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**Title 8. Industrial Relations**  
**Division 1. Department of Industrial Relations**  
**Chapter 4. Division of Industrial Safety**  
**Subchapter 7. General Industry Safety Orders**  
**Group 16. Control of Hazardous Substances**  
**Article 109. Hazardous Substances and Processes**

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**§ 5192. Hazardous Waste Operations and Emergency Response.**

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(a) Scope, Application and Definitions.

(1) Scope: This section covers the following operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards:

(A) Clean-up operations or hazardous substance removal work required by a governmental body, whether Federal, state, local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the Environmental Protection Agency's (EPA) National Priority Site List (NPL), state priority site lists, sites recommended for the EPA, NPL, and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substances has been ascertained);

(B) Corrective actions involving hazardous waste clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA) as amended (42 U.S.C. 6901. et seq.) and Chapters 6.5 and 6.8 of Division 20 of the California Health and Safety Code;

(C) Voluntary clean-up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites;

(D) Operations involving hazardous wastes that are conducted at treatment, storage, and disposal (TSD) facilities regulated by 40 CFR Parts 264 and 265 pursuant to RCRA; or facilities regulated by Chapter 6.5 of Division 20 of the California Health and Safety Code; or by agencies under agreement with U.S.E.P.A. to implement RCRA regulations; and

(E) Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

(2) Application.

(A) All requirements of Title 8 of the California Code of Regulations apply pursuant to their terms to hazardous waste operations (whether covered by this section or not). If there is a conflict or overlap, the

provision more protective of employee safety and health shall apply without regard to 8 CCR 3202(a).

(B) Hazardous substance clean-up operations within the scope of subsections (a)(1)(A) through (a)(1)(C) of this section must comply with all subsections of this section except subsections (p) and (q).

(C) Operations within the scope of subsection (a)(1)(D) of this section must comply only with the requirements of subsection (p) of this section.

#### NOTES AND EXCEPTIONS TO (a)(2)(C):

A. All provisions of subsection (p) of this section cover any treatment, storage, or disposal (TSD) operation regulated by 40 CFR parts 264 and 265 or by Chapter 6.5 of Division 20 of the California Health and Safety Code, and required to have a permit or interim status from EPA pursuant to 40 CFR 270.1 or from the Department of Health Services (DHS) pursuant to Chapter 6.5 of Division 20 of the California Health and Safety Code.

B. Employers who are not required to have a permit or interim status because they are conditionally exempt small quantity generators under 40 CFR 261.5 or are generators who qualify under 40 CFR 262.34 for exemptions from regulation under 40 CFR parts 264, 265 and 270 (“excepted employers”) are not covered by subsections (p)(1) through (p)(7) of this section. Excepted employers who are required by the EPA or state agency such as the Department of Health Services (DHS) to have their employees engage in emergency response or who direct their employees to engage in emergency response are covered by subsection (p)(8) of this section, and cannot be exempted by (p)(8)(A) of this section. Excepted employers who are not required to have employees engage in emergency response, who direct their employees to evacuate in the case of such emergencies and who meet the requirements of subsection (p)(8)(A) of this section are exempt from the balance of subsection (p)(8) of this section.

C. If an area is used for hazardous waste treatment, storage, or disposal, any emergency response operations in that area shall comply with subsection (p)(8) of this section. In other areas not used for treatment storage, or disposal of hazardous waste, any emergency response operation shall comply with subsection (q) of this section. Compliance with the requirements of subsection (q) of this section shall be deemed to be in compliance with the requirements of subsection (p)(8) of this section.

(D) Emergency response operations for releases of, or substantial threats of releases of, hazardous substances which are not covered by subsections (a)(1)(A) through (a)(1)(D) of this section must only comply with the requirements of subsection (q) of this section.

#### (3) Definitions.

**Buddy system:** A system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. The purpose of the buddy system is to provide quick assistance to employees in the event of an emergency.

**Certified employee:** An employee that has completed all of the requirements for training certification delineated in subsection (e)(6) of this section.

**Certified supervisor:** A supervisor that has completed all of the requirements for training certification delineated in subsection (e)(6) of this section.

**Clean-up operation:** An operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

**Decontamination:** The removal of hazardous substances from employees and their equipment to the extent necessary to preclude the occurrence of foreseeable adverse health effects.

**Emergency response, or responding to emergencies:** A response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release, which may cause high levels of exposure to toxic substances, or which poses danger to employees requiring immediate attention. 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 release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no immediate safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

**NOTE:** The “immediate release area” can be the entire geographic boundary of the employee's assigned work area.

**Facility:** A. Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, storage container, motor vehicle, rolling stock, or aircraft, or B. any site or area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located; but does not include any consumer product in consumer use or any water-borne vessel.

**Hazardous materials response (HAZMAT) team:** An organized group of employees, designated by the employer, which is expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. The team members perform responses to releases or potential releases of hazardous substances for the purpose of control or stabilization of the incident. A HAZMAT team is not a fire brigade nor is a typical fire brigade a HAZ MAT team. A HAZMAT team, however, may be a separate component of a fire brigade or fire department.

**Hazardous substance:** Any substance designated or listed under A. through D. below, exposure to which results or may result in adverse effects on the health or safety of employees:

A. Any substance defined under Section 103(14) of CERCLA or under Sections 25316 and 25317 of the California Health and Safety Code;

B. Any biological agent and other disease-causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring;

C. Any substance listed by the U.S. Department of Transportation and regulated as hazardous materials under 49 CFR 172.101 and appendices; and

D. Hazardous waste as herein defined.

**Hazardous substance removal work:** Clean-up work at any of the following:

A. A site where removal or remedial action is taken pursuant to any of the following:

1. Chapter 6.8 (commencing with Section 25300) of Division 20 of the Health and Safety Code, regardless of whether the site is listed pursuant to Section 25356 of the Health and Safety Code.

2. The federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Sec. 9601 et seq.).

3. Any operations covered under subsections (a)(1)(A) through (a)(1)(C) of this section.

B. A site where corrective action is taken pursuant to Section 25187 or 25200.10 of the Health and Safety Code or the federal Resource Conservation and Recovery Act of 1976 (42 U.S.C. Sec. 6901 et seq.)

C. A site where clean-up of a discharge of a hazardous substance is required pursuant to Division 7 (commencing with Section 13000) of the Water Code.

D. A site where removal or remedial action is taken because a hazardous substance has been discharged or released in an amount that is reportable pursuant to Section 13271 of the Water Code or the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Sec. 6901 et seq.). Hazardous substance removal work does not include work related to a hazardous substance spill on a highway.

**Hazardous waste:** A waste or combination of wastes as defined in 40 CFR 261.3, or regulated as hazardous waste in California pursuant to Chapter 6.5, Division 20, California Health and Safety Code, or B. those substances defined as hazardous wastes in 49 CFR 171.8.

**Hazardous waste operation:** Any operation conducted within the scope of this regulation including hazardous substance removal work as defined in Labor Code Section 142.7(b).

**Hazardous waste site, or site:** Any facility or location at which hazardous waste operations within the scope of this regulation take place.

**Health hazard:** A chemical or a pathogen where acute or chronic health effects may occur in exposed employees. It also includes stress due to temperature extremes. The term health hazard includes chemicals that are classified in accordance with the Hazard Communication Standard, Section 5194, as posing one of the following hazardous effects: Acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); aspiration toxicity or simple asphyxiant. (See Appendix A to Section 5194 Health Hazard Criteria (Mandatory) for the criteria for determining whether a chemical is classified as a health hazard.)

**IDLH or Immediately dangerous to life or health:** An atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere.

**Incidental release:** An incidental release is one that does not cause a health or safety hazard to employees and does not need to be cleaned up immediately to prevent death or serious injury to employees.

**Oxygen deficiency:** That concentration of oxygen by volume below which air supplying respiratory protection must be provided. It exists in atmospheres where the percentage of oxygen by volume is less than 19.5 percent oxygen.

**Permissible exposure limit (PEL):** The exposure, inhalation or dermal permissible exposure limit specified in 8 CCR, Chapter 4, Subchapter 7, Groups 14 and 15; and Group 16, Articles 107, 109, and 110.

