mean?

9 A If you would take the two-by-four, which is what these
10 are made of, the center line goes right down the center of
11 the piece of wood longitudinally. And the reason that you
12 keep them on centers is plywood, Sheetrock, almost everything
13 that you buy is made on 2-foot increments, 2-foot, 4-foot,
14 8-foot. So if you buy a four-by-eight sheet of plywood, which
15 they did here, and you want to lay it on the roof, you want
16 to make sure that when you put a piece of plywood on the
17 roof, that you have enough room to nail it down, but then you
18 need room for the other piece to continue on. So you go from
19 center to center.

20 The problem is when you're putting them up there with a
21 crane and the wind is blowing, that's not always the easiest
22 thing to do. So what they do, the contractor does and I've
23 done it myself is, those two-by-fours are just temporary and
24 they're only used to hold the trusses on 2-foot centers until
25 such time as the contractor can start putting on the roof

1 deck and things of that nature, then they're of no value or
2 no use. Rarely are they removed. And these were never
3 removed.

4 Q Now, Mr. Natale, you testified a few minutes ago that
5 you concluded while you were on the scene that this area,
6 some of this area in the two year old room, was the area of
7 the heaviest charring and the earliest burning, is that
8 right?

9 A True.

10 Q And can you tell us about how you came to that
11 conclusion?

12 A The conclusion was made based on the level of
13 destruction, consumption of building materials, the depth of
14 char or the erosion of the original framing material, which
15 was once 2-inches by 4-inches, nominal. It's actually an
16 inch and three-quarter by three and three-quarter. But part
17 of that is eroded away so it's no longer that dimension. So
18 I'm looking for the area where the most charring occurred and
19 then I know that area was impacted either hotter, or longer,
20 or both by the fire.

21 Q Was the area where the most charring occurred uniform
22 across the whole two year old space or was it localized in a
23 particular area?

24 A No. It was localized. And the best way I can describe
25 it, it started around truss 6 or 7. And on another drawing I

1 prepared I put a dotted line in the general area where the
2 fire was the greatest. And the easiest description I can
3 give you is it was located about where number 2 and 3 and
4 part of 4 are situated.

5 Q When you say 2, 3 and 4, you mean truss 2, 3 and 4?

6 A No. It's these stringers, right where you're pointing.

7 Q Can you tell the jury and His Honor what this depicts?

8 A This slide depicts data that I provided to a technician
9 to make this slide, and I provided him with my drawing and my
10 commentary. And it shows the area that was charred more
11 deeply and more significantly than anywhere else in the
12 entire building. And I needed a way to illustrate that and
13 he prepared this.

14 So the heaviest area of charring was in the geographic
15 center of the two year old classroom, upper elevation, and it
16 spread out like the darker area is as you came to the top of
17 the bottom chord of the roof trusses.

18 Q There seems to be a series of concentric ovals. Is that
19 of some significance to you as a cause and origin
20 investigator?

21 A Yes. The purpose was for me to as accurately as
22 possible show the darkest area is the most intense area of
23 burning, and as it gets lighter around the periphery of the
24 elliptical shape, the damage becomes proportionately less and
25 the charring is less deep. And ultimately around the

1 lightest area, the gray area around the outer periphery, is
2 where some of the two-by-fours are still the original color.

3 Q And why is it significant to you when you're trying to
4 determine where a fire originated that you have deepest char
5 in a particular area and it gets progressively lighter in all
6 directions?

7 A Burn pattern analyses is an effective way to determine
8 where the area of origin is. And that's why I detailed it in
9 this fashion. Sometimes it's hard to just see it and explain
10 it. And that's why I make the detailed diagram so that I can
11 measure that depth of char. And knowing that it had to have
12 happened early in the fire because the whole fire event
13 lasted a relatively short period of time. And for that
14 reason I try to make a diagram to reflect what I'm seeing
15 realizing some day I'm going to have to explain this to
16 someone.

17 Q Can I have the next slide, please? Sir, can you tell
18 the jury what it is that you see here on the slide 3?

19 A Yes. This is a few of the trusses that I'm referring
20 to. Right where the yellow arrows by coincidence are
21 pointing, there are metal plates that hold the trusses
22 together. They're called gussets and they're gang nailed or
23 punched, and that's what holds the truss together.

24 The parts of the trusses that are left to right with the
25 numbers on them is called the bottom chord, C-H-O-R-D. And

1 the part that goes up along the roof on the slant is called
2 the top chord. Everything in between is called a web. And
3 every place there is a metal gusset plate that's called a
4 panel point. And they're put there by preengineered drawing
5 so that you now how to distribute the weight of the roof,
6 takes into consideration the wind load, snow load, called
7 dead load, and it provides a suitable roof that will pass to
8 code for your area that will carry all the snow and ice
9 without failure or collapse.

10 Q Does this accurately reflect the construction of the
11 truss space above the two year old room just prior to the
12 fire?

13 A Yes, it does.

14 THE COURT: What's the exhibit number here?

15 MR. DUGGAN: This is a chart, Your Honor, based on
16 Exhibit D36. I will certainly offer it as an exhibit when
17 we're done.

18 A And lastly, the red numbers are showing the stringers
19 that were originally installed at the time of construction
20 and never removed.

21 Q The stringers are these things running down the middle?

22 A Yes.

23 Q And which way, if we're looking at this is the bathroom,
24 is it going down or up?

25 A You are looking to the west.

1 Q So we would be as you go to 4, you're going away from
2 the bathroom and the bathroom would be back up here?

3 A Well, you're talking about the stringers now?

4 Q The stringers.

5 A Or the trusses?

6 Q The stringers.

7 A Easiest way to describe it, truss number 1 is where the
8 bathroom wall starts, and now we're moving away from it,
9 moving, actually we're looking to the western most part where
10 the kitchen was located.

11 Q And may I have the next slide, please? I'm showing you
12 now what has been marked as Exhibit D34, image 8928. Can you
13 tell the jury what this is?

14 A This is actually the photograph from which the previous
15 slide was made. And this shows the same trusses looking in
16 the same direction. And if you notice, the area toward the
17 center is more heavily charred, and as you move toward the
18 extremities on the left and right, you can see there is some
19 lesser charring and even some clear wood that was not
20 affected to any great extent by fire, perhaps a little smoke.

21 The purpose of this was to illustrate, as I mentioned on
22 the last line, where was the area of primary burning at the
23 or 89 of the fire. No where else in the building is charring
24 equal to this.

25 Q And, sir, is there some significance to the fact that

1 the -- sir, do you see where the stringers used to be on the
2 diagrams of the previous slide?

3 A Yes. I noted where they were on the drawing and then
4 they were transferred on to this slide for ease of viewing
5 and makes more sense.

6 Q Were the stringers all there when you went out and took
7 photographs on October 29th?

8 A No. As you can see for an example on truss number 9 is
9 about where the stringer ends, and truss number 8 and number
10 7 just have a little nub. Right where the red number 3 is
11 you can see there is just about a 6 inch nub of the stringer
12 left, the rest is consumed.

13 Q What does this slide illustrate?

14 A This slide was made by someone more talented than I on a
15 computer to illustrate if we kind of bleach out all the
16 background just for the purpose of highlighting where the
17 stringers are located, you can get a much better idea where
18 the fire burned and how much consumption. We talk about
19 charring and depth of char, there is no greater depth of char
20 than full consumption. You may have a half inch of char.
21 Here we have an inch and a half of char, it's gone
22 completely.

23 Q Was your analysis of the stringers as shown in this
24 photograph important to you in coming to an opinion and
25 conclusion on where the fire originated?

1 A It's all part of the puzzle. You can't just walk in and
2 make an eyeball observation. You have to start relying on
3 some physical evidence that tells a correct story. And even
4 though you have to allow for some margin of error, because
5 after all it was through a fire, it still gives you the best
6 rendition that you can develop after the fact, bearing in
7 mind first we have to work with normal and then figure out
8 what's abnormal. When it's gone completely, that's abnormal.

9 Q And the next slide is a diagram of the truss space from
10 the opposite side?

11 A That's exactly correct.

12 Q And here can you tell us where the entrance to the
13 bathroom would be?

14 A It would be on the lower left, pretty much just a little
15 left of the red number 2. It's out of the view of the
16 camera, of the image here, but it's on the lower left.

17 Q And stringers located where they were prior to the fire?

18 A Yes.

19 Q And these 4, 3 and 2?

20 A Yes. That's where they were installed initially as you
21 saw many of them were corroded. And I also noted where the
22 electrical junction boxes were in the ceiling. There were
23 others but these are the ones that were attached to the
24 bottom chord of the joists.

25 Q Why was it important to note where the junction boxes

1 were?

2 A First, my responsibility here was to examine the fire
3 scene to determine if the product involved was manufactured
4 by my client. Secondly, I wanted to collect all the parts to
5 the fan to make sure we could do a significant laboratory
6 test. So I wanted to do that as well.

7 It was also important to make sure that it was installed
8 in accordance with the manufacturer's directions. After
9 looking at the fire scene, I knew we were not going to be
10 able to pinpoint an exact point of origin or cause due to the
11 level of destruction.

12 So at the same time I wanted to document everything I
13 could document so that we would have a clear rendition of
14 precisely what happened and the best image that we could show
15 it, and that's by documenting it in this fashion.

16 THE COURT: I'm going to take an afternoon break at
17 this time.

18 (Recess at 3:10.)

19 (Reconvene at 3:30, jury present.)

20 THE COURT: Mr. Duggan, go ahead.

21 *BY MR. DUGGAN:*

22 Q Mr. Natale, let's go to the next slide, which is Exhibit
23 D34, image 8934. Can you tell the jury what you're looking
24 at here?

25 A Yes. I can orient you. This is a photograph facing the

1 east toward toilet room number one, and the first truss that
2 you see in the upper portion is number 11, but number 10 is
3 the first one that's marked. And it's an illustration to
4 show the level of burning intensity, the areas of consumption
5 where the fire burned substantially greater than in other
6 portions of the building, and it shows the stringer marked
7 number 3 and number 4 which are partially consumed. As a
8 matter of fact, heavily consumed. There are two circles
9 shown.

10 Q Before you go to the circles, let me ask you a question.
11 We are heading now west to east toward the bathroom as you're
12 looking down?

13 A You're facing the east toward toilet room number one.

14 Q And stringer, this is stringer 3 is on truss 10?

15 A It is. It's kind of at an angle because a portion of it
16 burned away and it's tipped a little bit, but that's the
17 stringer.

18 Q If we were to go back to the previous slide, was that
19 the way this particular -- go one back. Is that the way this
20 looked just prior to the fire?

21 A That's the way it was originally assembled, but the fire
22 of course caused all the damage. So as part of my role is to
23 examine these things and find out what was normal and what
24 has changed since the course of the fire. And one of the
25 things I noticed was that the stringers were consumed in

1 numerous areas and that there was heavy charring in certain
2 areas of the trusses, which I've isolated.

3 Q The stringer is how long?

4 A Typically 12 feet. And the best I can tell here from
5 the ones that were intact, they were 12 feet and they're
6 two-by-four.

7 Q You were talking a little bit about the areas that we've
8 circled here, truss 10 and truss 11?

9 A Yes. It's an example of what I was referring to earlier
10 when I'm talking about the depth of charring and the
11 consumption of building materials. And in those circles one
12 of the trusses, which would be number 11, it's unmarked but
13 it would be the one in the foreground at the top of the
14 screen, that truss is severely charred in the center. And
15 the other circle shows an area where the roof deck, which is
16 made of plywood, is almost burned the whole way through. And
17 that's moving up towards the ridge of the roof. We're about
18 a third of the way up from the north wall into the two year
19 old classroom.

20 Q And was that significant to you as an origin and cause
21 investigator?

22 A Yes, it was.

23 Q Why?

24 A Well, I'm tracking where the areas of greatest intensity
25 are. In all fairness, if the building burns for three hours,

1 this exercise is rarely able to be done successfully because
2 the fire consumes so much. You have to be able to date when
3 in the history of the fire these things occurred. So if this
4 thing burned for three hours, we wouldn't be having this
5 dialogue because you would never be able to tell, it burned
6 too long and you don't know what affect the fire had on these
7 joists over a period of time. So we're trying to date when
8 this happened in the history of the fire.

9 Q Let's go to the next slide.

10 A This next slide is basically the same thing where I
11 asked them if they could bleach out all the superfluous
12 material so you could get a better idea of the tiny fragments
13 of the stringer that are still remaining at the time I saw
14 the fire. The rest are consumed completely. As previously
15 stated, you cannot get any greater depth of char than total
16 consumption, and these are totally consumed.

17 Q Mr. Natale, as we march forward toward the bathroom, go
18 to the next slide and tell us what we're looking at here.

19 A Yes. The next slide we're also looking at the
20 stringers. As you can see the one marked red number 3 is
21 tipped on somewhat of an angle because it has no bearing on
22 number 9 or number 11, so it's sort of teeter tottering or
23 seesawing over truss number 10. And then you can see
24 stringer number 4 the end is burned off. It should be
25 continuous going towards truss number 9 and on past that, but

1 it's completely gone as well.

2 The other thing you can see here is that there is a
3 junction box, which is an electrical four-by-four utility box
4 with a cover. There is metallic sheath cable going into it.
5 There is 1, 2, 3, 4 of them going in there. The ones on the
6 lower portion are gone, so they could not be traced. So
7 there is one on the topside that could not be traced because
8 it only ran a short distance and then it was terminated.

9 Q While you're talking about that and I'm thinking of it,
10 was it possible when you were there to do arc mapping of the
11 scene?

12 A No, it absolutely was not.

13 Q Why not?

14 A It was too heavily destroyed. Arc mapping is if you
15 would picture your lawn sprinklers and you want to track down
16 where the leak is in the sprinkler and you keep following it
17 along until you find the leak. But if parts of it are
18 physically consumed, then you can no longer do that. The
19 same is true with wiring. If it is destroyed, if it is
20 collapsed, if some portion of the roof fell in on it and
21 broke the lines, it's very hard to do arc mapping because
22 there is no way to connect it to the way it used to be.
23 Remembering if you can't tell normal, you can't tell
24 abnormal, so that's why you couldn't do arc mapping.

25 There were 11 or 12 circuit breakers that were tripped.

1 Only one went to the fan. And that's the only circuit that
2 anyone attempted to do any wire tracing, that I'm aware of.

3 Q I'm showing you now an image that was marked DeMatties
4 D34, image 9051.

5 A Yes. This is a photo moving closer to the east end of
6 the building. And number 3 in the red as shown in three
7 different locations, and that was all part of one continuous
8 piece of wood framing that was a stringer, and you can see
9 large portions are now consumed and missing. But equally
10 important, you can see the deep level of charring in the roof
11 deck up above. And that cannot happen in three or four
12 minutes, that's a long period of intense burning.

13 And, coincidentally, I didn't know this myself until
14 today, when the fire guys came in, they said about trusses 6,
15 7, 8 and 9, and that's right where we're looking right here,
16 this is where he saw the fire when he came in and suppressed
17 it with his hand line.

18 Q This red dotted line, what does this indicate?

19 A That indicates the trajectory of the stringer if it were
20 still in place. The only thing that's a little confusing, I
21 didn't notice until now, the red stringer looks like it's on
22 the bottom of the truss chord, when in fact it goes on the
23 top of the bottom chord. I didn't notice that until now; I
24 apologize.

25 Q Next slide, please. Where are we now, sir?

1 A Well, now we're on truss number 4, and we have another
2 electrical junction box. The red number 2 illustrates the
3 entire section of the stringer as consumed. It is gone. And
4 bear in mind that the stringer goes on the top of the bottom
5 chord, so it's not likely to fall off, it has to be consumed
6 to a great extent. It covers trusses 2 through 5 and is
7 basically gone.

8 Q Why is it important to remember that the stringer is
9 actually going on top of the truss chord instead of the
10 bottom of the truss chord when we're trying to examine and
11 analyze this case?

12 A Well, they're put on the top because when you do the
13 stringers and you install them, you don't know if they're
14 going to put a drywall contact ceiling up. If you do now the
15 stringer is in the way. If you're going to put a suspended
16 ceiling, then it doesn't matter where you put the stringer.
17 But they typically put them on the top because it's easier to
18 nail down than to nail up when you're building a building.
19 So the importance of this slide, again, is to show the
20 consumption and the depth of char.

21 Q Where would the insulation be in installing this with
22 respect or in relation to the stringers?

23 A The insulation is stapled to the bottom flange of the
24 bottom chord, so it's on the lowest part of the truss. And I
25 think if my thing is working, this is where the insulation is

1 stapled on each truss. And just like the 4-foot plywood we
2 were talking about, the insulation is made to fit, it's 23
3 and a quarter-inches wide and it has an 1 inch flange on both
4 sides, and that way you can staple it in that cavity space
5 where that trusses run.

6 Q Mr. Natale, I put in front of you now and the jury one
7 of your photos, which has been marked as D06, image 196. Do
8 you recognize that?

9 A I do, sir.

10 Q And what is the importance of this slide to you as when
11 trying to reconstruct the fire progression?

12 A For the same reason we discussed previously, I'm reading
13 burn patterns here and the depth of char, and I'm now showing
14 an area where stringer number 2 with the red circle is gone
15 completely and it has eroded into the bottom chord of the
16 roof truss. And it did the same thing in number 1. The fire
17 is moving from the center of the two year old room, moving
18 east and west, and this particular direction is moving east.

19 Q And is there anything that you denote about what the
20 remnants are of trusses 2 and 1?

21 A The importance is that the area where the conflagration
22 of fire was as mentioned or reinforced by the first-in
23 firefighter was around truss 6, 7 and 8. We're now moving
24 toward the separated wall. And number 1 is the last truss.
25 Notice that number 1 does not have much side burning. Number

1 2 has a great deal of burning. And red number 2 is the
2 conveyance, the piece of framing that acted as a pathway for
3 the fire to move along the bottom chord of the truss.

4 Q What do you mean by that, sir, a conveyance that the
5 fire used?

6 A The bottom chord was ignited. As you can see it's the
7 only framing in the entire building that is completely burned
8 away. And as it was burning, it was moving the fire from one
9 point of the building to another. So it was the segue for
10 the fire to travel longitudinally through the building right
11 along this stringer.

12 Q I would like to show you now a picture marked from the
13 Emergency Management Office, it's marked D3, image number
14 305.

15 A Yes.

16 Q Tell the jury what we have here.

17 A Yes. I selected this photo to publish because where the
18 red number 2 is is where the stringer is or was. And then
19 truss number 2, 3 and 4. But this time we're looking at it
20 from the office where the corridor is, we're looking at it
21 from the south and we're facing the northwest. Yeah, the
22 northwest.

23 The importance of this photo is in the red circle where
24 you can see the two year old room toward the center, that
25 truss is almost completely eroded. And on the side facing

1 the toilet room is much better. As a matter of fact, is in
2 superior condition. It helps you show the direction of the
3 flame travel earlier in the history of the fire.

4 Q And the flame travel was from where to where?

5 A It was from the center of the two year old room moving
6 east and west. This particular view shows it moving towards
7 the east, but it worked the same way going to the west.

8 Q The next slide, please. I'm showing you now what has
9 been marked as D35, image 2090. Can you tell us what we have
10 here?

11 A This is a closer view standing almost in front of the
12 toilet room. You're facing the east. And the red dotted
13 line shows you the stringer that was once there that I
14 believe was a conduit, if you will, a method of moving the
15 fire toward the east side. And this is a condition in which
16 we found it. The stringer is gone completely, heavy charring
17 and partial consumption and burn-through on truss number 2.

18 Q How much charring on truss number 1 in relation to truss
19 number 2?

20 A Well, this is illustrating to me as a fire analyst that
21 the fire is moving from the center of the two year old room
22 toward this east wall, which is the west wall of the toilet
23 room. And the level of damage up above in the roof trusses
24 and the stringer is commensurate with that comment.

25 Q The stringer, of course, here is gone?

1 A The stringer's gone completely.

2 Q Can we have the next slide, please? This slide is
3 Exhibit D34, image 9015.

4 A Yes, correct.

5 Q And Mr. Natale, what is shown in this picture that is of
6 importance to you?

7 A Most important thing in this photograph is -- well,
8 there is several things actually. One of the things is
9 that --

10 Q Before I do that, just so we know, where are we now?
11 What room are we in?

12 A I'm sorry. This is in the toilet room number one. The
13 toilet room where the child was at the time of discovery.

14 Q And we have A's and B's up here and the numbers. What
15 are those again?

16 A Correct. A is the next truss after number 1. When we
17 finished the classroom, we numbered those from 1 to 17. Now
18 we're in the toilet room and I changed it to letters, so
19 we're at letter A now in the truss. And B is also shown in
20 the roof or the ceiling of the toilet room.

21 Q Looking at Exhibit number D36, the blowup that I have in
22 my hand, does the image on the screen D36 -- D34, 9015, is
23 that the area where I'm pointing to essentially?

24 A Essentially, yes, correct. If you could move your
25 finger up just a half an inch up on the drawing, but in the

1 center, right about in there.

2 Q It's basically the corner where the two year old room,
3 the bathroom and the office come together?

4 A That's correct.

5 Q Okay. Now, what is it that you see of significance to
6 you in trying to determine the origin and the progression of
7 this fire?

8 A First let me tell you that the blue dotted line is where
9 the wall angle for the original suspended ceiling was
10 located. So that was ceiling level in the toilet room. On
11 truss number A, at the intersection of stringer number 1 and
12 2 and truss A, that area is burned heavily. And if you look
13 where the number 1 is, which is moving toward where the fan
14 was located, is almost in perfect condition, it's not burned
15 at all.

16 And it is the only place I found in the entire building,
17 for an unexplained reason, that instead of stapling the
18 insulation to the bottom chord of the truss, the insulation
19 is laid over top and it's not on the bottom chord, it's laid
20 over the truss. I don't know why. But it provided a segue
21 or a pathway for fire to enter this room. That's the only
22 place where we found this.

23 Q Why is it significant to you in trying to reconstruct
24 the origin or cause of this fire that the insulation in
25 between the A, B truss space was laid over stringer number 1

1 as opposed to under stringer number 1?

2 A Because now you have a pathway for fire and heat to get
3 from the two year old classroom into the toilet room number
4 one.

5 Q When the fire was progressing in your view in the two
6 year old room down the stringers, was it above the insulation
7 or below the insulation?

8 A Well, you can see where the stringer was. The
9 insulation was underneath because it was stapled to the
10 bottom chord on the underside of the trusses. But when we
11 get here, the insulation is now laid on top of the bottom
12 chord. So we have a pathway.

13 Q And is there any fuel for a progressing fire that's
14 coming down the stringer?

15 A The only fuel is the stringer and the paper that may
16 have been on the insulation is the primary fuel, and then
17 with the insulation on top of the trusses now for the first
18 time. That's the only place I located that. That gave me an
19 avenue to get fire and heat from the two year old room into
20 the toilet room, having nothing to do with the attic space
21 above now. The attic space was all open. There were no fire
22 stops from one end of the building to the other, it was
23 completely open.

24 Q Why is it significant to you that there were no fire
25 stops?

1 A Well, the significance was that I worked a quick number,
2 and I should have done it on a calculator, but my quick
3 number was the volume of free space in the attic in that
4 triangular space was almost 10,000 cubic feet. So with the
5 fire being in the two year old classroom, it had a lot of
6 places to spread uninhibited. It wouldn't be seen and the
7 odor wouldn't be detected because there's a layer of 6 inch
8 insulation and a foot underneath that you have a suspended
9 ceiling.

10 So it's my view the fire was burning over the two year
11 old classroom right where we were talking about where the
12 firefighters came in and the heavy charring on the trusses,
13 it was unnoticed for a period of time, and I hesitate putting
14 a number on it, it's hard to do. But that's where the fire
15 was discovered. I didn't know that until today. That's
16 where I placed the fire based on my review of the burn
17 patterns and the analysis that I did at the site, and it was
18 confirmed today and I didn't know it until today.

19 Q Let me ask you a question. But how is it that you could
20 have a fire progressing in the attic space in the two year
21 old room, and Ms. Suffredini and perhaps the children
22 underneath that not hearing or smelling the smoke?

23 A The chance of hearing it in the smoldering stage are
24 pretty slim. The chance of smelling it, if there were no
25 ceiling, would be pretty great, but we had a layer of 6 inch

1 of insulation separating the smoldering fire from the
2 classroom side. Underneath that we have an air space of
3 about 12 inches. And underneath that we have a suspended
4 ceiling with a T bar system. And this is one of the T bars.
5 I can't show you that way. This is one of the T bars here
6 that supported the suspended ceiling. And this along the
7 wall here, this dotted line, is the wall angle against the
8 wall, and the ceiling tile lays in there in grid fashion,
9 typical suspended ceiling.

10 Q Before I ask you a couple more questions about the
11 bathroom, I want to ask you about something called a top
12 plate.

13 A Yes.

14 Q Are you familiar with what a top plate is?

15 A Absolutely.

16 Q What is a top plate?

17 A When you're building a wall out of two-by-fours,
18 typically it's built laying flat on the floor. You stand a
19 two-by-four up on edge and then you put 8 feet away or
20 9 feet, whatever height the ceiling is, you put another
21 two-by-four, and in between you put the studs and you nail
22 them. Then you stand the whole wall up so it's erect. You
23 attach it to the floor. And now you have whatever, 10 or 12
24 foot sections of wall.

