

American Conference of Government Industrial Hygienists www.acgih.org Membership organization publications catalogue includes (US) national edition of Tailgate Meetings That Work! originally produced by Labor Occupational Health Project for California and included throughout eLCOSH (by topic). Other items for sale include CD Rom on TLVs (threshold limit values for toxic chemicals set by ACGIH), Basic Guide to Accident Investigation and Loss Control, Confined Space Pocket Guide, and Construction Safety Manual. **American Industrial Hygiene Association** <http://www.aiha.org> Offers distance learning course, Construction Safety for Industrial Hygienists, for a fee. **The Association of Occupational and Environmental Clinics** <http://www.aoc.org/> Provides a directory of medical clinics that specialize in work-related health problems in 27 states, the District of Columbia, and four Canadian provinces: Alberta, Manitoba, Ontario, and Quebec. **Australian National Occupational Health & Safety Commission** <http://www.nohsc.gov.au> (Click on search; type in "construction") Contains 300 reports and abstracts related to construction, including trends and costs of injuries and disease, training guidelines, codes of practice for electrical work and for tunnel work, reports on ergonomic redesign and back injury risk, manual materials handling, tilt-up, cyanide, asbestos, eye injuries, noise, allergic contact dermatitis, and employer practices and attitudes toward women in construction. Type in <http://www.nohsc.gov.au/OHSInformation/Databases/OHSSolutions/ohssolutions.htm> (or click on OHS Solutions Database Pilot Project) and search "construction" to find more than 100 suggestions, many of them on ergonomics or materials handling - involving hand-arm vibration using a router or jackhammer, whole-body vibration using a bulldozer, filling cracks in pavement, hoisting of materials onto scaffolding, formwork, sandblasting to remove paint lines on roads, installation of temporary guard rails, long heavy electrical cables, unstable wheelbarrows, shoveling of wet concrete, and even removing dead kangaroos from the road. Other topics include dust during earthmoving, noise during pile driving, temporary safety barriers against falls, and electrical cords as housekeeping hazards. **Bau-Berufsgenossenschaften** www.bau-bg.de (In German) Branch organizations of Berufsgenossenschaftlern in Germany, which all focus on safety and health and workers' compensation. The construction branches are the Bau-Berufsgenossenschaften (Statutory Industrial Accident Insurance and Labour Accident Prevention Corporation for the Construction Industry and the Building Trade). **Building Trades Labor-Management Organization of Washington State** www.builditsmart.org Lists some safety and health training courses, describes a program for prevention of noise-induced hearing loss in Washington state, includes "family messages" on such topics as skin cancer, and features a "problem-solving forum." **California OSHA** <http://www.dir.ca.gov> (Some materials in Spanish; also Chinese, Korean, Tagalog, and Vietnamese) State program provides data on economics and occupational injuries and illnesses in the state, Guide for the Construction Industry, a Fall Protection-Construction Summary Packet, a few fact sheets/tailgate talks, including lead in construction, field sanitation, setting up a tailgate meeting, trenching safety, high voltage overhead lines, and lockout/blockout - and a flier for teen-age workers. For questions about specific Cal OSHA standards, go to www.dir.ca.gov/Samples/search/query.htm. **Canadian Centre for Occupational Health and Safety** www.ccohs.ca (In French and English) National center (labor-management-government) provides information in question-and-answer format, links to educational and other sites, and more than 130 alerts/fact sheets, most of which apply to construction. (See OSH Answers: Safety Hazards section for info on basic electrical safety, forklift trucks, ladders, materials handling, powered hand tools, prevention of slips, trips and falls, and welding.) Databases (some for a

