

**OSHA / EPA / DOT Training  
Overview**

**Author: Robert O'Neill**  
**Key Words: OSHA, EPA, DOT, training**  
**Abstract: This presentation will present an overview of regulatory training pertinent to the Hazardous Materials Manager. Included is a table summarizing all training requirements.**

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OSHA / EPA / DOT Training Overview

Prepared by:  
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October 2000

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**Agenda**

- Introduction
- OSHA training requirements
- EPA training requirements
- DOT training requirements
- State-specific training requirements
- Reference materials
- Summary

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**Protocol for Presentation**

- CFR location
- Who gets trained
- Frequency of training
- Content of training
- Notes / special considerations



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**OSHA Training  
29 CFR 1910**



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**Emergency Action Plan (EAP) and Fire Prevention Plan**

- 1910.38(a)(5)
- Associates at sites with an EAP
- EAP training must be done: initially when the plan is developed; whenever an employee's responsibilities under the plan change; and whenever the plan has changed.
- Training must include a review of the EAP, including Associates' duties and responsibilities under the plan, and the type(s) of employee alarm systems (1910.165) used at the site.
- **NOTE:** Fire prevention and emergency action plans must be prepared only if required by a particular OSHA standard (e.g. 1910.157). This requirement also applies to facilities where fire extinguishers are provided but are not intended for employee use.



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**Emergency Action Plan (EAP) and Fire Prevention Plan**

- Specifically:
- A facility providing portable fire extinguishers for employee use in fighting incipient stage fires is not required to have an employee action plan or a fire prevention plan
  - A facility providing portable fire extinguishers for selected employee use in fighting incipient stage fires must have an emergency action plan but is not required to have a fire prevention plan
  - A facility equipped with portable fire extinguishers but requiring total evacuation of all employees in an emergency must have an emergency action plan and a fire prevention plan



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**Emergency Action Plan (EAP) & Fire Prevention Plan**

- 1910.38(b)(4)
- Associates at sites with a fire prevention plan
- Fire prevention plan training must be done: at initial assignment; and when roles/responsibilities change.
- Training for Associates must include information of the fire hazards of the materials and processes to which they are exposed, and instruction on their roles/responsibilities under the fire prevention plan.



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**Occupational Noise Exposure**

- 1910.95(i)(4) & (k)(1) - (3)
- Associates who are exposed to noise at or above an 8-hour time-weighted average (TWA) of 85 decibels
- Training shall be repeated annually for associates who are still exposed to a 8-hour TWA for noise of 85 decibels
- Training shall include the following:
  - effects of noise on hearing;
  - purpose of hearing protection;
  - instruction on proper selection, fit, use, and care of hearing protectors;
  - limitations and attenuation of various types of hearing protectors; and
  - purpose of audiometric testing and an explanation of test procedures.



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### Hazardous Waste Operations & Emergency Response

- 1910.120(q)(6) - (8)
- Associates who perform emergency response activities.
- Training before assignment, and annual refresher training of sufficient content and duration to maintain their competencies, or demonstrate competency in those areas at least yearly.
- Training is based on the duties and functions to be performed by each responder, such as
  - First responder awareness level
  - First responder operations level
  - Hazardous materials technician
  - Hazardous materials specialist
  - On scene incident commander



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### Hazardous Waste Operations & Emergency Response

- **NOTES:**
  - *Emergency response* means a response effort by employees from outside the immediate release area or by other designated responders to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance.
  - Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate response area, or by maintenance personnel, are not considered to be emergency responses within the scope of the HAZWOPER standard.
  - Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses



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### Personal Protective Equipment

- 1910.132(f)(1) - (4)
- Associates who wear any type of PPE, except respiratory protection, that minimizes risk of injury or illness in instances where hazards cannot be eliminated by engineering controls, and is ANSI approved.
- Retraining is provided as necessary to maintain employee competence and understanding in the use of existing or new PPE
- Training shall include the following:
  - when PPE is necessary
  - what PPE is necessary
  - How to properly put on, take off, adjust, and wear PPE
  - The limitations of the PPE
  - The proper care, maintenance, useful life, and disposal of the PPE