25 In order to tie them all together, wherever the break is

1 between the top plate, you now lay another plate on top of
2 that to bind these two together, and then you nail up into
3 the trusses to make it stationary after you plumb it and
4 level up the wall. And that's the purpose of it. So the top
5 has two two-by-fours and the bottom has one two-by-four with
6 the studs 16 inches on center, and that's the purpose.

7 Q Exhibit number D34, image 8934. I asked you about the
8 top plate, Mr. Natale, because now we're back in the two year
9 old room, right?

10 A Yes.

11 Q And do you see a top plate there?

12 A Yes, there is a top plate. Well, the red arrow is
13 pretty much pointing to it, but it's this piece right here.
14 And if you look carefully right about in here, you'll see the
15 16 penny spikes that came right down. And that's what held
16 the studs in place. And that was an abandoned wall that I
17 found one of the original drawings for the building and it
18 had been renovated. They ripped the walls out and they left
19 the top plate nailed to the roof trusses. No problem, but
20 that's what they did.

21 Q This was part of the previous structure before they
22 remodeled?

23 A Correct. But it collapsed here during the fire, burned
24 through.

25 Q What is the significance of the D34, image 8934 in you

1 trying to reconstruct this fire?

2 A Well, this is the area within about 2 feet of where I
3 placed the area of margin in that truss space, and that's
4 about where this top plate is also located. And that
5 confirmed that I thought this was an area that burned longer
6 and hotter than anywhere else.

7 Q And why is it significant to you that there is this
8 burning and collapsing of the top plate?

9 A Well, again, I'm looking at the areas of most damage,
10 and a specific area, so I can isolate the area where I
11 believe the fire started. And this is part of the evidence
12 that you use, because the two-by-four framing all over the
13 ceiling, whether it's part of the truss or wall or anything,
14 has a uniform characteristic as far as burning ratio and
15 consumption. Unless you have some exotic wood, which you
16 never put in an attic. But that is a good benchmark to
17 determine what burned longest and to a greater intensity
18 because the wood would all burn at the same ratio with minor
19 exceptions.

20 Q Let's take a look at Exhibit D3, image 304, which was
21 taken by the Emergency Management Office.

22 A Yes.

23 Q Can you tell the jury what we see here and why it's
24 important?

25 A Yeah. This is a photograph. The dark, that dark

1 opening on the bottom is the toilet room door. It's marked
2 over here. This is the toilet room door to give you an idea
3 where you are. You're now in the office, which is between
4 the toilet room, then the office and then the corridor. So
5 this is where you're standing.

6 And what I found in here was heavy charring. And I
7 guess I can best point to it here, right along here, this was
8 very, very heavily charred.

9 Q So is this that top plate that we were looking at
10 before?

11 A It is a top plate but I don't think that's the same one.

12 Q And what do you notice or is significant that you have
13 heavier charring in one area that you labeled than the other?

14 A Again, it shows the direction of fire movement and
15 that's why I used it. Looking at the depth of char and where
16 the charring is greatest and least, and then you can draw
17 pretty accurate connection as to where the fire started and
18 which direction it moved.

19 Q Let's take a look now at the bathroom. We moved into
20 the bathroom. Did you prepare a similar analysis for some
21 important areas of the bathroom?

22 A Yes, I did.

23 Q Looking at the next slide, which is an EMO photograph,
24 Exhibit D3, image 285. Can you tell us where we are now?

25 A Yes. You are in the toilet room facing the east, and

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1 the red arrow is pointing to the pilaster that separated the
2 toilet partition between the two toilets, and there were
3 juvenile toilets, very small toilets. And that divider was
4 placed between and it goes up to the ceiling where it was
5 anchored.

6 What's directly above with the two white blotchy marks
7 is a 2-foot by 4-foot fluorescent light fixture that's in the
8 ceiling suspended grid. What's located on the upper right
9 corner of the photograph is a heating/air conditioning
10 diffuser. All the conditioned air comes in through the vent.

11 And these are the cross T's and these are the mains for
12 the suspended ceiling. The mains were placed 2 feet apart
13 and then they put 2-foot T's in here to go over the wall and
14 make this connection. Very typical installation.

15 This area in here is where I reconstructed and
16 determined the fan was located. And this wire hanging down
17 here was connected to the subject fan. I never saw these
18 photographs until months later. I never knew these photos
19 existed. They were taken by the fire department. When I saw
20 this room, it was in shambles. So this is my first view. I
21 was amazed when I saw what good condition it was in then
22 right after the fire, and what condition it was when I saw
23 it.

24 Q Why is it significant to you the condition that we see
25 here in image 285?

1 A The image is P9170285.

2 Q Why is it significant, the condition here?

3 A The significance is that this is -- in the fire business
4 this room's in pristine condition, compared to the two year
5 old room we saw, where there is nothing like this that's even
6 available. The whole ceiling was down. The grids were down.
7 The insulation was down. The light fixtures were down. The
8 wiring was in disarray. We go in the toilet room, everything
9 is still there. It's remarkable. There is even paper on the
10 back of the insulation that didn't even burn away. And this
11 square right in here is where the ceiling fan was located.

12 Q Does that help you determine to a reasonable degree of
13 scientific certainty as to whether or not the fire started in
14 this fan?

15 A It does indeed.

16 Q And in what way? What's your opinion?

17 A I'm absolutely certain the fire could not have possibly
18 started in this room causing all that damage to the two year
19 old room, yet leaving the air diffuser intact with no
20 warpage, the metal light fixture intact with no warpage,
21 didn't even peel the paint off most of it, and the paper on
22 the insulation. These grids, T bars here fell very early in
23 the fire because longitudinally they start warping and
24 twisting and falling down. They make these fire rated but
25 this isn't one of them.

1 This is in remarkable condition. Look at the wall. The
2 wall has smoke and soot damage. There is smoke and soot
3 damage above the ceiling as well. But the wall finishes are
4 intact. There is very little damage in this room compared to
5 the two year old room where we just examined and saw that the
6 plate's missing, the stringer's missing, the trusses were
7 heavily charred, the insulation down. Dramatic differences.

8 Q Wouldn't it be possible that all that destruction that
9 you see in the two year old room could have been caused
10 simply by Mrs. Suffredini or Ms. Dattilo leaving the door
11 open as they left the room?

12 A I don't think so. As a matter of fact, I'm sure not.

13 Q Why?

14 A Well, the reason is that the door was below the ceiling.
15 So you got a ceiling on top of the door, a dead space, and
16 then we have 6 inches of insulation above that. So the door
17 wouldn't have any impact on that fire until the whole ceiling
18 fell down the way the fire department found it, wouldn't play
19 any role at all.

20 Q Next slide, please. We have now another picture taken
21 by the Emergency Management Office, Exhibit D3, image 294.
22 What do you see here that's of significance?

23 A This is basically the same area only lower down, as you
24 can see by the two juvenile toilets separated by the pilaster
25 for the toilet partition. This is the ceiling fan, which was

1 installed in the ceiling tile, and in a rather unorthodox but
2 not necessarily a bad way. It's just not typically installed
3 with that wood on the side. They make stringers to go that
4 you clip right on to the suspended ceiling, but they chose
5 not to use them.

6 And the other thing I see in here is this coil spring,
7 this slinky looking material, which I believe was part of the
8 duct work. It all burned away except for what's left here.

9 Q Did that duct work serve the fan?

10 A Reportedly it served the fan because it was not the
11 right diameter for the air conditioning.

12 Q Were you able to come to an opinion within a reasonable
13 degree of scientific certainty whether that duct was or was
14 not on the fan at the time of the fire?

15 A I couldn't tell you that positively, but what I do know
16 is that duct ran up over the top of the wall, it went to the
17 east, it ran a couple of feet and stopped. That's all I
18 could tell after the fire.

19 Q I have one question, Mr. Natale, about the pilaster that
20 you were talking about, the one that separates the two
21 toilets.

22 A Yes.

23 Q I think we heard from somebody that that was an
24 indication of deep charring on this pilaster?

25 A No, it is not charring.

1 Q What it is?

2 A It was a synthetic material that was applied to it,
3 almost like a very thin Formica, but it was not Formica. But
4 it was just a plastic coating that they put on the pilaster
5 and on the toilet partition. That's not charred at all.

6 Q But what it is?

7 A What is it?

8 Q Not the material. But what's causing this? Is that the
9 way it would be prior?

10 A No. It was affected by heat, but it's almost like
11 Sanitas wall covering. But it's a more rigid material. It's
12 just a plastic material that they put over wood to make
13 toilet partitions with. So you see it blistered from the
14 heat, but it takes very little to do that. And you can tell
15 because the walls beside it are Sheet-rocked and they were
16 covered with similar material and it's not even damaged.

17 Q Next slide. Looking at Exhibit 3, D3, 285. Mr. Natale,
18 we didn't talk about this before. I forgot to ask some
19 questions about these two areas here, C and D. What is that?

20 A C and D are trusses that were overhead. You're looking
21 at the bottom chord but you can't see them clearly because
22 the insulation is still attached to it.

23 Q Is that significant to you in trying to determine
24 whether or not the fire started in that fan that was right
25 there?

1 A Well, significant to me because I would never expect it
2 to be in such good condition if this were the point of origin
3 that burned longer than anything else. I think this was
4 attacked much later in the fire.

5 Q We'll go to the next slide, please.

6 A This illustration --

7 Q We're on Exhibit D3, image 279.

8 A Yes. This is what I was talking about when I said about
9 the unorthodox method of installing the fan. You have to cut
10 a hole in the ceiling tile for the fan to come through. They
11 make a metal bar that connects to the suspended ceiling to
12 hold the fan up, just like a light fixture. They didn't use
13 them here. Now this is kind of amateur-ish but it doesn't
14 affect the operation of the fan.

15 But they screwed two pieces of rough one-by-four
16 material to keep the fan from falling through the hole they
17 just cut. Like I said, not the neatest job, but that's what
18 they did, it's okay.

19 And the coiled spring that we see up here, this is what
20 I believe was the duct for it and the wire that feeds, the
21 electrical wire that feeds it. That's the way it was when
22 they found it. When I first saw this, that fan was already
23 removed, the ceiling light and everything else was already
24 removed, the fan was on the back of Mr. Tochelli's truck and
25 he let me look at it there.

1 Q I want to move back along that same wall. This is the
2 wall that --

3 A That separates the office from toilet room number one.

4 Q So I'm going to move back now to the next, to photograph
5 D35, image 2100. Can you tell us, Mr. Natale, where we are
6 now?

7 A This is looking up at the stringer number 1 that we
8 looked at previously. And this is the area where I mentioned
9 that the insulation is laying on top of the truss chord
10 instead of stapled at the bottom. I don't know why. That's
11 just the way that it is. And it appeared to have been that
12 way previously. The blue line, again, indicates a line where
13 the wall angle for the suspended ceiling was located, and the
14 metal object hanging down was part of the ceiling suspension
15 system.

16 Q Mr. Natale, did you come to an opinion to within a
17 reasonable degree of scientific certainty as to whether or
18 not the fan was attacked by a previously existing fire?

19 A I believe the fan was a victim of a fire that developed
20 elsewhere and ultimately moved into this room, and the
21 conveyance was through this insulation which is on top
22 instead of on the bottom, and that made a pathway. And fire
23 will have -- fire and smoke will have a propensity to find
24 any tiny opening to move through.

25 Q Next slide. We're still in the same corner?

1 A Yes.

2 Q This wall that I'm pointing at now, that's the wall that
3 separates the -- what is that? The wall that separates the
4 bathroom?

5 A From the office.

6 Q And the A1 intersection, this is the A truss and this is
7 1 stringer?

8 A Yes. Right about where the red number 1 is, is about
9 the furthest extent to the east that the charring goes on
10 that piece of framing lumber. So the two year old room is up
11 toward the number A and B.

12 Q As we move a little bit further east or left on the
13 photograph, on that same stringer, what do you see and why is
14 it important?

15 A It's terribly important to me because we are now getting
16 close, not exactly, but we're close to where the fan was
17 installed and the wood framing is totally unburned, but there
18 is carbon and soot on it from smoke. But there is no fire
19 damage to that section of framing attached to item number 1.

20 Q Next slide, please. Looking now at Exhibit D34, image
21 915.

22 A Yes, sir. That's a closeup image of number 1 again.
23 And you can see that not only to the right side toward where
24 I believe the fire started is heavily charred. And as we
25 move into the bathroom closer to the fan, the wood framing is

1 not heavily charred at all, just smoke damaged. And at the
2 upper corner right here, the upper left-hand corner, you can
3 see that the wood two-by-four is totally undamaged. There is
4 only smoke and carbon on it. And now that we're getting
5 closer to where the fan is going. So the closer we get to
6 the fan, the better the wood is, which is contrary to the
7 fan -- or, the fire starting at the fan.

8 Q Next slide, please. Now do these highlight some of the
9 areas you were just talking about, the circles?

10 A Yes. They do. The circles outline this typical
11 intersection between stringer number 1 and truss A, and we
12 see part of number 2 where the stringer's partially missing
13 and totally consumed. Again, we're moving closer toward the
14 two year old room. As we move to the left side of the photo,
15 we are moving toward the area where the fan was and the
16 damage becomes increasingly less. This just blocks out all
17 the other stuff, you can see it better.

18 Q Can I have the next slide? I now put in front of you
19 and the jury Exhibit D34, image 916.

20 A Yes, sir.

21 Q Can you tell us where we are now?

22 A Yes. Now we are in the toilet room but we are facing
23 the office and we're facing toward the corridor, so we're
24 facing south. And the importance of this photo is that this
25 location right here is where the fan was installed and it is

1 the least damaged of any piece of wood framing that's in the
2 ceiling of the toilet room. This was allegedly the point of
3 origin, and yet it's the only place that's totally clean and
4 free from fire damage. And as you can see, the damage is
5 nonexistent and it gets smoke covered and moves all the way
6 over where it becomes charred, moving in the direction of the
7 two year old room, where I believe the fire started.

8 Q Now I think you pointed to the truss space between C and
9 D?

10 A C and D, yes.

11 Q And that's where the fan was installed?

12 A That's where the fan was installed.

13 Q What about the truss space between C and B, B, C truss,
14 can you tell me what is in that area that is of importance to
15 you?

16 A What's important to me is that is the remains of the
17 duct work. That coiled wire, that's remains of the duct work
18 that once fed the heating and air conditioning duct in the
19 bathroom that you saw previously with the diffuser in the
20 ceiling, just a little bit away from where the ceiling fan
21 was located.

22 And that's another avenue for fire and hot gases to
23 enter this area, because now the duct is burned, it goes out
24 into the office and into the hallway where the main trunk
25 line is. And everything in the two year old classroom has

1 already been burned away so there is openings the whole way
2 along that duct for the fire and heat from the two year old
3 classroom to come right down the duct work. And this is a
4 good example of it.

5 Q Did the duct here that fed the diffuser, I guess this,
6 is this one here you're talking about?

7 A Yes.

8 Q Did that go under the stringer, stringer 1, or did it go
9 over the stringer?

10 A Well, it looks like it's under but this is after some
11 disruption, and it's hard to tell, in all fairness. It
12 couldn't go under.

13 Q Why not?

14 A Because where the duct work was in the corridor which I
15 uncovered, it had to go over that.

16 Q Can you tell me, Mr. Natale, what we're illustrating
17 here, please?

18 A Yes. This is my reconstruction using the actual framing
19 lumber that was in the toilet room, showing where the fan
20 was, which is in the blue square, and showing the condition
21 of the stringer that is directly above, showing the condition
22 of the ends of truss C and D, which are remarkably good
23 condition. And it's hard to comprehend that this was the
24 point of origin when the damage is less than anywhere in the
25 entire roof framing assembly throughout the whole two year

1 old classroom.

2 Q Image number D349018.

3 A It's a different view. This is facing the east, and
4 it's just another view showing where that two-by-four
5 stringer is remarkably clean. And again, the fan was between
6 truss C and D.

7 Q Next slide, please. Right there?

8 A Exactly.

9 Q Where the fluorescent light was over here in this area?

10 A The fluorescent light was there, that is correct. And
11 the air diffusers at the top where the red number 1 is, red
12 number 1 is pointing to the stringer, but that's the square
13 that the air diffuser from the heating and air conditioning
14 was located.

15 Q Sir, does this help you determine to a reasonable degree
16 of scientific certainty whether this area, this fan that was
17 installed above the acoustic tile between the C and D truss
18 could possibly have been the area of origin of this fire?

19 A It tells me a great deal. And, frankly, after reading
20 burn patterns for half a century, I think I can do that
21 pretty well. And in all fairness, even if you couldn't, if
22 you use a little common sense and find a piece of wood that's
23 not even smoke damaged, it's hard to address that as the
24 point of origin. Even though there was insulation there,
25 that means it burned longer and hotter than anything else.

1 And yet we go out to the two year old classroom where
2 the firefighters found the fire, and it's devastated. The
3 ceiling already collapsed, the light fixtures, everything
4 collapsed. And he is looking up at the roof. He is telling
5 me while he sat in this very chair, he is squirting water
6 straight up to the roof between trusses 6, 7 and 8 or
7 thereabouts, and there is no correlation that one could make
8 that this is where the fire started and moved into the
9 classroom. It's just physically impossible. Primarily
10 because of the patterns you see and supported by the very,
11 very compressed time frame.

12 Q I want to talk about that, too. Next slide, please.
13 Sir, now going back to D36, which is now on the board, can
14 you tell us how this illustrates your view as to where the
15 area of origin was?

16 A I believe the area of origin is within the yellow dotted
17 circle or elliptical pattern. I believe the area of origin
18 was there. And I think that it was closest to truss, say, 5,
19 6, 7. That's where I diagnosed it to be by the depth of
20 charring and consumption of material, and I think it spread
21 in an omnidirectional fashion. It can only go to the
22 exterior wall on the north and the interior corridor wall on
23 the south. But there was more room for it to spread left and
24 right or east and west. And I think that the part that
25 spread to the east is what affected the area where the fan

1 was. And I think the fan area was affected late in the fire.

2 And also if you look, remember back a photo or two, the
3 Sheetrock was still up. The paper on the Sheetrock was still
4 intact right up to the ceiling line. Couldn't possibly be
5 the point of origin and be in that good condition.

6 Q Sir, you used the word omnidirectional. What were you
7 talking about with regard to your analysis of the fire spread
8 pattern?

9 A Sure. Fire produces hot gases which is lighter than
10 air. It has a tendency to rise. When it rises up to the
11 ceiling, can't go any further and starts spreading out. The
12 best way to describe a smoke pattern, it's just like water
13 only upside down. So if you fill your bathtub, it's going to
14 fill and then finally it's going to start overflowing and it
15 won't get any deeper in the tub. It will move onto the floor
16 and move across the floor until it hits the threshold, and
17 then it will collect until it gets deeper than the threshold.
18 And then it will move into the next room. Fire does the same
19 thing. When you hit a doorway, it builds down. Once it hits
20 a doorway, it spills into the next cavity. That's the way
21 all fire burns.

22 So up here over this building in general we had like
23 9,700 cubic feet of space for the fire to go unrestricted; no
24 fire walls, no barriers of any kind, and that's the way it
25 moved. I have the fire in the approximate center of this

1 room in that yellow dash line. And as I say, the fire
2 department fought the first fire there and it all coincides.
3 I believe that to be the point of origin -- or, the area of
4 origin, excuse me.

5 Q If the fire had indeed started at the fan, as the
6 gentleman we heard from yesterday suggested to the jury, and
7 not in the two year old room, what would you have expected to
8 see with regard to damage east of the two year old room?

9 A I would expect to see -- there is nothing stopping the
10 fire from continuing. The only reason the fire didn't go the
11 whole way down the building, the fire department arrived and
12 they put it out. They stopped the spread of the fire.
13 Otherwise, it would have continued because there is nothing
14 stopping it in the truss. It would go up to the highest
15 point of the roof and it would move laterally because there
16 is nothing to stop it.

17 Q Does fire burn in just one direction?

18 A No. It's omnidirectional.

19 Q When you say omnidirectional, what do you mean?

20 A Path of least resistance. So if you start a fire in the
21 middle of this floor, it's going to go up like a mushroom and
22 it's gonna spread out, and the smoke will build until it hits
23 the doorway and then it will start going under. That's how
24 fire always travels, unless it's directed by draft or some
25 unusual circumstance like flammable liquid.

1 Q Mr. Natale, once you ruled out the fan as the ignition
2 source of this fire, did you make an effort to find other
3 competent ignition sources in the two year old room in the
4 area that you illustrated for the jury?

5 A I only made a cursory examination because there was no
6 way to be more -- to delineate with accuracy given the level
7 of destruction. The fire scene investigation is broken down
8 in two facets. If you're going to do a full investigation,
9 then you take all the debris in the two year old room, the
10 toilet room, and you grid it off into 4-foot grids. Just
11 like you plant a garden. You dig up all the debris from that
12 4-foot grid, you sift it like you are sifting the ground, and
13 you'd pick out all the component parts, wire, pieces of light
14 fixture, receptacle, anything you find in that grid. And
15 then you move to the next, and the next, and the next.

16 That was not done here. That wasn't part of my
17 assignment. But I was going to participate if they did.
18 They chose not to. The next thing you do is start tracing
19 all the wiring. We heard a lot about arc mapping. Arc
20 mapping isn't any good unless you're going to arc map
21 everything. I personally tried to find out where the wire
22 for the fan goes in the electric panel. We have a device
23 that sends out a signal and it's called a tick tracer. I put
24 it on, I went to the panel to find out which circuit it was
25 attached to, and I got four hits.

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1 Q What did that indicate to you getting four hits by using
2 your tick tracer?

3 A That indicated somewhere up above in the attic where we
4 couldn't have access or didn't have access, that that wire
5 had touched and melted and made contact with four or three
6 other wires. So when you went to the circuit breaker,
7 instead of getting a beep for the light fixture, for the
8 ceiling fan, you got a beep at three other locations that
9 weren't even associated with the bathroom. That tells you
10 wires laying on top of each other, one was touching another
11 and they shorted out.

12 There was about eleven circuit breakers that tripped.
13 Never examined a single one. So to pick out one circuit and
14 say we did arc mapping on this one circuit, is truly not good
15 investigation science. It truly isn't. And there are times
16 when the damage is so bad, you've got to fess up and say it's
17 undetermined. I don't know. And I don't know how this fire
18 started, truthfully. There's just too much damage and it
19 burned in a concealed area undetected. And I could make up
20 all kinds of baloney. The bottom line is scientifically you
21 just can't tell how this fire started. I wish I could; I
22 just can't.

23 Q Does NFPA 921 accept the fact that there are times when
24 fires must be classified as undetermined?

25 A Absolutely. Undetermined is a legitimate cause for a

1 fire, as is arson and as is accidental, like lightning
2 strike. And so they're legitimate causes. But if you can't
3 find it, you can't prove it. Talk is cheap, proof is lot
4 more expensive. So if you can't prove it, then you have to
5 call it undetermined.

6 Q Mr. Natale, I've had you talking for quite some time and
7 I thank you very much for your time.

8 MR. DUGGAN: And Your Honor, I have no further
9 questions.

10 THE COURT: Mr. Paolini.

11 *CROSS-EXAMINATION BY MR. PAOLINI:*

12 Q Good afternoon, Mr. Natale. How are you?

13 A I'm very well. How are you, sir?

14 Q Very good. Thank you. I'm going to try to get through
15 this as quickly as possible. Near the end of the day. Let's
16 see if we can get you finished and out of here.

17 A Sounds fair.

18 Q Start with a couple of things. Did I hear you say that
19 the -- you noted at the scene that the paper backed
20 insulation in the area above the fan was draped over the
21 truss? Is that what you said?

22 A I saw it in the photograph. And most of it was gone
23 from the scene because it was all torn down by the time I got
24 there.

25 Q Well, right. And so in many areas you weren't able to

1 tell if it was stapled or draped over?

2 A I don't -- I will definitely not agree to that. There
3 was evidence of the staples in the bottom chord of all the
4 trusses. This is the only area where it varied. But I have
5 to admit that it was, a lot of it was torn down before I ever
6 saw it.

7 Q Okay. And I think you mentioned that was a very
8 significant finding, correct?

9 A It is.

10 Q You recall you issued a report in this case, right?

11 A Yes, I did.

12 Q Do you remember when you issued that report?

13 A Let's see. I can tell you exactly.

14 Q If not, I can --

15 A No, it's no problem. September 24th, 2013 I read the
16 report.

17 Q And that was four years after the fire?

18 A Correct.

19 Q And your report was about forty pages?

20 A Yes.

21 Q You had reviewed by that point Investigator Harloff and
22 his department's photos.

23 A No.

24 Q But September -- by 2013 you hadn't yet reviewed
25 Investigator Harloff's photos?

1 A I had not seen his photos until shortly before my
2 deposition. I never knew they existed. I had his report and
3 there were some photos attached that were illegible because
4 they were black and white recopies, but I never saw the
5 photos that we were just talking about today.

6 Q Did you ask for them?

7 A I didn't even know that they existed until --

8 Q Sir, if you could just answer my question, it will move
9 much quicker.

10 A I apologize.

11 Q You didn't ask for them?

12 A I did ask for them and they came after the report was
13 written.

14 Q Did you know you had to write a report in this case?

15 A Actually I did. I just didn't know when it was going to
16 be asked for.

17 Q Let's get back to the insulation issue.

18 A Okay.

19 Q When you wrote this report, in this report, just so
20 we're all clear, you wrote in your report four years after
21 the event that you thought the insulation was actually down
22 against the ceiling tiles, didn't you, sir?