subscription fee) on the web and CD-ROM; CD-ROM versions include detailed fatality reports, several sources of detailed information on chemicals, the ACGIH Industrial Ventilation Manual, the NIOSHTIC listing of research on occupational safety and health, and the *NIOSH Manual of Analytical Methods*. **CPWR – Center for Construction Research and Training** www.cpwr.com Research and development institute of the Building and Construction Trades Department, AFL-CIO. Site lists activities (conducted with labor, management, and university researchers) and provides selected publications (catalogued by topic on eLCOSH), including hazard alerts for workers (in English and Spanish). **Construction Education Research Foundation** www.cerf.org Lists technical research publications by branch of the American Society of Civil Engineers. **Construction Innovation Forum** www.cif.org Labor-management organization describes nominees and winners of NOVA awards for innovation. **Construction Journals and News** <http://www.constructioneducation.com/indexjou.htm> Links to mix of trade journals, university programs, and On-Line Books. **Construction Safety Association of Ontario** www.csa.org Site of labor-management education, research, and technical support organization provides magazine, advisories, and alerts (catalogued by topic on eLCOSH), plus an atlas detailing lost-time injuries reported in Ontario in 1997-99. **Construction Safety Council** www.buildsafe.org Labor-management organization provides listing of bilingual trainers (English, Spanish, and/or Portuguese), hazard alert bulletins, and a focus on power line hazards and airport construction safety. **CROET Health and Safety Information** <http://www.croetweb.com> The site, produced by a branch of the Oregon Health & Science University (the Center for Research on Occupational and Environmental Toxicology), provides links to information on tools/equipment, asbestos, falls, lead, noise, safety/health training available in Oregon, and more. Spanish language materials are available. **Department of Energy** <http://tis.eh.doe.gov> Includes Federal Employee Occupational Safety and Health Handbook, DOE Hoisting and Rigging standard and handbooks on Electrical Safety and Process Safety Management for Highly Hazardous Chemicals. For information on DOE requirement that workers be involved in planning teams from design through end of construction and hazardous waste projects, look up enhanced work planning: <http://www.eh.doe.gov/> **Electrical Safety Resource Center** <http://standards.ieee.org/esrc/index.html> Electrical Safety Resource Center of the IEEE Standards Association (The Institute of Electrical and Electronics Engineers) includes electrical standards/codes for sale, and events calendar, and case histories (PowerPoint and print formats) on such topics as insulated gloves, arc flash, and working live. **Ergonomics ideas bank** <http://www.lni.wa.gov/Safety/Topics/ReduceHazards/ErgoBank/default.asp> Washington State Department of Labor and Industries provides ideas to help reduce exposure to awkward postures, high hand force, repetitive motions, lifting, vibration, and other risk factors for work-related musculoskeletal disorders in the workplace. Click on [Search for ideas](#) or [Submit an idea](#) if you have one to suggest. **European Agency for Safety and Health at Work** http://europe.osha.eu.int/good_practice/sector/construction

(In English, French, Spanish, and other languages) Information network on occupational safety and health for European Union; site searchable by topic; documents include news releases, fact sheets, statistical tables, and "good practice" reports and policies from member nations. Report 102 covers Health and Safety Campaigning: Getting the Message Across. The Senior Labour Inspectors' Committee European Construction Safety Campaign since June 2003 has produced a fact sheet, "Accident prevention in the construction sector," and information on working at heights.

