

# Appendix D.—Glossary of Acronyms and Terms

## Glossary of Acronyms

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|--------|--|---------|--|
| AAIH   | —American Academy of Industrial Hygiene                          | NIEHS   | —National Institute of Environmental Health Sciences         |
| ABET   | —American Board of Engineering and Technology                    | NIH     | —National Institutes of Health (DHHS)                        |
| ABIH   | —American Board of Industrial Hygiene                            | NIOSH   | —National Institute for Occupational Safety and Health (CDC) |
| ACGIH  | —American Conference of Governmental Industrial Hygienists       | NOES    | —National Occupational Exposure Survey (NIOSH)               |
| AEPIC  | —Architectural and Engineering Performance <b>Impact Center</b>  | NOHS    | —National Occupational Hazard Survey (NIOSH)                 |
| AIHA   | —American Industrial Hygiene Association                         | NRC     | —National Research Council (NAS)                             |
| ANSI   | —American National Standards Institute                           | NSC     | —National Safety Council                                     |
| AOMA   | —American Occupational Medical Association                       | NSMS    | —National Safety Management Society                          |
| ASSE   | —American Society of Safety Engineers                            | OMB     | —Office of Management and Budget                             |
| ASTM   | —American Society for Testing and Materials                      | OSHA    | —Occupational Safety and Health Administration (DOL)         |
| ATMI   | —American Textile Manufacturers Institute                        | OSH Act | —Occupational Safety and Health Act (Public Law 91-596)      |
| AUPOHS | —American University Programs for Occupational Safety and Health | OTA     | —Office of Technology Assessment (U.S. Congress)             |
| BLS    | —Bureau of Labor Statistics (DOL)                                | PEL     | —Permissible Exposure Limit (OSHA)                           |
| CBO    | —Congressional Budget Office (U.S. Congress)                     | PHS     | —Public Health Service (DHHS)                                |
| CDC    | —Centers for Disease Control (PHS)                               | SEER    | —Surveillance, Epidemiology, and End Results program (NCI)   |
| CFR    | —Code of Federal Regulations                                     | SIC     | —Standard Industrial Classification                          |
| COSH   | —Committee for Occupational Safety and Health                    | TLV     | —Threshold Limit Value (ACGIH)                               |
| CRS    | —Congressional Research Service (U.S. Congress)                  |         |  |
| CSHO   | —Compliance Safety and Health Officer (OSHA)                     |         |  |
| DHEW   | —U.S. Department of Health, Education, and Welfare               |         |  |
| DHHS   | —U.S. Department of Health and Human Services                    |         |  |
| DOL    | —U.S. Department of Labor  |         |  |
| EPA    | —U.S. Environmental Protection Agency                            |         |  |
| ERC    | —Educational Resource Center                                     |         |  |
| GAO    | —General Accounting Office (U.S. Congress)                       |         |  |
| MSHA   | —Mine Safety and Health Administration (DOL)                     |         |  |
| NAS    | —National Academy of Sciences                                    |         |  |
| NCHS   | —National Center for Health Statistics (DHHS)                    |         |  |
| NCI    | —National Cancer Institute (NIH)                                 |         |  |
| NFPA   | —National Fire Protection Association                            |         |  |
| NHIS   | —National Health Interview Survey (NCHS)                         |         |  |

## Glossary of Terms

**Acute:** Used to describe a disease or injury that is manifest soon after exposure to a hazard.

**Add-on controls:** Measures for injury and illness prevention which are put into place after the workplace is built and equipment installed [see chs. 5, 6, and 16].

**Administrative controls:** Methods of reducing worker exposures to occupational hazards through administrative arrangements. For example, rotating a worker from areas of high exposure to areas of low exposure reduces that worker's average exposure level. Also includes scheduling of jobs or processes that generate hazards at times when few workers are present. See **engineering controls**, **personal protective equipment**, and **work practice controls** [see also chs. 5, 6, and 9].

**Asbestosis:** A restrictive chronic disease of the respiratory system resulting from exposure to asbestos dust.

**Asthma:** Constriction of the bronchial tubes, in the upper regions of the lung, in response to irritation, allergy, or other stimuli.