23 A Yes. And I corrected that on my depo.

24 Q We're going to get to that. You can just answer my
25 questions.

1 A All right.

2 Q It will move quickly. That's what you said in your
3 report, is it not?

4 A I did, sir, yes.

5 Q Now your deposition you corrected it and said that you
6 made a mistake in your report?

7 A I meant to take it out because some insulation was
8 laying on some ceiling tiles. I thought it was that way in
9 the toilet room. I found out it was not, and I corrected it,
10 but it got in my report before I picked it up. My mistake.

11 Q You corrected it at your deposition, not in your -- you
12 didn't issue another report, did you?

13 A I did not.

14 Q Thank you. In your report you indicated that the paper
15 backed insulation, the insulation was actually down against
16 the dropped ceiling, correct?

17 A Yes.

18 Q And, in fact, you actually addressed what you believed
19 plaintiff's theory was in this report, did you not?

20 A Yes, sir, I did.

21 Q And in your report, you actually put in your report that
22 it was your belief that the fire got down into the fan
23 because the paper backed insulation essentially was
24 surrounding it, because it was compressed against the ceiling
25 tile, isn't that correct? You recall writing this report,

1 right?

2 A Yes, I did.

3 Q And, in fact, you went on a little further and you
4 indicated that the way the fire got to the fan was through
5 the duct that we've been talking about that, depending on
6 which witnesses testified, was either connected to the fan or
7 not? But it was your -- in this report you indicated your
8 belief that the fire traveled across from the classroom and
9 down through the opening where you didn't believe the
10 insulation existed, isn't that correct?

11 A Not the insulation didn't exist. I thought that was an
12 avenue for the heat to go through the same duct. It was a
13 discharge duct for the subject fan.

14 Q And you actually said that duct is very flammable, did
15 you not, sir, in this report?

16 A The duct, I don't know if I said very flammable, but
17 it's combustible. I'm not sure I said flammable. I think I
18 said combustible, but I have to look it up to see. It's not
19 considered a flammable but it is a combustible.

20 Q Now, sir, so your belief when you wrote the report was
21 that the fire traveled from the classroom, the insulation was
22 compressed against the ceiling tile, so you had this cavity,
23 and the vent, when the fire got to the fan, the fire caught
24 up with this duct, went down into the fan. And then you went
25 a step further, did you not, sir? You explained that the

1 fire traveled into the fan, did you not?

2 A I did say that, yes. And I still believe that.

3 Q You actually said that the fire then went through this
4 blower, did you not?

5 A I did, through that opening.

6 Q The blower, sir. This is a blower?

7 A That's not a blower. That's the discharge.

8 Q Discharge. Was it discharging air?

9 A I believe it was discharging air up to the time that the
10 ladies discovered it, yes.

11 Q So the fire went through there at the same time it was
12 blowing air in the opposite direction, essentially?

13 A Correct.

14 Q But the fire on your accounts didn't impact the duct?

15 A What duct, sir?

16 Q The HVAC. Strike that, bad question.

17 The fire did not impact the wiring going to the fan?

18 That was your testimony, is that correct?

19 A It did impact it. It melted it but it didn't short it.

20 Q It didn't short it?

21 A Correct.

22 Q Instead it went through the opening in the fan that was
23 blowing air in the opposite direction, and just essentially
24 it bypassed the wiring to the fan, is that your testimony?

25 A I didn't say it bypassed. It was affected. But what I

1 did say was it never shorted, and it didn't, it still didn't
2 short.

3 Q It never shorted it?

4 A To my knowledge, it never shorted it. However, I wasn't
5 at the lab inspection, but I don't recall any testimony that
6 it was shorted.

7 Q They found no arcing on it, isn't that correct?

8 A That's my understanding. I wasn't there but that's my
9 understanding.

10 Q Now you're here testifying on behalf of Broan, is that
11 correct?

12 A I am, sir, yes, indeed.

13 Q And do you do work for them?

14 A I'm sorry?

15 Q Do you do work for Broan quite often?

16 A Fairly often. Not quite but fairly.

17 Q How many fires do you do for them a year?

18 A Six, eight, ten maybe.

19 Q You said I believe five to ten at your deposition a
20 year?

21 A Maybe. I don't keep track of that, but I would not
22 argue that point, it might be absolutely correct.

23 Q We won't dispute give or take a fire a year, trust me.
24 How many years?

25 A I've represented them in one facet or another for over

1 thirty years.

2 Q So you've essentially 350 fires over the last thirty?

3 A That seems a little high, but it could be. I do a fair
4 amount of work for them. But I do other manufacturers as
5 well. But I'm not denying it. I just don't have a number I
6 can give you that I counted them, because I didn't.

7 Q In fact, do you work for -- is all the work you do
8 defense work, essentially?

9 A Primarily, yes.

10 Q Now I think we can agree, can we not, sir, that the
11 actual insulation self is not combustibile? Would you agree
12 with that?

13 A Insulation is glass fiber, noncombustible.

14 Q So we can agree on that?

15 A The insulation, yeah. Not the paper barrier.

16 Q Agreed. And let me just go back to the paper barrier.
17 Is your opinion in this case that the paper barrier burned
18 above the fan or not?

19 A There was some burning but it didn't burn completely.
20 There is still evidence of the remains, which I didn't know
21 until I saw Harloff's photos. That was all down on the floor
22 when I got there.

23 Q So the fire attacked the fan but didn't burn the paper
24 above it?

25 A It didn't consume it all. There was some paper. It's

1 shown in the photos.

2 Q There has been a lot of testimony about that. The
3 record will speak for itself, I'm sure. Now, do you hold an
4 opinion in this case that the arcing -- you're aware that
5 there was arcing found in this fan?

6 A I've heard testimony of an arc on the I bar. And in my
7 view I'm not certain if there is arcing in the aluminum coil.
8 It looks like melting to me. Please understand I was not
9 part of that analyses. I'm only telling you what my
10 observations from looking at the photos is.

11 Q Okay. So you didn't attend the lab inspections?

12 A I was unavailable during the lab inspection, correct.

13 Q Fair enough. Now the insulation. You testified that
14 the area above the fan essentially had no burn patterns, is
15 that correct?

16 A The area -- say that again.

17 Q The trusses above the fans.

18 A I'm talking about the plate -- excuse me, the stringer
19 had no burning on it whatsoever, and the trusses had very
20 little damage on the bottom chords.

21 Q Would you agree with me, sir, that that was an area that
22 was protected by the insulation?

23 A There was insulation, but if it's the point of origin, I
24 expected that you would have some damage there.

25 Q But it was protected by insulation, was it not, sir?

1 A It was.

2 Q Can you ignite wood with an arc, sir?

3 A Depends. Depends on the way you're trying to ignite it
4 with an electrical arc. If you were trying to ignite it,
5 just take a two-by-four and arc something against it, you
6 will not get it ignited.

7 Q It's very difficult, is it not, sir?

8 A I think it's close to impossible. If you're at the end
9 of where two pieces abutted together or one's abutted on top
10 of the other, the dynamics change dramatically.

11 Q Now, sir, did I hear you correctly, I just want to
12 clarify, the first time you heard what the firefighter
13 testified to was today? Was that your testimony?

14 A I had never spoken to the firefighter. As a matter of
15 fact, I never spoke to him, period. Today was my first
16 contact with him, yeah.

17 Q Well, and in fact, part of the reason, I assume, is
18 because when you went out to this fire scene, you made it
19 very clear that your job -- you were not out there to conduct
20 the cause and origin investigation, were you, sir?

21 A That is correct.

22 Q You were out there to essentially protect your client's
23 interest, is that correct?

24 A My purpose of being there was to make sure that the fan
25 was manufactured by my client. To make sure we collected all

1 the parts, which we never could because the scene was so
2 spoliated, parts were missing. And thirdly, to make sure it
3 was installed correctly.

4 In addition, which is mentioned in my deposition, I was
5 going to participate in any further investigation, which
6 never happened. So it was not up to me to do your job, so to
7 speak. I wasn't going to sift the floor if your people
8 weren't going to sift the floor.

9 Q You had an opportunity, you could have sifted the floor,
10 you were out at the fire scene?

11 A Sure, I could have.

12 Q Sir, just answer my questions.

13 A I said I could have.

14 Q Thank you.

15 A Sure.

16 Q You're aware, sir, are you not, that the depth of char
17 is not a determinative factor in fire origination, are you
18 not?

19 A I disagree completely.

20 Q A determinative factor, the only factor, sir?

21 A Not the only, but it can be if you're able to establish
22 other criteria. But if you just take a look at a log that
23 came out of a fireplace and tried to figure out how long it
24 burn, that would be totally inappropriate. You have to use
25 all your senses and all your factors in concert to reach some

1 opinions.

2 Q Sure. There is a lot of factors that go in to determine
3 where a fire starts, right, sir?

4 A Certainly.

5 Q You're familiar with NFPA 921?

6 A Sure.

7 Q Okay. The guide, would you agree with that?

8 A It's a guide, yes.

9 Q 921, in terms of the rate of charring, talks about a lot
10 of different factors, does it not, sir?

11 A It does.

12 Q Talks about rate and duration of heating, correct?

13 A Yes.

14 Q Talks about ventilation effects, is that correct?

15 A Also true.

16 Q Surface air to mass ratio, correct?

17 A Correct.

18 Q Direction of orientation?

19 A Also correct.

20 Q Okay.

21 A By the way all, of which we did, you heard me testify
22 about.

23 Q No question pending, sir.

24 A Okay.

25 Q Now you're also aware that NFPA 921 specifically states

1 the investigators caution that no specific time of burning
2 can be determined based solely on depth of char, is that
3 correct, sir?

4 A I do agree with that, that is correct.

5 Q Speaking of ventilation, you're aware that the
6 firefighter here today testified that when he entered the
7 fire scene, the two year old door, the door in the classroom,
8 the outside door -- you know the door I'm talking about on
9 the north wall?

10 A Correct.

11 Q Was actually left open, isn't that correct, when the
12 children and the teachers left the building?

13 A Well, I know the door was open when they left and I did
14 hear him say he saw trees. I'm not clear if he saw through
15 the door or the window, I'm personally not sure of that.

16 Q You're not sure because you didn't speak with him?

17 A I never speak with the firefighter until this morning.

18 Q And he came in through the front door, right?

19 A He came in through the door at the main entrance to the
20 building, proceeded easterly down the hallway.

21 Q Sure. The front door?

22 A I think they used that as the front, yes.

23 Q You heard him talk about the firefighters breaking
24 windows?

25 A Correct.

1 Q And you heard Investigator Harloff testify. You've been
2 here all week, right, sir?

3 A I have, sir.

4 Q And you heard him talk about the two year old classroom,
5 they may have been in there with a pick pulling things down.
6 And that's not uncommon, sir, is it?

7 A It's not uncommon, however, the firefighter didn't say
8 anything about that.

9 Q Sir, I asked you what Investigator Harloff testified to.

10 A He was only speculating. He never said you saw it. He
11 never said he did it.

12 Q The jury heard the testimony, sir, thank you. Sir, did
13 you examine the wiring for the fan?

14 A I examined some that was left, but the part that was cut
15 off was examined on the tailgate of Mr. Tochelli's truck. He
16 had already cut it loose. There was some variance about
17 whether he cut it loose or Harloff cut it loose, but either
18 way I saw what was left. I didn't cut it.

19 Q You were here for Investigator Harloff. You heard him
20 testify that he actually --

21 A I think he removed it and he turned it over to
22 Mr. Tochelli.

23 Q And you also heard the firefighter testify today, did
24 you not, that this was a rapidly moving fire, did you not,
25 sir? Did you hear that testimony, do you recall that?

1 A Yeah, I think it was a rapidly moving fire, sure.
2 Especially after the ceiling came down, it would have gone
3 pretty fast.

4 MR. PAOLINI: Judge, if I could just have one
5 minute. Just a couple more questions and we're going to
6 finish up.

7 Q The duct work for the HVAC system?

8 A Yes, sir.

9 Q Do you know what the makeup of the duct work was?

10 A I believe it was a foil exterior, half inch insulation,
11 sandwiched around a coiled spring to keep it from collapsing.
12 And there was something on the inside I could not discern,
13 but it was likely a black film.

14 Q There was also areas for the diffuser, for the system
15 that didn't have insulated ducts, did they not, sir? You
16 were at the fire scene?

17 A I honestly don't know that. I can't imagine anyone
18 would be foolish enough to run heating and air conditioning
19 ducts in an unheated, un-air-conditioned area and expect to
20 get any deficiency whatsoever. So it had to be insulated.

21 Q You saw photographs of some of the ducting? You were
22 out there?

23 A I was, but I didn't see any that was totally
24 uninsulated.

25 Q In terms of your fire sequence, what do you believe the

1 first fuel igniter was?

2 A I can't tell you the first fuel. I can only tell you
3 the area. And the only thing that I know of that was up
4 there was Class A materials, wood framing, plywood, decking,
5 and so on. If there were extraneous materials, I don't know
6 about them. None were harvested, none were collected or
7 sifted. But I don't know exactly what the ignition sequence
8 was because everything was down on the ground and it was
9 never sifted.

10 Q And you weren't there to do a cause and origin
11 investigation?

12 A Well, I participated but that was not my function.

13 Q Sir, you weren't there? Restating your testimony, you
14 weren't there to perform a cause and origin investigation,
15 were you?

16 A I'm explaining why I was there, sir.

17 MR. PAOLINI: Judge, if I could have him answer my
18 question. I asked him if he was there to do a cause and
19 origin investigation?

20 THE COURT: Were you there to do a cause and origin
21 investigation? Yes or no.

22 THE WITNESS: Yes and no.

23 THE COURT: Here's the thing. Sometimes you can't
24 answer a question yes or no. Like, when did you stop beating
25 your wife?

1 THE WITNESS: I never want to fight with my wife.

2 THE COURT: So, if you can't answer it yes or no,
3 fine, just tell him that and he will rephrase the question.

4 THE WITNESS: Very well. It's not a yes or no
5 answer, I'm sorry.

6 Q You were talking about some wiring earlier. Did you
7 testify that you thought it was melted together, the wiring?

8 A Some wiring within the building?

9 Q You found evidence that wiring was melted together?

10 A There was evidence of wire that was melted. There was
11 evidence of shorting and it was in other areas of the
12 building. And I know there were at least 10, probably 11
13 tripped circuit breakers. And I don't know of another way
14 they could trip other than to have been affected by a short
15 circuit of some kind.

16 Q At your deposition you testified you didn't know if they
17 were welded together, isn't that correct?

18 A No. I'm talking about across the board. Now if you
19 have a specific question, please ask. I'm not trying to
20 evade your question. I'll tell you as a result of looking
21 through the building, I found some wires melted, I found some
22 that appeared arced to me, I found some that were broken, a
23 lot that were disconnected, and a lot that were never
24 examined because they were stuck inside the conduit and you
25 couldn't pull them out. And that indicates to me that they

1 were probably welded to the inside of the conduit.

2 Q And you didn't go to any additional scene inspections,
3 is that correct?

4 A That is also correct, sir.

5 MR. PAOLINI: Judge, I have no further questions.

6 THE COURT: Thank you, sir. Any redirect?

7 MR. DUGGAN: No. Thank you, Your Honor. Thank
8 you.

9 THE COURT: All right, sir, you're all set.

10 Members of the Jury, you've got seven minutes left. I think
11 we're going to call it quits. I'll see you Tuesday morning,
12 9:00. Have a great weekend.

13 Remember your admonitions. Don't talk about the
14 case. Don't let anybody talk to you about it. If it's in
15 the news, don't watch it, or listen to it, or read about it.
16 Don't let anybody try to approach you to tell you what the
17 verdict in this case should be. I'll see you on Tuesday
18 morning.

19 (Court adjourned at 4:55.)

20 * * *

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C E R T I F I C A T I O N

I, EILEEN MCDONOUGH, RPR, CRR, Federal Official Realtime Court Reporter, in and for the United States District Court for the Northern District of New York, do hereby certify that pursuant to Section 753, Title 28, United States Code, that the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.



EILEEN MCDONOUGH, RPR, CRR
Federal Official Court Reporter

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

-----x
PHILADELPHIA INDEMNITY INSURANCE COMPANY,

Plaintiff,

vs.

12-cv-181

BROAN-NUTONE, LLC,

Defendant.
-----x

JURY TRIAL - July 1, 2014 - Volume V

100 South Clinton Street, Syracuse, New York

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United States District Judge, Presiding

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David Farchione - Direct - Mr. Duggan

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1 (Court convenes at 9:30.)

2 THE COURT: Are you ready to proceed?

3 MR. DUGGAN: Indeed, Your Honor.

4 THE COURT: Okay. Bring the jury in.

5 (Jury present.)

6 THE COURT: Mr. Duggan, you ready to proceed?

7 MR. DUGGAN: Yes, sir, I am.

8 THE COURT: Call your next witness, please.

9 MR. DUGGAN: Thank you. Mr. Farchione, please.

10 THE CLERK: State and spell your full name for the
11 record.

12 THE WITNESS: David Daniel Farchione,
13 F-A-R-C-H-I-O-N-E.

14 *DAVID FARCHIONE*, called as a witness and being
15 duly sworn, testifies as follows:

16 *DIRECT EXAMINATION BY MR. DUGGAN:*

17 Q Good morning, sir. May we have your name and address,
18 please?

19 A It's David Farchione. My address at work is 926 West
20 State Street in Hartford, Wisconsin, zip code is 53027.

21 Q And Mr. Farchione, where do you live?

22 A I live at W207N17183 Parkview Drive in Jackson,
23 Wisconsin, 53037.

24 Q Very thorough. Are you employed, sir?

25 A I am.

1 Q In what capacity?

2 A I'm the manager of product performance at Broan-Nutone.

3 Q And can you tell us what Broan-Nutone does?

4 A Broan-Nutone manufactures a variety of household
5 products. Basically they make a lot of ventilation products.
6 They make vacuum cleaners. Also they make intercom systems
7 for your home. Range hoods for exhausting your stove;
8 effluent, I guess we call it, but the vapors that come off
9 your stove from cooking. They basically make a lot of the
10 built-in appliances that you see. And certainly they make
11 bath fans, heaters for use in the bathrooms, heaters for use
12 in the walls, kickspace heaters, and bath fans with lights.

13 Q Mr. Farchione, have you ever testified in court before?

14 A I have not.

15 Q I'm going to ask you a favor. Everything that we say
16 here is being recorded by this young woman on your left, so
17 if you try to be nice and slow I'm sure it will make her life
18 a lot easier.

19 A I will make every attempt.

20 Q Thank you. Could you please tell us a little bit, sir,
21 about Nutone, Inc.?

22 A Nutone, Inc. was founded in the '30s. I think it was in
23 1936. The gentleman, I think his name was Ralph Corbett, he
24 formed Nutone in Cincinnati, Ohio. And he based it upon
25 making doorbells, actually, that rang rather than doorbells

1 buzzed. And shortly thereafter he started making ventilation
2 fans and fans for kitchens, range hood type fans. And
3 basically continued making things like that all the way up,
4 well, I guess through the present. Certainly there is still
5 Nutone brand around. It was purchased by Broan or Broan
6 parent company in around 1998, but Nutone is still around as
7 a brand. Broan is still around as a brand. And so, hence,
8 that's why we're Broan-Nutone.

9 Q Do you have any idea, sir, roughly how many products you
10 have in the marketplace right now?

11 A We have a very high penetration of products and it
12 probably numbers over 100 million.

13 Q Now, Mr. Farchione, you said that you're the manager of
14 product performance?

15 A I am.

16 Q Could you tell us what that job entails? What are your
17 duties and responsibilities as a manager of product
18 performance?

19 A As a manager of product performance, I typically
20 interface with our engineering department to work with them
21 on either new products that are coming out or to evaluate new
22 ideas that come from marketing to see if they would make
23 sense for our company to manufacture. We also work a bit
24 with our technical support group and our customer services
25 group as they have issues that may arise or things that they

1 hear from the field, just so that we're aware of what's going
2 on. We can work with engineering on anything that's going on
3 there. In addition to that, I deal with claims such as we
4 have here today, evaluating them, dealing with what's
5 happening here and defending claims.

6 Q And does that require you to show up at inspections from
7 time to time?

8 A It does.

9 Q Sir, before we get into that, could you tell us a little
10 bit about your personal background. What's your education
11 level?

12 A Actually I have both an electrical engineering degree
13 and I also have a Master's in business administration. I've
14 been working for Broan-Nutone for about ten years now, a
15 little less than ten years but pretty close. In addition, I
16 am a volunteer firefighter, a pump operator, hazardous
17 materials technician, and an emergency medical technician in
18 my hometown of Jackson. I do some fire investigation for
19 them as well, but obviously my day job is with Broan-Nutone.

20 Q When did you get your degree in electrical engineering,
21 sir?

22 A 1996.

23 Q And where was that from?

24 A Milwaukee School of Engineering.

25 Q Are you from the Milwaukee area originally?

1 A I am. Pretty much lived southeast of Wisconsin my
2 entire life.

3 Q After you got your degree, can you tell us a little bit
4 about your work history?

5 A Certainly. I started working directly out of school. I
6 went to Underwriters Laboratories.

7 Q Can I cut you off there? What is Underwriters
8 Laboratories, could you explain that for us, please?

9 A Underwriters Laboratories is a third-party testing
10 organization. They test products for safety. They have a
11 number of standards that are built through collaboration with
12 the public, with themselves, and businesses so that they can
13 have a known level of safety that's out there in the
14 marketplace. And basically any time you look on the back of
15 a unit today, it could be a monitor, it could be a
16 television, could be a bath fan, if you look, chances are
17 pretty good you'll see a UL sticker on the back, and that
18 basically shows that UL has looked at that product type and
19 evaluated it for safety.

20 Q Now you said you went to work for Underwriters
21 Laboratories right out of college after getting your
22 electrical engineering degree. What was your position at UL?

23 A I had a couple different positions, but ultimately what
24 they all boil down to is being a certification engineer.

25 Q What does a certification engineer do at UL?

1 A Certification engineer takes in products that a company
2 may want to list. Company X wants to list their widget, so
3 they submit this to UL and one of the certification engineers
4 picks it up, determines what standards it would go to, what
5 UL standard it would be evaluated to. Because, obviously, if
6 you were evaluating a stove, you wouldn't want to try to
7 evaluate it to a fan standard or something like that. So
8 they evaluate, they pick which standard it goes to, and it
9 goes to the particular section. There is a number of
10 sections within UL.

11 And each section handles sometimes a strange mix of
12 products. They might handle something like drills, and fans,
13 and garage door openers and transformers. That was actually
14 the place that I worked in, it's kind of an odd mix of
15 products, but that's what they handle. And then you look at
16 that product and you evaluate it per the standard to
17 constructional standards, constructional portions of that
18 standard, so that you can determine if it has proper
19 spacings. Things you can look at, proper spacings, proper
20 parts. All the parts would be recognized to be put into that
21 final end use product.

22 And then there is usually a set of testing that's
23 performed and that certification engineer decides what
24 testing they need to perform. It's sent to the laboratory.
25 The lab technicians usually do that testing, send the results

1 back. And ultimately a UL listing may or may not be
2 conferred upon that product, depending upon if it passed all
3 those particular tests that were performed.

4 Q And Mr. Farchione, who pays for the examination, the
5 testing that UL does?

6 A It would be the company that would be submitting that
7 product for evaluation.

8 Q So does that mean that basically the company writes a
9 check and is going to get a UL certification all the time?

10 A No, of course not. They have to go and pass the testing
11 on their products. And actually, they continue to evaluate
12 that product through the product's life cycle by doing
13 on-scene testing and on-scene inspection at the plant. It's
14 actually a pretty in-depth evaluation that starts when
15 someone submits a product and it continues throughout the
16 product's life cycle.

17 Q Thousand we heard a little earlier in the case, sir,
18 that not all of the testing that's done by UL is actually
19 done at a UL plant. Sometimes it's done at the client
20 facility?

21 A It can be.

22 Q Can you explain for the jury how that's done and what it
23 means?

24 A Sure. The UL has a program that's known as a client
25 test data program. And what they do is they do a hefty

1 evaluation of the client.

2 Now you can't just come in and submit your first product
3 and say I would like to test this myself. It doesn't work
4 out that way. You actually have to have a long running
5 history with UL. UL has to know your products. It has to
6 know your company and realize that you have the capability
7 and the resources internal to your company to be able to test
8 these products.

9 And really what the client test program allows you to do
10 is it allows you to respond better to changing needs for your
11 company. Whereas, the lead time for a UL examination might
12 be as high as 12 to 14 weeks if you would send it in and say,
13 UL, we would like you to look at this product, we want to add
14 this motor or something, it might take 14 weeks for UL to get
15 through their entire testing procedure. Well, 14 weeks is
16 pretty long time. So you can usually compress that down to
17 six other seven weeks if you have dedicate your own resources
18 to performing some of that testing.

19 The testing is done under either direct supervision of
20 UL or under a check test type of arrangement where UL says
21 you need to do these certain tests. The internal laboratory
22 for the company will do those tests. If they submit that
23 directly to UL, UL has to review the results, review how the
24 testing was done. UL has the choice of doing all the tests
25 over, some of the tests over.

1 Generally it ended up being about 20 to 30 percent of
2 the tests that they would re-perform just to be sure that
3 their numbers match our numbers, checks our lab, and it
4 basically makes sure that everything is going right, that
5 you're dotting all your I's and crossing all your T's, that
6 you're not faking lab data or anything like that. They just
7 want to make sure that you as the company are doing what
8 you're supposed to be doing.

