Regulating Greenhouse Gases at the State Level: California's Self-Inflicted Burden

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As lawmakers debate the best way to confront the issue of global warming, it is becoming clearer that the issue may be one of this generation's most important policy decisions. Despite increasing public awareness of the perceived problem, the federal government successfully circumvented the issue for most of this decade, thereby creating a regulatory void that environmentalists and scientists have sought to address.

To fill the vacuum, California developed a regulatory response to the mounting data suggesting a man-made cause for climate change. While the state should be admired for its initiative, these regulations will have a significant impact on California's transportation industry. The first, an Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units and Transport Refrigeration Unit Generator Sets (TRU ATCM)[1] attempts to regulate emissions from refrigeration units affixed to highway semi-trailers that transport perishable goods. The second regulatory program, authorized by the California Global Warming Solutions Act of 2006,[2] seeks to reduce greenhouse gas (GHG) emissions by improving heavy-duty vehicles' fuel economy through the use of aerodynamic devices.

This Article will examine California's attempt to address the global warming issue through the use of the aforementioned programs by explaining the programs themselves and their practical impact on the transportation industry, and analyzing the likelihood of the regulations surviving legal challenge. The result will demonstrate that due to the unique and fluid properties of the contaminants that are being regulated, U.S. courts will need to reexamine their current analysis of such regulations and develop a new standard for reviewing GHG emission regulations. Such an approach is likely to result in a more equitable apportionment of the burdens associated with realizing the global benefit of GHG emission reductions.

I. Regulating Emissions From Nonroad Compression Ignition Engines

A. *The Federal Program*

The U.S. Environmental Protection Agency (EPA) began regulating emissions from off-road diesel engines, such as the ones used in transport refrigeration units and transport refrigeration unit generator sets (TRUs), in 1999.[3] To do so, EPA set up a tiered classification system based on a TRU engine's model year (MY) and the levels of nitrogen oxide (NO_x), carbon monoxide (CO), and particulate matter (PM) it could emit.[4] Beginning in 1999, the tiered emissions levels became progressively more stringent, culminating in a final emissions level that will apply to MY 2014 engines.[5]

Under the federal regulatory program, states were preempted from promulgating similar legislation, resulting in a stable regulatory environment for those in the transportation industry. Uniform emissions laws for off-road mobile sources facilitated commerce by allowing transportation companies to haul loads to multiple states using the same equipment. In so doing, transportation companies benefited from lower operating costs. Unfortunately, California's regulatory program may disrupt this stable operating environment.

B. *California's Program*

In November 2004, California's Office of Administrative Law approved the TRU ATCM that was subsequently codified into the California Code of Regulations.[6] Since the TRU ATCM regulated the same emissions as the federal program, the former was preempted by EPA's four-tiered regulatory program.[7] To overcome the preemption issue, California

1. Cal. Code Regs. tit. 13, §2477 (2004).
2. Cal. Health & Safety Code §§38500-38599 (2006).
3. 40 C.F.R. §89.112 (2005).
4. *Id.*; 40 C.F.R. §89.2 (2007).
5. 40 C.F.R. §89.112 (2005); 40 C.F.R. §1039.102 (2008); 40 C.F.R. §1039 (2005).
6. Cal. Code Regs. tit. 13, §2477 (2004).
7. U.S. Const. art. I, §8.

sought and successfully obtained a waiver from EPA to enforce the provisions of the TRU ATCM.[8]

The TRU ATCM applies to owners and operators of diesel-fueled TRUs installed on trailers or railcars that operate in California, California facilities with 20 or more loading docks, and to any person in California engaged in the business of selling or leasing new TRUs to an ultimate purchaser domiciled in California.[9]

In adopting the TRU ATCM, California sought to regulate the same pollutants, namely NO_x, CO, and PM, as did the federal regulation.[10] Similarly, California chose to enforce its emissions limits based on MY deadlines.[11] Unfortunately, California regulators chose to use different terminology than their federal counterparts, thereby needlessly complicating the determination of the applicability of emissions limits. Rather than use the federal tier system, California implemented two in-use emission categories, along with a Verified Diesel Emission Control Strategy (VDECS), identified as either Level 2 or Level 3, which is necessary to qualify for each category.[12]