- Bioassay:** The use of animals to test chemicals or physical agents for harmful effects.
- Bronchitis:** Inflammation of the bronchial tubes in the upper respiratory system.
- Byssinosis:** An obstructive chronic disease of the respiratory system resulting from exposure to cotton dust [see ch. 5].
- Cancer:** The unrestrained growth of tissue.
- Carcinogen:** A substance or physical agent that causes cancer.
- Carpal Tunnel Syndrome:** An affliction among workers doing hand work caused by compression of the median nerve in the carpal tunnel, the passage in the wrist through which blood vessels and nerves pass to the hand from the forearm [see ch. 7].
- Chronic:** Used to describe a disease or injury that is manifest long after exposure to a hazard. Also used to describe persistent disease.
- Collective bargaining:** Negotiation between employers and unions concerning wages, hours, and working conditions [see ch. 15].
- Complaint inspections:** OSHA inspections that respond to worker or union complaints about workplace hazards. See *fatality/catastrophe, follow-up, and programmed inspections* [see also ch. 12].
- Compliance Safety and Health Officer (CSHO):** The formal title for OSHA inspectors.
- Consultation:** As used in this assessment, an OSHA-funded program that provides employers with a confidential evaluation of the health and safety hazards in their workplaces and recommendations concerning hazard abatement [see ch. 12].
- Contaminant:** An undesirable chemical constituent of a system or environment.
- Control Technology Assessments:** The name given to a series of National Institute for Occupational Safety and Health reports assessing measures for preventing work-related injury and illness.
- Cost-benefit analysis:** An analytical technique that compares the costs of a project or technological application to the resultant benefits, with both costs and benefits expressed by the same measure. This measure is nearly always monetary [see ch. 14].
- Cost-effectiveness analysis:** An analytical technique that compares the costs of a project or of alternative projects to the resultant benefits, with costs and benefits/effectiveness expressed by different measures. Costs are usually expressed in dollars, but benefits/effectiveness are ordinarily expressed in terms such as “lives saved,” “disability avoided,” “quality-adjusted life years saved,” or any other relevant objectives [see ch. 14].
- Criteria Document:** A series of National Institute for Occupational Safety and Health reports which assess available literature to develop the background necessary for standards. Upon completion these documents are transmitted to the Occupational Safety and Health Administration as recommended standards [see ch. 12].
- Dermatitis:** Inflammation or irritation of the skin.
- Dibromochloropropane (DBCP):** A chemical used as a pesticide. In the mid-1970s, a group of male workers discovered that their exposure to DBCP had rendered them sterile. An OSHA regulation limiting exposures to DBCP was issued in 1978.
- Dose:** The amount of energy or substance absorbed in a unit volume or an organ or individual. Dose rate is the dose delivered per unit of time.
- Educational Resource Centers (ERC):** Fifteen academic centers established by the National Institute for Occupational Safety and Health to provide multidisciplinary training for industrial hygienists, safety specialists, occupational health nurses, and physicians. These centers also provide continuing education and technical assistance for their regions.
- Emergency Temporary Standard (ETS):** A standard issued under section 6(c) of the Occupational Safety and Health Act. Such a standard may be issued when OSHA determines that workers are exposed to a “grave danger” from an occupational hazard and that an emergency standard is necessary to protect them from that danger.
- Emphysema:** A condition of the lungs characterized by an increase beyond the normal in the size of air spaces in the furthest reaches of the lung either from dialation of the alveoli (the tiny sacs in the the lung where oxygen from the air and waste carbon dioxide in the blood are exchanged) or from the destruction of their walls.
- Engineering controls:** Methods of controlling worker exposure by modifying the source or reducing the amount of contaminants released into the workplace. Engineering controls include process design and modification, equipment design, enclosure and isolation, and ventilation. See *administrative controls, personal protective equipment, and work practice controls* [see also chs. 5, 6, and 9].
- Epidemiology:** The study of the distribution of diseases and their precursors in human populations.
- Ergonomics:** The study of how humans and machines interact. In the occupational setting, one goal of ergonomics is to design the workplace to match worker capabilities.
- Ethylene dibromide (EDB):** A chemical used as a fumigant and as a gasoline additive. It causes cancer in mice.
- Experience rating:** A system for setting worker compensation insurance premiums that is based on the employer’s record or experience concerning injuries and illnesses.

**Exposure:** The length of time and dose of chemical or physical agent to which a worker is subjected.

**Fatality/catastrophe inspection:** An OSHA inspection to investigate occupational fatalities or incidents that result in the hospitalization of five or more employees. See *complaint, follow-up, and programmed inspections* [see also ch. 12].

**Follow-up inspection:** An OSHA inspection conducted to verify employer abatement of a violation uncovered in a previous OSHA inspection. See *complaint, fatality/catastrophe, and programmed inspections* [see also ch. 12].

**General Duty Clause:** Section 5(a)(1) of the Occupational Safety and Health Act. This section provides that “each employer shall furnish . . . employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.” OSHA has used this clause for workplace conditions that present serious occupational hazards that are not covered by OSHA’s more detailed health and safety standards.

**Health and Safety Committees:** Groups made up of both management and labor within a plant that meet to discuss and take mutual action to resolve health and safety problems.

**Health Hazard Evaluation (HHE):** A hazard identification service provided by NIOSH. After receiving a request from employees or an employer, a team of NIOSH researchers evaluate a workplace to determine the toxicity of substances or processes.

**Hierarchy of controls:** The preference for using engineering controls to reduce or eliminate hazards. This preference, long a tenet of professional health and safety practice, has been followed by OSHA. For example, to reduce exposures to air contaminants, OSHA requires that employers use engineering controls except when those controls are not feasible, not capable of reducing exposures to the required levels, or while they are being designed and installed.

**Labeling standard:** OSHA’s Hazard Communication standard which requires that certain information be provided to workers about the identity of workplace chemicals and their hazards [see ch. 15].

**Loss-control service:** Service provided by insurers to client companies. Loss-control specialists visit work-sites and offer advice on the prevention of property loss and work-related injuries and illnesses [see ch. 15].