**Post-emergency response:** That portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and clean-up of the site has begun. If post emergency response is performed by an employer's own employees who were part of the initial emergency response, it is considered to be part of the initial response and not post-emergency response. However, if a group of an employer's own employees, separate from the group providing initial response, performs the clean-up operation, then the separate group of employees would be considered to be performing post-emergency response and subject to subsection (q)(11) of this section.

**Pre-job health and safety conference:** A health and safety conference or briefing held prior to entering a site for the purpose of initiating hazardous substance removal work.

**Published exposure level:** The exposure limits published in “NIOSH Recommendations for Occupational Safety and Health Standards 1988” incorporated by reference, or if no limit is specified, the exposure limits published in the standards specified by the American Conference of Governmental Industrial Hygienists in their publication “Threshold Limit Values and Biological Exposure Indices for 1989-90” dated 1989 incorporated by reference.

**Qualified person:** A person with specific training, knowledge and experience in the area for which the person has the responsibility and the authority to control.

**Site safety and health supervisor (or official):** The individual located on a hazardous waste site who is responsible to the employer and has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements.

**Small quantity generator:** A generator of hazardous wastes who in any calendar month generates no more than 1,000 kilograms (2,205 pounds) of hazardous waste in that month.

**Uncontrolled hazardous waste site:** An area where an accumulation of hazardous waste creates a threat to the health and safety of individuals or the environment or both. Some sites are found on public lands, such as those created by former municipal, county, or state landfills where illegal or poorly managed waste disposal has taken place. Other sites are found on private property, often belonging to generators or former generators of hazardous waste. Examples of such sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms.

Normal operations at TSD sites are not covered by this definition.

**Uncontrolled release:** An uncontrolled release is the accidental release of a hazardous substance from its container. If not contained, stopped, and removed, the release would pose a hazard to the employees in the immediate area or in areas in the path of the release, or from its byproducts or its effects (such as toxic vapors, fire, over-pressurization, toxic gases, or toxic particulates).

(b) Safety and health program.

NOTE TO (b): Safety and health programs developed and implemented to meet other Federal, state, or local regulations are considered acceptable in meeting this requirement if they cover or are modified to cover the topics required in this subsection. An additional or separate safety and health program is not required by this subsection.

(1) General.

(A) Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.

(B) The written safety and health program shall incorporate the following:

1. An organization structure;
2. A comprehensive workplan;
3. A site-specific safety and health plan which need not repeat the employer's standard operating procedures required in subsection (b)(1)(B)6. of this section;

4. The safety and health training program;
5. The medical surveillance program;
6. The employer's standard operating procedures for safety and health; and
7. Any necessary interface between general program and site specific activities.

(C) Site excavation. Site excavations created during initial site preparation or during hazardous waste operations shall be shored or sloped as appropriate to prevent accidental collapse in accordance with 8 CCR, Chapter 4, Subchapter 4, Article 6.

(D) Contractors and sub-contractors. An employer who retains contractor or sub-contractor services for work in hazardous waste operations shall inform those contractors, sub-contractors, or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety or other hazards of the hazardous waste operation that have been identified by the employer, including those identified in the employer's information program. Each contractor/sub-contractor is responsible for compliance with all safety and health protection requirements for its employees. An employer's safety and health plan can be used by contractors/sub-contractors at the site if it appropriately addresses their activity and potential safety and health hazards.

(E) Program availability. The written safety and health program shall be made available to any contractor or subcontractor or their representative who will be involved with the hazardous waste operation; to employees; to employee designated representatives; to Division representatives, and to personnel of other Federal, state, or local agencies with regulatory authority over the site.

(2) Organizational structure part of the site program.

(A) The organizational structure part of the program shall establish the specific chain of command and specify the overall responsibilities of supervisors and employees. It shall include, at a minimum, the following elements:

1. A general supervisor (or Certified supervisor for hazardous substance removal work) who has the responsibility and authority to direct all hazardous waste operations.
2. A Site Safety and Health Supervisor who has the responsibility and authority to develop and implement the site safety and health plan and verify compliance.
3. A Qualified Person for operations defined as hazardous substance removal work, who shall be responsible for scheduling any air sampling, laboratory calibration of sampling equipment, evaluation of soil or other contaminated materials sampling results, and for conducting any equipment testing and evaluating the results of the tests.
4. All other personnel needed for hazardous waste site operations and emergency response and their general functions and responsibilities.
5. The lines of authority, responsibility, and communication.

(B) The organizational structure shall be reviewed and updated as necessary to reflect the current status of waste site operations.

(3) Comprehensive workplan part of the site program: The comprehensive workplan part of the program shall address the tasks and objectives of the site operations and the logistics and resources required to reach those tasks and objectives.

- (A) The comprehensive workplan shall address anticipated clean-up activities, as well as normal operating procedures, which need not repeat the employer's procedures available elsewhere.
- (B) The comprehensive workplan shall define work tasks and objectives and identify the methods for accomplishing those tasks and objectives.
- (C) The comprehensive workplan shall establish personnel requirements for implementing the plan.
- (D) The comprehensive workplan shall provide for the implementation of the training required in subsection (e) of this section.
- (E) The comprehensive workplan shall provide for the implementation of the required informational programs required in subsection (i) of this section.
- (F) The comprehensive workplan shall provide for the implementation of the medical surveillance program described in subsection (f) of this section.

(4) Site-specific safety and health plan part of the program.

(A) General: The site safety and health plan, which must be kept on site, shall address the safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection.

NOTE TO (A): In general, a site plan organized as a single document, with component sections/appendices covering all tasks, operations, and contractors/sub-contractors, may be used to promote use efficiency, and enhance completeness, clarity, and coordination.

(B) Elements: The site safety and health plan, as a minimum, shall address the following:

1. A safety and health risk or hazard analysis for each site task and operation found in the workplan.
2. Employee training assignments to assure compliance with subsection (e) of this section.
3. Personal protective equipment (PPE) to be used by employees for each of the site tasks and operations being conducted as required by the personal protective equipment program in subsection (g)(5) of this section.
4. Medical surveillance requirements in accordance with the program in subsection (f) of this section.
5. Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used.
6. Site control measures in accordance with the site control program required in subsection (d) of this section.
7. Decontamination procedures in accordance with subsection (k) of this section.
8. An emergency response plan meeting the requirements of subsection (l) of this section for safe and effective responses to emergencies, including the necessary PPE and other equipment.
9. Confined space entry procedures.

10. A spill containment program meeting the requirements of subsection (j) of this section.

(C) Pre-entry briefing: The site-specific safety and health plan shall provide for pre-entry briefings to be held prior to initiating any site activity, and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The information and data obtained from site characterization and analysis work required in subsection (c) of this section shall be used to prepare and update the site safety and health plan.

(D) For operations defined as Hazardous substance removal work, a Pre-job health and safety conference shall be held before the start of actual work. The conference shall include representatives of the owner or contracting agency, the contractor, the employer, employees, and employee representatives; and shall include a discussion of the employer's safety and health program and the means, methods, devices, processes, practices, conditions, or operations which the employer intends to use in providing a safe and healthy place of employment.

(E) Effectiveness of site safety and health plan: Inspections shall be conducted by the site safety and health supervisor or, in the absence of that individual, another individual who is knowledgeable in occupational safety and health, acting on behalf of the employer as necessary to determine the effectiveness of the site safety and health plan. Any deficiencies in the effectiveness of the site safety and health plan shall be corrected by the employer.

(c) Site Characterization and Analysis.

(1) General: Hazardous waste sites shall be evaluated in accordance with this subsection to identify specific site hazards and to determine the appropriate safety and health control procedures needed to protect employees from the identified hazards.

(2) Preliminary evaluation: A preliminary evaluation of a site's characteristics shall be performed prior to site entry by a qualified person to aid in the selection of appropriate employee protection methods prior to site entry. Immediately after initial site entry, a more detailed evaluation of the site's specific characteristics shall be performed by a qualified person to further identify existing site hazards and to further aid in the selection of the appropriate engineering controls and personal protective equipment for the tasks to be performed.

(3) Hazard identification: All suspected conditions that may pose inhalation or skin absorption hazards that are immediately dangerous to life or health (IDLH) or other conditions that may cause death or serious harm shall be identified during the preliminary survey and evaluated during the detailed survey. Examples of such hazards include, but are not limited to, confined space entry, potentially explosive or flammable situations, visible vapor clouds, or areas where biological indicators such as dead animals or vegetation are located.