Fiberglass Information Network <http://www.sustainableenterprises.com/fin/services.htm>
Victims of Fiberglass (nonprofit) site sells two reports otherwise unavailable, one prepared by German federal agencies and one by the Natural Resources Defense Council on man-made mineral fibers. **George Washington University Medical Center, Dept. of Environmental and Occupational Health** <http://www.gwu.edu/~omt/> Information on post-1989 surveillance of emergency-room visits and back issues of newsletter, *On the Job*, with issues (in English and Spanish) focusing on carbon monoxide, silica, and eye, back, and foot injuries are available at <http://www.gwu.edu/%7Eomt/> **GISBAU** www.gisbau.de (In German) Gefahrstoff-Informationssystem der Berufsgenossenschaften der Bauwirtschaft, computer-based program with information on thousands of chemicals used on the construction site, information tailored to the health professional, worker, employer, and other users. **Haz-Map: Occupational Exposure to Hazardous Agents** <http://hazmap.nlm.nih.gov> A U.S. National Library of Medicine database lists work-related illnesses, toxic substances, and high-risk jobs. Find a listing of more than 40 construction occupations by clicking on: [high risk jobs](#), [by type of jobs](#), [construction](#). **Hazards magazine, Britain** <http://www.hazards.org> Supported by the Trade Union Congress (England, Scotland, and Wales), four issues per year focus on occupational safety and health, with a wide range of articles to be searched under construction. **Health and Safety Authority** <http://www.hsa.ie> The Health and Safety Authority promotes and enforces good standards in workplace safety across all sectors. Working with employer and worker representatives it seeks to ensure that those in control of workplaces adopt safe working practices, as required by law. **Health & Safety Executive, Great Britain** <http://www.hse.gov.uk/construction/> (In Welsh and English; search "construction") Agency for safety-and-health research, regulation, inspection, and enforcement in England, Scotland, and Wales lists reports of fatal injuries and provides construction design-and-management regulations (from 1994), a discussion of harness suspension trauma, short videos on construction safety, plus more than 20 booklets to download on such topics as excavations, fire safety, hardhats, noise, silica, solvents, traffic zones, and dusts produced by concrete cutting saws. The Absolutely Essential Toolkit for the smaller construction contractor is illustrated and includes checklists, at www.hse.gov.uk/pubns/sfindex.htm **International Chemical Safety Cards** <http://www.cdc.gov/niosh/ipcs/icstart.html> International Chemical Safety Cards are produced by the World Health Organization and the European Union in 11 languages. Here the cards are available in English in an international version and a U.S. version, produced by the National Institute for Occupational Safety and Health. **International Labour Organization** www.ilo.org (In English, French, Spanish, and some Russian) Includes SafeWork cards (which detail hazards by occupation), code of practice for construction (*Safety and Health in Construction*), and manuals: *Safety and Health in the Use of Chemicals at Work* and *Safety, Health and Welfare on Construction Sites* -- go to <http://www.ilo.org/public/english/protection/safework/hazardwk/index.htm>. **International Union of Bricklayers and Allied Craftworkers** http://www.bacweb.org/safety_training/index.htm Health & safety news & tips include silicosis, back belts, and prevention of falls (including those from scaffolds) and electrocutions; partial results of a union survey lists members' top health and safety concerns. **Laborers' Health &**

Safety Fund of North America www.lhsfna.org Laborers' Union program offers sections on health promotion (including quitting smoking), research, and occupational safety and health. Topics include ergonomics and costs. Also included is a monthly newsletter (available by e-mail subscription) called *Lifelines*. **Labor Occupational Health Project, University of California at Berkeley** <http://socrates.berkeley.edu/~lohp> (Some materials in Spanish) Telephone reference service and ordering information for publications, such as *Lead-Safe Schools Guide*, *Collective Bargaining for Safety and Health*, fact sheets and a video on the California workers' compensation system, and *Tailgate Meetings That Work!* (editions for California and for the entire U.S.; California edition is posted on eLCOSH by topics). **Lift and Access** <http://www.liftandaccess.com/> Provides equipment reviews and news stories, including injury/death reports from around the world involving cranes, aerial lifts, boom lifts, forklifts, and scissor lifts. **List of Occupational Carcinogens** <http://ehp.niehs.nih.gov/members/2004/7047/7047.html> To help with regulation and research, researchers in Canada, France, and Germany have combed through reports of the United Nations' International Agency for Research on Cancer (IARC) and other information to produce a list of 28 cancer-causing chemicals/agents and the occupations/trades and body organs believed to be at risk. Also listed are 27 "probable" and 113 "possible" workplace carcinogens. The article was published in July 2004 on line by *Environmental Health Perspectives*, part of the National Institute of Environmental Health Sciences (NIEHS). **McGraw-Hill** www.construction.com Includes access to recent news stories and features from *ENR*(Engineering News-Record) magazine, listings of top design and contracting firms, and used and rental equipment cost information, plus data sources and management tools (for a fee). **Mesothelioma Applied Research Foundation** www.marf.org Provides information about medical research and programs for mesothelioma, a deadly cancer caused by exposure to asbestos, affecting thousands of workers and their families. **Mesothelioma and Asbestos Awareness Center** www.maacenter.org The MAA Center is a leading Internet resource for information about asbestos exposure and the associated health consequences, including the development of malignant [mesothelioma](http://www.mesothelioma.com) cancer. The MAA Center website is recognized by DisabilityInfo.gov as a trusted resource for veterans and members of the military community, and we are also accredited by the Health On The Net Foundation as a credible and trustworthy source of medical information on the web. Our site features information about occupational asbestos exposure and provides all workers with well-researched and up-to-date health and safety information. **National Academy of Construction Safety** www.nacsgroup.com Nonprofit organization that develops and provides construction training, and sells ANSI and ASME construction safety standards. Judy Burkart , Executive Dir., 888 915-7800, judy@safetyone.com **National Institute for Occupational Safety and Health** <http://www.cdc.gov/niosh/topics/> 50 documents from NIOSH, which is part of the CDC, on a wide range of topics, such as confined spaces, ergonomics, and silica dust, and including engineering guidelines for hot mix asphalt pavers, an update on risk of family-contact lead poisoning among children, and Health Hazard Evaluations (on specific sites). To see detailed FACE reports on NIOSH investigations of deaths from