The first emission category, Low Emission TRU (LETRU) corresponds to EPA's interim-Tier 4 emission limits for NO_x and CO.[13] The corresponding VDECS for qualifying for the LETRU category is Level 2.[14] A Level 2 VDECS requires a 50% reduction in PM emissions from those emitted during testing used to qualify a particular technology for Level 2 designation.[15]

The second category, Ultra-Low Emission TRU (ULETRU) corresponds to EPA's final-Tier 4 emission limits for NO_x and CO.[16] The corresponding VDECS to qualify for the ULETRU category is Level 3.[17] A Level 3 VDECS requires an 85% reduction in PM emissions from those emitted during testing used to qualify a particular technology for Level 3 designation.[18]

Due to a delay in obtaining the requisite waiver, California's Air Resources Board (ARB) initially postponed enforcement of the TRU ATCM until July 16, 2009, and more recently further delayed enforcement until December 31, 2009.[19] Generally, engines will first need to meet LETRU standards, and will then have seven years to meet ULETRU standards. Therefore, TRU owners and operators will have to ensure that their 2001 MY and older engines meet LETRU standards by December 31, 2009, and ULETRU standards by December 31, 2015; 2002 MY engines will need to meet LETRU standards by January 2010, and ULETRU standards by December 31, 2016; and 2003 MY and newer engines should comply with ULETRU standards within seven years of the engine's model year.[20]

ARB provides the transportation industry with two compliance options with respect to the preceding timing requirements. The first way is to use an ARB-certified engine meeting applicable emission standards for all regulated pollutants and in-use PM performance standards, and equipping the engine with the required level of VDECS.[21] Alternatively, an end user may operate a TRU in California that meets one of several alternative technology options, including but not limited to electric standby power, cryogenic temperature control systems, alternative fueled engines, and fuel cells.[22]

The TRU ATCM includes several other prohibitions imposed upon manufacturers, dealers, and distributors of TRUs engaged in California in the business of selling or leasing new or used TRUs to an ultimate purchaser. Such entities may not intentionally or negligently import, deliver, purchase, or otherwise acquire a new or used noncompliant TRU.[23] Moreover, they may not sell or lease a new or used noncompliant TRU to an end user reasonably expected to do business in California.[24]

Finally, several reporting obligations are imposed upon the regulated community. As of August 2009, TRU owners and operators are required to complete and maintain extensive paperwork in the form of applications for ARB identification numbers and are to notify ARB when a change in inventory occurs.[25] In addition, California facilities with 20 or more loading dock doors are required to maintain records relating to the number of loading docks, the size of the facility, and the number of TRUs under the facility's control.[26] These records are to be maintained for a period of three years.[27]

C. Compliance Roadblocks

As discussed above, California's use of different terminology to essentially regulate the same air pollutants under the federal regulatory scheme may lead to confusion in the regulated community. Whereas EPA uses a tiered classification system with respect to emissions levels,[28] ARB uses in-use emission categories with VDECS.[29] The regulated commu-

8. Notice of Decision for Authorization of California Transport Refrigeration Unit In-Use Engine Emission Standards, 74 Fed. Reg. 3030 (Jan. 16, 2009).
9. Cal. Code Regs. tit. 13, §2477(b) (2004).
10. Cal. Code Regs. tit. 13, §2477(e)(1)(A)(2) (2004).
11. Cal. Code Regs. tit. 13, §2477(e)(1)(B) (2004).
12. Cal. Code Regs. tit. 13, §2477(e) (2004).
13. Cal. Code Regs. tit. 13, §2477(e)(2) n.3 (2004).
14. Cal. Code Regs. tit. 13, §2477(e)(2) (2004).
15. Cal. Code Regs. tit. 13, §2477(d)(68) (2004).
16. Cal. Code Regs. tit. 13, §2477(e)(2) n.4 (2004).
17. Cal. Code Regs. tit. 13, §2477(e)(2) (2004).
18. Cal. Code Regs. tit. 13, §2477(d)((68) (2004).
19. California Environmental Protection Agency, Air Resources Board, *Transport Refrigeration Unit ATCM*, http://www.arb.ca.gov/diesel/tru.htm (last visited July 23, 2009).
20. *Id.*; Cal. Code Regs. tit. 13, §2477(e)(1)(B) (2004).
21. Cal. Code Regs. tit. 13, §2477(e)(1)(A)(2)(a) (2004).
22. Cal. Code Regs. tit. 13, §2477(e)(1)(A)(3) (2004).
23. Cal. Code Regs. tit. 13, §2477(g) (2004).
24. *Id.*
25. California Environmental Protection Agency, Air Resources Board, *Transport Refrigeration Unit ATCM*, http://www.arb.ca.gov/diesel/tru.htm (last visited July 23, 2009); Cal. Code Regs. tit. 13, §2477(e)(1)(E)(1) (2004).
26. Cal. Code Regs. tit. 13, §2477(f) (2004).
27. *Id.*
28. 40 C.F.R. §89.2 (2007); 40 C.F.R. §89.112 (2005).
29. Cal. Code Regs. tit. 13, §2477(e) (2004).