**Lost-workday case:** As defined by OSHA and BLS, a work-related injury or illness that results in an employee missing time from work or that restricts the employee’s work activity [see ch. 2].

**Medical Removal Protection (MRP):** A program specified by the OSHA lead standard. It requires removal of workers from lead-contaminated environments when their blood lead levels exceed specified levels [see ch. 5].

**Medical treatment case:** As defined by OSHA and BLS, a work-related injury or illness that requires medical treatment beyond first aid [see ch. 2].

**Merit rating:** See *experience rating*.

**Mesothelioma:** A malignant tumor of the membrane that lines the internal organs of the body.

**Monomer:** A chemical substance that can undergo polymerization. See *polymer*.

**Mutagen:** A substance that causes mutations—changes in the genetic material of cells.

**New Directions Program:** An OSHA program to provide grants to employee, employer, education, and nonprofit organizations for the purpose of providing workplace health and safety training, educational materials, and services.

**Permissible Exposure Limit (PEL):** The maximum airborne concentration of a toxic substance permitted by OSHA standards [see ch. 13].

**Personal protective equipment:** Equipment and clothing designed to control hazards. It includes hard hats, safety shoes, protective eyewear, protective clothing and gloves, hearing protectors, and various types of respirators, such as dust and gas masks. See *administrative, engineering, and work practice controls* [see also ch. 8].

**Polymer:** A chemical substance formed by the joining together of many simple molecules or monomers. For instance, many vinyl chloride monomers are chemically joined to form polyvinyl chloride (PVC). See *monomer*.

**Positive pressure mask:** Respirators in which air pressure inside the facepiece exceeds the outside air pressure.

**Programed inspection:** Programed or general schedule inspections are those OSHA inspections that are scheduled using the injury experience or compliance history of an industry. See also *complaint, fatality/catastrophe, and follow-up inspections* [see ch. 12].

**Protection factor:** The ratio of measured concentrations of an airborne contaminant inside and outside the facepiece of a respirator, A measure of the effectiveness of the respirator.

**“Records review” inspections:** After arriving at a workplace, an OSHA inspector examines the employer’s injury and employment records. The inspector calculates the lost-workday injury rate for the employer. If that rate is below the national average for manufacturing, the inspection will usually be ter-

- minated.** For this assessment, these inspections have been termed “records review” inspections. Currently, this policy applies only to programed safety inspections [see ch. 12].
- Repetitive motion disorders:** Diseases caused by repetitive movement of part of the body. See *Carpal Tunnel Syndrome*.
- Retro-fit controls:** See *add-on controls*.
- Right-to-know laws:** State and local laws requiring companies to identify the chemical names and hazards of their products to workers and the community.
- Rulemaking:** The administrative process by which OSHA and other regulatory agencies set standards.
- Silicosis:** A restrictive chronic disease of the respiratory system resulting from exposure to airborne silica dust.
- Standards issued after rulemaking:** Health and safety standards issued by OSHA using the procedures established by section 6(b) of the Occupational Safety and Health Act. These procedures require that OSHA provide notice of intended changes and an opportunity for public comment.
- Startup standards:** The initial group of standards adopted by OSHA under section 6(a) of the Occupational Safety and Health Act. These consisted of established Federal standards and consensus standards.
- State Program:** Under section 18 of the Occupational Safety and Health Act, States may set and enforce workplace health and safety standards. In this assessment, these programs are termed “State Programs” [see ch. 12].
- Teratogen:** A chemical or physical agent that causes physical defects in offspring.
- Threshold Limit Value (TLV):** Maximum airborne concentrations of toxic substances set as guidelines by the American Conference of Governmental Industrial Hygienist [see ch. 13].
- Tort liability:** A legal basis for compensation when property has been damaged or a person has been injured. For occupational injuries and illnesses, most lawsuits between employees and employers are barred by State workers’ compensation laws, although suits against “third parties,” such as manufacturers of machinery or producers of asbestos products, are generally permitted [see ch. 15].
- Toxicology:** As used in this report, the testing of substances for toxic effects in animals.
- Vinyl chloride monomer (VCM):** The basic building block chemical for polyvinyl chloride plastic. See *monomer*.
- Voluntary Protection Programs:** OSHA programs designed to recognize the achievements of employers and to provide additional opportunities for OSHA-employer consultation and cooperation. The three programs are called “Star,” “Try,” and “Praise.”
- Voluntary standards:** Protective limits developed by companies, trade associations, and professional organizations, but which do not have the force of law.
- Walsh-Healey Public Contracts Act:** This Federal law, enacted in 1936, directed the Department of Labor to issue requirements for safe work by Federal Government contractors and to “blacklist” contractors who did not comply with these requirements.
- Work practice controls:** Methods of controlling hazards that involve only changes in job procedures and housekeeping. See *administrative controls*, *engineering controls*, and *personal protective equipment* [see also chs. 5, 6, and 9].
- Worker’s compensation:** State-required insurance programs which pay for medical costs and replace a portion of employees’ wages lost due to work-related injury and illness.