9 They check it. If the data works out for them as far as
10 it matches the data submitted, they can grant what's called a
11 notice of authorization and then they finish up their
12 paperwork and add in the new product or the revised product
13 to the UL descriptive file, and usually it takes half the
14 time. It all depends on what the backlog was at UL, but it
15 normally takes about half the time to do that. So it was
16 really good for a company that could do it.

17 Q Does any company that wants to just get, is it allowed
18 to participate in this program?

19 A No. Kind of like I mentioned a few moments ago, the
20 idea is that you need to have a history with UL and they need
21 to check your background basically. They need to understand
22 that you have the resources and personnel that are able to do
23 this. And if you don't, they simply won't let you do it.
24 And if you don't do it correctly, they will take it away from
25 you.

1 In addition to it, they come in basically every year and
2 they do a large scale audit of people, personnel, power
3 quality in our laboratory, make sure all of our equipment is
4 up to date and calibrated. It's somewhat costly to do it but
5 the idea is that it allows people to be more reactive to
6 market forces.

7 Q Now, sir, how long did you spend as a certification
8 engineer at Underwriters Laboratories?

9 A About three and a half to four years.

10 Q And then what did you do?

11 A I actually left there and I went to work for a place
12 called Rockwell Automation, also known as Allen-Bradley.
13 They make AC motor drives usually for big things like cranes
14 or process systems inside factories. It runs motors, is
15 basically what it does, and it can run an AC motor at
16 different speeds for different processes and things like
17 that.

18 Q AC means?

19 A Alternating Current. Like what we have for household
20 current which you have in your wall.

21 Q And after you left Allen-Bradley, what did you do?

22 A I moved to another company. It was called Alto-Shaam.
23 They're actually a place that makes commercial cooking
24 equipment, cooking ovens and things like that. In both
25 Allen-Bradley or Rockwell Automation and Alto-Shaam I did

1 certification engineering primarily. Also at Alto-Shaam I
2 was the lab manager for our research and development lab, and
3 I also helped out with basically I did all of the electrical
4 designs for the products.

5 Q What kind of products were they?

6 A They were commercial cooking ovens, cook and hold ovens.
7 If anybody likes prime rib, a lot of times things are cooked,
8 prime rib is cooked inside a Alto-Shaam oven because it cooks
9 for 16 hours at a lower heat. They also make rotisserie
10 ovens. They make some other kinds of cooking ovens and
11 holding ovens. They make some refrigeration equipment. And
12 they also make display cases that you would have in your
13 supermarkets.

14 Q Now, sir, you said that you went to work for
15 Broan-Nutone when?

16 A July of 2005, I believe it was.

17 Q And what was your position when you first started there?

18 A I was certification engineer submitting products for
19 Broan to UL.

20 Q So that would have been essentially the same thing, only
21 on the other side?

22 A Correct. When I was at UL, I was taking in the projects
23 from the companies, and then when I left UL, I basically
24 started submitting products to UL. So, yes, it's the same
25 set of issues, it's just you do it from the company's side

1 submitting it to UL for evaluation.

2 Q And about when did you get promoted to the position of
3 manager of product performance?

4 A Some time in mid 2008.

5 Q Now, sir, when you took that position or maybe at some
6 time during your stay at Broan-Nutone, did you become
7 familiar with a company called Jakel Motors?

8 A I did.

9 Q And can you tell us who Jakel is?

10 A Jakel, Jakel Motors or Jakel, Inc. is a company that
11 makes small shaded-pole motors such as we've seen that are in
12 our fans here. They've been around for probably forty or
13 more years and they supplied motors to Nutone in Cincinnati
14 for decades.

15 Q One of the motors that, I take it, that they supplied
16 was the model 5138?

17 A Correct.

18 Q And over the course of the product run from '97 to 2004,
19 how many 5138 motors did Jakel supply?

20 A They supplied about 10 million of that model motor.

21 Q To Nutone?

22 A To Nutone, yes.

23 MR. DUGGAN: With His Honor's permission, may I
24 have Mr. Farchione come before the jury, please?

25 THE COURT: Yes.

1 Q Mr. Farchione, I'm handing you an exemplar of a fan. I
2 wonder if you could just tell the jury what it is?

3 A This exemplar is a --

4 Q Make sure that everybody can see.

5 A This exemplar is a Nutone 696N product. It has a Jakel
6 motor in it. This one here was manufactured about 2003.

7 Q How could you tell?

8 A This one here has a specific date code on this, on this
9 little paper label here. There happens to be another one
10 underneath it, but this one tells us it was built in I think
11 December of 2003, if I can remember my math, so to speak.

12 Q Now what are some of the major components of the 696N
13 fan that we have in front of us?

14 A These fans are pretty simple really. I mean, they have
15 a lot of -- they have a big job to do. They run in your
16 bathroom and they exhaust air, but they're simple in and of
17 themselves. They've got a duct connector here, which has
18 usually a back draft damper in it and that's so that the air
19 can't blow back into your house. It goes to the outside of
20 your house, so you don't want cold air blowing in through
21 your fans, that would be lousy in winter and probably lousy
22 in summer too.

23 It's got a motor in it that obviously is your prime
24 driving force for the bladed fan here, which we refer to
25 generally as an impeller. Also this motor then plugs into

1 this small receptacle here. It's very similar to the
2 receptacles that you would all have on the walls at home
3 except it doesn't have third grounding crown on it. It
4 doesn't need it here because everything ends up being
5 grounded through the wiring and through the housing. And
6 then these wires just basically come off of the back of the
7 receptacle and connect to your line wires. Your electrician
8 would connect these up and supply power to the unit and the
9 unit would run.

10 Q There is something called the motor plate or the
11 mounting plate?

12 A Yes.

13 Q What is that?

14 A The motor plate here see, if I can pop it out. This is
15 the motor plate. That's the housing right there. It's
16 basically a steel can. There is not a whole lot to that.
17 This is really where the action takes place, I guess, if you
18 could look at it that way. So this is the motor plate, yes.

19 Q Now could you just show the jury where, just point to
20 the jury where the motor is?

21 A This is the motor and this is the motor coil.

22 Q How are they rated? How are these motors rated?

23 A I'm sorry, I don't understand the question.

24 Q Amperage, for example?

25 A This particular motor is generally rated in amps.

1 Sometimes they could be rated in watts, too, about this one
2 is rated in amps. This one happens to be rated 7/10ths of an
3 amp.

4 Q What does it mean to have a motor that is 7/10ths of an
5 amp?

6 A It's a rating. What it's saying is that when this motor
7 is running, it will draw current from your house less than
8 7/10ths of an amp, which is basically about the same as a
9 75-watt light bulb.

10 Q You used the term shaded-pole motor. Could you explain
11 to the jury what a shaded-pole motor is?

12 A A shaded-pole motor is essentially you have a coil
13 wrapped around, and I know that you heard other witnesses
14 talk about the mechanics of these, but basically a magnetic
15 field gets built up in here and the shading poles are these
16 shorting bars here. And what that means is that it shades
17 the motor so that it turns in the right direction.

18 The energized part of this motor is really just this
19 coil is the only part that sees 120 volts that you plug into
20 your wall, basically.

21 Q Let's talk about the coil for a minute. The coil is
22 wrapped around what?

23 A The coil is directly wrapped around a bobbin which is
24 made of nylon, and then that happens to be put over what's
25 been referred to as an I bar. It's part of the core, steel

1 core.

2 Q In this case the coil is made of what kind of material?

3 A The coil in this particular unit is made of aluminum.

4 It's coated in a varnish. It's a polyethylene coating that
5 they place on it. It's a very thin coating.

6 Q Is that an insulation?

7 A It is. It's a functional insulation.

8 Q What's the purpose of the insulation?

9 A The insulation is simply there to be functional to
10 insulate each coil from each coil next to it.

11 Q Why do you need that?

12 A Otherwise if that insulation wasn't there, it wouldn't
13 operate as a motor. It would be just a big block of
14 aluminum, basically, and wouldn't turn anything.

15 Q Insulation magnet wires have different insulation
16 ratings, do they?

17 A Insulation classes, yes.

18 Q Classes, I'm sorry. And what's the insulation class for
19 this overall insulation system?

20 A The class on this motor is called class B insulation.
21 It's good for basically indefinite running up to 130 degrees
22 C.

23 Q What does that mean?

24 A It means that this motor could run up to 130 degrees C
25 indefinitely and it would run fine. It's acceptable to run

1 at that, the insulation system will stay intact and won't
2 excessively degrade and cause issues.

3 Q Does it mean that if the motor sees a temperature of 131
4 C it's going to stop running immediately?

5 MR. PAOLINI: Judge, I'm going to object. This is
6 an opinion. This is a fact witness.

7 THE COURT: Overruled.

8 A No, it wouldn't stop running at only 131 degrees. It
9 would -- it can have some excursions over and above it.
10 There are tests that are done in particular to evaluate
11 thermal protection and how the motor behaves when
12 temperatures would exceed just the 130 degree insulation
13 class.

14 Q Now we talked about the insulation on the magnet
15 windings itself. What was the insulation on the magnet
16 windings on this 696N, what was its class?

17 A On these particular motors how though were built, even
18 though they have a class B insulation system overall, which
19 means the bobbin, the covering, the tapes used in all of
20 that, the actual winding wiring insulation is actually higher
21 and is what's known as a class F. Class F is actually
22 155 degrees C. It could run indefinitely at 155 degrees C
23 without any sort of issue.

24 Q You said that this goes on a bobbin and the bobbin you
25 said was a nylon material?

1 A Yes. This is a nylon, generally a zytel nylon.

2 Q Is that bobbin submitted to UL for recognition?

3 A The plastic is certainly evaluated by UL for
4 recognition. And actually, in fact, this entire insulation
5 system is submitted to UL separately from the motor. Just
6 the materials put together is submitted under something
7 called, not to bore you with technical UL numbers, because
8 there are many hundreds of UL standards, but this is
9 submitted under what's known as UL 1446, which is an
10 insulation system standard. And they look only at the
11 insulation system and how the insulation system performs and
12 degrades over its lifetime. And they do long term aging and
13 things like that on the insulation system before it even gets
14 put with the motor. Which then ultimately gets evaluated
15 again and so on and so forth, as it gets put into the end
16 product it gets evaluated again.

17 Q So is the magnet wire also submitted to UL for
18 recognition?

19 A The magnet wire is submitted in and of itself as a
20 component and it would be given a UL recognition is what it's
21 called. You probably heard the words listing and recognition
22 throughout this. Listing can only be conferred to a complete
23 product, something that can stand on its own, something that
24 will if you wire it up it runs fine. If you want to -- if
25 you only have part of it, maybe you don't have an enclosure,

1 maybe it's missing some sort of covering that it needs or it
2 needs some completion, a recognition would be granted. So
3 it's kind of a partial.

4 But in reality you think of the recognition of the
5 magnet wiring, they're saying, oh, the magnet wiring has been
6 evaluated to be good for a certain temperature. They can
7 recognize that, but they recognize it as a big spool of wire.
8 And then once it gets evaluated in the insulation system,
9 they have now reevaluated and said, okay, we know that it
10 works with all these other little parts. So you end up with
11 a bunch of recognitions stacked together to make a listed
12 product so it's good for general use by the public.

13 Q We've heard about the Voltoid tape. Could you show the
14 jury what the coil wrap is, please?

15 A The coil wrap is this kind of gray colored. It looks
16 like a paper. People sometimes call it fish paper. It's
17 certainly not a paper about, yes, it completely covers up the
18 coil within the bobbin here. And it's essentially
19 noncombustible, it's what's known as a 5VA rating.

20 Q What does that mean?

21 A In plastics you can go from unrated plastics completely,
22 which might be in a kid's toy that you get from a fair or
23 something, that's unrated plastics. Then it goes 94HB, which
24 is a horizontal burning test, can only burn so fast. It's
25 flame retardant but it does burn. Then you go to 94V2, V1,

1 V0, and then you go into the 5Vs. And as you continue up,
2 the polymeric material. The reason I say polymeric, there is
3 a polymeric material, it's not really plastic, you wouldn't
4 consider it plastic.

5 Q What's a polymeric material?

6 A It's basically a name for material.

7 Q What you were pointing to?

8 A The Voltoid wrap is basically considered a polymeric
9 material from the ratings.

10 THE COURT: What's the term, poly what?

11 THE WITNESS: Meric, M-E-R-I-C. It's basically a
12 fancy name for plastics and other things that would be
13 considered to be rated under the UL flammability.

14 THE COURT: Thank you.

15 A Generally flammability is work for plastics, but
16 obviously other things can be evaluated to that same rating
17 and how they burn.

18 Q I have another question about the coil wrap. And that's
19 this piece here?

20 A Yes.

21 Q If I could just take it from you for a minute. I notice
22 that the coil wrap goes almost right to the edge of the
23 flange?

24 A It does.

25 Q Can you explain to the jury why that is so?

1 A It's actually a requirement by UL that it does that.
2 We've been doing that for a very long time. We've been using
3 that Voltoid material, and that essentially is your fire and
4 electrical enclosure for this motor coil.

5 Q What do you mean by a fire and electrical enclosure for
6 the motor coil?

7 A That's intended -- it obviously doesn't burn. It's
8 intended to hold in any sort of disturbance that might cause
9 fire. In addition, it's an electrical enclosure so that
10 someone would be able to touch that. There is certain finger
11 probes that you apply to it and you have to be able to touch
12 this because that would be exposed to the public in your
13 bathroom if you took the cover off, so you could touch that
14 with a probe and you would get shocked. So that's where the
15 electrical enclosure comes in.

16 Q You were talking about the bobbin. Is that this piece
17 here that I'm pointing to?

18 A Correct.

19 Q The bobbin seems to be square on the outside as opposed
20 to round?

21 A It is.

22 Q Why is that?

23 A It's just how they molded that particular part, but it
24 is basically square as it matches the internal I bar.

25 Q And see the Voltoid coil wrap goes right up against the

1 square flange of the bobbin?

2 A Correct.

3 Q You were taking us through some of the other component
4 parts. Can you tell the jury what this is called?

5 A That right there is the stator core. It's essentially
6 the steel that's used to make the magnetic circuit for the
7 motor to make the motor run.

8 Q And this piece here that looks kind of gray-ish?

9 A That's what's known as a bearing cap. It holds in this
10 case there are usually bushings, but they're little ball
11 bushings, and that's what supports the shaft and makes it so
12 the motor can have a shaft and you can put something on it to
13 do work.

14 Q Where are they, the bearings?

15 A They're actually just inside of here. If you took it
16 apart and you pulled it apart, you would see that there is
17 little balls held in by retainers and they have a hole in
18 them that the shaft sits in.

19 Q The shaft, can you point out to the jury where the shaft
20 is?

21 A The shaft is this silver part here that's attached to
22 the impeller wheel.

23 Q And the blade here, that spins that's the impeller?

24 A That is the impeller, yes.

25 Q What's the impeller made out of?

1 A This impeller is made out of polypropylene.

2 Q And why use polypropylene for this application?

3 A Polypropylene is a very flexible plastic. It's a
4 relatively easy plastic to mold. And when these particular
5 products are put together, the shaft here is broached, they
6 push it through this blade. This blade isn't molded with any
7 sort of splines in the middle of it. And so it gets pushed
8 on. You want this to be somewhat flexible so that, A, it can
9 work and blow air and it's a very durable plastic. But B,
10 when you put it together, you don't want that center hub to
11 crack. Because if the center hub cracks, then you end up
12 with this thing will ultimately become imbalanced and make
13 noise.

14 These are all things that somebody is going to call us
15 up for a warranty claim and we don't want that. So when you
16 use polypropylene, it's a very forgiving plastic and it's
17 just the right plastic to use for the manufacturing.

18 Q I'm going to show you also the can that you talked about
19 earlier, and you pointed this out as the duct adaptor?

20 A It is.

21 Q Is what the purpose of the duct adaptor?

22 A The duct adaptor allows someone to put a duct on it.
23 The rules state that you need to vent this to the outdoors.
24 You don't want to vent this into your attic, because if
25 you're pulling steamy air or something from a shower and

1 blowing it in your attic, you're just moving your moisture
2 problem from one place to another. This allows you to stick
3 a duct, it might be a steel duct, it might be an aluminum
4 expandable duct, it allows you to join it to the fan so that
5 you can connect it then to a roof cap or wall cap and send it
6 outside.

7 Q And what is this material?

8 A That's also polypropylene.

9 Q Why use polypropylene on the duct adaptor?

10 A The reason is basically the same. It's got some snap
11 features that need to move so that it won't break when we
12 install it.

13 Q Can you show that to the jury?

14 A Sure, I'll try. I don't know if you can get this one
15 apart once it's together. But you can see, I think you can
16 all see there is this little boss here and it snaps over a
17 piece of metal. Basically it just needs to flex a little bit
18 to go over there. But I think the overriding reason that
19 this is polypropylene is when people tried to put ducts on
20 here, they probably aren't very nice when they're trying to
21 shove a duct on it sometimes.

22 And if we made it out of a less flexible plastic, they
23 would break. So of course you got someone calling up saying
24 I just tried to put a duct on and it broke, and then we have
25 to send them a new duct adaptor. It's really just the proper

1 plastic to use for this application. It's flexible,
2 certainly good for the use. It's easy to mold. It's a good
3 product for this particular place.

4 Q Now, sir, one last question along these lines. There is
5 a metal piece in here that's sort of a half moon. Can you
6 tell the jury what this is?

7 A We call that the scroll band. It basically increases
8 the performance of the motor, because you want to make sure
9 when you're blowing air in there, there is certain technical
10 reasons that you want to make a smooth path. But if you do
11 that, it increases the efficiency of the fan and it reduces
12 the noise.

13 Q Sir, was this product UL listed?

14 A It was.

15 Q And I'm going to show you, sir, what we've marked as
16 Exhibits D11A, B and C. Can you just briefly tell us what we
17 have here?

18 A As we were speaking briefly before, it looks like these
19 are a bit out of order but that's not a problem. When we
20 were talking about the client test data program, we said that
21 there is a descriptive report that UL ultimately adds the
22 model to. This would be the type of descriptive report that
23 you see. What it is is it's called the description, and UL
24 utilizes this when they come and inspect the plant four times
25 a year. They will pick a model out of here and they'll say

1 we want to go look at this model. So then what they do is
2 they page through here until they can find that model and
3 they go up to either our line where they're being built,
4 which actually these products are built right in Herkimer,
5 Wisconsin, but they either go there or go out to the
6 warehouse and pull one off the shelf and open the box up and
7 take a look at and compare it to what this particular
8 procedure says. So this is what the UL inspector uses to
9 evaluate the product and make sure that we're building it how
10 we said we build it.

11 Q And this meaning Exhibit D11B?

12 A Correct.

13 Q Okay.

14 A And then D11A and D11C are really -- this is test record
15 1 through 20, and this is test record 21 through I think it's
16 47. And what this is, this is basically a running commentary
17 of products that are in this UL descriptive report. This is
18 a running commentary of what testing was done on all those
19 products since this was issued in 1973.

20 So test record 1 has got the very first fan that Broan
21 made here and had tested in this particular report.

22 Obviously, Broan's been making fans longer than that, but
23 this particular report reflects something that was done in
24 December of 1973. And then as new models were added, more
25 and more testing was added to this file. And it's basically

1 in here and explains to you all the temperature testing,
2 dielectric testing, all the testing that's done on all of
3 these products to gain the UL listings. And then it's
4 recorded here and then just kept in file, basically.

5 Q Thank you. You can take your seat again, please, if you
6 would. Sir, I want to talk a little bit about the process of
7 developing a product like the 696N R02.

8 MR. DUGGAN: And may I approach the witness, Your
9 Honor?

10 THE COURT: Yes.

11 Q I'm showing you what we have marked, and perhaps we can
12 put it on the board, if we could, exhibit D8.

13 A Thank you.

14 Q Could you tell us what D8 is, please, sir?

15 A This particular sheet that we see here is a drawing of
16 the Jakel, what we have been referring to as the 5138 motor.

17 Q And is that package of documents that we have there --
18 in general, what are we looking at in that package?

19 A These documents appear to be all of the engineering
20 drawings that are related to the 696N product.

21 Q So when you say all of the engineering drawings related
22 to this product, is there a separate engineering drawing for
23 every component of that fan that you've just taken the jury
24 through?

25 A Just looking briefly through it here and from what I

1 know, it's got probably 99 percent of the parts if it doesn't
2 have every single one of them, yes.

3 Q Now if I can just grab that from you, I may have a
4 couple questions. What's the purpose of what we see here in
5 D08?

6 A The block you're pointing at down at the bottom?

7 Q No. What's the purpose of the drawing? Before I get to
8 that, originally is this thing like really big?

9 A Some of them are. This would have been a C sized
10 drawing, as you can see from down on the bottom, which makes
11 it like 25 by 32, or something like that, it's a big drawing.

12 Q Bigger than this. And what's it used for?

13 A They use that -- they use these engineering drawings --
14 I mean, since this particular part was sourced, we had an
15 outside manufacturer make it. In this case it's Jakel. As
16 the motors come in, the people down in receiving would pull
17 the print for the part number. In this case it was 89913.
18 Would come in on a pallet and they would pull this and verify
19 that the units meet the print, or at least some sampling of
20 them met the print. So that they knew they got the right
21 thing and they could then put that into stock and utilize it
22 for building the product.

23 Q And looking at D08, which is page 340 at the bottom, can
24 you tell me what that is?

25 A That's a depiction of the impeller that we were talking

1 about.

2 Q So this is a separate drawing for the impeller?

3 A Yes.

4 Q And is it used for the same purpose?

5 A Yes. They would have -- that particular part would have
6 been manufactured by an outside company. We don't mold parts
7 where we assemble them. So that would have been made by a
8 plastics molder. And so they would check dimensions and
9 there is a number of dimensions on there and details so that
10 incoming inspection could look at it and verify that it was
11 all correct. Additionally, it's used so that the molder can
12 use that print to make it how we want it, so it works for a
13 couple purposes.

14 Q And if we were to look at, for example, page 345, would
15 we have the same for the duct adaptor?

16 A Absolutely, it would be the same exact thing. It's used
17 for both incoming inspection and to explain to the outside
18 vendor that we have what is to be made out of it and how it
19 is to be made and shaped.

20 Q And that's the same for all the component parts on this
21 product?

22 A Correct.

23 Q Now, sir, I want to turn your attention to the thermal
24 protector for a moment. We heard earlier in our goings on
25 here that there was a change in the supplier of the thermal

1 protector?

2 A There was.

3 Q Could you explain that to the jury?

4 A From what I understand about the whole situation --

5 MR. PAOLINI: Judge, I'm going to object. This
6 witness is now testifying to what he understands.

7 THE COURT: Sustained.

8 MR. DUGGAN: Can I try again and rephrase it, Your
9 Honor, if I might?

10 THE COURT: Yes.

11 Q As part of your position as manager of product
12 performance, was it necessary for you to determine the
13 component parts of the product?

14 A It was.

15 Q And the history of the component parts of the product?

16 A It is.

17 Q And does that also include the thermal protector?

18 A Yes.

19 Q Did the thermal protector supplier change?

20 A It did.

21 MR. PAOLINI: Judge, same objection. He didn't
22 start there until 2005.

23 THE COURT: He said he studied the history of it
24 also. Overruled.

25 Q And can you explain that to the jury, please?

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1 A In 1999 Elson, who made the old thermal protector,
2 contacted Jakel, and certainly there were communications with
3 Nutone Broan, that they were no longer going to make this
4 component. The tool was wearing out. They weren't going to
5 make it any longer. So they said you guys are going to need
6 to get a new one, you don't have enough volume for us to
7 retool this product and make it, we're going to discontinue
8 it.

9 So that's what happened, they discontinued that product.
10 And when they were discontinuing it, Jakel and Nutone
11 ultimately did evaluations to find a new supplier for a
12 thermal protector.

13 Q Let's talk about the Nutone evaluations for a moment.
14 And I'm going to show you two of documents right now that are
15 marked exhibit D10. One is page 4757 and the other is
16 page 4754.

17 MR. DUGGAN: May I approach, Your Honor, please?

18 THE COURT: Yes.

19 Q Mr. Farchione, I just put in front of you two documents,
20 parts of D10. Do you recognize what's in the first one of
21 those two, 4757?

22 A 4757, it's a memo that deals with finding out what
23 temperature that the Elson, the old thermal protector
24 functioned at that was being used in the 5138 motors up until
25 mid 1999.

1 Q And what's the date of those tests?

2 A June 24th of 1999 is what the date of this memo is.

3 Q And can you tell us what the functioning temperature of
4 the old Elson thermal protector was?

5 A It's 152 degrees C.

6 Q How did that work?

7 A The old thermal protector is what's known as a
8 sublimating pellet type thermal protector. Which what that
9 basically means is that there is a small pellet of material
10 that's kind of plastic material that's inside the case of the
11 thermal protector, and it holds the contacts down on top of
12 the lead wires so that it maintains a connection through the
13 thermal protector. Underneath that small -- there is a small
14 piece of metal that's held by a spring and the spring is
15 constantly trying to push the piece of metal off of the
16 contacts.

17 What ultimately happens is when it reaches operating
18 temperature, the small pellet sublimates, is what it's called.
19 And it's the same thing that happens to your ice cubes in
20 your freezer when they just disappear for no apparent reason.
21 They didn't melt, they've just gone. It turns from a solid
22 to a gas, at least that's the intent. And then the spring
23 pushes the contact off the terminals and interrupts that
24 current. And that's how that type of thermal protector
25 works.