nity is left to its own devices to determine the state equivalents to federal emission limits. It is only in footnotes to the TRU ATCM that ARB explains the connection between the federal and state programs.[30]

Another shortcoming in California's program is that the technology required to comply with the ULETRU in-use emission category is not yet commercially available. As stated above, the TRU ATCM requires owners and operators to bring their MY 2003 and newer engines into compliance with ULETRU emission limits by December 31, 2010.[31] To date, there are no known available technologies that will meet the stringent ULETRU standards, thereby potentially subjecting the entire regulated community to the regulation's penalty provisions. Although the effects of this regulation on the transportation industry may not at first glance appear to be significant, the regulatory uncertainty resulting from its implementation may have far-reaching consequences for the general public, who may ultimately pay the cost for the unfriendly business climate created by the TRU ATCM in the way of higher prices for perishable products.

II. Heavy-Duty Vehicle GHG Reduction Measure

The California Global Warming Solutions Act of 2006 required ARB to adopt rules and regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions.[32] In furtherance of that goal, the Act required ARB to adopt regulations implementing discrete early action GHG emission reduction measures by January 1, 2010.[33] ARB conducted public hearings on December 11 and 12, 2008, in Sacramento, California, at the conclusion of which it adopted the Heavy-Duty Vehicle Greenhouse Gas Reduction Measure (the GHG Measure).[34]

A. The Regulatory Program

Owners and operators, motor carriers, California-based brokers, and California-based shippers that use heavy-duty tractors pulling 53 foot or longer box-type trailers are subject to GHG Measure requirements.[35] Moreover, California residents selling heavy-duty tractors or 53 foot or longer box-type trailers must provide a disclosure statement on the bill of sale notifying the purchaser of the GHG Measure's potential applicability.[36]

There are two compliance deadlines applicable to tractor owners and operators. First, by January 1, 2010, all 2011 MY and newer tractors that pull regulated trailers must be either EPA SmartWay[37]-certified or be using EPA SmartWay-certified low-rolling resistance tires.[38] The second deadline falls on January 1, 2012, by which time all pre-2011 MY tractors that pull regulated trailers must be using EPA SmartWay-certified low-rolling resistance tires.[39]

Trailer owners enjoy more compliance options than their tractor-owning counterparts. Beginning on January 1, 2010, all 2011 and subsequent MY trailers must be either EPA SmartWay-certified or equipped with low-rolling resistance tires and combinations of aerodynamic technologies that achieve a certain level of fuel savings depending on the type of trailer.[40] Used trailers manufactured prior to 2010 must be either EPA SmartWay-certified, or be equipped with certain combinations of low-rolling resistance tires and aerodynamic devices by either January 1, 2013, or in accordance with the deadlines set forth in one of two optional compliance schedules.[41]

There are three notable exemptions from the aforementioned requirements. First, a heavy-duty tractor is exempt from the regulation, provided it travels no more than 50,000 miles per year or operates within a 100-mile radius of its local haul base.[42] Second, a 53-foot or longer box-type trailer is exempt from regulation, provided it operates within a 100-mile radius of its haul base or is pulled by an exempt short-haul tractor.[43] Finally, drayage tractors pulling 53-foot or longer box-type trailers within 100 miles of the port or intermodal rail yard point of origin or destination are exempt.[44]

B. Compliance Obstacles

Although well-intentioned, the hastiness with which ARB drafted and implemented the GHG Measure is likely to result in confusion within the regulatory community as to how to comply with its requirements.