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### Personal Protective Equipment

- **NOTE:** Each affected employee must demonstrate an understanding of the training prior to being allowed to use and perform work requiring PPE. The verification of this must be in the form of a written certification that contains the name of each employee trained, the date(s) of training, and the subject of the training



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### Respiratory Protection

- 1910.134(k)(1) - (6)
- Associates who use respiratory protection because:
  - it is required to protect their health;
  - it is required by the employer; or
  - it is used voluntarily
- Training provided before initial use and annually thereafter
- Training content for required users:
  - Why a respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator
  - What the limitations and capabilities of the respirator are
  - How to use the respirator effectively in emergency situations
  - How to inspect, put on, remove, use, and check the seals of the respirator
  - Procedures for the maintenance and storage of the respirator



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### Respiratory Protection

- How to recognize medical signs and symptoms that may limit or prevent the effective use of the respirator
- The general requirements of the respiratory protection standard in 29 CFR 1910.134
- Training content for voluntary users:
  - basic advisory information of Appendix D
- **NOTE:** Voluntary use of respiratory protection that is only a filtering facepiece (dust mask) is exempt from the program requirements [see 1910.134(c)(2)(ii)], must still inform the user of Appendix D.



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### Permit-Required Confined Spaces

- 1910.146(g)(1) - (4)
- Associates who are entry supervisors, attendants, rescuers or authorized entrants of permit-required confined spaces
- Training before initial assignment, and retraining:
  - before there is a change in assigned duties or revisions to existing procedures
  - whenever there is a change in permit space operations that presents a hazard about which an employee has not been previously trained
- **NOTE:** If the facility has chosen not to allow employees to enter permit spaces, effective measures shall be used to prevent employees from entering the permit spaces (e.g., by posting danger signs [DANGER--PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER] or by any other equally effective means, to inform employees of the existence and location of, and the danger posed by, the permit spaces).



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### Control of Hazardous Energy (Lockout/Tagout - LOTO)

- 1910.147(c)(7)(i) - (iv)
- Associates who are *authorized* (perform LOTO on machines/equipment) or *affected* (operate machines/equipment that are under LOTO or work in an area where LOTO is being used on machines/equipment), and all others whose work operations are or may be in an area where energy control procedures may be utilized.
- Training upon initial assignment, and retraining when any of the following occur:
  - change in job assignment
  - machines/equipment or process change that creates a new hazard
  - energy control procedure change
  - periodic inspection reveals deviations from a procedure or an Associate without complete understanding of, or not using, energy control procedures



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### Control of Hazardous Energy (Lockout/Tagout - LOTO)

- *Authorized* training content
  - recognition of applicable hazardous energy sources
  - type and magnitude of energy available in the workplace
  - methods and means necessary for energy isolation and control
- *Affected* training content
  - purpose and use of the energy control procedure
- All others (awareness) training content
  - the energy control procedure
  - prohibition of relating to attempts to restart or reenergize machines or equipment which are under LOTO



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### Medical Services and First Aid

- 1910.151(b)
- Associates who will render first aid
- Before assignment and every three years thereafter. Typically, first aid training by American Red Cross (or similar) is valid for three years, and CPR training is valid for one year.
- **NOTES:**
  - *near proximity* is a 3-4 minute period (OSHA interpretation letters)
  - where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body are provided within the work area for immediate emergency use



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### Fire Brigades

- 1910.156(c)(1) - (4)
- Associates that are expected to perform basic fire fighting operations
- Training before assignment and annually thereafter
- Fire brigade members are provided training and education commensurate with the duties and functions they are to perform.
- **NOTE:** Fire brigade members who are expected to perform interior structural fire fighting are provided training quarterly



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### Portable Fire Extinguishers

- 1910.157(g)(1) - (4)
- Associates designated to respond to incipient fires in the workplace
- Training upon initial assignment and annually thereafter
- Annual training is provided for employees to familiarize them with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.
- **NOTE:** *Incipient stage fire* means a fire which is in the initial or beginning stage which can be controlled or extinguished by portable fire extinguishers, Class II standpipe systems or small hose systems without the need for protective clothing or breathing apparatus.