injuries in construction, click on Construction Safety (Injury). NIOSH also provides a page listing notices about NIOSH-approved respirators <http://www.cdc.gov/niosh/npptl/usernotices/>. **National Work Zone Safety Information Clearinghouse** <http://wzsafety.tamu.edu> Provides training materials, such as a Roadway Safety program (available in Spanish), which contains videos. Databases include work zone safety standards and practices, safety equipment, and research projects. Lists some training programs in Spanish. **The New Builder (El Nuevo Constructor)** http://www.elnuevoconstructor.com/content/safety_toc/Default.asp (In Spanish) El Nuevo Constructor is a bi-monthly magazine published by Hanley Wood LLC for Spanish-speaking builders, subcontractors, and workers. Some of the articles focus on skills, training, and safety. **New York State Department of Health: Clinical guidelines** www.health.state.ny.us/nysdoh/environ/occupate.htm (search for Clinical Practices Reviews). Information on examining workers for asthma, musculoskeletal problems (including carpal tunnel syndrome), work-related hearing loss, and preparation for respirator use and for exposure to asbestos, lead, and solvents, published in a special issue of *American Journal of Industrial Medicine*. These articles are catalogued in eLCOSH by topic. **NIEHS Worker Education and Training Program** <http://www.wetp.org/index.cfm?fuseaction=wtc> National Institute of Environmental Health Sciences provides information on hazardous waste worker training and a preliminary report on the need for safety and health training for cleanup workers at the World Trade Center site. (Click on NIEHS World Trade Center Health & Safety Information). The site includes Power Point presentations in English and Spanish and links to hurricane response resources, with information for site orientation training of emergency or cleanup response workers. **Noise reduction bank** www.lni.wa.gov/safety/topics/reducehazards/noisebank Washington State Department of Labor and Industries provides tip sheets and practical ideas for noise control; click on Search for ideas, then choose Building Construction industry. **North Carolina Department of Labor** <http://www.nclabor.com> (Click on Publications) Industry Guide series, including (20) *A Guide to Crane Safety*, prepared by David MacCollum, details good safety and health practices. **Occupational Hazards Magazine** <http://www.occupationalhazards.com> General magazine that provides extensive coverage of construction: industrial hygiene, occupational medicine, training, ergonomics and other regulation, accountability, safety incentives, and practical/how-to articles – for instance, on foot protection. **Occupational Health and Safety Magazine** <http://www.ohonline.com> General magazine that provides extensive coverage of construction issues, including occupational health, industrial hygiene, ergonomics and other regulation, hearing conservation, PPE, safety incentives, and practical/how-to articles, such as on glove hazards. **Ontario (Canada) Ministry of Labour**
Ministère du Travail de l'Ontario
http://www.gov.on.ca/lab/english/site/construction_info.html
http://www.gov.on.ca/lab/french/site/construction_info.html (English and French) For the province of Ontario, construction information section provides health and safety topics and publications on such issues as confined spaces, fire and explosion, fixed-access ladders, heat and