1. Incorporation of EPA SmartWay Requirements

ARB's decision to incorporate a voluntary federal program as one method by which the regulated community can comply with the GHG Measure may lead to confusion. Specifically, one way trailer owners and operators can comply with the GHG Measure is to ensure that a trailer is EPA SmartWay-certified.[45] The problem with such an approach is that the EPA SmartWay program is voluntary. Changes to voluntary programs can occur on a whim, without notice or the opportunity to comment on changes inherent to the rulemaking process. As such, changes to EPA SmartWay certification requirements could impact a business' compliance status under the regulation.

30. Cal. Code Regs. tit. 13, §2477(e)(2) n.3 (2004); Cal. Code Regs. tit. 13, §2477(e)(2) n.4 (2004).
31. Cal. Code Regs. tit. 13, §2477(e)(1(B) (2004).
32. Cal. Health & Safety Code §38560 (2006).
33. *Id.*
34. A.R.B. Resolution 08-44 (2008).
35. Cal. Code Regs. tit. 17, §95301(a) (2008).
36. Cal. Code Regs. tit. 17, §95301(d) (2008).
37. EPA launched the SmartWay program as a partnership between government, business, and consumers to identify products that reduce transportation-related emissions. *See* EPA, *SmartWay*, http://www.epa.gov/smartway/index.htm (last visited July 21, 2009).
38. Cal. Code Regs. tit. 17, §95303(a) (2008).
39. *Id.*
40. Cal. Code Regs. tit. 17, §95303(b) (2008).
41. Cal. Code Regs. tit. 17, §95303(b)(3) (2008).
42. Cal. Code Regs. tit. 17, §95305 (2008).
43. *Id.*
44. *Id.*
45. Cal. Code Regs. tit. 17, §95303(b) (2008).

Another problem with offering the option of complying with a voluntary federal program as a means to comply with a mandatory state regulation is that there are different certification standards for a voluntary program as opposed to a mandatory regulation. For example, the voluntary EPA SmartWay program only tests the fuel-saving benefits of its approved aerodynamic devices. However, compliance options for a mandatory regulation often have to meet durability, performance, and safety criteria, and must be certified to meet vocational requirements. This is so the regulated community will have confidence in the required technology's safety, effectiveness, durability, maintenance costs, and its ability to withstand the rigors of use.[46]

2. Conflicts With Existing State Laws

In response to concerns over the additional costs owners and operators would incur in bringing their vehicles into compliance, ARB repeatedly cited fuel savings as eventually allowing them to recoup their investment.[47] However, test data shows the benefit relied upon to justify the adoption of the GHG Measure, the fuel savings to owners and operators, materializes at speeds equal to or greater than 65 miles per hour.[48]

The problem with the state's fuel-savings justification is that the California Motor Vehicle Code prohibits a person from driving a truck tractor having three or more axles in excess of 55 miles per hour on a highway.[49] As such, in order to realize the fuel savings promised by ARB, and to recoup the investment required by the GHG Measure, the regulated community would need to consistently violate applicable law.

Even if owners and operators did not obey speed laws, it is unlikely they could realize ARB's claimed fuel efficiency gains. California Department of Transportation (CalTrans) data shows the average speed for tank and trailer combinations on the I-5 corridor, the busiest in California, is less than 60 miles per hour, with a median speed of 55 miles per hour.[50] Therefore, even if the regulated community operates their vehicles outside the confines of the law, real world conditions may prohibit them from recouping the investment they are required to make under the GHG Measure.

III. Surviving Legal Scrutiny

A. *The Dormant Commerce Clause*

Both the TRU ATCM and the GHG Measure will affect the transportation of goods between California and other states, and will therefore impact interstate commerce. Since the federal government has yet to issue GHG emission legislation or regulations as of the writing of this Article,[51] the constitutionality of the GHG Measure will likely depend upon a dormant commerce clause analysis. Likewise, since EPA issued California a waiver to regulate TRU emissions,[52] the predominant issue determining the constitutionality of the TRU ATCM will likely be the dormant commerce clause.