(4) Required information: The following information to the extent available shall be obtained by the employer prior to allowing employees to enter a site:

(A) Location and approximate size of the site.

(B) Description of the response activity and/or the job task to be performed.

(C) Duration of the planned employee activity.

(D) Site topography and accessibility by air and roads.

(E) Safety and health hazards expected at the site.

(F) Pathways for hazardous substance dispersion.

(G) Present status and capabilities of emergency response teams that would provide assistance to hazardous waste clean-up site employees at the time of an emergency.

(H) Hazardous substances and health hazards involved or expected at the site, and their chemical and physical properties.

(5) Personal protective equipment: Personal protective equipment (PPE) shall be provided and used during initial site entry in accordance with the following requirements:

(A) Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below PELs and published exposure levels for known or suspected hazardous substances and health hazards and will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no PEL or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment.

(B) If positive-pressure self-contained breathing apparatus is not used as part of the entry ensemble, and if respiratory protection is warranted by the potential hazards identified during the preliminary site evaluation, an escape self-contained breathing apparatus of at least five minute's duration shall be carried by employees during initial site entry.

(C) If the preliminary site evaluation does not produce sufficient information to identify the hazards or suspected hazards of the site, an ensemble providing protection equivalent to Level B PPE shall be provided as minimum protection and direct reading instruments shall be used as appropriate for identifying IDLH conditions. (See Appendix B for guidelines on Level B protective equipment, and a description of Level B hazards.)

(D) Once the hazards of the site have been identified, the appropriate PPE shall be selected and used in accordance with subsection (g).

(6) Monitoring: The following monitoring shall be conducted during initial site entry when the site evaluation produces information that shows the potential for ionizing radiation or IDLH conditions, or when the site information is not sufficient to rule out these possible conditions:

(A) Monitoring with direct reading instruments for hazardous levels of ionizing radiation.

(B) Monitoring the air with appropriate direct reading test equipment (i.e., combustible gas meters, detector tubes) for IDLH and other conditions that may cause death or serious harm (combustible or explosive atmospheres, oxygen deficiency, toxic substances.)

(C) Visually observing for signs of actual or potential IDLH or other dangerous conditions.

(D) An on-going air monitoring program in accordance with subsection (h) shall be implemented after site characterization has determined the site is safe for the start-up of operations.

(7) Risk identification: Once the presence and concentrations of specific hazardous substances and health hazards have been established, the risks associated with these substances shall be identified. Employees who will be working on the site shall be informed of any risks that have been identified. In situations covered by the Hazard Communication standard, 8 CCR 5194, training required by that standard need not be duplicated.

NOTE TO (c)(7): Risks to consider include, but are not limited to:

A. Exposures exceeding the PELs, and published exposure levels.

B. IDLH concentrations.

C. Potential skin absorption and irritation sources.

D. Potential eye irritation sources.

E. Explosion sensitivity and flammability ranges.

F. Oxygen deficiency.

(8) Employee notification: Any information concerning the chemical, physical, and toxicologic properties of each substance known or expected to be present on site that is available to the employer and relevant to the duties an employee is expected to perform shall be made available to the affected employees prior to the commencement of their work activities. The employer may utilize information developed for the hazard communication standard, 8 CCR 5194, for this purpose.

(d) Site Control.

(1) General: Appropriate site control procedures shall be implemented to control employee exposure to hazardous substances before clean-up work begins.

(2) Site control program: A site control program for protecting employees which is part of the employer's site safety and health program required in subsection (b) of this section shall be developed during the planning stages of a hazardous waste clean-up operation and modified as necessary as new information becomes available.

(3) Elements of the site control program: The site control program shall, as a minimum, include: A site map; site work zones; the use of a "buddy system;" site communications including alerting means for emergencies; the standard operating procedures or safe work practices; and, identification of nearest medical assistance. Where these requirements are covered elsewhere they need not be repeated.

(e) Training.

(1) General.

(A) All employees working on site (such as but not limited to equipment operators, general laborers, and others) exposed to hazardous substances, health hazards, or safety hazards, and their supervisors and management responsible for the site shall receive training meeting the requirements of this subsection before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards, and they shall receive review training as specified in this subsection.

(B) Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

(2) Elements to be covered: The training shall thoroughly cover the following:

(A) Names of personnel and alternates responsible for site safety and health;

(B) Safety, health and other hazards present on the site;

(C) Use of PPE;

(D) Work practices by which the employee can minimize risks from hazards;

(E) Safe use of engineering controls and equipment on the site;

(F) Medical surveillance requirements including recognition of symptoms and signs which might indicate overexposure to hazards; and

(G) Subsections 7. through 10. of the site safety and health plan set forth in subsection (b)(4)(B) of this section.

(3) Initial training.

(A) General site workers (such as equipment operators, general laborers, and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site, and a minimum of three days actual field experience under the direct supervision of a trained, experienced supervisor.

(B) Workers on site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geo-physical surveying) and who are unlikely to be exposed over PELs and published exposure levels shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(C) Workers regularly on site who work in areas which have been monitored and fully characterized indicating that exposures are under PELs and published exposure levels where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive a minimum of 24 hours of instruction off the site and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(D) Workers with 24 hours of training who are covered by subsections (e)(3)(B) and (e)(3)(C) of this section, and who become general site workers or who are required to wear respirators, shall have the additional 16 hours and two days of training necessary to total the training specified in subsection (e)(3)(A).

(4) Management and supervisor training: On-site management and supervisors directly responsible for, or who supervise employees engaged in, hazardous waste operations shall receive 40 hours initial training, and three days of supervised field experience (the training may be reduced to 24 hours and one day if the only area of their responsibility is employees covered by subsections (e)(3)(B) and (e)(3)(C)) and at least eight additional hours of specialized hazardous waste operations management training at the time of job assignment on such topics as, but not limited to, the employer's safety and health program and the associated employee training program, PPE program, spill containment program, and health hazard monitoring procedure and techniques.

(5) Qualifications for trainers: Trainers shall be qualified to instruct employees about the subject matter that is being presented in training. Such trainers shall have satisfactorily completed a training program for teaching the subjects they are expected to teach, or they shall have the academic credentials and instructional experience necessary for teaching the subjects. Instructors shall demonstrate competent instructional skills and knowledge of the applicable subject matter.

(6) Training certification: Employees and supervisors that have received and successfully completed the training and field experience specified in subsections (e)(1) through (e)(4) of this section shall be certified by their instructor or the head instructor and trained supervisor as having successfully completed the necessary training. A written certificate shall be given to each person so certified. Any person who has not been so certified or who does not meet the requirements of subsection (e)(9) of this section shall be prohibited from engaging in hazardous waste operations.

(7) Emergency response: Employees who are engaged in responding to hazardous emergency situations at hazardous waste clean-up sites that may expose them to hazardous substances shall be trained in how to respond to such expected emergencies.

(8) Refresher training: Employees specified in subsection (e)(1) of this section, and managers and supervisors specified in subsection (e)(4) of this section, shall receive eight hours of refresher training annually on the items specified in subsection (e)(2) and/or (e)(4) of this section, any critique of incidents that have occurred in the past year that can serve as training examples of related work, and other relevant topics.

(9) Equivalent training: Employers who can show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that training required in subsections (e)(1) through (e)(4) of this section shall not be required to provide the initial training requirements of those subsections to such employees. However, certified employees or employees with equivalent training new to a site shall receive appropriate, site specific training before site entry and have appropriate supervised field experience at the new site. Equivalent training includes any academic training or the training that existing employees might have already received from actual hazardous waste site work experience.

(f) Medical Surveillance.

(1) General: Employers engaged in operations specified in subsections (a)(1)(A) through (a)(1)(D) of this section and not covered by (a)(2)(C) exceptions, and employers of employees specified in subsection (q)(9) shall institute a medical surveillance program in accordance with this subsection.

(2) Employees covered: The medical surveillance program shall be instituted by the employer for the following employees:

(A) Any employee who is or may be exposed to hazardous substances or health hazards at or above the PELs or, if there is no PEL, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year.

(B) Any employee who wears a respirator during any part of a day for a period of 30 days or more in a year, or as required by 8 CCR 5144.

(C) Any employee who is injured, becomes ill or develops signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation; and

(D) Members of HAZMAT teams.