1 Q I would like you to turn to the next exhibit that I put
2 in front of you and I can't remember the page number. 4754,
3 is that right?

4 A Yes.

5 Q Part of D10. And what's that?

6 A This is another memo where they were obviously working
7 to find an alternative to this, so they were doing comparison
8 tests between thermal protectors that were provided to them.
9 And in this case --

10 Q They meaning Nutone?

11 A They meaning Nutone. In this case it appears that they
12 were testing series E3, E2 and E5 thermal protectors to see
13 which one would be similar to the old Elson protector or that
14 would work similar.

15 Q You say, you used a couple at that phrases, E3, E4, E5.
16 What's that?

17 A Those were the model numbers of different protectors
18 that Tamura, Tamura Kaken Company Limited, who manufactured
19 ultimately the E5 protector that was in this particular motor
20 that we're looking at here today. These are just different
21 model numbers and they have different opening temperatures.

22 Q And did Nutone test the E5 and determine what its
23 opening temperature was?

24 A They did.

25 Q And what's that?

1 A What they found it to be in this particular sample was
2 129, and the specified opening temperature for print was 130.

3 Q So did that meet spec?

4 A It did.

5 Q And was that higher or lower than the old Elson
6 sublimating pellet design?

7 A It's actually about 20 degrees lower as a device, as the
8 device sits there.

9 Q When you were talking earlier, and I forgot to ask you
10 this, I apologize, you were talking a bit about UL 1446 and
11 some age testing. Was there any age testing done on this
12 motor?

13 MR. PAOLINI: Objection, Judge. No foundation for
14 this.

15 THE COURT: Overruled.

16 A By who was the age testing done?

17 Q By anyone.

18 A By Nutone? There was aging tests done on the materials
19 used within the motor by UL, absolutely.

20 Q Okay.

21 MR. DUGGAN: May I approach, Your Honor, please?

22 THE COURT: Yes.

23 Q I'm going to show you what we marked as D24, UL 1446,
24 can you tell the jury what that is?

25 A As I had just mentioned a little bit before, UL's got

1 many different standards, and this here happens to be systems
2 of insulating materials. So this is how they test the
3 insulating materials as a system. So it was the winding
4 wire, the bobbin, the tapes, all of those pieces put together
5 they evaluated and they look at things such as long term
6 aging and the performance of how it works. They look at what
7 varnishes are on the particular winding wires, what the
8 coatings are and how they operate through their lifetime.

9 Q What does the phrase thermal aging mean in this regard?

10 A To have a Class B insulation system, UL tests the whole
11 thing as a system and it has to meet certain performance
12 criteria that they set forth in here to reach any particular
13 class of insulation. So if the insulation system performs
14 to, say, 170 degrees C acceptably, they don't really have
15 170 degrees C, so it would drop down to like a Class F
16 insulation system as a whole system.

17 So it's just a test of how all these parts go together
18 and how they age and how they ultimately work over what the
19 expected lifetime is.

20 Q So it's not just tested on new motors, it's testing on
21 aging motors?

22 MR. PAOLINI: Objection, Judge. I think that
23 misstates his testimony.

24 MR. DUGGAN: I'll rephrase it. Thank you.

25 Q Just to wrap this up. Is all the testing done only on

1 new component parts?

2 A These parts that obviously start new but they run them
3 in ovens and so forth to age them.

4 Q Now I want to talk a little bit about just some of the
5 testing that we talked about a little earlier with some of
6 the other people. Once the product, the 696N R02, was in
7 production, did Nutone do any ongoing testing?

8 A They did some tests as periodic tests I think to see
9 what was going on with the motor, make sure that everything
10 was always meeting production specifications.

11 MR. DUGGAN: May I approach again, Your Honor?

12 THE COURT: Yes.

13 Q I'm going to show you what we marked as Exhibit D10,
14 starting at page 289. Mr. Farchione, can you tell us what
15 that is, please?

16 A This is a quality assurance lab report that was produced
17 at Nutone and it was a performance check on a production 696N
18 ventilator which was built in I think it would be September
19 of 2001.

20 Q Do you see there is something in there that says
21 temperature rise test?

22 A Correct.

23 Q What's that?

24 A The temperature rise test is the temperature test that's
25 typically done when you do the type testing for UL listing.

1 They apply thermal couples or they do what's called a change
2 of resistance test. It's not particularly important, the
3 method. What is important that they measure the temperature
4 of the coil when it's operating and they put this inside of
5 the housing, they put it inside of a small ceiling actually,
6 and they run the test with this instrumentation on it to see
7 what the temperature rise is.

8 Q And what was it in this case?

9 A This one shows that it's 88 and change, .43, degree C
10 rise.

11 Q What's the significance of an 88 degree C rise?

12 A It's operating under the Class B limits for rise, it's
13 operating normal.

14 Q I'm going to show you, sir, if I may approach again,
15 Your Honor, what we marked as Exhibit D10 beginning on
16 page 297. Sir, do you recognize that?

17 A This is another quality assurance lab report that was
18 produced at Nutone the beginning of 2002, and this is to
19 evaluate sample Jakel motors that were being assembled in
20 Mexico.

21 Q Why was that done, do you know?

22 A The Jakel motors previous to this were built somewhere
23 in the Midwest at a Jakel facility and they were going to
24 move production to Mexico, so they produced certain motors
25 off of there so that they could just show us that they act

1 exactly the same as the old motors.

2 Q Now, sir, I would like to turn to page 2 of that
3 document. There are a number of tests that are listed on
4 this page, correct?

5 A On here there is a Hipot test and the locked rotor test.

6 Q Can you describe what a Hipot test is for the jury?

7 A A Hipot test, it's actually utilized on a production
8 line, too, but what it's utilized for is it's to check for
9 any wire errors, pinched wires, or if there is any insulation
10 faults within the motor or the unit. How they do it is that
11 they clip one lead on to all the energized parts of the unit.
12 So they don't run the unit, it's not like plugging it into
13 the wall. You connect both sides of those two prongs that
14 you normally plug into the wall and you connect those two
15 together, and you put a very high voltage on that, very low
16 current. But then you put the other lead on the ground and
17 it checks for any sort of insulation faults or, like I say,
18 pinched wires or anything like that. They do a very similar
19 test on the production line on every unit that leaves the
20 building.

21 Q On how many units?

22 A 100 percent.

23 Q Every single one of them does the similar test?

24 A It does.

25 Q Can you tell me, sir, what a dielectric test is?

1 A It's synonymous with Hipot test, same exact test. This
2 test is 1,000 volts for one minute. The one that's done on
3 the production line is actually a higher voltage for one
4 second.

5 Q Sir, also there is one, the next paragraph down is the
6 locked rotor test?

7 A Yes.

8 Q Could you tell the jury what a locked rotor test is,
9 please?

10 A A locked rotor test is used to basically simulate what
11 really is the end of life on any motor. The motor ultimately
12 stops turning for some reason, usually it would be that you
13 end up that the bearings ultimately no longer have
14 lubrication and then stops running.

15 Q Let me stop you there. When the bearings are starting
16 to wear out, what happens?

17 A On these particular motors with the amount of torque
18 that they generally have, it doesn't take long and they just
19 simply don't start any longer.

20 Q What would the user experience as the bearings were
21 wearing?

22 A Usually they'll hear quite a bit of noise, and maybe it
23 would be squealing, maybe it would be rattling or something
24 along those lines, but you usually notice when these bearings
25 start going bad.

1 Q Anyway, you were talking about the locked rotor test.
2 Why is it that you perform a locked rotor test on these
3 products?

4 A Because that's the end of life expectation that's going
5 to happen to this motor, that's ultimately how it's going to
6 stop working.

7 Q Now there are a couple of samples that are indicated on
8 this exhibit?

9 A Yes.

10 Q Looking at the first example that was -- sample that was
11 tested?

12 A Sample 1.

13 Q Can you tell me -- because I don't have a copy of it
14 with me and with my eyesight there is no way I can read that.
15 Can you tell me what the result -- thank you. Sample 1
16 passed, protector open at 160 degrees Centigrade/13.5
17 minutes. What does that mean?

18 A What it means is that they turned the unit on or they
19 powered the unit with the rotor locked, and it took 13 and
20 one half minutes for the unit to stop functioning, to stop
21 passing power, the thermal protector opened, and it
22 ultimately reached 160 degrees C on the coil.

23 Q On the coil?

24 A Yes.

25 Q So is there some type of a measuring device? Is that

1 called the thermal couple?

2 A Yes. Either they are used a thermal couple to measure
3 it or they used that change of resistant method, which is
4 it's some calculations and some resistance measurements that
5 are made to the coil. Chances are that they used the thermal
6 couple on the outside of the coil.

7 Q In any event, can we tell how long it took this
8 fractional horsepower motor to get to 160 degrees?

9 A 13 and one half minutes.

10 Q And that's without the rotor turning at all?

11 A Correct.

12 Q Or impeller turning?

13 A Correct.

14 Q Now in the second sample that was tested, sample number
15 3, that also passed?

16 A It did.

17 Q How come there is only samples 1 and 3? What happened
18 to 2?

19 A This entire package is basically a procedure to test it
20 looks like they've got about a half dozen motors that they
21 were looking at here, and they checked for field winding
22 resistance on every one of the samples and then they chose
23 what they were going to do with some of those samples by what
24 the field winding resistance was. Which was actually pretty
25 smart because they did a random pick on the locked rotor, but

1 they did horsepower, which they run it on what's called a
2 dynamometer, they check how much horsepower the motor runs.
3 They did a temperature rise test and they did air delivery
4 tests on samples that have both on highest and lowest field
5 resistance. So they basically pick the top and bottom so
6 they could find out the worst case on both ends and see if
7 they all complied. And so, basically, the reason that they
8 only did two was it just says locked rotor test, random pick
9 two samples, and they used the other four for different
10 needs.

11 Q Other tests?

12 A Right, other tests.

13 Q Let me put in front of you now what we previously marked
14 as Exhibit D10 starting at page 243. Do you recognize,
15 Mr. Farchione, what that is?

16 A This is another test on the motors that were from
17 Mexico. The first test was on sample motors or short run
18 motors from the Mexico plant. This one here appears to be
19 the one when they started actually going in production.

20 Q I notice on one of those there is something called PPAP.
21 What is that?

22 A PPAP is a Preproduction Acceptance Program, I think is
23 what it stands for, and it ultimately is just first in lot
24 inspection, first in lot testing. It goes through the
25 engineering or quality labs and they look at the motors and

1 verify that everything is as it ought to be.

2 Q And was one of these two a PPAP production test?

3 A This one is related to the PPAP test. This one is the
4 actual PPAP. This here looks like it could have a pre-PPAP.
5 This was just a sampling, and this one here on was on actual
6 production, so I would say this is the PPAP, yes.

7 Q And the date on that is what?

8 A October 2nd of 2002.

9 Q What testing did they do on the motors, 5138 motors
10 supplied by Jakel from the Mexico plant in October of 2002?

11 A They essentially duplicated all the tests that were done
12 in February. They did the field winding resistance check so
13 they could determine which one was highest and lowest. And
14 then they performed the horsepower temperature rise air
15 delivery test on the highest and lowest field resistance,
16 they did a Hipot test on all of them, and they did a locked
17 rotor on a random of two of them again.

18 Q And is the locked rotor test on the second page of that
19 document?

20 A It is.

21 Q Can we look at page 2? Thank you very much. Where is
22 the locked rotor? There it is. What were the results of the
23 first sample that was tested, sample number 4?

24 A Sample number 4 the protector opened at 194 degrees C
25 after 17 minutes of operation.

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1 Q The ones we saw in the February test opened at around
2 160, 167 I think were the two numbers?

3 A Yes, it was 160 and 167.

4 Q Is there some concern that this one opened at 194?

5 A It's not a concern to me. This is perfectly fine. And
6 in reality you're still 26 degrees below any sort of limits.

7 Q What are the UL limits?

8 A They're 225 degrees C in the first hour, if it trips
9 within the first hour. They change after that. But none of
10 these motors lasted for longer than 20 minutes, 15 minutes.

11 Q And did Nutone actually have a lower standard?

12 A What happened is that Nutone generally looked at it and
13 said we want to have some buffer, so they went to 200 degrees
14 C for all of their testing.

15 Q So did both of these motors pass even at the lower test?

16 A They did.

17 Q Now the first motor sample number 4 passed. How long
18 did it take the motor to get to 194 degrees C?

19 A It took 17 minutes.

20 Q And the second sample also passed?

21 A It did.

22 Q And that one stopped running at what time?

23 A It took 14 and a half minutes, and it ultimately got to
24 177 degrees.

25 Q Sir, I think you testified that one of your duties and

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1 responsibilities is something that's actually drawing you
2 here today to come in and talk to us, right?

3 A That's true.

4 Q And that includes going to fire scenes and the like?

5 A It does.

6 Q Did you go to the fire scene at the Victor Jack 'n Jill
7 Daycare Center?

8 MR. PAOLINI: Judge, may we approach, please?

9 THE COURT: Yes.

10 (Sidebar discussion on the record.)

11 MR. PAOLINI: Judge, it appears that Mr. Duggan is
12 about to start asking Mr. Farchione about his scene
13 examination. Now the witness disclosures that were provided
14 to this Court and that we relied upon specifically say
15 Mr. Farchione is being called to testify about the design,
16 the manufacture and testing of the subject fan. There is
17 nothing in here about the scene examination.

18 If we would have expected that he was going to call this
19 witness for that purpose, we would have been prepared for
20 that and we potentially would have had a witness ready to
21 respond to what he is going to say. This is completely
22 prejudicial and it is completely catching us off ground.

23 MR. DUGGAN: Well, I'm going to ask him about three
24 questions. But I'm going to ask him if he went, what the
25 scene looked like when he was there, and did he take some

1 pictures. That's it. And the pictures are already in
2 evidence by agreement. So I'm not asking him to reconstruct
3 the fire scene. I am not asking him cause and origin. I'm
4 not asking him opinion questions. It's just it was part of
5 what he did and you guys asked him in deposition.

6 MR. PAOLINI: But we relied on this disclosure.

7 THE COURT: He is not testifying as an expert right
8 now; he is just saying the facts.

9 MR. PAOLINI: Had we known he was going to start
10 testifying what he had observed at the scene, then we would
11 have been prepared to have someone respond. Mr. Duggan
12 already acknowledged this is already in evidence, there is no
13 need to bring this up. And had we known he was going to do
14 this, we would have been prepared for this.

15 THE COURT: Sustained.

16 MR. DUGGAN: I have one question to follow up on at
17 sidebar. Your Honor, I had intended as an offer of proof --
18 I should say this. I was going to ask him what the scene
19 looked like when he got there and if he took some pictures of
20 the scene, compared to what he found out later as part of his
21 duties and responsibilities. I understand Your Honor has
22 sustained that objection and I disagree. That's why we all
23 have a job.

24 I also was going to ask him if he participated in an
25 inspection of the artifacts, which he did. And again, this

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1 was all testified to on deposition. And I'm going to ask two
2 questions on that artifact inspection just to --

3 THE COURT: What are they?

4 MR. DUGGAN: I'm going to ask how the stator, which
5 is the metal, the core of the motor, appeared. And if this
6 picture that I have, that I believe is in evidence, fairly
7 and accurately depicts how the stator appeared when he was
8 there. That's it.

9 MR. PAOLINI: Judge, that's the same objection. If
10 the disclosure was provided, I had --

11 THE COURT: But wasn't it in the EBT?

12 MR. PAOLINI: I don't remember any of this. But
13 more importantly, Judge, the disclosure specifically
14 identifies what this witness was going to testify. I was
15 prepared, Bud DeMatties sat here on Friday, one of the
16 experts, was on the stand, there was no need to bring him
17 back because this is what he identified the witness in the
18 disclosures. If we can't rely on it, what can we rely on?
19 They had their experts who were at the scene. This is unfair
20 surprise and we don't have a witness now to put on. The
21 disclosure is straightforward what they said and we relied on
22 that. It's the same objection, Judge.

23 MR. DUGGAN: Just ask him if the picture I have
24 fairly depicts what he saw when he --

25 THE COURT: That's what you said he was going to

1 show. Just go with that. You made your record. I'm going
2 to sustain.

3 MR. PAOLINI: Thank you.

4 MR. DUGGAN: Thank you.

5 (Sidebar discussion concluded.)

6 BY MR. DUGGAN:

7 Q Just a couple more questions to follow up. As part of
8 your duties and responsibilities as the manager of product
9 performance, have you determined whether or not the motor
10 could operate if it was on fire?

11 MR. PAOLINI: Judge, I'm going to object. This is
12 opinion testimony now.

13 THE COURT: The question was have you determined
14 whether the what?

15 MR. DUGGAN: Whether the motor can turn the
16 impeller if the motor is on fire, as part of his duties as
17 responsibilities as the manager of product performance.

18 MR. PAOLINI: Judge, this is expert testimony.
19 There's no authority for this witness, nor is he being
20 identified as an expert witness in this case.

21 THE COURT: Overruled. I believe it's his area.

22 A Could you repeat the question?

23 Q Probably not but I'll try. As part of your duties and
24 responsibilities as the manager of product performance, have
25 you determined whether or not the motor could turn an

1 impeller if the motor was on fire?

2 A If the motor's on fire, it can't turn the impeller.

3 Q Why not?

4 A Because it would have tripped a circuit breaker. It's
5 just not going to happen.

6 MR. DUGGAN: That's all I have, Your Honor. Thank
7 you very much.

8 *CROSS-EXAMINATION BY MR. PAOLINI:*

9 Q Good morning, Mr. Farchione. The good news is I'm not
10 going to be very long with you, just get through a few things
11 then we'll get you off the stand.

12 Just to be clear, you were not hired until 2005, is that
13 right?

14 A Correct.

15 Q Okay. And you were not with Broan when this fan at
16 issue in this litigation was manufactured, were you?

17 A I was not.

18 Q You were not there when this fan was designed, were you?

19 A I was not.

20 Q You were in no way involved with the design of this fan,
21 were you?

22 A I was not.

23 Q There are others at Broan presently that were involved
24 and were there when this fan was manufactured and designed,
25 isn't that correct?

1 A I don't believe that anyone that was involved with the
2 design of this fan is still at Broan, no.

3 Q About when it was manufactured? You know when this fan
4 at issue in this case was manufactured, right?

5 A As I recall, it was 2002.

6 Q And there is others in your department that were here
7 then with Broan, is that correct?

8 A Oh, yes, some of them was there.

9 Q Now I think you testified earlier that Jakel supplied
10 the motor, correct?

11 A They did.

12 Q Jakel and Broan or Nutone had a relationship going back
13 to the 1970s, is that about accurate?

14 A That sounds accurate, yes.

15 Q Now that relationship has ended, isn't that correct?

16 A It has.

17 Q Jakel no longer manufactures the motors for these fans,
18 does it?

19 A They don't.

20 Q And that relationship ended around 2004, did it not?

21 A Yes, I believe that is accurate.

22 Q Within two years of this fan motor at issue in this case
23 being manufactured, correct?

24 A Yeah.

25 Q Approximately?

1 A Yeah, that makes sense.

2 Q Okay. Just so we're clear, since you weren't at Broan
3 back in 2002 or earlier, you weren't involved in any of the
4 testing that you've testified here about today, is that
5 correct?

6 A No. But I have knowledge of it.

7 Q Based on just documents you reviewed?

8 A Absolutely.

9 Q If there was a document you didn't review, you wouldn't
10 have knowledge of that document, is that fair to say?

11 A Sure.

12 Q Now in terms of the locked rotor test you described,
13 just so we're clear, the testing was not done on each and
14 every fan that was manufactured, was it?

15 A It could not be, no.

16 Q Could not be. And, in fact, the testing that you
17 described with respect to aging, do you recall that testimony
18 this morning?

19 A I do.

20 Q Just so we can clarify, individual components were
21 tested, is that correct, as related to aging issues?

22 A Yes, I guess that's accurate.

23 Q For example, a five-year-old motor that -- a motor that
24 had been used for five years as a unit, there was no testing
25 on that, was there, sir?

1 A Five-year-old unit would be expected to continue to be
2 running. I don't know where we would source one.

3 Q There was no testing?

4 A We never performed a test on a five-year-old motor, no.

5 Q I just have a few more. And the UL testing, they were
6 all on new motors, is that correct, sir?

7 A Correct. They were all on new samples, yes.

8 Q Okay.

9 MR. PAOLINI: No further questions. Thank you.

10 THE COURT: Redirect?

11 MR. DUGGAN: Yeah.

12 *REDIRECT EXAMINATION BY MR. DUGGAN:*

13 Q One question. Sir, are you familiar with why it was
14 that the contract with Jakel ended in 2004?

15 A The contract ended and basically what was happening is
16 that Jakel was ending up shutting down their production lines
17 because they couldn't keep up. So ultimately a new supplier
18 was found and Jakel was no longer the supplier at that point.

19 MR. DUGGAN: Thank you.

20 MR. PAOLINI: Nothing further.

21 THE COURT: What did you say, that they couldn't
22 keep up with your production demands?

23 THE WITNESS: Correct.

24 THE COURT: You may step down. Next witness.

25 MR. DUGGAN: Nothing further, Your Honor.

1 THE COURT: You rest?

2 MR. PAOLINI: Nothing further.

3 THE COURT: You rest also?

4 MR. PAOLINI: We do.

5 THE COURT: We're going to take a recess at this
6 time. They rested their case, both sides. So the next thing
7 we're going to do is have closing arguments to you, and I'll
8 charge you on the law that applies. And I've got to have a
9 charge conference with the attorneys, so we'll take a bit of
10 a recess right now.

11 (Jury excused for recess at 10:50.)

12 MR. DUGGAN: Your Honor, while we're still here,
13 may I renew my motion for a directed verdict?

14 THE COURT: Yes.

15 MR. DUGGAN: And then I renew my motion for a
16 directed verdict for the reasons previously stated. And the
17 motion to strike, and Robert's motion on --

18 THE COURT: On the amount of rents?

19 MR. DUGGAN: Yes.

20 THE COURT: Reserved.

21 MR. DUGGAN: Thank you, Your Honor.

22 (Recess.)

23 (Reconvene at 11:20.)

24 THE COURT: Counsel, I went through -- for the
25 record, I had e-mailed copies of the charge to both sides and

1 I got back your responses to what you wanted to add or delete
2 from the charge. So I considered them and here are my
3 rulings regarding the requests for charge.

4 First of all, the defendant requested the following to
5 the negligence charge. Quote, "The duty owed by a
6 manufacturer is one of reasonable care, not perfection."
7 That request is denied. I find my negligence charge is
8 proper as it is written.

9 Then the defendant requests the Court to remove any
10 instructions on failure to warn. This request is denied
11 without prejudice to post trial motions.

12 Regarding motions, the motions that had been made that I
13 reserved on, I'm going to deny them at this time giving you
14 all the right to renew after the case.

15 MR. DUGGAN: Thank you, Your Honor.

16 MR. UNDERWOOD: Thank you, Your Honor.

17 THE COURT: Next, the defendant requests the Court
18 to renew any instructions on manufacturing defect. This
19 request is denied without prejudice to post trial motions.

20 Defendant requests the Court to add the following in its
21 manufacturing defect charge. Quote, "Defendant contends that
22 the thermal cutout, the TCO, in fact, operated and opened
23 when it was hit by attacking fire and that it was appropriate
24 for its intended uses." I'm going to grant that request. It
25 fairly and accurately reflects the defendant's position at

1 trial.

2 The defendant requests the Court to add the following to
3 its manufacturing defect charge. Quote, "The plaintiff must
4 prove that the product was in the same condition at the time
5 of the fire as it was when it left the manufacturing plant."
6 That request is denied. My charge is proper as written, in
7 my opinion.

8 The defendant requests the Court to add the following to
9 its design defect charge. Quote, "Defendant contends that
10 the thermal cutout used was reasonable and acceptable and met
11 industry standards. Further, that it operated as intended
12 when hit by an attacking fire." That request is granted.
13 That fairly and accurately reflects the defendant's position
14 at trial.

15 The defendant requests the Court to add the following to
16 its curative instruction. Quote, "The Court had ruled before
17 the trial started that comments like this should not be made
18 and that Mr. Lewis was made aware of the Court's ruling."
19 That request is denied. It's unduly prejudicial to the
20 credibility of plaintiff's witness and unnecessary due to the
21 Court's curative charge.

22 And lastly, defendant requests the Court to add the
23 following to its proximate cause instruction. Quote, "On the
24 other hand, if you find that there was a defect in the
25 product but that it had no bearing on the cause of the fire,

1 the plaintiff has failed to carry its burden of proof on the
2 negligence or strict liability theories." That request is
3 granted.

4 I think that takes care of your objections and requests?

5 MR. UNDERWOOD: Yes, Your Honor.

6 MR. DUGGAN: Yes.

7 THE COURT: Ready to sum up?

8 MR. PAOLINI: Yes, Your Honor.

9 MR. DUGGAN: Always ready to talk, Judge.

10 THE COURT: How long are your summations?

11 MR. DUGGAN: I'm guessing about thirty minutes,
12 Your Honor.

13 MR. PAOLINI: Right around the same, Your Honor.

14 THE COURT: Okay. Bring the jury in, please.

15 (Jury present.)

16 THE COURT: Members of the Jury, at this time it's
17 time for the parties to make their closing arguments to you
18 as how they feel that you should view the evidence that has
19 been presented.

20 I told you the burden of proof is on the plaintiff.
21 Plaintiff went first on the opening, he will go last on the
22 closing. So at this time, Mr. Duggan, are you ready to
23 proceed?