There is ample precedent under U.S. Supreme Court jurisprudence establishing that absent discrimination a state regulation affecting interstate commerce will be upheld unless the burden imposed on interstate commerce is clearly excessive in relation to the regulation's putative local benefits.[53] It is also well established that the power of the state to regulate the use of its highways is broad and pervasive.[54] It is not surprising then that the Court's recognition of the peculiarly local nature of safety issues, both in the context of highways and human health, resulted in such regulations being upheld despite their impact on interstate commerce.[55]

Under dormant commerce clause analysis, the threshold inquiry is to determine whether a challenged law discriminates against interstate commerce.[56] Here, neither the TRU ATCM nor the GHG Measure can reasonably be claimed to be discriminatory against out of state transportation companies, since the requirements actually increase the operating costs of companies domiciled *within* California.

Typically, if the challenged regulation is not discriminatory, it will be upheld unless there is an excessive burden on interstate commerce in relation to its "putative local benefits."[57] Therefore, any analysis involving the constitutionality of the TRU ATCM and GHG Measure will have to weigh their respective burdens and benefits. The Court applied a dormant commerce clause analysis to a state regulation in a factual context similar to that presented by California's TRU ATCM and GHG Measure. In *Bibb v. Navojo Freight Lines, Inc.*,[58] the Court determined the constitutionality of an Illinois statute requiring the use of a specific rear fender mudguard on trucks and trailers operating on that state's highways.[59]

The Court's analysis balanced the statute's safety benefits against the burdens it imposed on interstate commerce.[60] Initially, the Court noted that statutes pertaining to safety are afforded a strong presumption of validity because they often involve policy decisions that are best left to the discretion

46. Letter from Eric Saver, V.P. Policy Development, California Trucking Association, to California Air Resources Board (Oct. 3, 2008) (on file with author) [hereinafter Letter].
47. A.R.B. Resolution 08-44 at 4 (2008).
48. Joseph Bachman et al., *Effect of Single Wide Tires and Trailer Aerodynamics on Fuel Economy and NO_x Emissions of Class 8 Line-Haul Tractor-Trailers*, U.S. EPA, Paper No. 05CV-45, at 5 tbl. 3 [hereinafter EPA Study].
49. Cal. Veh. Code §22406 (2000).
50. Letter, *supra* note 46.
51. EPA has published a proposed rule finding that the concentrations of carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride endanger public health and welfare within the meaning of §202(a) of the federal Clean Air Act. Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Proposed Rule. 74 Fed. Reg. 18886 (Apr. 24, 2009).
52. California State Nonroad Engine and Vehicle Pollution Control Standards; Authorization of Transport Refrigeration Unit Engine Standards, Notice of Decision, 74 Fed. Reg. 3030 (Jan. 16, 2009).
53. *Id.*
54. Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520, 523 (1959).
55. *See* South Carolina State Highway Department v. Barnwell Bros., 303 U.S. 177 (1938); Maurer v. Hamilton, 309 U.S. 598 (1940); Sproles v. Binford, 286 U.S. 374 (1932).
56. Department of Revenue of Kentucky v. Davis, 128 S. Ct. 1801, 1808 (2008).
57. Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
58. 359 U.S. 520 (1959).
59. Bibb v. Navajo Freight Lines, Inc,, 359 U.S. 520, 521-522 (1959).
60. *Id.* at 524.

of state legislatures.[61] In the *Bibb* case however, the Court found that the statute placed burdens on interstate commerce that were outweighed by its benefits.[62] Specifically, the facts the Court found to be outcome-determinative included the costs associated with the installation, maintenance, and replacement of mudguards, safety issues relating to decreasing the effectiveness of truck and trailer brakes, and mudguards' susceptibility to fall off during use.[63] In addition, the Court found that Illinois' regulation conflicted with that of another state, thereby requiring interstate carriers to shift loads to differently designed vehicles when traveling between the states.[64] Combined, the heavy burden on the interstate movement of trucks and trailers led the Court to strike down the regulation because it surpassed the permissible limits for safety regulations.[65]

Both the TRU ATCM and the GHG Measure impose burdens on the movement of trucks and trailers in interstate commerce similar to those relied upon by the Court to strike down the Illinois statute in *Bibb*. With respect to the TRU ATCM, carriers will bear the burden of costs associated with installing new certified engines meeting emission and performance standards, installing VDECS filters on existing engines, and obtaining expensive, alternative technologies if they wish to circumvent the regulation. Similarly, under the GHG Measure, carriers will need to purchase side skirts, front and rear trailer fairings, low-rolling resistance tires, and incur the cost of installing, maintaining, and repairing these items on their fleets.