radiation, joint health and safety committees, powered lift trucks, West Nile virus, and how to start and run a construction project. Construction statistics cover enforcement. **Oregon Occupational Safety & Health Division (OR-OSHA)** <http://www.orosha.org> Offers Construction Depot Quarterly newsletter, videos to lend (in Oregon), a card on cold stress, a joint-emphasis (labor-management-government) program for construction training, and a list of industries required to have safety committees even when companies have 10 or fewer employees. Spanish items include a dictionary of safety-and-health terms, a respiratory protection questionnaire, some videos (to borrow in Oregon), and training modules (known as PESO) on such topics as accident investigation, hazard communication, excavations, fall protection, health in construction, portable ladders, and scaffolds.) Their guide, *Oregon OSHAs's Fall Protection for the Construction Industry*, is at <http://www.cbs.state.or.us/external/osha/pdf/pubs/2824.pdf>

OSHA Construction page <http://www.osha.gov/doc/mission.html> The Directorate of Construction lists or links to publications related to construction and to OSHA standards and information on more than 25 topics, including demolition and electrical. The main OSHA site (www.osha.gov), among other things, has an Information Card on Powered Industrial Truck Operator Training for Construction. A Workers' Page details the right to a safe and healthful workplace under the 1970 OSH Act: <http://www.osha.gov/as/opa/worker/index.html>. OSHA's Electronic Compliance Assistance Tool (ecat) for construction details ways to protect workers against the four leading causes of deaths in construction: falls, electrocutions, struck-by injuries, and trenching/excavation, with suggested approaches, in addition to OSHA requirements: <http://www.osha.gov/SLTC/etools/construction/index.html>. For requirements on leading construction hazards, also try http://www.osha.gov/dcsp/compliance_assistance/quickstarts/construction/construction_step1.html. [Also: OSHA Referral Service (in English or Spanish) - to report work-related deaths, hospitalizations, or a hazard, file a complaint, or obtain information or publications: 1-800-321-6742 (321-OSHA).] For requirements on leading construction hazards, also try http://www.osha.gov/dcsp/compliance_assistance/quickstarts/construction/construction_step1.html

OSHA Dictionaries http://www.osha.gov/dcsp/compliance_assistance/spanish_dictionaries.html OSHA has posted English - Spanish and Spanish - English dictionaries of OSHA terms and a few construction-related terms. **OSHA Technical Links page - Brownfields (New)** <http://www.osha.gov/SLTC/brownfields/index.html> This webpage addresses worker safety and health at brownfields, providing OSHA compliance information and links to tools for identifying, evaluating and controlling employee exposures, and complying with applicable OSHA standards. **OSHWeb** <http://turva.me.tut.fi/english/> Institute of Occupational Safety Engineering, Tampere University of Technology, Finland, site lists about 35 sources for material safety data sheets (MSDSs), upcoming conferences, and links to construction safety organizations/sites. **Safety Equipment Institute** www.seinet.org Nonprofit organization that administers non-governmental, third-party certification programs to test and certify safety clothing and equipment. For construction, these include eye, face, head and foot protection (such

as, goggles, face shields, welding helmets, hard hats, and footwear), gas detector units, coveralls, protective clothing, emergency eyewash and safety showers, personal fall protection equipment, and self-contained breathing apparatus. SEI's certification programs mean that an independent party, not the manufacturer, is testing each product model to make sure it meets recognized standards and the current state of the art. Standards for safety equipment are developed by such organizations as the American National Standards Institute (ANSI), American Society for Testing and Materials (ASTM), the Canadian Standards Association (CSA), and the National Fire Protection Association (NFPA). **SHARP Program (Washington state)**

<http://www.lni.wa.gov/sharp/> Safety & Health Assessment & Research for Prevention Program, Department of Labor and Industries, founded in 1990, focuses on workplace safety and health, much of it involving construction. Completed studies include manual handling of drywall,* nail guns,* ergonomics training for carpenters, work-related disorders of the knee, falls in construction,* and residential painters' lead exposure. Ongoing projects include work-related musculoskeletal disorders, occupational skin disorders, workplace deaths (FACE program), adult blood lead registry, and identifying and ranking the most hazardous workplace chemicals.