(3) Frequency of medical examinations and consultations: Medical examinations and consultations shall also be made available by the employer to each employee covered under subsection (f)(2) on the following schedules:

(A) For employees covered under subsections (f)(2)(A), (f)(2)(B), and (f)(2)(D):

1. Prior to assignment.

2. At least once every twelve months for each employee covered, unless the attending physician believes a longer interval (not greater than biennially) is appropriate.

3. At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last six months.

4. As soon as possible, upon notification by an employee either that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards or that the employee has been injured or exposed above the PELs or published exposure levels in an emergency situation.

5. At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary.

(B) For employees covered under subsection(f)(2)(C) and for all employees including those of employers covered by subsection (a)(1)(E) who may have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances resulting from an emergency incident, or exposed during an emergency incident to hazardous substances at concentrations above the PELs or the published exposure levels without the necessary personal protective equipment being used:

1. As soon as possible following the emergency incident or development of signs or symptoms;
2. At additional times, if the examining physician determines that follow-up examinations or consultations are medically necessary.

(4) Content of medical examinations and consultations.

(A) Medical examinations required by subsection (f)(2) of this section shall include a medical and work history (or updated history if one is in the employee's file) with special emphasis on symptoms related to the handling of hazardous substances and health hazards, and to fitness for duty including the ability to wear any required PPE under conditions (e.g., temperature extremes) that may be expected at the work site.

(B) The content of medical examinations or consultations made available to employees pursuant to subsection (f) shall be determined by the examining physician. The guidelines in the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (see Appendix D, Reference #10) should be consulted.

(5) Examination by a physician and costs: All medical examinations and procedures shall be performed by or under the supervision of a licensed physician, preferably one knowledgeable in occupational medicine, and shall be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

(6) Information provided to the physician: The employer shall provide one copy of this standard and its appendices to the attending physician, and in addition, the following for each employee:

(A) A description of each employee's duties as they relate to the employee's exposures.

(B) Each employee's exposure levels or anticipated exposure levels.

(C) A description of any PPE used or to be used by each employee.

(D) Information from previous medical examinations of each employee which is not readily available to the examining physician.

(E) Information required by 8 CCR 5144 for each employee.

(7) Physician's written opinion.

(A) The employer shall obtain and furnish the employee with a copy of a written opinion from the examining physician containing the following:

1. The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator use.
2. The physician's recommended limitations upon the employee's assigned work.
3. A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

(B) The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposures.

(C) The physician shall provide the results of the medical examination and tests to the employee if requested.

(8) Recordkeeping.

(A) An accurate record of the medical surveillance required by subsection (f) shall be retained. This record shall be retained for the period specified and meet the criteria of 8 CCR 3204.

(B) The record required in subsection (f)(8)(A) shall include at least the following information:

1. The name and social security number of the employee.
2. Physician's written opinions, recommended limitations, and results of examinations and tests.
3. Any employee medical complaints related to exposure to hazardous substances.
4. A copy of the information provided to the examining physician by the employer, with the exception of the standard and its appendices.

(g) Engineering Controls, Work Practices, and Personal Protective Equipment for Employee Protection: Engineering controls, work practices, PPE, or a combination of these shall be implemented in accordance with this subsection to protect employees from exposure to hazardous substances and safety and health hazards.

(1) Engineering controls, work practices and PPE for substances regulated in 8 CCR, Ch. 4, Subch. 7, Groups 14, 15, and 16.

(A) Engineering controls and work practices shall be instituted to reduce and maintain employee exposure to or below the PELs of substances regulated by 8 CCR 5155, except to the extent that such controls and practices are not feasible.

NOTE TO (g)(1)(A): Engineering controls which may be feasible include the use of pressurized cabs or control booths on equipment, and/or the use of remotely operated material handling equipment. Work practices which may be feasible are removing all non-essential employees from potential exposure during opening of drums, wetting down dusty operations and locating employees upwind of possible hazards.

(B) Whenever engineering controls and work practices are not feasible or not required, any reasonable combination of engineering controls, work practices, and PPE shall be used to protect employees to reduce exposure to or below established PELs or exposure limits for substances regulated by 8 CCR, Ch. 4, Subch. 7, Group 16.

(C) The employer shall not implement a schedule of employee rotation as a means of compliance with PELs or exposure limits except when there is no other feasible way of complying with the applicable ionizing radiation exposure standards.

(D) The provisions of 8 CCR, Ch. 4, Subch. 7, Groups 14 and 15 shall be followed.

(2) Engineering controls, work practices, and PPE for substances not regulated in 8 CCR, Ch. 4, Subch. 7, Groups 14, 15, and 16: An appropriate combination of engineering controls, work practices, and personal protective equipment shall be used to reduce and maintain employee exposure to or below the published exposure levels for hazardous substances and health hazards not regulated by 8 CCR, Ch. 4, Subch. 7, Groups 14, 15, and 16. The employer may use the published literature and Safety Data Sheets (SDS's) as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no PEL or published exposure level.

(3) Personal protective equipment selection.

(A) Personal protective equipment (PPE) shall be selected and used which will protect employees from the hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis.

(B) Personal protective equipment selection shall be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

(C) Positive pressure self-contained breathing apparatus (SCBA) or positive pressure airline respirators equipped with an escape air supply shall be used when chemical exposure levels present will create a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

(D) Totally-encapsulating chemical protective suits (protection equivalent to Level A protection as recommended in Appendix B) shall be used in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

(E) The level of protection provided by PPE selection shall be increased when additional information on site conditions shows that increased protection is necessary to reduce employee exposures below established PELs and published exposure levels for hazardous substances and health hazards. (See Appendix B for guidance on selecting PPE ensembles.)

(F) Personal protective equipment shall be selected and used to meet the requirements of 8 CCR, Ch. 4, Subch. 7, Group 2, Articles 10 and 10.1, and 8 CCR 5144 of the General Industry Safety Orders, and additional requirements specified in this section.

NOTE TO (g)(3): The level of employee protection provided may be decreased when additional information or site conditions show that decreased protection will not result in hazardous exposures to employees.

(4) Totally-encapsulating chemical protective suits.

(A) Totally-encapsulating suits shall protect employees from the particular hazards which are identified during site characterization and analysis.

(B) Totally-encapsulating suits shall be capable of maintaining positive air pressure. (See Appendix A for a test method which may be used to evaluate this requirement.)

(C) Totally-encapsulating suits shall be capable of preventing inward test gas leakage of more than 0.5 percent. (See Appendix A for a test method which may be used to evaluate this requirement.)

(5) Personal protective equipment (PPE) program: A written personal protective equipment program, which is part of the employer's safety and health program required in subsection (b) of this section or required in subsection (p)(1) of this section and which is also a part of the site-specific safety and health plan shall be established. The PPE program shall address the elements listed below. When elements, such as donning and doffing procedures, are provided by the manufacturer of a piece of equipment and are attached to the plan, they need not be rewritten into the plan as long as they adequately address the procedure or element.

(A) PPE selection based upon site hazards,

(B) PPE use and limitations of the equipment,

(C) Work mission duration,

(D) PPE maintenance and storage,

(E) PPE decontamination and disposal,

(F) PPE training and proper fitting,

(G) PPE donning and doffing procedures,

(H) PPE inspection procedures prior to, during, and after use,

(I) Evaluation of the effectiveness of the PPE program, and

(J) Limitations during temperature extremes, heat stress, and other appropriate medical considerations.

(h) Monitoring.

(1) General.

(A) Monitoring shall be performed in accordance with this subsection where there may be a question of employee exposure to hazardous concentrations of hazardous substances in order to assure proper selection of engineering controls, work practices, and PPE so that employees are not exposed to levels which exceed PELs, or published exposure levels if there are no PELs, for hazardous substances.

(B) Air monitoring shall be used to identify and quantify airborne levels of hazardous substances, and health and safety hazards in order to determine the appropriate level of employee protection needed on site.

(2) Initial entry: Upon initial entry, representative air monitoring shall be conducted to identify any IDLH conditions, exposure over PELs or published exposure levels, exposure over a radioactive material's dose limits, or other dangerous situations such as the presence of flammable atmospheres or oxygen-deficient environments.

(3) Periodic monitoring: Periodic monitoring shall be conducted when the possibility of an IDLH condition or flammable atmosphere has developed or when there is indication that exposures may have risen over PELs or published exposure levels since prior monitoring. Situations where it shall be considered whether the possibility that exposures have risen are as follows:

(A) When work begins on a different portion of the site.