Similar to the statute in *Bibb*, the GHG Measure also presents a safety issue. Trailer side skirts can be easily damaged while crossing railroad tracks and driveways, and while loading and unloading at docks with tapered ramps. Truck drivers will need to remove the devices if damaged under such circumstances, resulting in down time, or bear the liability risk of the devices detaching from the trailer while driving. Moreover, the aerodynamic side skirts will likely operate in treacherous weather conditions, often bearing the additional weight of snow or ice that could compromise the devices' safety and result in failure at high speeds.

The California regulations present a third burden identified in *Bibb*, requiring interstate carriers to shift loads to differently designed vehicles when traveling between the states. With respect to both the TRU ATCM and the GHG Measure, entire out-of-state fleets will incur the costs of compliance with the California regulations because it is often not possible for carriers to know in advance which equipment will be used in a particular region on a particular day. Moreover, those carriers not wanting to incur these operating costs would need to expend time and resources in ensuring that cargo was transferred to designated trailers equipped to legally operate in California.

Based on the *Bibb* factors, a court analyzing the costs associated with complying with the California regulations might conclude that they impose too great a burden on interstate commerce to be upheld.

Notwithstanding the numerous burdens placed on interstate commerce by the California regulations, a thorough dormant commerce clause analysis will need to consider their respective benefits. California's stated purpose in enacting the TRU ATCM and GHG Measure is to control major sources of GHG emissions.[66] To accomplish its goal, ARB grouped sources of those emissions into various sectors.[67] Not surprisingly, both the TRU ATCM and the GHG Measure are grouped under the transportation sector.[68]

Under the foregoing regulatory framework, ARB's basis for adopting the GHG Measure was to alleviate a serious threat to California's public health, natural resources, and environment.[69] Similarly, ARB's basis for adopting the TRU ATCM was to control emissions of toxic air contaminants to levels that prevent harm to the public health.[70]

The GHG Measure seeks to alleviate the harm GHGs pose to public health by improving the fuel efficiency of heavy-duty trucks and trailers. The GHG Measure's perceived benefits are illusory, however. As discussed above, test data used to justify the adoption of the GHG Measure demonstrates that desired fuel efficiencies materialize at 65 miles per hour or more.[71] Such speeds are unattainable both legally and practically. First, the California Motor Vehicle Code prohibits a truck from exceeding 55 miles per hour on a highway.[72] In addition, CalTrans data demonstrates that the average truck speed on California's main commercial corridor is less than 65 miles per hour.[73] At these speeds, the fuel savings used to justify the regulation's adoption cannot be attained. If the fuel savings cannot be attained, the corresponding health benefits from reduced GHG emissions cannot be realized. Under such a scenario, the burdens imposed by the GHG Measure will significantly outweigh the regulation's unobtainable benefits, thereby reducing the likelihood that it will survive legal challenge.

Even if the GHG Measure's intended benefits are realized, the problem California might encounter in sustaining the validity of its regulations under a dormant commerce clause challenge is that air contaminants contributing to public health concerns are inherently fluid, and therefore global in nature. Indeed, the heads of the U.S. Departments of Agriculture, Commerce, Transportation, and Energy, in response to the Court's decision in *Massachusetts v. Environmental Protection Agency*,[74] agreed that the regulation of GHGs must take a different approach than that used to historically regulate air pollution[75]:

61. *Id.*
62. *Id.* at 530.
63. *Id.* at 525.
64. *Id.* at 526.
65. *Id.* at 530.
66. California Environmental Protection Agency, Air Resources Board, *Economic Sectors Portal*, http://www.arb.ca.gov/cc/ghgsectors/ghgsectors.htm#transport (last visited July 21, 2009).
67. *Id.*
68. *Id.*
69. A.R.B. Resolution 08-44 (2008).
70. A.R.B. Resolution 03-37 (2004).
71. EPA Study, *supra* note 48.
72. Cal. Veh. Code §22406 (2000).
73. Letter, *supra* note 46.
74. 127 S. Ct. 1438, 37 ELR 20075 (2007).
75. Regulating Greenhouse Gas Emissions Under the Clean Air Act; Proposed Rule, 73 Fed. Reg. 44354 (July 30, 2008).