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### Fixed Extinguishing Systems, General

- 1910.160(b)(10)
- Associates who inspect, test, and maintain fixed extinguishing systems
- Training upon initial assignment and annually thereafter
- Training is to keep the Associate up-to-date in the functions they are to perform related to fire protection system maintenance.



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### Powered Industrial Trucks (PITs)

- 1910.178(l)(1) - (8)
- Associates who operate any type of PIT
- Training and/or evaluation must be completed for new hires before they are assigned to operate a PIT
- Refresher training
  - Refresher training is required when a new type of PIT is assigned, an accident or near-miss incident occurs, unsafe driving is observed, or a workplace condition changes that affects PIT use.
  - An evaluation of each PIT operator's performance must be conducted every three years.



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### Powered Industrial Trucks (PITs)

- Content
  - Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.
  - Truck-related topics and workplace-related topics must be included in the training program.



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### Overhead and Gantry Cranes

- 1910.179(b)(8)
- Associates who are operators of crane and hoist equipment
- Training before initial assignment. Retraining before use of a new type of crane or hoist.
- Content of the training shall include hands-on use of the equipment and information on the safe operation, maintenance, inspection and limitations of the equipment.



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### Slings

- Not required at 1910.184
- Associates who use slings for material handling operations.
- Training in safe operating procedures, inspection, maintenance and limitations of slings is a good management practice (GMP).



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### Machine Guarding

- Not required at 1910.212
- Associates who operate, maintain or interact with machines or equipment and are exposed to hazards related to rotating parts, point of operation, nip points, flying chips, etc.
- Training in safe operating procedures, inspection, maintenance and limitations of guarding is a GMP.



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### Mechanical Power Presses

- 1910.217(e), (f)(2) & (h)(13)
- Associates who maintain and/or operate mechanical power presses
- Training is provided prior to initial assignment and at least annually thereafter
- Training content shall include:
  - information that assures maintenance personnel have original and continuing competence to care for, inspect and maintain power presses
  - instruction for the operator in the safe method of work, and adequate supervision for operators to assure correct operating procedures are being followed
  - instruction for presses used in the presence sensing device initiation (PSDI) mode, including: the manufacturer's test procedures for checking operation, function and performance of the PSDI device; safety distance required; hand tools required; and the severe consequences of attempts to circumvent or bypass any of the safe-guard or operating functions of the PSDI system



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### Hand and Portable Power Tools

- Not required @ 1910.241 - 244
- Associates who use power tools
- Training before initial use of equipment is GMP



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### Welding

- 1910.252(a)(2)(xiii)(A) - (D)
- Associates and their supervisors who perform welding, cutting or brazing operations
- Training is completed before assignment
- Cutters or welders and their supervisors are trained in the safe operation of their equipment and the safe use of the process
- **NOTE:** Applies to any type of gas or electric welding or cutting equipment.
  - Oxygen-fuel gas welding and cutting
  - Arc welding and cutting
  - Resistance (flash) welding



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### Electrical Safety-Related Work Practices

- 1910.332(a) - (c)
- Associates who face a risk of electrical shock that is not reduced to a safe level by the electrical installation requirements of 1910.303-308. *Qualified persons* (i.e. electricians) are those who are appropriately trained for and permitted to work on or near exposed energized parts.
- Training must be initiated before assignment begins
- The training shall be consistent with the nature and extent of the facility's associated electrical hazards and include the following:
  - the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment;
  - the skills and techniques necessary to determine the nominal voltage of exposed live parts;



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### Electrical Safety-Related Work Practices

- the clearance distances specified in 29 CFR 1910.333(c) and the corresponding voltages to which the qualified person will be exposed; and
- the electrical safety-related work practices that were developed by the facility to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts
- information and instruction for the selection, use, maintenance and inspection of electrical safety PPE or specialty equipment needed to perform their assigned tasks