(B) When contaminants other than those previously identified are being handled.

(C) When a different type of operation is initiated (e.g., drum opening as opposed to exploratory well drilling).

(D) When employees are handling leaking drums or containers or working in areas with obvious liquid contamination (e.g., a spill or lagoon).

(4) Monitoring of high-risk employees: After the actual clean-up phase of any hazardous waste operation commences; for example, when soil, surface water or containers are moved or disturbed; the employer shall monitor those employees likely to have the highest exposures to hazardous substances and health hazards likely to be present above PELs or published exposure levels by using personal sampling frequently enough to characterize employee exposures.

If the employees likely to have the highest exposure are over PELs or published exposure levels, then monitoring shall continue in order to identify all employees likely to be above those limits. The employer may utilize a representative sampling approach by documenting that the employees and chemicals chosen for monitoring are based on the criteria stated above.

NOTE TO (h): It is not required to monitor employees engaged in site characterization operations covered by subsection (c) of this section.

(i) Informational Programs: Employers shall develop and implement a program, which is part of the employer's safety and health program required in subsection (b) of this section, to inform employees, contractors, and subcontractors (or their representatives) actually engaged in hazardous waste operations of the nature, level, and degree of exposure likely as a result of participation in such hazardous waste operations. Employees, contractors, and subcontractors working outside of the operations part of a site are not covered by this regulation.

(j) Handling Drums and Containers.

(1) General.

(A) Hazardous substances and contaminated soils, liquids, and other residues shall be handled, transported, labeled, and disposed of in accordance with this subsection.

(B) Drums and containers used during the clean-up shall meet the appropriate U.S. Department of Transportation (DOT), OSHA, and EPA regulations for the wastes that they contain.

(C) When practical, drums and containers shall be inspected and their integrity shall be assured prior to being moved. Drums or containers that cannot be inspected before being moved because of storage conditions (i.e., buried beneath the earth, stacked behind other drums, stacked several tiers high in a pile, etc.) shall be moved to an accessible location and inspected prior to further handling.

(D) Unlabeled drums and containers shall be considered to contain hazardous substances and handled accordingly until the contents are positively identified and labeled.

(E) Site operations shall be organized to minimize the amount of drum or container movement.

(F) Prior to movement of drums or containers, all employees exposed to the transfer operation shall be warned of the potential hazards associated with the contents of the drums or containers.

(G) U. S. Department of Transportation (DOT) specified salvage drums or containers and suitable quantities of proper absorbent shall be kept available and used in areas where spills, leaks, or ruptures may occur.

(H) Where major spills may occur, a spill containment program which is part of the employer's safety and health program required in subsection (b) of this section shall be implemented to contain and isolate the entire volume of the hazardous substance being transferred.

(I) Drums and containers that cannot be moved without rupture, leakage, or spillage shall be emptied into a sound container using a device classified for the material being transferred.

(J) A ground-penetrating system or other type of detection system or device shall be used to estimate the location and depth of buried drums or containers.

(K) Soil or covering material shall be removed with caution to prevent drum or container rupture.

(L) Fire extinguishing equipment meeting the requirements of 8 CCR, Ch. 4, Subch.7, Group 27 of the General Industry Safety Orders shall be on hand and ready for use to control incipient fires.

(2) Opening drums and containers: The following procedures shall be followed in areas where drums or containers are being opened:

(A) Where an airline respirator system is used, connections to the bank of air cylinders shall be protected from contamination and the entire system shall be protected from physical damage.

(B) Employees not actually involved in opening drums or containers shall be kept a safe distance from the drums or containers being opened.

(C) If employees must work near or adjacent to drums or containers being opened, a suitable shield that does not interfere with the work operation shall be placed between the employee and the drums or containers being opened to protect the employee in case of accidental explosion.

(D) Controls for drum or container opening equipment, monitoring equipment, and fire suppression equipment shall be located behind the explosion-resistant barrier.

(E) When there is a reasonable possibility of flammable atmosphere being present, material handling equipment and hand tools shall be of the type to prevent sources of ignition.

(F) Drums and containers shall be opened in such a manner that excess interior pressure will be safely relieved. If pressure cannot be relieved from a remote location, appropriate shielding shall be placed between the employee and the drums or containers to reduce the risk of employee injury.

(G) Employees shall be instructed not to stand upon or work from drums or containers.

(3) Material handling equipment: Material handling equipment used to transfer drums and containers shall be selected, positioned and operated to minimize sources of ignition related to the equipment from igniting vapors released from ruptured drums or containers.

(4) Radioactive wastes: Drums and containers containing radioactive wastes shall not be handled until such time as their hazard to employees is properly assessed.

(5) Shock sensitive wastes: As a minimum, the following special precautions shall be taken when drums and containers containing or suspected of containing shock-sensitive wastes are handled:

(A) All non-essential employees shall be evacuated from the area of transfer.

(B) Material handling equipment shall be provided with explosive containment devices or protective shields to protect equipment operators from exploding containers.

(C) An employee alarm system capable of being perceived above surrounding light and noise conditions shall be used to signal the commencement and completion of explosive waste handling activities.

(D) Continuous communications (i.e., portable radios, hand signals, telephones, as appropriate) shall be maintained between the employee-in-charge of the immediate handling area and both the site safety and health supervisor and the command post until such time as the handling operation is completed.

Communication equipment or methods that could cause shock sensitive materials to explode shall not be used.

(E) Drums and containers under pressure, as evidenced by bulging or swelling, shall not be moved until such time as the cause for excess pressure is determined and appropriate containment procedures have been implemented to protect employees from explosive relief of the drum.

(F) Drums and containers containing packaged laboratory wastes shall be considered to contain shock-sensitive or explosive materials until they have been characterized.

CAUTION: Shipping of shock sensitive wastes may be prohibited under U. S. Department of Transportation (DOT) regulations. Employers and shippers should refer to 49 CFR 173.21 and 173.50.

(6) Laboratory waste packs: In addition to the requirements of subsection (j)(5), the following precautions shall be taken, as a minimum, in handling laboratory waste packs (lab packs).

(A) Lab packs shall be opened only when necessary and then only by an individual knowledgeable in the inspection, classification, and segregation of the containers within the pack according to the hazards of the wastes.

(B) If crystalline material is noted on any container, the contents shall be handled as a shock-sensitive waste until the contents are identified.

(7) Sampling of drum and container contents: Sampling of containers and drums shall be done in accordance with a sampling procedure which is part of the site safety and health plan developed for and available to employees and others at the specific worksite.

(8) Shipping and transport.

(A) Drums and containers shall be identified and classified prior to packaging for shipment.

(B) Drum or container staging areas shall be kept to the minimum number necessary to safely identify and classify materials and prepare them for transport.

(C) Staging areas shall be provided with adequate access and egress routes.

(D) Bulking of hazardous wastes shall be permitted only after a thorough characterization of the materials has been completed.

(9) Tank and vault procedures.

(A) Tanks and vaults containing hazardous substances shall be handled in a manner similar to that for drums and containers, taking into consideration the size of the tank or vault.

(B) Appropriate tank or vault entry procedures as described in the employer's safety and health plan and meeting the requirements of 8 CCR, Ch. 4, Subch. 7, Article 108 of the General Industry Safety Orders shall be followed whenever employees must enter a tank or vault.

(k) Decontamination.

(1) General: Procedures for all phases of decontamination shall be developed and implemented in accordance with this subsection.

(2) Decontamination procedures.

(A) A decontamination procedure shall be developed, communicated to employees, and implemented before any employees or equipment may enter areas on site where potential for exposure to hazardous substances exists.

(B) Standard operating procedures shall be developed to minimize employee contact with hazardous substances or with equipment that has contacted hazardous substances.

(C) All employees leaving a contaminated area shall be appropriately decontaminated; all contaminated clothing and equipment leaving a contaminated area shall be appropriately disposed of or decontaminated.

(D) Decontamination procedures shall be monitored by the site safety and health supervisor to determine their effectiveness. When such procedures are found to be ineffective, appropriate steps shall be taken to correct any deficiencies.

(3) Location: Decontamination shall be performed in geographical areas that will minimize the exposure of uncontaminated employees or equipment to contaminated employees or equipment.