> The Clean Air Act is premised on the idea that controlling emissions in the United States will improve air quality in the United States, and that a state or region can improve its air quality by controlling emissions in that area. This is not true in the case of greenhouse gases. Controlling greenhouse gas emissions in the United States will reduce atmospheric concentrations of those gases only if our emission reductions are not simply replaced with emissions increases elsewhere in the world.[76]

In adopting the TRU ATCM and the GHG Measure, California is clearly attempting to address a global issue, which, as discussed above, will have a significant impact on interstate commerce. Under such a factual scenario, courts may need to develop a new standard for analyzing the validity of state GHG regulation. Such analyses will need to not only evaluate the burdens and benefits of such regulation on interstate commerce, but whether those benefits are realized at a local, state, national, or even international level. The result of such an analysis will hopefully determine how to equitably apportion the burden associated with such benefits.

B. Substantive Due Process

The California regulations limit the ability of *all* truck and trailer fleets to operate in California without compliant TRUs or aerodynamic devices. As such, the regulations may be susceptible to a substantive due process claim. The scrutiny to which the challenged regulations will be held will depend upon the nature of the rights affected by the regulations.

The right to travel from state to state is seen as a fundamental right under the U.S. Constitution, based upon the Commerce Clause.[77] The Commerce Clause in turn has been held to encompass the movement of commodities in interstate commerce.[78] As mentioned above, since the California regulations will require those carriers either not willing, or unable, to incur the operating costs of complying with the regulations to expend time and resources in ensuring that cargo is transferred to designated California-compliant trailers, the regulations directly affect these carriers' ability to travel between the various states.

Since the California regulations deprive carriers a fundamental right, any substantive due process challenge will likely subject them to a strict scrutiny standard of review. Under such a standard, California will need to demonstrate that the regulations are necessary to achieve a compelling or overriding state purpose in order to pass judicial muster.[79]

There is ample scientific evidence to demonstrate some type of regulatory action is required to address the issue of GHG emissions. The scope of this Article, and the likely focus of a substantive due process challenge, is and will likely be limited to the appropriate regulatory level at which such regulations should be implemented. Appropriately, the focus of such a challenge will likely center on whether there are less burdensome means by which California could accomplish its purpose.

As stated above, in the context of the TRU ATCM, fleets operating on a nationwide basis will need to bear the costs of installing new certified engines to meet emissions standards and PM performance standards, installing VDECS, or exploring expensive alternative technologies to benefit from the regulation's exemption. Similarly, with respect to the GHG Measure, carriers will be burdened with the costs of installing, maintaining, and repairing aerodynamic devices on the trucks and trailers in their fleets. In addition, carriers will be burdened by a loss of revenue when those devices need to be maintained or repaired, and will have to absorb the cost of insuring against product liability claims in the event an aerodynamic device suffers a catastrophic failure.

Collectively, these compliance costs will prohibit the fundamental right of carriers and the commodities they transport to travel between the various states. As discussed above, it may well be difficult for California to argue that the regulations at the state level are necessary due to the global nature of GHG emissions. Perhaps a less burdensome means of achieving California's purpose might be to rely on the federal government to enter into treaties with developing nations to combat GHG emissions so that the cost of compliance will be more equitably apportioned. By so doing, no one industry, state, or nation will unduly bear the burden of what is a global benefit.

IV. Conclusion

Addressing GHG emissions may be the most important environmental policy decision of this generation. It is indeed admirable that where the federal government has been slow to respond, California has taken the lead in offering a regulatory solution to the problem. Expediency in adopting such regulations should not be the end goal, however. Instead, lawmakers should strive to enact a comprehensive program that takes into account the fluid nature of the subject of regulation and one which will equitably apportion the costs of remedying a global problem. California's programs are a good start, but to be effective, it appears they will need to be enacted at a macro level.

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76. Letter from Edward T. Schafer et al. to Honorable Susan E. Dudley, Office of Management and Budget (July 9, 2008).
77. United States v. Guest, 383 U.S. 745, 758 (1966).
78. Gloucester Ferry Co. v. Commonwealth of Pennsylvania, 114 U.S. 196, 203 (1885); Covington & C. Bridge Co. v. Commonwealth of Kentucky, 154 U.S. 204, 218-19 (1894); Hoke v. United States, 227 U.S. 308, 320 (1913); United States v. Hill, 248 U.S. 420, 423 (1919).
79. Attorney General of New York v. Soto-Lopez, 476 U.S. 898, 904 (1986).