24 MR. DUGGAN: Yes, Your Honor. Thank you.

25 THE COURT: Do you want that moved, the podium, or

1 anything like that?

2 MR. DUGGAN: No, this is fine.

3 THE COURT: Okay.

4 MR. DUGGAN: May it please the Court, Counsel,
5 Ladies and Gentlemen. At the outset of this case I told you
6 two or three things.

7 First thing I told you was that I was going to prove to
8 you that this fire could not have started in the fan.

9 The second thing I told you was that I expected His
10 Honor when he gave you his charge would say I didn't have the
11 burden of proving anything, that I could sit over there as
12 quiet as a church mouse and that the burden of proof in this
13 case lies with my friends from Philadelphia Insurance
14 Company. Now by this time, we've been together six or seven
15 days, you probably know that's not really in my nature. And
16 so I didn't.

17 And the third thing I told you was that I was going to
18 prove to you that this product was an excellent product, and
19 that given the way it functions, given the time of all of the
20 events, and given the extraordinary pattern of damage in the
21 building, that there would be no doubt in your mind when this
22 case came to an end that this fire started elsewhere in the
23 two year old room and progressed into the bathroom where it
24 was discovered by Ms. Suffredini first and then Wendy Dattilo
25 shortly thereafter. And I submit to you, Ladies and

1 Gentlemen, that if you look impartially at all of the
2 evidence that both sides have submitted to you, you can come
3 to no other conclusion.

4 What do we know? What is undisputed in this case? At
5 one minute of 5 p.m. Ms. Suffredini -- five minutes to 5 p.m.
6 Ms. Suffredini walks into the bathroom, just outside the
7 bathroom. She says she sees something in the ceiling. She
8 says she looks on the floor. There is nothing on the floor.
9 Remember that testimony? Then she says she sees something
10 underneath the grill, on top of the grill, which she
11 described as something like a candle flame, a small candle
12 flame. That is five minutes to five.

13 She goes and gets Ms. Dattilo. Remember Ms. Dattilo
14 came and testified to you? Ms. Dattilo came over and you
15 remember her testimony? Ms. Dattilo said, I came in, I
16 looked, I looked up and I saw a glow in the fan. What also
17 did both of these witnesses tell you about what they observed
18 in that bathroom? Do you remember the light and the fan were
19 on the same circuit? Do you remember that? The light is on,
20 the fan is on.

21 They know the fan is on when Ms. Suffredini turns it on
22 at ten minutes of 5:00 because she hears it. Remember? She
23 testified that when she saw this thing at five minutes of
24 5:00, the fan is still operating. Do you remember that
25 testimony? It's undisputed. The impeller is still turning.

1 No evidence at all that the light is off.

2 What does that tell you? That tells you that the
3 circuit is still energized. The motor is still running. The
4 impeller is still turning. There was no way and there is no
5 evidence before you now through Mr. Lewis, through
6 Mr. DeMatties, through anybody, all of the experts that the
7 plaintiffs put on before you, not a single one of them said
8 that this fire could have started in the fan if the impeller
9 was still turning and the circuit was still energized. And
10 that's exactly what the evidence is. And it's undisputed.

11 Ms. Dattilo and Ms. Suffredini both said they
12 immediately left the building. That makes perfect sense.
13 These two fine young women are there and they have young
14 children in their charge. What's the first thing that's
15 going to be in their mind? What's the first thing that we
16 hope would be in all of our minds? We've got to get the kids
17 out and make sure that they're safe. That's exactly what
18 they did.

19 They immediately left the room. The door is only a few
20 feet away from where the bathroom was. Remember? They go
21 out and what do they see? Both Ms. Suffredini and
22 Ms. Dattilo say they already see smoke coming out of the
23 roof. All right. We are now two or three at the most
24 minutes away from when Ms. Dattilo sees the glow in the fan.
25 Two or three minutes.

1 How do you go from a glow to smoke pouring out of the
2 roof in two or three minutes? No one has explained that to
3 you. And the reason no one's explained that to you is it's
4 impossible.

5 What do we know next? We know and you heard the chief
6 from the Victor Fire Department. Do you remember Chief
7 McConnell? He came on last Thursday. Chief McConnell came
8 in and sat right in that chair and he told you this, he told
9 you -- and that was taken right out of and recorded right in
10 what we have marked as D04. By the way, you're going to have
11 a bunch of stuff with you when you go back to the jury room.
12 We have decided to inflict you with all these binders. All
13 the exhibits that we both marked are here, so you'll have
14 them.

15 One of them is Defendant's Exhibit 4, and this is the
16 run sheet from the Sheriff's Department. And this shows
17 exactly when Jon McConnell, Chief Jon McConnell shows up. He
18 shows up three or four minutes past 5:00. Three or four
19 minutes past when Ms. Suffredini sees the spark -- not the
20 spark, the candle in above the grill, three or four minutes.

21 And what did Chief McConnell tell you about what he saw?
22 Do you remember? Chief McConnell said he saw this, D01,
23 Defendant's Exhibit 1. That this picture accurately reflects
24 what he saw as he was coming in. In other words, within
25 three or four minutes of the call by Wendy Dattilo. When he

1 shows up at four minutes past 5:00 you've got a confirmation,
2 and he testified that the attic was fully involved. Do you
3 remember that phrase? When he got there, as shown in
4 Defendant's Exhibit 1, in this picture.

5 Has anybody? Mr. DeMatties? Mr. Lewis? Mr. Harloff?
6 Has anybody explained to you how you can go from a candle or
7 a glow to this in four minutes? The answer is no, nobody
8 has. Why? Because it's impossible, that's why. Can't
9 happen in four.

10 What do we know about what we saw? Let's take a look at
11 Exhibit 36, which you saw. Exhibit 36, you're going to have
12 these in this binder. Remember we gave a diagram of what the
13 interior of the room looked like, and this one Mr. Natale
14 prepared for you to illustrate the fire spread. What we know
15 is that when the first-in firefighter -- remember Captain
16 Sean McAdoo came in from the Victor Fire Department, told you
17 what he saw.

18 Do you remember what he said? Captain McAdoo said that
19 when he got there about 10, 15 minutes after the call, he
20 goes in the west entrance, walks in the hallway, which is
21 down here where the 16 is basically. And what's the first
22 thing that Captain McAdoo sees? What's the first thing he
23 sees? He sees fire in the hallway all the way near the door.
24 Way over here, all the way to the west end of the building.
25 Do you remember that testimony? And he has to put it out.

1 Why? Because he needs to make sure that he has an escape
2 route. Remember he explained that? Had to put it out to
3 make sure that he could get out in the event something
4 untoward happened and he needed to make a quick escape. It's
5 out here.

6 He has barely gotten in the building. Where is the
7 bathroom? The bathroom is way to the east. It's way over
8 here where the A, B and C are located. Way down here. When
9 he goes in, Mr. McAdoo goes in, Chief McAdoo, Captain McAdoo
10 goes in, he goes through the door and he looks up. And what
11 does he see? Do you remember what he saw? He testified to
12 you that he saw fire, open flames. Where? Not to his right
13 but to his left, to the west, in the back of the room. Back
14 about where 9, 8, and 7 trusses are located. Right where the
15 darkest part of this circle where Mr. Natale prepared for you
16 is located. That's where he saw fire. He saw it in two
17 separate locations out there.

18 He testified to you without dispute, without contest
19 that the truss system was already involved in a major fire at
20 that point. Remember he talked about that? The trusses were
21 already on fire. We're talking 15 minutes after
22 Ms. Suffredini saw the glow. How do you get all the trusses
23 30 feet or 40 feet, however long that is from the bathroom,
24 engaged in the full-fledged fire if the fire started in the
25 bathroom? You don't. Because it can't happen. The fire

1 started where the deepest part of char is.

2 Now that brings me to Mr. Harloff. Do you remember
3 Mr. Harloff? Mr. Harloff came in and testified on two
4 separate days, and he was from the Emergency Management
5 Office. And you remember he and Officer Middlebrook,
6 Inspector Middlebrook, took I think he said 116 photographs
7 at the time. 116 photographs. And one photograph that I
8 found particularly interesting, perhaps you did too, was this
9 photograph that we marked as Exhibit D03. All of the EMO
10 photographs are marked in Exhibit 3 in the big binder you're
11 going to have to cart around. And the picture is number 308.
12 That's this one.

13 Why is this so important? Remember when Mr. Harloff
14 gave his testimony under oath in a deposition. This picture
15 was marked not by folks representing Broan-Nutone, but by my
16 good friends representing Philadelphia Insurance Company at
17 Mr. Harloff's deposition. It was marked as Exhibit Number
18 13. Do you remember that? And do you remember what
19 Mr. Harloff said at his deposition under oath about this
20 picture? Here is where the fire started. He said pointing
21 to this truss. And we know that this is now truss number 3
22 is the two year old room. That's what he said.

23 Why? Because look at the deep burn here. Now he hadn't
24 analyzed the stringer issue that we'll talk about in a
25 minute, but what he testified to in his deposition was this

1 was where all the deepest point of char was. This was where
2 all the burning was. Here is where the fire started. And he
3 was right. On the stand, you know, not so much. He said
4 well, no, really, you know, there was deeper burning over the
5 two year old bathroom. Do you remember that testimony?

6 How many photographs of the truss system were taken over
7 the two year old bathroom? We know and you heard that ten
8 photographs were taken by the Emergency Management Office
9 over the two year old room showing things like what you saw
10 in photograph 308. And you'll have that and several others
11 with you. How many did the Emergency Management Office take
12 over the bathroom? Do you remember the answer to that
13 question? The answer to that question is zero. Not one.

14 Why not? The answer to that question is because there
15 was no significant charring or burning all over those
16 trusses. All the significant charring and burning was right
17 here shown in Exhibit D34, a picture taken by Mr. DeMatties,
18 one of the experts for the Philadelphia Insurance Company.
19 This is photograph 8934. That's what the two year old room
20 looked like after the fire.

21 What did the bathroom look like after the fire? Do you
22 remember that? This is a picture taken by the Emergency
23 Management Office, number 292. That's what the bathroom
24 looked like. Probably not purple. But other than that, look
25 at the wall. There is not a mark on the wall. Philadelphia

1 Insurance Company would have you believe that this fire
2 started right there within 2 feet of this wall, which isn't
3 touched.

4 They would have you believe that it started within 12
5 inches of the insulation in this square right next to the air
6 diffuser, and the insulation still has some of the paper back
7 on it. They would have you believe that the fire started
8 right here where the insulation is intact, the paper back,
9 some of it is still there. The T's, the metal T's are not
10 deformed at all. The diffuser, the metal diffuser, nothing
11 wrong with it. You could probably still put it in an air
12 duct.

13 And remember on the other side of this you've got
14 trusses up here, on the other side of the insulation. Do you
15 remember what the trusses looked like? Do you remember?
16 Almost no damage at all. Almost none. Look at 8934, just
17 look at these two pictures. Where did you have most of the
18 burning? Where is most of the deep charring; not just most,
19 virtually all of it. Isn't it all in the two year old room?
20 There it is.

21 So Mr. Lewis comes on and he said some things that were
22 remarkable. Mr. Lewis says, well, yeah, the stringer -- let
23 me see if I can find my picture of that stringer. Here it
24 is. Again a picture by Mr. DeMatties, Exhibit D34, and the
25 image is 9016. This is the picture that shows after the fire

1 what the ceiling in the two year old bathroom looked like.
2 This is that stringer that ran right down the middle of the
3 two year old room. Do you remember that? And into the
4 bathroom. The stringer in the two year old room, do you
5 remember what it looked like? It was largely gone,
6 particularly right in the middle of the room. And you'll
7 have that. We showed that with Mr. Natale's progression.
8 And you're going to see that in Exhibit 36B. We printed out
9 the slides for you so you can follow.

10 These stringers 5, 4, 3, 2 and 1. Basically 5 existed,
11 4 was damaged, 3 is almost all gone, had a couple pieces of 3
12 and 2, and at the end of 2 it's gone. And this stringer
13 here, this stringer, the one in the bathroom, what do you
14 notice about it? Right there. The fan in this picture prior
15 to the fire is located right there. Do you see any damage at
16 all on that? Any smoke damage? None.

17 Over here, the next over where the diffuser was, a
18 little bit of smoke damage. No burning. By everybody's in
19 agreement. Mr. DeMatties admitted it. Mr. Lewis admitted
20 it. Everybody admitted it except Mr. Harloff. But there is
21 no damage to this stringer. And then as you get closer to
22 the two year old room, you start to get a little sooting here
23 and you get some damage right at the intersection of this
24 stringer, stringer number 1 intersects with the truss and it
25 stops there.

1 Physical facts in dispute because here they are.
2 Mr. Lewis was clever, wasn't he? He said, oh, I can tell
3 you how this happened. He says, well, looking at the model
4 we've got, he said, well, what happened here was this.
5 Here's where the fan is. If you were going to put it this
6 way, it would connect to that spiral remnants of a duct that
7 goes over to the other room. He says that's not how it was
8 at all.

9 To make my theory work, says Mr. Lewis, and this is what
10 he admitted, this is his own testimony, it has to be pointed
11 this way, right into the HVAC duct. Now, Ladies and
12 Gentlemen, does that make any sense to you at all? Would
13 anybody put that in like that? Anybody? What does it tell
14 you about the HVAC duct? It's metal, doesn't support the
15 burn. But what he tells you is that, well, it burned, it
16 burned up and went out. Really? His word is right here in
17 DeMatties D349016. That duct, that HVAC duct went right up
18 over here and it goes over the stringer. How do you know?
19 Because you can see. See it? It goes over the stringer.
20 Just like we see here.

21 Now if that somehow was combustible, if that did burn
22 this way and then took a left-hand turn and burned up that,
23 how do you explain the fact that the stringer is not damaged?
24 How do you explain that? You can't. Because if that was
25 really combustible, it would have burned the stringer away,

1 but it didn't. Why? Because the fire didn't start there.
2 By the way, the next room over is the office. Did you see a
3 single thing of any damage to the office, anything? No.
4 Why? Because there was no damage there.

5 So then how do you get the fire that goes out, takes a
6 left and then has to take a right-hand turn, presumably
7 putting a directional on and going all the way into the next
8 room? How does it happen? Does fire spread that way? Or
9 does fire spread evenly in all directions, for the most part,
10 unless there is some reason that it wouldn't.

11 Did you notice anything interesting about the fire
12 patterns in this case? Other than the fact that most of the
13 two year old room is destroyed and virtually none of the
14 ceiling in the attic area over the bathroom is damaged. The
15 next room just to the east, no damage at all. Does it make
16 sense to anybody here that the fire burned in only one
17 direction, went up and just started going that way? Or is it
18 far, far more likely that the fire started like this where
19 Captain McAdoo found it overhead on stringers 7, 8 and 9 and
20 then spread evenly in an oval pattern just like you see here?
21 Isn't that how fire behaves?

22 Now another thing that Mr. Lewis said that we should
23 talk about for a minute, or didn't say, more accurately. He
24 was unable to give you what's called an ignition source, how
25 this whole thing started. Couldn't do it. Why? Everybody

1 admits that the fan is operating at the time Ms. Dattilo and
2 Ms. Suffredini see what they see in the attic. Everybody
3 admits it. What does that mean? That means that the rotor
4 is turning. That means the impeller is turning. That means
5 that it's going to be drawing air over the motor. You heard
6 that from several witnesses. And it also means that it's not
7 going to be generating any heat.

8 You heard from Mr. Farchione and others, how does a
9 motor generate heat? Well, the worst possible thing for a
10 motor is if the rotor is locked and the motor is still trying
11 to turn, magnetically turn, because it's trying to overcome
12 bearings that have failed and the motor is locked and that's
13 going to generate heat. But that's not what we have here.
14 How do we know that? Because two witnesses said we heard the
15 impeller turn. Everybody agrees to it. And moreover, the
16 circuit is still on, still closed, things are still
17 operating. How do you get heat here? He never explained
18 that to you.

19 He said, well, this is an older motor. Did you hear a
20 single word or anything from anybody about how that motor,
21 how that fan was used between the time it was installed in
22 2003 and the time of the fire? Is there a single piece of
23 evidence as to how many hours it was used a day? A week? A
24 month? Nothing. Not a word.

25 The only evidence we have with regard to how that fan

1 was working prior to the fire is from three people.
2 Ms. LoMonaco, the owner, came on and told you that she never
3 had a problem with it. Right. Ms. Dattilo said she never
4 heard a problem with it. And Ms. Suffredini who was in that
5 room for a year and a half said she never noticed any unusual
6 noises, never had a problem.

7 And what about on that very day? You heard
8 Mr. Farchione tell you a few minutes ago that the typical
9 failure motor -- because, by the way, there is no product, as
10 Mr. Lewis admitted to me, ever made that's going to last
11 forever. We are all human. Products are all going to have
12 an end of life sooner or later. What's the end of life
13 failure? The bearings begin to wear out, the lubrication of
14 the bearings wear out. And what happens? What's the signal
15 that may be time to replace the motor? Do you remember the
16 testimony? It starts to make a loud noise or it starts to
17 squeal.

18 What is the undisputed testimony about that before you,
19 Ladies and Gentlemen? No unusual noise. No squeal. No loud
20 noises at all. That means no evidence of bearing failure.
21 So what does that mean? That means we don't have a locked
22 rotor. We don't even have the bearings beginning to go. We
23 just have a motor that's turning, turning the rotor normally,
24 and it's turning. That's it. How do you generate heat to
25 ignite anything? Mr. Lewis never explained that to you and

1 the reason is he couldn't. Because he can't. He said, well,
2 there is lint up there.

3 Do you remember the picture that he showed you of the
4 lint in the next door bathroom? You'll have it with you.
5 Did you see any lint on the motor coil from the next door
6 bathroom? Virtually none. What's to ignite? And then we
7 have another problem from Mr. Lewis' scenario. He says,
8 well, you know, this is an older motor and it's got lint on
9 it and it's going to run hotter. Well, he didn't explain why
10 that was the case. There is no evidence as to why that was
11 the case and there is no evidence supporting that. Leave
12 that aside for a minute.

13 You've seen tests, undisputed tests, that will tell you,
14 that prove that if you locked the rotor, worst case scenario,
15 and just turn it on, lock the rotor, it will take between 14
16 and 17 minutes to get up to about 160, 190 degrees
17 Centigrade. Remember you saw them in D10? Why is that
18 important? Because Ms. Dattilo and Ms. Suffredini told you
19 that within two or three minutes they were out of the
20 building after they saw that.

21 Ms. Suffredini told me that from the time that she
22 turned on the switch to activate the fan and the light to the
23 time she was out of the building was at the very most 15
24 minutes. You don't have enough time. And the worst possible
25 scenario you don't have enough time to ignite anything.

1 Because even at 190 degrees, it's not the ignition
2 temperature of lint. Mr. Lewis told you what that
3 temperature was. His temperature was 232, Fahrenheit 451.
4 Maybe 425, but it's still about 232 degrees Centigrade. You
5 don't have enough time. He doesn't have enough time. So it
6 couldn't have happened.

7 And doesn't that make sense? Doesn't it make sense?
8 You saw before you Mr. Farchione come on today and tell you
9 the extraordinary length that Nutone and Jakel and all of
10 Jakel's component products go to comply with or exceed
11 industry standards. You saw all the tests, or many of them
12 anyway. There is no doubt that this fan and this model was
13 tested and retested and tested again by engineering staffs at
14 several different companies and the independent testing
15 laboratory at Underwriters Laboratories.

16 Mr. Lewis said that doesn't matter because they're
17 actually really tested by the company, they just write a
18 check. Well, Mr. Farchione explained how that works. How
19 the client testing program works, you heard him testify about
20 it. Did it occur to you, did it appear to you that it's just
21 some company that writes a check and gets a UL listing? Or
22 does it appear that the certification engineers at UL do what
23 the certification engineers at all of these companies,
24 Nutone, Jakel, the magnet wire company that manufactures
25 that, the company that manufactures the bobbin, all of them

1 submit their products to testing and they all passed safety
2 standards.

3 So what are we left with? We're left with a fire, this
4 fire, that starts, if you look at all the evidence, if you
5 look at the burn patterns, if you look at all of the damage
6 in the two year old room, someplace around truss number 3, 4
7 or 5, as Mr. Harloff said originally in his deposition.
8 Where?

9 Well, you saw all of the witnesses, you heard all the
10 witnesses talk about NFPA 921. And you heard them all say
11 sometimes, in fact, quite frequently, 50 to 60 percent of the
12 time, I believe was the number that was thrown out, fires are
13 an undetermined origin. Why? Because the evidence is often
14 consumed in the fire. And in this case that may be
15 particularly true. Remember by the time Nutone got out to
16 see the scene, the fire happens on September 17th, and Nutone
17 doesn't get out to see the scene until October 29th. The
18 whole scene has changed. The entire bathroom is gone. All
19 of the stuff is down. Nobody can place even the ceiling
20 lights. Mr. DeMatties had to admit to me that he could not
21 even identify that one of the lights that we saw in one of
22 the pictures from the bathroom he ever recovered.

23 How do we know? What we do know undisputed is that
24 there were 11, 11 circuit breakers that were tripped. That
25 means that at least those 11 saw severe over amp-age to trip

1 the circuit breaker. Nobody, nobody traced the circuit
2 breakers or the circuits, of those tripped circuits. Now it
3 may be that it was impossible to do. Nutone didn't come in
4 here and tell, I can tell you where this happened, because
5 sometimes you can't. But what Nutone did prove to you, if
6 you evaluate the evidence fairly and impartially, is that the
7 fire could not have started in this fan.

8 Now, it's almost time for me to stop talking, which is
9 very difficult for an Irishman to do. But I want to say a
10 couple of quick things. First, today is July 1st, and it is
11 in some ways very appropriate that we are engaged in this
12 process today. 238 years ago in Philadelphia the Second
13 Continental Congress voted today for independence in Great
14 Britain. The Declaration of Independence was signed not on
15 July 4th, but on July 2nd, by John Hancock. But the vote was
16 taken 238 years ago today. In the Declaration of
17 Independence there are a list of grievances against the king,
18 and one of the most serious that the colonists had was that
19 they had been deprived of the benefits of the right to trial
20 by jury. That's how important our forefathers thought what
21 we are doing here today is to a free and democratic society.
22 Most of these people were very wealthy. Most of the people
23 were the cream of the colony and they were willing to risk
24 all for freedom and democracy. And a major part of that was
25 a right to produce their disputes to people of the community

1 to bring their good common sense to resolve disputes.

2 And 17 years later, in 1787, on September 17th,
3 ironically enough, the very day that this fire happened,
4 September 17, 1787 the Constitution of the United States was
5 signed. It went through very serious opposition from the
6 anti-federalists. And why? Not quite because there was no
7 right to trial in civil cases, what we're doing right here,
8 and only because the federalists agreed to amend the
9 Constitution to put that right and others in, with the people
10 here in Schenectady, in New York, vote to approve the
11 Constitution. That's how important our forefathers thought
12 this process was. And that's how the important Nutone thinks
13 this process is. And I'm sure Philadelphia Insurance Company
14 does too.

15 On behalf of all of us, I thank you very much for your
16 time. And if you find after you deliberate fairly and
17 impartially as the evidence is as it's laid out, that this
18 fan was made to the best standards, that this fire could not
19 possibly have started where it was and resulted in this, in
20 five minutes. If you find that you could not possibly have
21 started a fire in the bathroom and had all the damage in the
22 two year old room, I'm going to ask you to return a verdict
23 for Nutone. Thank you very much for your time.

24 THE COURT: Mr. Paolini.

25 MR. PAOLINI: Good afternoon. I was about to say

1 good morning; I had to check the clock. On behalf of myself,
2 my partner Tom Underwood, my client John Smith, from
3 Philadelphia Insurance Company, want to extend our gratitude,
4 taken away from your daily routines and asked you to come and
5 resolve this dispute. You've given a lot of your time and we
6 appreciate that and thank you.

7 Now at the beginning of this case Tom Underwood said to
8 you, he explained this case was essentially about two
9 different things; it was about common sense and it was about
10 safety. Safe fans don't start fires.

11 I want to start this presentation talking about the fan.
12 Something we haven't heard anything about in the last half
13 hour. The fan. That's the item that has undisputable
14 evidence. The fan isn't relying on what witnesses, who by
15 all accounts acted bravely to make sure young children got
16 out of their building safely. Wasn't that their concern?
17 Were they thinking about what was happening at every minute?
18 Were they thinking, my God, there is a fire, I got to get
19 out? I got to get these kids out of the building. And they
20 did that.

21 So let's talk first about the fan and then let's talk
22 about what the witnesses saw. Let's talk about the fire
23 investigation. And let's talk about the defendant's
24 positions. I don't want to leave anything untouched. I want
25 to discuss every issue in this case. Not just the ones that

1 favor one side or the other, let's address them all.

2 What do we know? Let's start with this fan. What do we
3 know occurred inside this fan? We know there is arcing at
4 the deepest most point of this vent fan. The I bar. We've
5 heard tons of testimony. How do you get arcing at the I bar?
6 What does that mean? Well, that clearly means we had an
7 electrical failure at that point. And we didn't just have
8 arcing at the I bar, we actually had arcing on the windings
9 that surround the I bar. How do we know that? Well, we had
10 localized points in those aluminum windings that showed
11 beading, arcing. Not the entire winding.