(4) Equipment and solvents: All equipment and solvents used for decontamination shall be decontaminated or disposed of properly.

(5) Personal protective clothing and equipment.

(A) Protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained, or replaced as needed to maintain its effectiveness.

(B) Employees whose non-impermeable clothing becomes wetted with hazardous substances shall immediately remove that clothing and proceed to shower. The clothing shall be disposed of or decontaminated before it is removed from the work zone.

(6) Unauthorized employees: Unauthorized employees shall be instructed not to remove protective clothing or equipment from change rooms.

(7) Commercial laundries or cleaning establishments: Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment shall be informed of the potentially harmful effects of exposures to hazardous substances.

(8) Showers and change rooms: Where the decontamination procedure indicates a need for regular showers and change rooms outside of a contaminated area, they shall be provided and meet the requirements of 8 CCR, Ch. 4, Subch. 7, Article 9 of the General Industry Safety Orders. If temperature conditions prevent the effective use of water, then other effective means for cleansing shall be provided and used.

(l) Emergency Response by Employees at Uncontrolled Hazardous Waste Sites.

(1) Emergency response plan.

(A) An emergency response plan shall be developed and implemented by all employers within the scope of subsections (a)(1)(A)-(B) of this section to handle anticipated emergencies prior to the commencement of hazardous waste operations. The plan shall be in writing and available for inspection and copying by

employees, their representatives, Division personnel, and other governmental agencies with relevant responsibilities.

(B) Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this subsection if they provide an emergency action plan complying with 8 CCR 3220 of the General Industry Safety Orders.

(2) Elements of an emergency response plan: The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following:

(A) Pre-emergency planning.

(B) Personnel roles, lines of authority, and communication.

(C) Emergency recognition and prevention.

(D) Safe distances and places of refuge.

(E) Site security and control.

(F) Evacuation routes and procedures.

(G) Decontamination procedures which are not covered by the site safety and health plan.

(H) Emergency medical treatment and first aid.

(I) Emergency alerting and response procedures.

(J) Critique of response and follow-up.

(K) Personal protective equipment (PPE) and emergency equipment.

(3) Procedures for handling emergency incidents.

(A) In addition to the elements for the emergency response plan required in subsection (1)(2), the following elements shall be included for emergency response plans:

1. Site topography, layout, and prevailing weather conditions.

2. Procedures for reporting incidents to local, state, and federal governmental agencies.

(B) The emergency response plan shall be a separate section of the Site Safety and Health Plan.

(C) The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

(D) The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

(E) The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

(F) An employee alarm system shall be installed in accordance with 8 CCR, Ch. 4, Subch. 7, Article 165 of the General Industry Safety Orders to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication, and to begin emergency procedures.

(G) Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

(m) Illumination: Areas accessible to employees shall be lighted to not less than the minimum illumination intensities listed in Table H-1 while any work is in progress:

Table H-1

Minimum Illumination Intensities in Foot-Candles

<i>Foot candles</i>	<i>Area or operations</i>
5	General site areas.
3.	Excavation and waste areas, accessways, active storage areas, loading platforms, refueling, and field maintenance areas.
5	Indoors: Warehouses, corridors, hallways, and exit ways.
5	Tunnels, shafts, and general underground work areas. (EXCEPTION: Minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Mine Safety and Health Administration approved cap lights shall be acceptable for use in the tunnel heading.)
10	General shops (e.g., mechanical and electrical equipment rooms, active storerooms, barracks or living quarters, locker or dressing rooms, dining areas, and indoor toilets and workrooms.)
30	First aid stations, infirmaries, and offices.

(n) Sanitation at Temporary Workplaces.

(1) Potable water.

(A) An adequate supply of potable water shall be provided on the site.

(B) Portable containers used to dispense drinking water shall be capable of being tightly closed and equipped with a tap, and shall be otherwise designed, constructed, and serviced so that sanitary conditions are maintained. Water shall not be dipped from containers.

(C) Any container used to store, dispense, or distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose.

(D) Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

(2) Nonpotable water.

(A) Outlets for nonpotable water, such as water for industrial or firefighting purposes, shall be identified to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.

(B) There shall be no cross-connection, open or potential, between a system furnishing potable water and a system furnishing nonpotable water.

(3) Toilet facilities.

(A) A minimum of one separate toilet facility shall be provided for each 20 employees or fraction thereof of each sex. Such facilities may include both toilets and urinals provided that the number of toilets shall not be less than one half of the minimum required number of facilities.

EXCEPTION: Where there are less than 5 employees, separate toilet facilities for each sex are not required provided the toilet facilities can be locked from the inside and contain at least one toilet.

(B) Under temporary field conditions, provisions shall be made to assure that at least one toilet facility is available.

(C) Hazardous waste sites, not provided with a sanitary sewer, shall be provided with the following toilet facilities unless prohibited by local codes:

1. Chemical toilets;
2. Recirculating toilets;
3. Combustion toilets; or
4. Flush toilets.

(D) The requirements of this subsection for sanitation facilities shall not apply to mobile crews having transportation readily available to nearby toilet facilities.

(E) Doors entering toilet facilities shall be provided with entrance locks controlled from inside the facility.

(F) Toilet facilities shall be kept clean, maintained in good working order, and provided with an adequate supply of toilet paper.

(4) Food handling: All food service facilities and operations for employees shall meet the applicable laws, ordinances, and regulations of the jurisdictions in which they are located.

(5) Temporary sleeping quarters: When temporary sleeping quarters are provided, they shall be heated, ventilated, and lighted.

(6) Washing facilities: The employer shall provide adequate washing facilities for employees engaged in operations where hazardous substances may be harmful to employees. Such facilities shall be in near proximity to the worksite; in areas where exposures are below PELs and published exposure levels and which are under the control of the employer; and shall be so equipped as to enable employees to remove hazardous substances from themselves.

(7) Showers and change rooms: When hazardous waste clean-up or removal operations commence on a site and the duration of the work will require six months or greater time to complete, the employer shall provide showers and change rooms for all employees exposed to hazardous substances and health hazards involved in hazardous waste clean-up or removal operations.

(A) Showers shall be provided and shall meet the requirements of 8 CCR 3366(f).

(B) Change rooms shall be provided and shall meet the requirements of 8 CCR 3367. Change rooms shall consist of two separate change areas separated by the shower area required in subsection (n)(7)(A) of this section. One change area, with an exit leading off the worksite, shall provide employees with a clean area where they can remove, store, and put on street clothing. The second area, with an exit to the worksite, shall provide employees with an area where they can put on, remove, and store work clothing and personal protective equipment.

(C) Showers and change rooms shall be located in areas where exposures are below the PELs and published exposure levels. If this cannot be accomplished, then a ventilation system shall be provided that will supply air that is below the PELs and published exposure levels.

(D) Employers shall assure that employees shower at the end of their work shift and when leaving the hazardous waste site.

(o) New Technology Programs.

(1) The employer shall develop and implement procedures for the introduction of effective new technologies and equipment developed for the improved protection of employees working with hazardous waste clean-up operations, and the same shall be implemented as part of the site safety and health program to assure that employee protection is being maintained.

(2) New technologies, equipment, or control measures available to the industry, such as the use of foams, absorbents, adsorbents, neutralizers, or other means to suppress the level of air contaminants while excavating the site or for spill control, shall be evaluated by employers or their representatives. Such an evaluation shall be done to determine the effectiveness of the new methods, materials, or equipment before implementing their use on a large scale for enhancing employee protection. Information and data from manufacturers or suppliers may be used as part of the employer's evaluation effort. Such evaluations shall be made available to the Division upon request.

(p) Certain Operations Conducted Under the Resource Conservation and Recovery Act of 1976 (RCRA): Employers conducting operations at treatment, storage, and disposal (TSD) facilities specified in subsection (a)(1)(D) of this section shall provide and implement the programs specified in this subsection. (See the "NOTES AND EXCEPTIONS" to subsection (a)(2)(C) of this section for employers not covered.)

(1) Safety and health program: The employer shall develop and implement a written safety and health program for employees involved in hazardous waste operations that shall be available for inspection by employees, their representatives, and Division personnel. The program shall be designed to identify, evaluate, and control safety and health hazards in their facilities for the purpose of employee protection; to provide for emergency response meeting the requirements of subsection (p)(8) of this section; and to address as appropriate site analysis, engineering controls, maximum exposure limits, hazardous waste handling procedures, and uses of new technologies.