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### Asbestos

- 1910.1001(j)(7)(i) - (v)
- Associates who have an occupational exposure to asbestos  $\geq$  0.1 f/cc of air (PEL) as an 8-hr TWA, or  $\geq$  1.0 f/cc of air for 30 minutes (Excursion limit).
- Training is provided prior to or at the time of initial assignment and at least annually thereafter
- Training content shall include:
  - Health effects associated with asbestos exposure
  - Relationship between smoking and exposure to asbestos-producing lung cancer
  - Quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos
  - Engineering controls and work practices associated with the employee's job assignment



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### Asbestos

- Specific procedures implemented to protect employees from exposure to asbestos, such as appropriate work practices, emergency and cleanup procedures, and personal protective equipment to be used
- Purpose, proper use, and limitations of respirators and protective clothing, if appropriate
- Purpose and description of the medical surveillance program
- Content of this standard, including appendices
- Names, addresses, and phone numbers of public health organizations which provide information, materials, and/or conduct programs concerning smoking cessation
- Requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels



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### Asbestos

- **NOTES:**
  - All Associates are to be informed of the presence and location of ACM or PACM at the work site
  - Associates who perform housekeeping duties in areas where ACM or PACM are present shall be given a asbestos awareness course [1910.1001(j)(7)(iv)]
  - Associates whose exposure to asbestos is related to construction, renovation, repair or maintenance activities at their facilities should be trained to the requirements @ 1926.1101(k)(9)



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### Access to Employee Exposure & Medical Records

- 1910.1020(g)(1) - (2)
- All Associates
- Training / information upon initial assignment and annually thereafter
- Content of this information shall be:
  - existence, location and availability of any records covered by this section;
  - person(s) responsible for maintaining and providing access to the records; and
  - each employee's right of access to these records.



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### Bloodborne Pathogens

- 1910.1030(g)(2)(i) - (viii)
- Associates with an occupational exposure to blood or other potentially infectious materials
- Training at the time of initial employment and at least annually thereafter
- Training shall be/have:
  - at no cost to the employee, during working hours
  - material appropriate in content and vocabulary to the educational level, literacy, and background of the employees
  - copy of relevant standards and guidelines, and an explanation of their contents
  - general explanation of the epidemiology and symptoms of bloodborne diseases
  - explanation of the modes of transmission of bloodborne pathogens



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### Bloodborne Pathogens

- explanation of the employer's exposure control program
- explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials
- explanation of the use and limitations of practices that will prevent or reduce exposure (e.g., engineering controls, work practices, and personal protective equipment)
- information on the types, proper use, location, removal, handling, decontamination, and/or disposal of personal protective equipment
- explanation of the basis for selection of personal protective equipment
- information on the hepatitis B vaccine, including information on its efficacy, safety, benefits, method of administration, and availability to employees free of charge
- information on the appropriate actions to take and persons to contact in an emergency



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### Bloodborne Pathogens

- explanation of the procedure to follow if an exposure incident occurs, including method of reporting, medical follow-up, and medical counseling
- information on post-exposure evaluation and follow-up
- explanation of the signs and labels and/or color coding used for biohazard communication
- opportunity for interactive questions and answers between the trainer and employees
- **NOTE:** Instruction shall be by a person knowledgeable in the subject matter, as it relates to the workplace that the training will address.



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### Hazard Communication

- 1910.1200(h)(1) - (3)
- Associates who may be exposed (under normal conditions of use or in a foreseeable emergency) to hazardous chemicals in their work area or by any operation where hazardous chemicals are present.
- Training shall be at the time of their initial assignment and whenever a new hazard is introduced into their work area.
- Training shall include:
  - information on the location and availability of the written program, the hazard chemical list, and corresponding MSDSs, as well as how to use this information
  - orientation in the methods and observations that may be used to detect the presence or release of hazardous chemicals
  - information on the physical and health hazards of hazardous substances and the protective measures that can be taken



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### Hazard Communication

- instruction in the use of proper work practices, PPE and clothing, and other controls to reduce or eliminate their exposure to the chemicals in their work areas
- an explanation of labels and their warnings
- information on the specific information and training requirements of the Hazard Communication Standard
- NOTES:
  - Information and training may be designed to cover categories of hazards (e.g. flammables, corrosives) or specific chemicals.
  - Where applicable, the Hazcom training should include information on the reproductive hazards in the workplace, and a procedure for Associates to inform the appropriate plant personnel of actual or potential pregnancy.