12 And it's interesting, Mr. Finneran, defendant's own
13 expert acknowledged, he said it's melting. 1,200 degrees
14 this fire got to, and that's melting. That's interesting.
15 If that's melting, then why don't we have one big glob of
16 aluminum sitting there, if that's melting?

17 Now Mr. Finneran, interestingly enough, didn't even
18 observe, didn't even observe the arcing on the I bar.
19 Someone who works and does expert testimony, this defendant.
20 He wrote a report, didn't mention it. It was after Mr. Lewis
21 got involved that we hear about arcing on the I bar. And
22 again, it's undisputed.

23 So what happened? As Mr. Lewis explained, this motor
24 failed. It failed. It's interesting, Mr. Farchione just got
25 up there and we heard about noises. You heard what he said.

1 He clarified, usually you hear noises. He was very clear
2 about that; not always, usually.

3 So the motor fails and then what happens? Well, what's
4 supposed to happen when these motors fail? They're equipped
5 with one and only one safety device; the thermal cutout. The
6 TCO. Heard a lot of testimony about the TCO. Mr. Lewis
7 explained how after the fact he had to reconstruct it. But
8 before we get to his reconstruction, let's talk about the
9 TCO, because I would submit that we don't even need the
10 reconstruction to prove to you that this TCO didn't operate.
11 And how do we know that? Well, we know that because if you
12 believe what the defendants are saying here, there was a fire
13 attacking this fan.

14 So what does that mean? Well, according to Mr. Finneran
15 that means 1,200 degree temperatures are hitting this fan.
16 That TCO should have opened, give or take, let's call it
17 300 degrees. Well if the TCO opened, what happens? What
18 won't we have? We won't have electrical activity. Where?
19 Inside the fan. That is we won't have electrical activity at
20 the I bar. But we do.

21 So even if you believe what the defendants are saying,
22 that we had attacking fire, which we're going to get to, that
23 TCO should have been opened. And if that TCO opened, we
24 don't see the activity inside the fan that we're seeing.

25 Now let's talk about what Mr. Lewis examined. He

1 reconstructed the TCO and proved conclusively that it wasn't
2 opened. Here it is. The leads. You remember he discussed
3 the leads. They're still touching. For the TCO to operate
4 those leads have to open.

5 Remember, he also talked about this diagram. What
6 happens when the TCO opens? We get those two balls. That's
7 evidence that it operates. That didn't occur in this case,
8 did it? Here's our TCO. Here's a TCO that's open. This is
9 our TCO, not opened. Even Mr. Finneran acknowledged, he
10 wouldn't admit it didn't open at all, but he was pretty clear
11 certainly didn't open as thoroughly as it should have, which
12 we submit didn't open at all. And we have undisputed
13 evidence within the fan that shows that.

14 So what do we have? We have a defect in this case. And
15 the Judge is going to instruct you when we're finished here
16 talking, in just a few minutes, I'm going to try to keep this
17 going, the Judge is going to instruct you on the law about
18 what is required to establish defect. And let's be clear on
19 a couple things, a manufacture, such as Broan is responsible
20 for the entire product. That is they're responsible for any
21 problems with any of the components. And that's what we have
22 here.

23 Judge Mordue will instruct you on that. In fact, he is
24 going to instruct you that plaintiffs don't even have to
25 prove what the specific defect was, so long as plaintiffs

1 proved that the unit didn't operate as intended. And clearly
2 if a fan starts a fire. It's not operating as intended, and
3 showing that the reason for that can be attributed to the
4 defendant. There is no evidence in this case that any
5 responsibility is anyone other than the defendant. None.

6 Now, this isn't just a nonspecific defect. We've
7 provided evidence of specific defects. Defects with the
8 motor failing. Defects with the TCO not opening. Either
9 one. And we would ask that you find that the product was
10 defective and you enter an award in favor of the plaintiff,
11 our client.

12 Let's move on to the discovery of the fire. Let's move
13 on to the eyewitness testimony of this case. It's undisputed
14 the first time in that building that someone sees a fire is
15 in the fan. It's undisputed, Kristin Suffredini goes into
16 that room, turns the switch on. That's what she said, I
17 turned the switch on so the little girl could use the
18 bathroom and she walks away. Five or six minutes later the
19 little girl is finished. Kristin is doing something else, so
20 she walks past. She sees something out of her eye. She
21 looks up, and she sees a fire in the fan. What's the next
22 thing she does? She yells for others in the building to
23 alert them, we have a problem. That's her testimony.

24 Wendy comes in, looks over at that direction. Also sees
25 a glow in the fan. They both do what any reasonable person

1 would do, people would do at that point, to get the children,
2 alert the others in the building and they make their way out.
3 And they make their way out through that door in the two year
4 old room.

5 What's really important is what they described before
6 they left. Ms. Suffredini had been working in the two year
7 old classroom all day, Ms. Dattilo across the hallway. Both
8 were very clear, during the course of that day leading up to
9 the moment they discovered the fire, specifically
10 Ms. Suffredini, she didn't smell anything in the classroom
11 above her. She doesn't hear anything above her. There were
12 no electrical problems.

13 Importantly, we've heard a lot about lights in this
14 case. A lot of different types of lights. But what did we
15 hear? We heard there were no problems with the lights. If a
16 light would have caught fire, what would we have seen? We
17 would have seen the lights go out. We would have seen them
18 flicker. Nothing.

19 What was the one thing that had been introduced five or
20 six minutes before the fire? She turned the fan on. There
21 it is. There's the change. She turned the fan on. It's six
22 minutes later approximately, she now is seeing fire.
23 Coincidence? I don't think so. The evidence, more
24 importantly, within that fan doesn't say so.

25 Now, the fire investigation. And, boy, did we have

1 plenty of investigators here to speak with you over the
2 course of four or five days. Started with Investigator
3 Harloff. Now Investigator Harloff is on site. He is at this
4 fire scene within 14, 15 minutes of it occurring. It's
5 undisputed. And in addition to him being out there, there is
6 the two firefighters that came in; Chief McConnell and Chief
7 McAdoo.

8 Investigator Harloff testified he spoke to the
9 firefighters before issuing any opinions. Of course he did.
10 He was out at the scene. What did the firefighters say?
11 What did we hear from Chief McConnell that was really
12 significant in this case? He observed smoke on his way to
13 the building. No question about that. He testified to that
14 and we're going to talk about the smoke in a minute.

15 But he said something else that was really important.
16 What was the issue? What were they fighting? They were
17 fighting a rapid, rapidly progressing fire. The way this
18 building was constructed, there was an open attic truss
19 system, so once the fire got there, boy, it took off. That
20 was his testimony. And that's pretty important. But then
21 you couple that with what we heard from Chief McAdoo. He has
22 got the unenviable task of going into the building when
23 everyone else is coming out and it's the fire. What did he
24 see? He saw fire in the area of the two year old classroom.
25 Why would that be? Because we had a rapidly progressing fire

1 from the two year old bathroom. He looked up, the fire had
2 now progressed through the attic and clearly the trusses were
3 now visible because the fire had progressed to that point.
4 That's undisputed. He didn't get to make his way back to the
5 bathroom. He couldn't; his oxygen went low.

6 What do we know now? Now that the investigation starts.
7 And who better to conduct an investigation than Investigator
8 Harloff, who was on site, had the opportunity to speak to the
9 firefighters firsthand. And wasn't it amazing that one of
10 the experts that testified in this case told you that he
11 heard for the first time about what the firefighters saw.
12 Never bothered to check. Didn't read I guess any of the
13 reports. It's interesting. And we'll get to Mr. Natale in a
14 few minutes as well.

15 So let's get to Investigator Harloff's investigation.
16 And what did it show? And what did he tell us? He had him
17 and his team of investigators were out there and they were
18 out there right after this fire started. And they examined
19 essentially every area of that room. And we all know, I
20 don't think there is any dispute in this case, that this fire
21 starts, if you believe the plaintiffs, in the bathroom at
22 that ceiling fan, at the exhaust fan, or somewhere in that
23 classroom. No where else. What's interesting about that?
24 The defendants have the fire going this way toward the
25 bathroom and then it just stops. But yet we had an open

1 attic truss system and it doesn't extend into the preschool
2 room. How could that be? It just stops at the bathroom and
3 goes down. It goes down? What fire goes down?

4 Probably a good time to talk about this smoke. How many
5 times have we seen this picture? I wish I had a dollar for
6 every time. First question I have is which way is the smoke
7 going? It's going up because fires travel up. It's not
8 going down. The other thing that made me wonder, we had a
9 lot of fire investigators testify. Do you remember any of
10 them when they were talking about 921, saying 921 talks about
11 how much smoke you see out of the building is determining the
12 cause and origin of a fire? Did you hear that? I don't
13 recall hearing that.

14 So what did Investigator Harloff look at? He looked at
15 a lot of things. He looked at the direction of the burn
16 pattern. And that's significant. He explained to you that
17 the direction of the burn patterns showed a fire progressing
18 into the classroom. That was a portion of his opinion. He
19 also recognized, and there is no debate, was there charring,
20 deep charring over the classroom? Absolutely. But what does
21 921, again essentially the one book that everybody agrees on
22 in this case provides guidance on fire investigation, what
23 does that say about depth of char?

24 Mr. Natale admitted it says it's not determinative in
25 determining a cause and origin case. It actually cautions

1 investigators to be careful about doing it. And why is that?
2 Because there is factors that affect the depth of char, the
3 burning, also ventilation.

4 And what did we hear about ventilation in this case? We
5 heard a lot. Started with that two year old classroom. That
6 door. Where did they exit? They exit that door. And then
7 what did Chief McAdoo say on that issue? What does he
8 remember saying when he went in fighting that fire? He saw,
9 I think he might have said, trees through the door actually.
10 The door was open, it was left open. Because again teachers
11 and the children were just trying to get out when the door is
12 open.

13 What else did Chief McAdoo tell us? He told us while he
14 is going through, going in through the front door, so we know
15 that door is opened. His colleagues, what are they doing?
16 They're breaking windows, drilling holes through the roof for
17 ventilation. It's a factor that impacts depth of char.
18 That's why I don't just rely on depth of char when doing a
19 cause and origin investigation.

20 Investigator Harloff has twenty plus years experience.
21 And most importantly what doesn't he have? He doesn't have
22 any interest, zero, in this lawsuit. He wasn't being paid by
23 either side. He was just doing his job. He was
24 cross-examined at length. Never once wavered about where
25 this fire started. That's where he determined this fire

1 started. He was clear. As a matter of fact, he took this
2 piece of evidence, that's how sure he was. He wanted nothing
3 to happen to it, so he secured it. Undisputed. That's where
4 the fire started.

5 Now, at that point in the investigation the folks like
6 Investigator Harloff are finished, other folks come in. In
7 this case you heard from Mr. DeMatties. He came in and
8 conducted essentially an electrical forensic engineering
9 investigation, didn't he? Mr. DeMatties examined all the
10 lights that were found in the classroom area. No evidence of
11 any type of fire. Examined all the ballasts, that's usually
12 a point where a light might fail. But more importantly, he
13 was aware of what the witness had said. No witness testimony
14 indicated any type of light caused this fire. Any type of
15 light. You heard about and Edison light bulb. Is there any
16 testimony in this case that anyone was using an Edison light
17 bulb? Why are we hearing about that? Kristin was here.
18 Wendy was here. No testimony about that. That's a red
19 herring. It's clear by the questions that weren't asked, we
20 know that.

21 There was also a suggestion that no arc mapping was done
22 in this case. No arc mapping? Mr. DeMatties traced all
23 these circuits. But most importantly, the most important
24 circuit was where the fan was. Because what do we know? We
25 know that there was electrical activity deep inside the fan.

1 What else do we know? There was no evidence of electrical
2 activity found on the power cord, the Romex power cord going
3 to the fan. It was on the same circuit as the light, and yet
4 the light that's right next to the fan, there is no issue
5 with the light, it was working fine.

6 Again, what does all this electrical examination tell
7 us? It tells us that this fire starts at the fan. It's what
8 Investigator Harloff had determined and now that's what
9 Mr. DeMatties determined. In comes Mr. Lewis, also whom
10 you've all heard in this case. And this is from the other
11 bathroom and it's evidence of lint. Mr. Lewis explained
12 there was more than enough fuel once this fire, once we had a
13 failure inside that fan. We had lint and we had numerous
14 plastic components. We also had evidence of a flammable duct
15 that clearly was in the area. We found the remnants, you saw
16 the remnants in the photos.

17 We also know we had paper backed insulation, that the
18 expert Mr. DeMatties who was out at this scene said it was
19 burned. No question it was burned. No question. Mr. Lewis
20 explained in great detail how this fire burned up. Fire's
21 looking for oxygen. It's going to take whatever path it can
22 to burn up. And once it gets into the attic, away it goes.
23 It's consistent with what Investigator Harloff determined.
24 It's consistent with Mr. DeMatties. All consistent.

25 What have we heard from the defendant's experts in this

1 case? We heard from Mr. Natale and we heard from
2 Mr. Finneran. Mr. Natale's entire opinion in this case is
3 based on depth of char, which we already talked about. It's
4 not the thing you're supposed to use to determine where a
5 fire started. So isn't that what he did? He focused
6 entirely on depth of char. Why is that? Why is that?

7 Mr. Natale certainly has a lot of experience. In fact,
8 he has been working for this defendant for 35 years. 35
9 years. Actually said, when I was out there I was out there
10 to protect my client's interest. And we had an interesting
11 discussion. I specifically asked him, I said, were you out
12 there? Did you perform a cause and origin investigation? Do
13 you remember that? I thought I may have asked some bad
14 questions during this trial, I'll admit it. I didn't think
15 this was one of them. I thought it was a pretty simple
16 question. Did you perform a cause and origin investigation
17 or not? The Judge and Mr. Natale had a little discussion
18 about it. And finally he looked at me and he said yes and
19 no. I'm still trying to understand that one.

20 But let's think about some of the other things that
21 Mr. Natale had to say. Remember, he wrote a forty page
22 report in this case. Forty page report. And in that report
23 he basically said plaintiff's theory was wrong. He basically
24 said the fire traveled across the attic and down into the fan
25 through this big gap. And why was there a big gap? Because

1 in his report he actually said the insulation was down
2 against the dropped ceiling. That's what said in his report.
3 Do you remember that? When we know it wasn't. He ultimately
4 realized he was wrong about that and the basis of initially
5 responding to plaintiff's theory was completely wrong,
6 notwithstanding it was in his report. That's what he said.

7 So we know he was wrong about that. Then he admitted he
8 hadn't even bothered to review all of Investigator Harloff's
9 photos. He just wrote the report anyway. What else did he
10 tell us? He told us the fire started in the attic. But what
11 didn't he tell us? He didn't tell us what the ignition
12 source was.

13 Now, most of the wiring for this building was run in the
14 void space between the dropped ceiling and the insulation.
15 But even if there was some wires running above the attic for
16 a light or something, for the lights, whatever, what did he
17 tell us? What did Mr. Natale say? An arc, which is what
18 would have had to occur if it was a wire. What would it have
19 had to ignite? The only other thing up in that attic was the
20 wood trusses. And Mr. Natale admitted that for an arc, wood
21 isn't a good ignition source for an arc. Think about it.
22 It's real thick. You got an arc, it's not going to ignite
23 wood. Would be a great tool for a fire that had spread after
24 you have an actual fire. He couldn't give us an ignition
25 source.

1 And then he explained how he believed the fire attacked
2 this fan. Because remember, the defendants, both of their
3 experts recognize they had to have an explanation for how
4 this fire got inside this fan because of the electrical
5 activity we had deep within. But interestingly enough, both
6 defendants gave completely inconsistent explanations of how
7 this fire got inside this fan without damaging the wiring
8 around it.

9 I asked Mr. Natale, how did it happen? He said the fire
10 traveled across the attic. He said that the insulation in
11 that area wasn't stapled down in that one spot. I guess the
12 fire saw it, saw an opportunity and turned straight down into
13 that little seam. And then it did something else which is
14 just amazing. That fire crawled inside this hole. This hole
15 that would have been blowing air in the opposite direction.
16 Come on. Does that make any sense? And it did so all the
17 while without ever impinging upon the Romex power cord. It
18 clearly would have melted it long before we ever would have
19 saw electrical activity way within.

20 We had other wiring. The junction box. None of that,
21 none of that was impinged first. How could that possibly be?
22 But that was Mr. Natale's explanation.

23 And before that we actually heard from Mr. Finneran.
24 Now, first Mr. Finneran testified that he had no idea. He
25 knew it happened. He knew this fire somehow attacked this

1 box and got to the I bar. He didn't know how. But then he
2 did offer up an explanation. He suggested again that somehow
3 fire heated up the box, and it did so again without impinging
4 on the Romex on the outside of it. Does that make any sense?
5 It's like suggesting that you put something in the oven, wrap
6 it in foil, the oven around it's not hot, only the thing in
7 the foil. Does that make any sense? No. And it's
8 completely inconsistent with Mr. Natale's explanation. It's
9 not logical. It's not reasonable. Quite frankly, it's not
10 possible. The only reasonable explanation is this fan, clear
11 and simple. That's why when they testify in this case,
12 defendant doesn't want to talk about that issue.

13 Now the other defense in this case deals with the UL,
14 the testing. We heard so much about all the testing. And
15 there is a couple key things to take from that. First of
16 all, Mr. Finneran acknowledged that just the UL standard in
17 no way means a product wouldn't contain a defect. It may.
18 Of course. Of course it doesn't.

19 And then we heard about the testing. What was
20 consistent about all the testing we heard about? It was all
21 done on a new product, a new motor, a new TCO. They weren't
22 testing products that had been in existence five years, were
23 they? So what does that testing really mean to this case?
24 It means very little. It means nothing.

25 So that's the defendant's position and we would submit

1 it really doesn't make sense. But we recognize in this case
2 the plaintiff bears the burden. And the Judge is going to
3 instruct you on the burden in this case. And as we talked
4 about in the beginning of this case, it's not a criminal
5 case, so our burden is not to prove our case beyond a
6 reasonable doubt.

7 The Judge will explain to you that the standard, if you
8 will, is preponderance of the evidence. What does that mean?
9 We know it's not reasonable doubt. Well, I like M&Ms. I ate
10 two jars. Fill one jar with 51 M&Ms, fill the other with 49.
11 51 is just slightly heavier, isn't it? That's the
12 difference. Our jar is just slightly heavier, and we would
13 ask you to enter a verdict in favor of the plaintiffs.

14 In that regard, when you go into the jury room in just a
15 little bit, once I get out of your way, you're going to be
16 given a verdict sheet and it's going to have some very
17 specific questions on it. First question's probably going to
18 deal with negligence. Was the defendant negligent? That is
19 did they act as a reasonably prudent manufacturer would have
20 acted? And we heard Mr. Lewis' testimony on that issue,
21 specifically with regard to the TCO. The leads were bent
22 incorrectly. And we know that the TCO didn't operate. So
23 we're going to ask that you would check yes that this
24 product, this manufacturer was negligent.

25 And the second question you're going to be asked is did

1 that negligence proximately cause this fire. We're going to
2 ask that you check yes on that as well. Because if you
3 believe that the fan caused the fire, then the answer is yes.
4 You're going to be asked specific questions about the defect.
5 Was this fan defective? And we've spent now almost a half
6 hour talking about why this fan is defective.

7 Again we ask you to check the box yes. Did the defect
8 cause this fire? I don't think there's any question at this
9 point. It's overwhelming evidence. It's overwhelmed.

10 The other area you're going to be asked to address is
11 the damages. And you heard testimony from Joyce LoMonaco.
12 There is two aspects of damages. We have 14 Framark, who you
13 will recall they own the building. Related companies, they
14 own the building. They were getting rent from Jack 'n Jill
15 Daycare. When the daycare center was out of business for a
16 year or so, Philadelphia Insurance Company had to pay the
17 rent. That's a portion of the claim. You'll see that on
18 P79G.

19 The other aspect of this claim is Jack 'n Jill's lost
20 profits. P79A. What do we know about that? Ms. LoMonaco
21 explained what type of impact this fire had on her business.
22 Do you remember what she said? She said before this fire
23 they had 34 students. 34. When they opened for the first
24 time after this fire, do you remember what she said?

25 Now, there is no dispute, the daycare center was losing

1 money before the fire. But as Mr. Wright said, the only
2 accountant to testify in this case, mind you, he explained,
3 lost profits doesn't mean you didn't make more money than you
4 would have. Here they lost more money than they were losing
5 before the fire. And he explained those calculations. The
6 defendant didn't even provide any rebuttal. The only
7 accountant to testify was Mr. Wright.

8 The plaintiff would submit that the proof shows that the
9 plaintiff sustained damages in the amount of \$139,227.

10 Now before I sit down I'll leave you with this. We get
11 back to safety and common sense. Safe fans don't cause
12 fires. And common sense. And I ask you, common sense,
13 witnesses see the first fire where? The fan. The
14 independent expert in this case, Investigator Harloff,
15 determined the fire starts where? The fan. Mr. DeMatties,
16 the only electrical expert to perform arc mapping, determines
17 the fire starts where? The fan. There is undisputed
18 evidence of an electrical failure at the I bar, which is
19 located where? The fan. The one safety device for this
20 product, the TCO, did not operate. Where? The fan.
21 Finally, maybe the easiest one of all, fires don't burn
22 sideways, stop and go down. Fires burn up and out.

23 And with that I have good news. I'm now going to sit
24 down. Thank again.

25 THE COURT: Okay. Members of the jury, your lunch

1 is supposed to be here at 12:30. It is here. So recess at
2 this time. Take your lunch. Do you need more than forty
3 minutes? Half hour? 35 minutes. Don't talk about it.
4 Don't discuss it until after I give you the charge on the
5 law.

6 (Recess at 12:40.)

7 (Reconvene at 1:30, jury present.)

8 THE COURT: Members of the Jury, I'm going to
9 charge you on the law that applies to case at this time.

10 You have now heard all the evidence in this case as well
11 as the final arguments of the lawyers for the various
12 parties. Thank you for your close attention which you have
13 given the Court, the attorneys and the witnesses during the
14 trial.

15 It has been my duty to preside over the trial and decide
16 what testimony and evidence is relevant and proper for your
17 consideration. It is now my duty to instruct you as to the
18 law. Your duty is to accept these instructions of law and
19 apply them to the facts as you determine them.

20 Nothing I say constitutes evidence and nothing I may
21 have said during the trial or may say during these
22 instructions with respect to a factual matter should be taken
23 in substitution for your own independent recollection. The
24 rulings I have made during the trial are not any indication
25 of my views of what your decision should be.

1 I also ask you to draw no inference from the fact that
2 upon occasion I have asked questions of certain witnesses,
3 and these questions were only intended for clarification or
4 to expedite matters and were not intended to suggest any
5 opinions on my part as to the verdict you should render or
6 whether one witness may be more credible than another.

7 You should not be concerned about the wisdom of any rule
8 of law that I state. Regardless of any opinion that you may
9 have as to what the law may be or ought to be, it would
10 violate our sworn duty to base your verdict upon any other
11 view of the law than that which I give you.

12 Additionally, you should not single out any instruction
13 as alone stating the law but you should consider my
14 instructions as a whole when you retire to deliberate in the
15 jury room. You will be given copies of this charge in the
16 jury room to assist you in your deliberations.

17 Now, you, Members of the Jury, are the sole and
18 exclusive judges of the facts. You pass upon the weight of
19 the evidence, you determine the credibility of witnesses, and
20 you resolve such conflicts as there may be in the testimony
21 and you draw whatever reasonable inferences that you find
22 from the facts as you have determined them.

23 Now, in determining the facts, you must rely upon your
24 own recollection of the evidence. The evidence before you
25 consists of the testimony given by the witnesses, the

1 exhibits that were received in evidence and any stipulations
2 entered into between the parties. You may not consider any
3 testimony that I directed you to disregard or that I struck
4 from the record.

5 Anything you may have seen or heard about this case
6 outside the courtroom is not evidence and must be entirely
7 disregarded.

8 You must perform your duties as jurors without being
9 swayed by bias, prejudice or sympathy toward any party or by
10 public opinion. The plaintiff and defendant, as well as the
11 general public, expect you to carefully and impartially
12 consider all the evidence in this case and follow the law as
13 I state it and reach a just result regardless of the
14 consequences.

15 Now, the function of lawyers is to call your attention
16 to those facts that are most helpful to their side of the
17 case. And what the lawyers say, however, is not binding on
18 you. And in the final analysis your own recollection and
19 interpretation of the evidence controls your decision.

20 It is the duty of the lawyer for one side to object when
21 he believes that testimony or other evidence offered by the
22 other side is not properly admissible. Lawyers have the
23 right and the duty to ask the Court to make rulings of law
24 and to request conferences at the sidebar out of the hearing
25 of the jury. Those questions of law must be decided by the

1 judge. You should not be prejudiced against an attorney or a
2 party because he objected to the admissibility of evidence,
3 asked for a conference out of the hearing of the jury, or
4 asked the Court for a ruling on the law.

5 As you know, Jack 'n Jill Childcare, Incorporated and 14
6 Framark Drive, LLC were insured for their losses suffered as
7 a result of the September 17, 2009 fire at their building.
8 Following the fire the plaintiff, Philadelphia Indemnity
9 Insurance Company, paid Jack 'n Jill Childcare and 14 Framark
10 Drive under their insurance policy. Under the law and the
11 insurance policy, upon making such a payment the plaintiff
12 became subrogated to the rights of Jack 'n Jill Childcare
13 against any party who may be responsible for causing the fire
14 and the resulting damages. This means that the plaintiff has
15 the right to seek reimbursement from the defendant
16 Broan-Nutone, LLC.