(*=report available from SHARP) **State Compensation Insurance Fund**

<http://www.scif.com/safety/safetymeeting/SafetyMtgTopics.asp> California state agency lists dozens of tailgate topics in English and Spanish for a general audience; some, including asphalt, close calls, diesel exhaust, lifting techniques, roofing safety, and walking/working surfaces, are useful for construction. (The tailgate talk, "fall protection," is not, outside of California.)

Swedish Work Environment Authority (Arbetsmiljö Verket) <http://www.av.se/> (Swedish and English. For English, click on button that says In English.) English-language items include statistics on occupational injuries and illnesses, including musculoskeletal problems; videos for sale on fall prevention, accident investigation, and safety staff on the job site; a report on ergonomics (Sweden published a general ergonomics standard in 1998.) **University of**

Massachusetts Lowell, Construction Occupational Health Project

www.uml.edu/dept/we/cohp Construction Occupational Health Project, Department of Work Environment, site lists research activities and *Bright Ideas*, fliers based on worker ideas to reduce sprains and strains on the job (these are catalogued by topic on eLCOSH). **University System**

of Georgia MSDS Database <http://www.usg.edu/ehs/library/msds.phtml> Material safety data sheets are organized alphabetically by chemical or substance name. **US-EU Cooperation on**

Workplace Safety & Health <http://www.useuosh.org/> Launched jointly in July 2000 by the U.S. Occupational Safety and Health Administration and the European Agency for Safety and Health at Work; covers good practice, research, statistics, systems, training, and legislation/regulations – with special sections on Construction Safety and on Ergonomics. The OSHA portion on construction safety links to the (U.S.) OSHA construction page. The European Union Agency page, Good Practice Information on Safety and Health in the Construction Sector, lists sources of information in member and non-member states and other organizations. **Where to Find**

MSDSs on the Internet www.ilpi.com/msds/ Interactive Learning Paradigms, Incorporated, site lists and links to hundreds of free sites providing material safety data sheets (MSDSs), which are

required by OSHA to explain potential hazards and proper handling of chemical products in the workplace. The site includes responses to FAQs (frequently asked questions), an MS-Demystifier for any MSDS you're trying to translate into plain English, and a glossary of dozens of MSDS-related terms: www.ilpi.com/msds/ref/index.html **Workers' Compensation Board of British Columbia** <http://www.healthandsafetycentre.org> WorkSafe BC provides a wide range of construction-related publications, including regulations, posters, hazard alerts, a listing of death reports since 1991, a "constructive ideas" series that focuses on soft-tissue injuries (WMD), and (on its construction page) a digest of world construction safety news. Topics covered on the web site include hearing, house construction, boom cranes, chainsaws, frame scaffolding, rooftop anchorage, drywall delivery, GFCIs, seat belts, and extension ladders, and information for workers in British Columbia who need to file injury-related claims **Workers' Compensation Resources** <http://www.workerscompresources.com/> Provides data from sources including the National Academy of Social Insurance, the out-of-print 1972 Report of the National Commission on State Workmen's Compensation Laws, and U.S. Department of Labor tables outlining provisions of state workers' comp statutes. **World Trade Center Catastrophe Safety and Health Links** http://www.nycosh.org/environment_wtc/WTC_arch_Sept-Nov_01.html Sponsored by the New York Committee for Occupational Safety and Health, NYCOSH, the site is a collection of news and other reports on potential long-term health risks, including worker exposures to asbestos, other toxics, and biohazards, such as anthrax and mold; dusts; air monitoring in lower Manhattan; psychological trauma; compensation; and other topics. Of particular interest is a question-and-answer piece by the Mount Sinai School of Medicine, Health Issues Around the World Trade Center Disaster: Protecting Rescue & Clean Up Workers From Health Hazards.