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### EPA Training 40 CFR



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**Risk Management Program (RMP)**

- 68.54(a) & (d), 68.56(b) & (c)
- Associates who operate , work on, or maintain a process with a listed substance over threshold quantities.
- Training shall take place upon initial assignment, every three years thereafter, and when a new process or procedure is introduced.
- Training shall include the following:
  - initial, normal and temporary operations
  - emergency shutdown and operations
  - normal shutdown
  - startup following a normal or emergency shutdown or a major change that requires a hazard review
  - consequences of deviations and steps required to correct or avoid deviations
  - equipment inspections



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**Risk Management Program (RMP)**

- NOTE: Contract maintenance employees must also be trained to perform the maintenance procedures.



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**Spill Prevention Control & Countermeasures (SPCC) Plan**

- 112.7(e)(10)
- Associates who administer a SPCC plan
- Training before initial assignment and when changes occur in operations that affect the plan
- Training shall instruct personnel about:
  - the content of the site's SPCC plan
  - locations and quantities of oil and hazardous substances at the site
  - spill response procedures
  - inspection procedures
  - the operation and maintenance of equipment to prevent the discharges of oil
  - applicable pollution control laws, rules, and regulations



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**NPDES - Stormwater**

- 122.26 and 60 FR 50804 (09/29/95)
- Associates who are responsible for implementing activities of the stormwater pollution prevention plan (SWPPP), or whose jobs could impact stormwater discharges.
- Train at time of initial assignment, and when processes/activities that could affect discharges, or the SWPPP, change.
- Training shall include:
  - the contents of the SWPPP
  - implementation, maintenance and inspection procedures of the SWPPP
  - the inventory of materials that may affect stormwater
  - good housekeeping practices
  - spill prevention and response procedures
  - sampling, records and reporting requirements



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**NPDES - Industrial Discharges to Waters**

- 125.104(b)(4)(iii)(E) - Best management practices (BMP) program
- Associates who are responsible for activities or areas that use, manufacture, store, handle or discharge any toxic or hazardous pollutants that could reach waters of the U.S.
- Train at time of initial assignment, and when processes/activities that could affect discharges change.
- Training shall include:
  - the contents of the BMP
  - implementation, maintenance and inspection procedures of the BMP
  - the inventory of materials that may affect discharges
  - good housekeeping and preventive maintenance practices
  - spill prevention and response procedures
  - sampling, records and reporting requirements



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**SQGs of Hazardous Waste**

- 262.34(d)(5)(iii)
- Associates who are responsible for hazardous waste management activities
- Train at time of initial assignment, and when hazardous waste management processes/activities change
- Training must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies



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### LQGs of Hazardous Waste

- 262.34(a)(4)
- Associates who are responsible for hazardous waste management activities
- Train within six months of initial assignment, annually thereafter, and when hazardous waste management processes/activities change
- Training shall be written and include these elements:
  - description of scope of training and who will be trained
  - job descriptions (w/duties related to hazardous waste management) for staff to be trained
  - contents of the site's Contingency Plan
  - procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
  - key parameters for automatic waste feed cut-off systems



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### LQGs of Hazardous Waste

- communications or alarm systems
- response to fires or explosions
- response to groundwater contamination incidents
- shutdown of operations
- the LDR requirements @ 268.7(a)(4)



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### Universal Waste Management

- 273.16 (SQH) and 273.36 (LQH)
- Associates involved in the handling or responsible for management of universal wastes
- Train at time of initial assignment, and when universal waste management processes/activities change
- SQH - training must inform all affected employees the responsibilities for proper handling and emergency procedures appropriate to the type(s) of universal waste at the facility
- LQH - training must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies



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### PCBs Management

- Training is not required @ Part 761
- Associates who have any responsibilities related to polychlorinated biphenyls management
- Training is a GMP before initial assignment and includes:
  - PCB equipment ID & labeling requirements
  - PCB storage and disposal requirements
  - PCB release/cleanup and decontamination requirements
  - PCB equipment fire risk reduction requirements
  - PCB inspection requirements
  - PCB manifesting, recordkeeping and annual report requirements



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### DOT Training 49 CFR



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### Hazardous Materials

- 172.704(a)
- Associates who are Hazmat employees (i.e. one who directly affects hazardous materials transportation safety)
- Any new HAZMAT employee shall receive the required training within 90 days of the date of employment, and any HAZMAT employee who changes hazardous materials job function(s) receives training in the new job function(s) within 90 days after the change
- Each HAZMAT employee receives the required training at least once every three (3) years
- Training content shall include all of the following:
  - General awareness / familiarization training for the requirements of the Hazmat regulations, and to enable an employee to recognize and identify hazardous materials;



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### Hazardous Materials

- Function-specific training concerning requirements of the Hazmat regulations which are specifically applicable to the functions the employee performs; and
- Safety training for emergency response information, measures to protect themselves from the hazards posed by the materials, and methods and procedures for avoiding accidents.
- **NOTE:** Training conducted by an employer to comply with OSHA or EPA requirements, to the extent that the training addresses the subjects required @ 172.704(a), may be used to satisfy the training requirements [49 CFR 172.704(b)].



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### State-Specific Training

- OSHA
  - Most state plan regulations are the same or nearly the same as the existing federal (Indiana, Kentucky, Minnesota, Nevada, North Carolina, South Carolina, Tennessee)
  - California and Michigan's regulations are both very different from federal OSHA
- EPA
  - Often states incorporate the federal regulation by reference, although for any regulation, they can be changed
  - e.g. South Carolina's hazardous waste rules @ R.61-79.262.34



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### Reference Materials

- Internet
  - OSHA web site ([osha.gov](http://osha.gov))
  - EPA web site ([epa.gov](http://epa.gov))
  - State web sites for safety and environmental agencies
  - EPA's Small Business Assistance ([smallbiz-enviroweb.org](http://smallbiz-enviroweb.org))
- Trade publications (OH&S, Occ. Hazards, Professional Safety)
- Training guidebooks (e.g. BLR, J.J. Keller, etc)
- Training software
  - Content and records products
  - HR training tracker databases
  - PeopleSoft module potential



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### Summary for Effective and Complete Training

- Know your operations
- Know the universe of agencies involved
  - Federal (OSHA, EPA, DOT)
  - State (OSHA, EPA, DOT, Fire Marshall, Radiation Safety, SEPC)
  - Local (POTW, Fire, Bldg. or Health departments, County agencies, LEPC)
- Know what regulations actually apply to your business
- Train as required; retrain as required
- Use the regulation's requirements as a minimum content list
- Use a mix of classroom, hands-on exercises, video, computerized techniques and verification testing whenever possible
- Document any and all training, instruction or information passing
  - Records shall include course name, date, instructor, hours to complete, agenda or table of contents, and daily attendance log signed by students