17 An insurance company, as any business entity, is
18 entitled to the same fair trial at your hands as a private
19 individual. Therefore, you are to decide the case no
20 differently than you would if Jack 'n Jill Childcare and 14
21 Framark Drive had no insurance for their property.

22 Now, the burden of proof rests with the plaintiff, That
23 means that plaintiff must establish by a fair preponderance
24 of the credible evidence that his claims are true. The
25 credible evidence means the testimony or exhibits that you

1 find to be worthy to be believed.

2 A preponderance means the greater part of such evidence.
3 It does not mean the greater number of witnesses, the greater
4 amount of evidence, or the greater length of time taken by
5 either side. The phrase refers to the quality of the
6 evidence. That is, its convincing quality, the weight and
7 effect that it has on your minds.

8 The law requires that in order for the plaintiff to
9 prevail, the evidence that supports its claim must appeal to
10 you as more nearly representing what took place than that
11 opposed to its claim. If it does not or if it weighs so
12 evenly that you are unable to say that there is a
13 preponderance on either side, then you must resolve the
14 question in favor of the defendant. It is only if the
15 evidence favoring the plaintiff's claim outweighs the
16 evidence opposed to it that you can find in the plaintiff's
17 favor.

18 Now, in deciding whether the plaintiff has carried its
19 burden of proof, you may rely on both direct evidence and
20 circumstantial evidence.

21 Direct evidence is a witness's testimony about what he
22 or she saw, heard or observed. Circumstantial evidence is
23 evidence which tend to prove a fact by proof of other facts.
24 At the beginning of the trial I gave you an example about
25 snow after 11 p.m. Circumstantial evidence is of no less

1 value than direct evidence and the law makes no distinction
2 between the two.

3 You are the sole judges of the credibility of each
4 witness and of the importance of his or her testimony. Your
5 decision whether or not to believe a witness may depend on
6 how that witness impressed you. Was the witness candid,
7 frank, and forthright? Or did the witness seem to be hiding
8 something evasive or suspect in some way? How did the
9 witness's testimony on direct examination compare with the
10 witness's testimony on cross-examination? Was the witness's
11 testimony consistent or were there contradictions? Did the
12 witness appear to know what he or she was talking about? Did
13 the witness strike you as someone who was trying to report
14 his or her knowledge accurately?

15 How much you choose to believe a witness may be
16 influenced by whether you think the witness is biased. Does
17 the witness have a relationship with a party which may affect
18 his or her testimony? Does a witness have some incentive,
19 loyalty or motive that might cause him or her to shade the
20 truth? Or does the witness have some bias, prejudice or
21 hostility that may have caused the witness, consciously or
22 not, to give you something other than a completely accurate
23 account of the facts testified to.

24 On the other hand, an interested witness is not
25 necessarily less credible than a disinterested witness. The

1 fact that a witness is interested in the outcome of the case
2 does not mean that he or she has not told the truth. You may
3 accept all or such part of the testimony that you deem
4 reliable, and object such part as you deem unworthy of
5 acceptance.

6 Regardless of whether the witness was impartial, you
7 should consider whether the witness had an opportunity to
8 observe the facts he or she testified about. You should also
9 consider the witness's ability to express himself or herself.
10 Ask yourselves whether the witness's recollection of the
11 facts stands up in light of all the other evidence.

12 In this case you have heard expert witness testimony
13 offered by both parties. An expert witness is a witness who
14 has special training or experience in a given field and is
15 permitted to express opinions based on observed or assumed
16 facts to aid you in deciding the issues in this case. In
17 weighing the opinions of an expert, you should consider the
18 expert's experience, training and skills, and the expert's
19 knowledge of the subject matter about which he is expressing
20 an opinion.

21 You should give expert testimony the weight and value
22 you believe it should have. You are not required to accept
23 any expert's opinion. Rather, you should consider the
24 expert's opinion together with all the other evidence.

25 Now, inconsistencies or discrepancies in the testimony

1 of a witness or between the testimony of different witnesses
2 may or may not cause you to discredit such testimony. Two or
3 more persons witnessing an incident or a transaction may see
4 or hear it differently. An innocent misrecollection, like
5 failure of recollection, is not an uncommon experience. In
6 weighing the effect of discrepancy always consider whether it
7 pertains to a matter of importance or to an unimportant
8 detail, and whether the discrepancy results from innocent
9 error or from intentional falsehoods.

10 Now, a witness may be discredited or impeached by
11 contradictory evidence or by evidence that at some other time
12 the witness has said or done something or has failed to say
13 or do something that is inconsistent with the witness's
14 present testimony. If the witness is not a party to the
15 action, such prior inconsistent out-of-court statements may
16 be considered for the sole purpose of judging the witness's
17 credibility in court. However, it may never be considered as
18 evidence of the truth of such statement.

19 On the other hand, where the witness is a party to the
20 case and by such statement or other conduct admits some fact
21 or facts against the witness's interest, then such a
22 statement or other conduct is knowingly made or done may be
23 considered as evidence of the truth of a fact or facts so
24 admitted by such party, as well as for the purpose of judging
25 the credibility of a party as a witness.

1 Now, if you find any witness has knowingly testified
2 falsely to any material fact, the law permits you to
3 disregard completely the entire testimony of that witness
4 upon the principle that one who testifies falsely about one
5 material fact is likely to testify falsely about other
6 important matters.

7 Knowingly means voluntarily and intentionally and not
8 because of mistake or accident or other innocent reason. You
9 are not required, however, to consider such a witness as
10 totally unworthy of belief. You may again accept so much of
11 his or her testimony that you deem true and disregard what
12 you feel is false.

13 Now, if you believe any witness has been impeached and
14 thus discredited, you may give the testimony of that witness
15 such credibility, if any, you think it deserves. On the
16 other hand, you do not have to accept the testimony of any
17 witness just because it has not been contradicted or
18 impeached if you find a witness not to be credible. In other
19 words, in deciding the credibility of each witness, you
20 should use your common sense, your good judgment, and your
21 experience just as you would in any important matter where
22 you're trying to decide if a person is truthful, straight
23 forward and accurate in his or her recollection.

24 The law does not require any party to call as witnesses
25 all persons who may have been present at any time or place

1 involved in the case, or who may appear to have some
2 knowledge of the matters at issue in this trial. Nor does
3 the law require any party to produce as exhibits all papers
4 and things mentioned in the evidence of the case.

5 The number of witnesses or the quantity of evidence is
6 not the test. The test is not which side brings the greater
7 number of witnesses or presents the greater quantity of
8 evidence. Rather, the test is which witnesses and which
9 evidence appeal to your mind as being the most accurate and
10 otherwise trustworthy.

11 Now, a stipulation of facts is an agreement among the
12 parties that a certain fact is true. You must regard such
13 agreed facts as true. In this case the parties have
14 stipulated to the monetary amount of damage to the property
15 and the contents. Accordingly, this issue will not be
16 submitted to you for your determination. You should not draw
17 any conclusions as to this agreement or its purpose.

18 However, the parties have not agreed as to the
19 plaintiff's claim for lost profits and lost rent. And,
20 obviously, they are in sharp disagreement as to the cause of
21 the fire on September 17, 2009.

22 Now, the charts and summaries were shown to you in order
23 to make the other evidence more meaningful and to aid you in
24 considering the evidence. They are no better than the
25 testimony or the exhibits upon which they are based. It is

1 for you to decide whether they correctly present the evidence
2 set forth in the testimony and the exhibits. You may
3 consider the charts and summaries if they assist you in
4 analyzing and understanding the evidence.

5 I'm going to talk about negligence now. The plaintiff
6 claims that the defendant negligently manufactured and/or
7 designed the Nutone 696N fan and that such negligence
8 resulted in the fire which caused the plaintiff's losses.
9 Negligence is a failure to use reasonable care. Negligence
10 may arise from doing an act that a reasonably prudent person
11 would not have done under the same circumstances, or, on the
12 other hand, from failing to do an act that a reasonably
13 prudent person would have done under the same circumstances.

14 A manufacturer of a product holds a duty to use
15 reasonable care in the design and manufacture of the product
16 so that it will be reasonably safe for its intended or
17 foreseeable uses. Reasonable care means that degree of care
18 that a reasonably prudent manufacturer of such a product
19 would use in designing, making, testing and inspecting the
20 product and its materials and parts in order to produce a
21 reasonably safe product.

22 Now, if you find that the fan was not reasonably safe
23 for its intended or foreseeable uses because the defendant
24 failed to use reasonable care in designing and/or
25 manufacturing it, you will find that the defendant was

1 negligent. If, however, you find that the fan was reasonably
2 safe for its intended or foreseeable uses, and/or that the
3 defendant used reasonable care in designing and manufacturing
4 it, you will find that the defendant was not negligent.

5 Now, the plaintiff also claims that the fan was
6 defective, and that therefore, the defendant is liable to the
7 plaintiff under the theory of strict products liability.

8 Under this theory the manufacturer that sells a product in a
9 defective condition is liable for injury that results from
10 use of the product when the product is used for its intended
11 or reasonably foreseeable purpose. The manufacturer is
12 liable for any defects associated with the product, including
13 any defects in any component part of the product.

14 The plaintiff has the burden of proving that the product
15 was defective and that the defect was the proximate cause of
16 the plaintiff's injury.

17 A product is defective if it is not reasonably safe.
18 That is, if the product is so likely to be harmful to persons
19 and/or property that a reasonable person who had actual
20 knowledge of its potential for producing injury would
21 conclude that it should not have been marketed in that
22 condition. Because the question is what a reasonable person
23 would conclude, it is not necessary to find that the
24 defendant actually knew or should have known of the fan's
25 potential for causing damage in order for you to determine

1 that it was not reasonably safe.

2 The plaintiff may prove that the product is defective by
3 proving it has a manufacturing defect, a defective design or
4 inadequate warnings. In addition, the plaintiff may prevail
5 without identifying a specific product defect if, one, it
6 proves that the product did not perform as intended; and two,
7 it excludes all other causes for the product's failure that
8 are not attributable to the defendant. If, however, the
9 plaintiff has not established these two elements, you may not
10 infer that the product was defective unless the plaintiff
11 offers competent evidence identifying a specific defect.

12 Now, the plaintiff claims that the fan had a
13 manufacturing defect because the safety device, the thermal
14 cutoff switch, failed to operate as designed, allowing the
15 fan to overheat and cause a fire.

16 The defendant denies that there was a manufacturing
17 defect. The defendant contends that the thermal cutoff, the
18 TCO, in fact, operated and opened when it was hit by an
19 attacking fire and that it was appropriate for its intended
20 uses.

21 To establish a strict products liability claim based on
22 a manufacturing defect, the plaintiff must prove that the
23 product did not perform as intended due to some flaw, and
24 that it was defective when it left the manufacturer's
25 control. Plaintiff must establish that the product was not

1 built to specifications, or that the product, as constructed,
2 deviated from any such specifications or design. A product
3 with a manufacturing defect is flawed because it is
4 misconstructured, regardless of whether the intended design was
5 safe or not.

6 Now, the plaintiff also claims that the fan had a design
7 defect. According to plaintiff, the thermal cutoff should
8 not have been utilized in the fan motor because the motor
9 operated at too high a temperature, which could damage the
10 thermal cut off and prevent it from operating correctly. The
11 plaintiff also claims that the fan's motor should have
12 contained a different thermal cutoff.

13 The defendant denies that the fan was defectively
14 designed. The defendant contends that the thermal cutoff it
15 used was reasonable and acceptable and it met industry
16 standards. Further, the defendant contends that it operated
17 as intended when hit by an attacking fire.

18 A plaintiff seeking to impose liability for the design
19 defect must show that the product, as designed, posed a
20 substantial likelihood of harm; and that it was feasible for
21 the manufacturer to design the product in a safer manner.
22 Whether the product should have been marketed in the
23 condition depends upon the balancing of the risk involved in
24 using the product against; one, the product's usefulness and
25 its cost; and two, the risk, usefulness and costs of the

1 alternative designs as compared to the product the defendant
2 did market.

3 It is not necessary to find that the defendant knew of
4 the product's potential for causing injury in order for you
5 to decide that it was defectively designed. It is sufficient
6 that a reasonable person who did not know of the product's
7 potential for causing injury would have concluded that the
8 product should not have been marketed in that condition.

9 Now, finally, the plaintiff claims that the fan was
10 defective because the defendant failed to provide any safety
11 warnings to the end user requiring periodic cleaning to
12 remove accumulated lint.

13 The defendant contends that no safety warnings were
14 necessary.

15 Further, the defendant contends that any lint in the fan
16 had nothing to do with the fire.

17 The manufacturer of a product which is reasonably
18 certain to be harmful if used in a way that the manufacturer
19 should reasonably foresee, is under a duty to give reasonable
20 care to give adequate warning of any danger known to it, or
21 which in the use of reasonable care it should have known, and
22 which the user of the product ordinarily would not discover.
23 Reasonable care means that degree of care which a reasonably
24 prudent person would use under the same circumstances.

25 So if you find that at the time the fan was marketed

1 there was a manufacturing flaw, a defective design, or a
2 failure to warn, then you will find that the fan was
3 defective. If you find that at the time the fan was marketed
4 there was no manufacturing flaw, it was not defectively
5 designed, and there was no failure to warn, then you will
6 find that the fan was not defective and you need proceed no
7 further in your deliberations on this issue.

8 You may recall during the trial I instructed you to
9 disregard certain testimony of Kevin Lewis to the effect that
10 he had empirical knowledge of other fan failures that he
11 believes support his theory in this case. I repeat now that
12 you must disregard everything he said along those lines. It
13 has nothing whatsoever to do with this case and what happened
14 in Victor, New York. You must decide the case solely on the
15 evidence presented here.

16 You have heard of testimony regarding standards in the
17 industry. Compliance with industry standards does not
18 necessarily mean that the defendant's product was reasonably
19 safe, but rather it is a relevant aspect of your overall
20 consideration of the issues. Your job is to determine
21 whether the fan was reasonably safe after considering all the
22 relevant evidence.

23 Now in addition to proving that the defendant was
24 negligent and/or the fan was defective, the plaintiff must
25 also prove that the negligence or defect was a proximate

1 cause of the plaintiff's injuries. And act or omission is a
2 proximate cause of an injury if it was a substantial factor
3 in bringing about the injury, that is, that it had such an
4 effect in producing the injury that reasonable person would
5 regard as a cause of the injury.

6 It is not necessary that the defendant should have
7 foreseen the amount or extent of damage or injury or the
8 manner in which it occurred in order to be liable to the
9 plaintiff. It is sufficient if the plaintiff proves that the
10 damages sustained by Jack 'n Jill Childcare and/or 14 Framark
11 Drive, LLC naturally flowing from the negligence or defect.

12 On the other hand, if you find that there was a defect
13 in the product and that it had no bearing on the cause of the
14 fire, the plaintiff has failed to carry its burden of proof
15 on the negligence or the strict liability theories.

16 If you find that the defendant was negligent in
17 designing and/or manufacturing a model 696N fan, and/or that
18 the fan was defective, and if you also find that such
19 negligence and/or defect was a substantial factor in causing
20 the September 17, 2009 fire, you must consider what amount
21 will justly and fairly compensate the plaintiff for the
22 losses in issue. My charge to you on the law of damages must
23 not be taken by you as a suggestion that you should find for
24 the plaintiff. I'm instructing you on damages only so that
25 you have guidance should you decide that the plaintiff is

1 entitled to recover.

2 So there is no dispute regarding the amount of monetary
3 loss caused by the damage to the building, and you must not
4 consider that issue. What you must determine is the just and
5 fair compensation for any loss of profits experienced by Jack
6 'n Jill Childcare and any lost rents experienced by 14
7 Framark Drive, resulting from the interruption of the
8 childcare business due to the fire.

9 The plaintiff claims that Jack 'n Jill lost business due
10 to business interruption at the time of the fire until the
11 repairs were completed. The defendant denies that Jack 'n
12 Jill lost business and claims that the daycare center was
13 losing money at the time of the fire.

14 Plaintiff further of claims that 14 Framark Drive lost
15 rental income due to the interruption of the daycare business
16 as a result of the fire. The defendant contends that 14
17 Framark Drive did not suffer lost rental income.

18 The burden is on the plaintiff to prove the amount of
19 damages with reasonable certainty. The plaintiff is not
20 required to prove the amount of damages with absolute
21 mathematical certainty. However, the plaintiff must provide
22 you with a reasonable basis of computation. If the plaintiff
23 has not met this burden, you must not make an award for lost
24 business income or for lost rents. You cannot make an award
25 that is merely speculative, possible or imaginary.

1 During your deliberations you must not communicate with
2 or provide any information to anyone by any means about this
3 case. You may not use any electronic device or media, such
4 as telephone, cell phone, smart phone, iPhone, Blackberry,
5 computer, internet, internet service, or any text or instant
6 messaging service, or any internet chat room, blog, or
7 website such as Facebook, My Space, LinkedIn, YouTube or
8 Twitter to communicate to anyone any information about this
9 case or to conduct any research about this case until I
10 accept your verdict.

11 Now if in the course of your deliberations your
12 recollection of any part of the testimony should fail, or if
13 you should find yourself in doubt concerning my instructions,
14 it is in your privilege to return to the courtroom to have
15 testimony or the instructions read to you. If you do that,
16 if there is something that you're not sure on, did so and so
17 say this, did they say that, easiest thing to do, send me a
18 note, we want to hear the testimony of expert number three
19 regarding what he said about such and such. Eileen will get
20 it up for you and get you out here and let you hear it. You
21 may want to hear the cross. Sometimes jurors say we want to
22 hear the cross-examination of a witness when Mr. So and So
23 was asking. If you narrow it down, give it to you quick. If
24 you need it all, we'll do it, whatever you need.

25 Should you desire to communicate with me in your

1 deliberations, please put your message or question in
2 writing. The foreperson should sign the note and pass it to
3 the marshal, who will bring it to my attention. I will then
4 respond either in writing or orally after you having returned
5 to the courtroom. I caution you, however, that in your
6 communications with the Court, you should never state what
7 your numerical division is, where you stand.

8 Once you've reached an unanimous verdict and the verdict
9 form has to be completed, please inform the marshal that a
10 verdict has been reached.

11 And that is basically the charge to you. Are there any
12 exceptions or requests to the charge that haven't been
13 covered?

14 MR. PAOLINI: No, Your Honor.

15 MR. DUGGAN: Can we be seen at sidebar very
16 briefly?

17 THE COURT: Yes.

18 (Sidebar discussion held off the record.)

19 THE COURT: Any exceptions or requests by
20 plaintiff?

21 MR. UNDERWOOD: No, Your Honor.

22 THE COURT: The defense?

23 MR. DUGGAN: No.

24 THE COURT: I'm going to review the verdict sheet
25 with you now. I'll get a copy to you. Do you all have a

1 copy?

2 This is the verdict sheet in this case.

3 Question number 1. Was the defendant negligent in the
4 design or manufacture of the Nutone 696N fan in issue?

5 You're going to answer yes or no. If you answer yes to
6 question 1, you're going to go to question 2. If you answer
7 no to question 1, you go to question 3.

8 Question 2. Was the defendant's negligence a proximate
9 cause of the September 17, 2009 fire at the Jack 'n Jill
10 Childcare facility? Answer yes or no. Regardless of how you
11 answered question 2, proceed to question 3.

12 Question 3. Was the Nutone 696N fan in issue defective
13 when it left the defendant's control? You'll answer yes or
14 no. If you answered yes to question 3, proceed to question
15 4. If you answered no to question 3 and answered yes to
16 question 2, proceed to question 5. If you answered no to
17 question 3 and answered no to either question 1 or question
18 2, proceed no further and report your verdict to the Court.

19 Question 4. Was the defect a proximate cause of the
20 September 17, 2009 fire at the Jack 'n Jill Childcare
21 facility? Answer yes or no. If you answered yes to question
22 2 and/or question 4, proceed to question 5. Otherwise,
23 proceed no further and report your verdict to the Court.

24 Question 5. Did Jack 'n Jill Childcare, Incorporated
25 suffer lost business income as a result of the fire? Answer

1 yes or no. If you answered yes to question 5, please enter
2 the total amount of lost business income in the space below.
3 And regardless of your answer to question 5, proceed to
4 question 6.

5 Question 6. Did 14 Framark Drive, LLC suffer lost rents
6 as a result of the fire? You will answer yes or no. Again,
7 if you've answered yes to question 6, please enter the total
8 of the lost rents in the space below.

9 The foreperson will sign it and date it.

10 Your first duty in the jury room is to select a
11 foreperson who will speak on your behalf when we come out in
12 the courtroom, and the foreperson will sign the verdict sheet
13 and give it to the Court.

14 Do any of you smoke? Then I won't give them any charge
15 on smoking.

16 I'm going to swear the marshals in at this time. There
17 is no time limit on how long it will take you to reach a
18 verdict. You may reach it short, take a few hours, you may
19 want to come back tomorrow, whatever it takes you, it takes
20 you, but there is no limit. Swear the marshals in, please.

21 (Court security officers were duly sworn.)

22 THE COURT: We're going to send you two copies of
23 the charge. Are we all set?

24 (Jury out to begin deliberations at 2:10.)

25 THE COURT: Make sure Judi has your cell phone in

1 case there is questions or things. Don't go too far.

2 MR. DUGGAN: Your Honor, if I may thank you very
3 much for allowing me to appear before you and my team. We're
4 from Massachusetts. And I thought it was an excellent trial
5 and I appreciate you and your staff.

6 MR. PAOLINI: Same on behalf of plaintiff. Thank
7 you.

8 THE COURT: It's been interesting.

9 (Recess.)

10 (Reconvene at 4:50.)

11 THE COURT: Counsel, we have a verdict. Do you
12 want to bring the jury in, please?

13 (Jury present.)

14 THE COURT: [Juror No. 14], you are the foreperson?

15 JUROR: Yes.

16 THE COURT: You may stand up. I was notified you
17 had a verdict.

18 JUROR: Yes.

19 THE COURT: Let me hand this back to you. Give
20 that to [Juror No. 14], please.

21 What we're going to do right now, the clerk, we'll
22 go through the verdict sheet with you and you tell her what
23 your verdict was in this case. All right?

24 THE CLERK: In the case of Philadelphia Indemnity
25 Insurance Company versus Broan-Nutone, LLC, case number

1 3:12-cv-181.

2 As to question 1. Was the defendant negligent in the
3 design or manufacture of the Nutone 696N fan in issue?

4 JUROR: No.

5 THE CLERK: Question number 3. Was the Nutone 696N
6 fan in issue defective when it left the defendant's control?

7 JUROR: Yes.

8 THE CLERK: 4. Was the defect a proximate cause of
9 the September 17, 2009 fire at the Jack 'n Jill Childcare
10 facility?

11 JUROR: Yes.

12 THE CLERK: 5. Did Jack 'n Jill Childcare, Inc.
13 suffer lost business income as a result of the fire?

14 JUROR: Yes.

15 THE CLERK: If you answered yes to question 5,
16 please enter the total amount of the lost business income in
17 the space below.

18 JUROR: \$74,351.

19 THE CLERK: 6. Did 14 Framark Drive, LLC suffer
20 lost rents as a result of the fire?

21 JUROR: Yes.

22 THE CLERK: And in the amount of how much?

23 JUROR: \$64,876.

24 THE CLERK: Thank you.

25 THE COURT: Would counsel like the jury to be

1 polled?

2 MR. DUGGAN: Sure, Your Honor. Thank you.

3 THE COURT: Poll the jury. What that means is Judi
4 is going to go over each with you, juror number 1, number 2,
5 and say you just heard the verdict of your foreperson. She
6 wants to know if that's your verdict. If that's your
7 verdict, say yes. If it's not, please let us know.

8 THE CLERK: I'm going to ask the question, is the
9 verdict as reported by the foreperson your verdict? Juror
10 number 1?

11 JUROR: Yes.

12 THE CLERK: Juror number 2?

13 JUROR: Yes.

14 THE CLERK: Juror number 3?

15 JUROR: Yes.

16 THE CLERK: Juror number 4?

17 JUROR: Yes.

18 THE CLERK: Juror number 5?

19 JUROR: Yes.

20 THE CLERK: Juror number 6?

21 JUROR: Yes.

22 THE CLERK: Juror number 7?

23 JUROR: Yes.

24 THE CLERK: Juror number 8?

25 JUROR: Yes.

1 THE CLERK: Thank you.

2 THE COURT: You are going to be surprised when you
3 see the rain that's coming down out there. But you are
4 excused with the thanks of the Court for your time and effort
5 in this matter. Thank you so very, very much. I hope it was
6 a good learning experience for you. You are excused. You
7 don't have to call in again. It's two or four years. God
8 willing, I'll still be here. Take care.

9 Any motions to be made? When would you like to
10 make them? You've got a time frame on the one, twenty days.

11 THE CLERK: 28 days.

12 THE COURT: 28 days to make any motions.

13 MR. PAOLINI: Thanks, Your Honor.

14 MR. DUGGAN: Thanks.

15 THE CLERK: Court stands adjourned.

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C E R T I F I C A T I O N

I, EILEEN MCDONOUGH, RPR, CRR, Federal Official
Realtime Court Reporter, in and for the United States
District Court for the Northern District of New York,
do hereby certify that pursuant to Section 753, Title 28,
United States Code, that the foregoing is a true and correct
transcript of the stenographically reported proceedings held
in the above-entitled matter and that the transcript page
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EILEEN MCDONOUGH, RPR, CRR
Federal Official Court Reporter