(2) Hazard communication program: The employer shall implement a hazard communication program meeting the requirements of 8 CCR 5194 as part of the employer's safety and health program.

NOTE TO 8 CCR 5192: The exemption for hazardous waste provided in 8 CCR 5194 is applicable to this section.

(3) Medical surveillance program: The employer shall develop and implement a medical surveillance program meeting the requirements of subsection (f) of this section.

(4) Decontamination program: The employer shall develop and implement a decontamination procedure in accordance with subsection (k) of this section.

(5) New technology program: The employer shall develop and implement procedures meeting the requirements of subsection (o) of this section for introducing new and innovative equipment into the workplace.

(6) Material handling program: Where employees will be handling drums or containers, the employer shall develop and implement procedures meeting the requirements of subsections (j)(1)(B) through (H), and (K) of this section, as well as (j)(3) and (j)(8) of this section prior to starting such work.

(7) Training program.

(A) New employees: The employer shall develop and implement a training program, which is part of the employer's safety and health program, for employees exposed to health hazards or hazardous substances at TSD operations to enable employees to perform their assigned duties and functions in a safe and healthful manner so as not to endanger themselves or other employees. The initial training shall be for 24 hours and refresher training shall be for eight hours annually. Employees who have received the initial training required by this subsection shall be given a written certificate attesting that they have successfully completed the necessary training.

(B) Current employees: Employers who can show by an employee's previous work experience and/or training that the employee has had training equivalent to the initial training required by this subsection, shall be considered as meeting the initial training requirements of this subsection with respect to that employee. Equivalent training includes the training that existing employees might have already received from actual site work experience. Current employees shall receive eight hours of refresher training annually.

(C) Trainers: Trainers who teach initial training shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, or they shall have the academic credentials and instruction experience necessary to demonstrate a good command of the subject matter of the courses and competent instructional skills.

(8) Emergency response program.

(A) Emergency response plan: An emergency response plan shall be developed and implemented by all employers. Such plans need not duplicate any of the subjects fully addressed in the employer's contingency planning required by permits, such as those issued by the U. S. Environmental Protection Agency, provided that the contingency plan is made part of the emergency response plan. The emergency response plan shall be a written portion of the employer's safety and health program required in subsection (p)(1) of this section. Employers who will evacuate their employees from the worksite location when an emergency occurs and who do not permit any of their employees to assist in handling the emergency are exempt from the requirements of subsection (p)(8) if they provide an emergency action plan complying with 8 CCR 3220.

(B) Elements of an emergency response plan: The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this subsection:

1. Pre-emergency planning and coordination with outside parties.
2. Personnel roles, lines of authority, and communication.
3. Emergency recognition and prevention.
4. Safe distances and places of refuge.

5. Site security and control.
6. Evacuation routes and procedures.
7. Decontamination procedures.
8. Emergency medical treatment and first aid.
9. Emergency alerting and response procedures.
10. Critique of response and follow-up.
11. Personal protective equipment (PPE) and emergency equipment.

(C) Training.

1. Training for emergency response employees shall be completed before they are called upon to perform in real emergencies. Such training shall include the elements of the emergency response plan, standard operating procedures the employer has established for the job, the PPE to be worn and procedures for handling emergency incidents.

EXCEPTION #1: An employer need not train all employees to the degree specified if the employer divides the work force in a manner such that a sufficient number of employees who have responsibility to control emergencies have the training specified, and all other employees, who may first respond to an emergency incident, have sufficient awareness training to recognize that an emergency response situation exists and that they are instructed in that case to summon the fully trained employees and not attempt control activities for which they are not trained.

EXCEPTION #2: An employer need not train all employees to the degree specified if arrangements have been made in advance for an outside fully-trained emergency response team to respond in a reasonable period and all employees, who may come to the incident first, have sufficient awareness training to recognize that an emergency response situation exists and they have been instructed to call the designated outside fully-trained emergency response team for assistance.

2. Employee members of TSD facility emergency response organizations shall be trained to a level of competence in the recognition of health and safety hazards to protect themselves and other employees. This would include training in the methods used to minimize the risk from safety and health hazards; in the safe use of control equipment; in the selection and use of appropriate personal protective equipment; in the safe operating procedures to be used at the incident scene; in the techniques of coordination with other employees to minimize risks; in the appropriate response to over- exposure from health hazards or injury to themselves and other employees; and in the recognition of subsequent symptoms which may result from over-exposures.

3. The employer shall certify that each covered employee has attended and successfully completed the training required in subsection (p)(8)(C) of this section, or shall certify the employee's competency at least yearly. The method used to demonstrate competency for certification of training shall be recorded and maintained by the employer.

(D) Procedures for handling emergency incidents.

1. In addition to the elements for the emergency response plan required in subsection (p)(8)(B) of this section, the following elements shall be included for emergency response plans to the extent that they do not repeat any information already contained in the emergency response plan:

- a. Site topography, layout, and prevailing weather conditions.
  - b. Procedures for reporting incidents to local, state, and federal governmental agencies.
2. The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.
  3. The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.
  4. The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.
  5. An employee alarm system shall be installed in accordance with 8 CCR 6184 to notify employees of an emergency situation; to stop work activities if necessary; to lower background noise in order to speed communication; and to begin emergency procedures.
  6. Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

(q) Emergency Response to Hazardous Substance Releases: This subsection covers employers whose employees are engaged in emergency response no matter where it occurs except that it does not cover employees engaged in operations specified in subsections (a)(1)(A) through (a)(1)(D) of this section. Those emergency response organizations who have developed and implemented programs equivalent to this subsection for handling releases of hazardous substances pursuant to Section 303 of the Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. 11003) shall be deemed to have met the requirements of this subsection.

(1) Emergency response plan: An emergency response plan shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, and Division personnel. Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this subsection if they provide an emergency action plan in accordance with 8 CCR 3220.

(2) Elements of an emergency response plan: The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following to the extent that they are not addressed elsewhere:

- (A) Pre-emergency planning and coordination with outside parties.
- (B) Personnel roles, lines of authority, training, and communication.
- (C) Emergency recognition and prevention.
- (D) Safe distances and places of refuge.
- (E) Site security and control.
- (F) Evacuation routes and procedures.
- (G) Decontamination.

(H) Emergency medical treatment and first aid.

(I) Emergency alerting and response procedures.

(J) Critique of response and follow-up.

(K) Personal protective equipment (PPE) and emergency equipment.

(L) Emergency response organizations may use the local emergency response plan or the state emergency response plan or both, as part of their emergency response plan, to avoid duplication. Those items of the emergency response plan that are being properly addressed by the SARA Title III plans may be substituted into their emergency plan or otherwise kept together for the employer and employee's use.

(3) Procedures for handling emergency response.

(A) The senior emergency response official who has ultimate site control responsibility shall confirm that the Incident Command System (ICS) is in place and the position of Incident Commander (IC) instituted.

All emergency responders and their communications shall be coordinated and controlled through the ICS.

NOTE TO (q)(3)(A): The "senior official" at an emergency response is the most senior official on the site who has the responsibility for controlling the operations at the site until the emergency response official who is determined to have ultimate incident control authority arrives. Initially it is the senior officer on the first-due piece of responding emergency apparatus to arrive on the incident scene, usually a police or fire vehicle. As more senior officials arrive the position is passed up the line of authority which has been previously established. As there may be several separate spheres of responsibility at a given site (police, fire, CalTrans, for example), there may be several "senior officials," each responsible for his/her own employees. The "senior emergency response official" who will have ultimate site control responsibility is established in the Hazardous Material Incident Contingency Plan for the State of California (January 1991), promulgated by the State Office of Emergency Services (OES) as directed by Health and Safety Code, Sec. 25503 (HS 25503), and California Code of Regulations, Title 19, Division 2 (19 CCR, Div. 2: Office of Emergency Services) and in coordination with the various city and county, i.e., area emergency response plans.

(B) The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies.

(C) Based on the hazardous substances and/or conditions present, the individual in charge of the ICS shall implement appropriate emergency operations, and assure that the PPE worn is appropriate for the hazards to be encountered. However, PPE shall meet, at a minimum, the criteria contained in 8 CCR 3401-3408 when worn while performing fire fighting operations beyond the incipient stage for any incident.