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1910 Section	Title	Training	Retraining	Inspection or Testing	Record keeping	Written Program or Procedures
25 - 29	Ladders & Scaffolds	G		U	G	
38(a)(5)	Emergency action plan	I	P		Y	Y
38(b)(4)	Fire prevention plan	I	P		Y	Y
66(i)(1)	Powered platforms	I	P	D	Y	Y
66, Appendix C	Fall arrest systems	I		U	Y	
67(c)(2)	Extensible and articulating boom platforms	I		D	Y	
68(e)	Manlifts	G		W, M	Y	
94(d)(9) & (11)	Ventilation for open surface tanks	I	P	D	Y	
95(i)(4) & (k)	Occupational noise exposure	I	A	P	Y	Y
97	Non-ionizing radiation (e.g. lasers, microwaves)	G	G, P	G	G	G
101(a)	Compressed gas cylinders	I		U		
103(c)(4)	Liquified hydrogen systems	I	P	G		Y
106(b)(5)(v)(2)-(3)	Flammable and combustible liquids in tanks	I	P	G	Y	Y
109(d)(3), (g)(3), (g)(6), & (h)(3)	Explosive and blasting agents	I	P		Y	
110(b)(16)&(d)(12)	Storage and handling of LP gases	I	P		Y	Y
111(b)(13)	Storage and handling of anhydrous ammonia	I	P		Y	Y
119(c) - (o)	Process safety management of highly hazardous chemicals	I	Every 3 years or P	Y	Y	Y
120(q)(4)-(6) & (8)	Hazardous waste operations & emergency response	I	A		Y	Y
122 - 126	Dipping and coating operations	G	P	Q	G	
132(f)	Personal protective equipment	I	P	U	Y	Y
134(k)	Respiratory protection	I	A	U	Y	Y
145(c)(1) - (3)	Specifications for accident prevention signs and tags	I	P			
146(g) & (k)	Permit-required confined spaces	I	P	U, A	Y	Y
147(c)(7)	Control of hazardous energy (LOTO)	I	P	A	Y	Y
151(b)	Medical services and first aid	I	Every 2 years		Y	G
156(c)(1) - (4)	Fire brigades	I	A	U, M	Y	Y
157(g)	Portable fire extinguishers	I	A	M, A	Y	
158(e)(2)	Standpipe and hose systems	I	P	A or after use	Y	
159(c)(2)	Automatic sprinkler systems	G		A	Y	
160(b)(10)	Fixed extinguishing systems, general	I	A	A	Y	
165(d)(2)	Employee alarm systems - unsupervised	G		Every 2 months		
165(d)(4)	Employee alarm systems - supervised	G		A		
169	Compressed air equipment - air receivers	G		G, U		
176	Handling materials - general	G		G, W		
177(c)(1) - (3)	Servicing multi-piece and single piece rim wheels	I	P		Y	Y
178(l)	Powered industrial trucks	I	P	Every 3 years	Y	Y
179(b)(8), (j) & (l)	Overhead and gantry cranes	I	P	D, M, A	Y	Y

184(d) & (e)	Slings	G		U, A	Y	
212(a) - (b)	Machine guarding	G	G, P	G		
217(e), (f) & (h)	Mechanical power presses	I	A or P	W	Y	Y
218(a)(2)(iii)	Forging machines	I	P	Y	Y	
219(p)(1) - (7)	Mechanical power-transmission apparatus	G		Every 2 months		
241 - 244	Hand and portable power tools and other hand-held equipment	G	P	G, U	G	G
252(a)(2)(xiii)	Welding, cutting & brazing - general requirements	I	P	U	Y**	Y
253(a)(4)	Oxygen fuel-gas welding and cutting	I	P	U	Y	Y
254(a)(3)	Arc welding and cutting	I	P	U	Y	Y
255(a)(3)	Resistance welding	I	P	U	Y	G
332 - 333	Electrical safety-related training & work practices	I	P		Y	Y
1001(j)(7)	Asbestos [also @ 1926.1101(k)(9)]	I	A	A	Y	Y
1002 - 1052	Specific substances - see standard for details Examples include lead, <i>cadmium</i> , and benzene	I	A	Y	Y	Y
1020(g)	Access to employee exposure & medical records	I	A		Y	G
1030(g)(2)	Bloodborne pathogens	I	A	A	Y	Y
1096(i)(2)	Ionizing radiation (e.g. x-rays)	I	P	Q	Y	Y
1200(h)	Hazard communication	I	P		Y	Y
1450(f)	Occupational exposure to haz. chemicals in a lab	I	P		Y	Y

#### 1904 Section

2(a)	Occupational injury and illness log (form 200)				Y	
4	Supplementary record (form 101) for each case				Y	
5(a)	Annual summary (form 200)				A	

#### OSH Act

Sec. 5(a)(1)	General duty clause e.g. Ergonomics, safe lifting, prevention of RMLs	G	G, P			
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