(D) Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus (SCBA) while engaged in emergency response, until such time that the individual in charge of the ICS determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposures to employees.

(E) The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the buddy system in groups of two or more.

(F) Back-up personnel shall stand by with equipment ready to provide assistance or rescue, and shall not engage in activities that will detract from that mission. Back-up personnel shall be protected, at a minimum, as the same level as the entry team. Advance first aid support personnel, at a minimum, shall also stand by with medical equipment and transportation capability.

(G) The individual in charge of the ICS shall designate a safety official, who is knowledgeable in the operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the emergency at hand.

(H) When activities are judged by the safety official to be an IDLH condition and/or to involve an imminent danger condition, the safety official shall have the authority to alter, suspend, or terminate those activities. The safety official shall immediately inform the individual in charge of the ICS of any actions needed to be taken to correct these hazards at the emergency scene.

(I) After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.

(J) When deemed necessary for meeting the tasks at hand, approved SCBA may be used with approved cylinders from other approved SCBA, provided that such cylinders are of the same capacity and pressure rating. All compressed air cylinders used with SCBA shall meet U. S. Department of Transportation (DOT) and National Institute for Occupational Safety and Health (NIOSH) criteria.

(4) Skilled support personnel: Personnel, not necessarily an employer's own employees, who are skilled in the operation of certain equipment, such as mechanized earth moving or digging equipment or crane and hoisting equipment, and who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed in a timely fashion by an employer's own employees, and who will be or may be exposed to the hazards at an emergency response scene, are not required to meet the training required in this subsection for the employer's regular employees.

However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. The initial briefing shall include instruction in the wearing of appropriate personal protective equipment, what chemical hazards are involved, and what duties are to be performed. All other appropriate safety and health precautions provided to the employer's own employees shall be used to assure the safety and health of these support personnel.

(5) Specialist employees: Employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advice or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually.

(6) Training: Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders (those hired after the effective date of this standard) shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following subsections:

(A) First Responder, Awareness Level (FRA): First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

1. An understanding of what hazardous substances are, and the risks associated with them in an incident.
2. An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.
3. The ability to recognize the presence of hazardous substances in an emergency.
4. The ability to identify the hazardous substances, if possible.
5. An understanding of the role of the first responder awareness individual in the employer's emergency response plan (including site security and control), and the U. S. Department of Transportation's Emergency Response Guidebook.
6. The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

(B) First Responder, Operations Level (FRO): First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level; and the employer shall so certify:

1. Knowledge of the basic hazard and risk assessment techniques.
2. Know how to select and use proper PPE provided to the first responder operational level.
3. An understanding of basic hazardous materials terms.
4. Know how to perform basic control, containment, and/or confinement operations and rescue injured or contaminated persons within the capabilities of the resources and PPE available with their unit.
5. Know how to implement basic equipment, victim, and rescue personnel decontamination procedures.
6. An understanding of the relevant standard operating procedures and termination procedures.

(C) Hazardous Materials Technician: Hazardous materials technicians are individuals who respond to releases or potential releases of hazardous substances for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch, or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least 24 hours of training of which 8 hours shall be equivalent to the first responder operations level and in addition have competency in the following areas; and the employer shall so certify:

1. Know how to implement the employer's emergency response plan.
2. Know the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment.

3. Be able to function within an assigned role in the ICS.
4. Know how to select and use proper specialized chemical PPE provided to the hazardous materials technician.
5. Understand hazard and risk assessment techniques.
6. Be able to perform advanced control, containment, and/or confinement operations and rescue injured or contaminated persons within the capabilities of the resources and PPE available with the unit.
7. Understand and implement equipment, victim, and rescue personnel decontamination procedures.
8. Understand termination procedures.
9. Understand basic chemical and toxicological terminology and behavior.

(D) Hazardous Materials Specialist: Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local, and other government authorities in regards to site activities. Hazardous materials specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency in the following areas; and the employer shall so certify:

1. Know how to implement the local emergency response plan.
2. Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.
3. Know of the state emergency response plan.
4. Be able to select and use proper specialized chemical PPE provided to the hazardous materials specialist.
5. Understand in-depth hazard and risk techniques.
6. Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and PPE available.
7. Be able to determine and implement decontamination procedures.
8. Have the ability to develop a site safety and health control plan.
9. Understand chemical, radiological, and toxicological terminology and behavior.

(E) Incident Commander/On-scene Manager: Incident commanders, who will assume control of the incident scene beyond the first responder awareness level, shall receive at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas; and the employer shall so certify:

1. Know and be able to implement the employer's incident command system.

2. Know how to implement the employer's emergency response plan.
3. Know and understand the hazards and risks associated with employees working in chemical protective clothing.
4. Know how to implement the local emergency response plan.
5. Know of the state emergency response plan and of the Federal Regional Response Team.
6. Know and understand the importance of decontamination procedures.

NOTE TO (q)(6)(E): Management personnel who, during an emergency situation, stay out of the hazardous area and who are not taking charge of the incident, and are not a "specialist" employee under subsection (q)(5) of this section are not subject to the provisions of this section.

(7) Trainers: Trainers who teach any of the above training subjects shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the California Specialized Training Institute, the California State Fire Marshal's Office, the University of California, or the U. S. National Fire Academy; or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

(8) Refresher training.

(A) Those employees who are trained in accordance with subsection (q)(6) of this section shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.

(B) A statement shall be made of the training or competency; and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

(9) Medical surveillance and consultation.

(A) Members of an organized and designated HAZMAT team, and hazardous materials specialists shall receive a baseline physical examination and be provided with medical surveillance as required in subsection (f) of this section.

(B) Any emergency response employee who exhibits signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency incident, either immediately or subsequently, shall be provided with medical consultation as required in subsection (f)(3)(B) of this section.

(10) Chemical protective clothing: Chemical protective clothing and equipment to be used by organized and designated HAZMAT team members, or to be used by hazardous materials specialists shall meet the requirements of subsections (g)(3) through (5) of this section.

(11) Post-emergency response operations: Upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards, and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the clean-up shall comply with one of the following:

(A) Meet all of the requirements of subsections (b) through (o) of this section; or

(B) Where the clean-up is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following: 8 CCR 3220, 8 CCR 5144, 8 CCR 5194,

and other appropriate safety and health training made necessary by the tasks that they are expected to perform such as the use of PPE, and decontamination procedures. All equipment to be used in the performance of the clean-up work shall be in serviceable condition and shall have been inspected prior to use.

Note: Authority cited: Sections 142.3 and 142.7, Labor Code. Reference: Sections 142.3 and 142.7, Labor Code.

### HISTORY

1. New section including Appendices A-D filed 8-26-91; operative 9-25-91 (Register 92, No. 12).
2. Amendment of definition of "Hazardous substance" filed 9-4-2012; operative 10-4-2012 (Register 2012, No. 36).
3. Amendment of definition of "Health Hazard" within subsection (a)(3), amendment of subsection (g)(2) and amendment of item B. 5.1 within Appendix A filed 5-6-2013; operative 5-6-2013 pursuant to Labor Code section 142.3(a)(4)(C). Submitted to OAL for printing only pursuant to Labor Code section 142.3(a)(4) (Register 2013, No. 19).
4. Amendment of definition of "Health Hazard" within subsection (a)(3), amendment of subsection (g)(2) and amendment of item B. 5.1 within Appendix A refiled 11-6-2013; operative 11-6-2013 pursuant to Labor Code section 142.3(a)(4)(C). Submitted to OAL for printing only pursuant to Labor Code section 142.3(a)(4) (Register 2013, No. 45).
5. Repealer of 11-6-2013 order by operation of law 5-6-2014 pursuant to Labor Code 142.3 (Register 2014, No. 19).
6. Amendment of definition of "Health Hazard" within subsection (a)(3), amendment of subsection (g)(2) and amendment of item B. 5.1 within Appendix A filed 5-5-2014; operative 5-6-2014 pursuant to Government Code section 11343.4(b)(3) (Register 2014, No. 19).
7. Editorial correction restoring inadvertently omitted subsection (a)(2)(B) and portion of (a)(2)(C) (Register 2014, No. 38).
8. Editorial correction of subsection (a)(3) - Oxygen deficiency (Register 2015, No. 37).

[Appendix A](#)

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