



HAZWOPER (Hazardous Waste Operations and Emergency Response) Plan

Administrative Duties

EMA has developed this program to clean up and/or properly handle hazardous wastes at construction sites, because they can pose significant safety and health risks to our workers and those of our subcontractors, when not handled properly.

General

HAZWOPER is a complicated regulation, with many different elements required. At EMA we have done a thorough job of complying with the many aspects of HAZWOPER.

Because we have employees who are responsible for responding to chemical spills, our organization has developed a detailed Emergency Response Plan.

Because of the exposures and potential exposures that workers can have at our facility, we maintain a Medical Surveillance Program, under HAZWOPER.

Because employees use a variety of types of PPE and/or respiratory equipment, in their day-to-day operations, or in the event of a chemical spill, we needed to develop a PPE and/or Respiratory Protection plans.

These plans can be obtained from the Project Manager or the corporate offices. They are contained in our written Safety & Health manual.

Part of our general compliance is to involve local response authorities, when appropriate. We have notified the local fire department as to what chemicals, and in what quantities, we have.

The Project Manager is in charge of the HAZWOPER safety and health programs.

Decontamination Procedures

The decontamination procedures used by our organization are developed prior to the commencement of operations and are detailed in our site specific safety & health program. The purpose of the SOP's are to prevent, remove, or neutralize chemical contaminants that have accumulated on personnel and equipment.

At EMA's, we establish decontamination procedures when there is the possibility of our personnel and equipment being contaminated by hazardous substances, hazardous waste, or where there is a possibility of emergency response activities. Our decontamination standard operating procedures are based on guidance from the "NIOSH/OSHA/USCG/EPA Occupational Safety and Health Manual for Hazardous Waste Site Activities", October 1985. See Attachments.

These procedures, utilizing the forms found in the "NIOSH/OSHA/USCG/EPA Occupational Safety and Health Manual for Hazardous Waste Site Activities", October 1985, shall be developed, communicated to employees, and implemented prior to personnel or equipment being allowed to

enter areas where the potential for exposure to hazardous substances or wastes may exist.

All employees and equipment shall be decontaminated, cleaned, laundered, maintained, or replaced as needed to maintain its effectiveness and control the dispersion of contaminants from the regulated areas. Impermeable clothing which becomes contaminated with hazardous substances shall be immediately removed by employees, and said employee/s shall proceed directly to decontamination unit to remove any contaminants which may have penetrated and permeated the clothing. Equipment, solvents, and clothing which can not be decontaminated effectively shall be disposed of in accordance with applicable regulations for the contaminants.

Decontamination units/areas shall be so located as to minimize the geographical spread of contaminants to the environment, equipment, and personnel. Examples would be locating the decontamination units upwind of the prevailing wind conditions, on higher ground out of ravines or ditches, and adjacent to the established exclusion zones.

Unauthorized employees shall not enter controlled areas or remove protective clothing and equipment from decontamination unit change rooms. Protective clothing and equipment sent to commercial establishments shall be accompanied by documentation or the equivalent to ensure that the establishment is aware of the potential contaminants and the potential harmful effects of the hazardous substances.

Where regular showers and change rooms are required outside of contaminated areas, the change rooms shall meet the requirements of 29 CFR 1910.141. If temperature conditions prevent the effective use of water, the Project Manager or designated representative, shall provide and use other effective means of decontamination.

These incorporated and adopted procedures are monitored by the Project Manager to ensure their effectiveness. When deficiencies are noted, they shall be corrected immediately. The procedures will protect workers from hazardous substances that may contaminate and eventually permeate the protective clothing, respiratory equipment, and tools.

Our Decontamination plan, as part of our site specific safety plan and attached to this written program, allows us to effectively:

- Determine the number, layout, and location of decontamination stations.
- Determine decontamination equipment that is needed.
- Determine appropriate decontamination methods.
- Establish procedures to prevent contamination of clean areas.
- Establish methods to minimize worker contact with contaminants during removal of ppe.
- Establish methods for disposal of clothing and equipment that cannot be decontaminated.
- Keep unauthorized individuals from entering decontamination areas.
- Inform commercial laundry facilities of potential contaminants and their health effects.
- Provide for showers and change rooms in accordance with 29 CFR 1910.141

- Properly dispose of all solvents and equipment used for decontamination

Our plan is revised whenever the type of ppe and equipment changes, the site conditions change, or the site hazards are reassessed based on new information.

HAZWOPER Training Program

As part of the HAZWOPER program, EMA has developed and implemented a program to inform workers (including contractors and subcontractors) performing hazardous waste or emergency response operations of the level and degree of exposure they are likely to encounter.

This company has also implemented procedures for introducing effective new technologies that provide improved worker protection in hazardous waste operations and spill/leak cleanup. Examples include PPE, foams, absorbents, adsorbents, neutralizers, etc.

Training makes workers aware of the potential hazards they may encounter and provides the necessary knowledge and skills to perform their work with minimal risk to their safety and health. The employer must develop a training program for all employees exposed to safety and health hazards.

Both supervisors and workers must be trained to:

- recognize hazards and to prevent them;
- select, care for and use respirators properly as well as other types of personal protective equipment;
- understand engineering controls and their use;
- use proper decontamination procedures;
- understand the Emergency Response Plan, medical surveillance requirements, confined space entry procedures, spill containment program, and any appropriate work practices.

Workers also must know the names of personnel and their alternatives responsible for site safety and health. The amount of instruction differs with the nature of the work operations. Employees must not perform any hazardous waste or emergency response operations unless they have been trained to the level required by their job function and responsibility, and have been certified by their instructor as having completed the necessary training. All emergency responders must receive refresher training sufficient to maintain or demonstrate competency annually. Employee training requirements are further defined by the nature of the work (e.g., temporary emergency response personnel, firefighters, safety officers, HAZMAT personnel, incident commanders, etc.)

At our facility, the Project Manager or designated representative, is the person responsible for conducting training.. The trainers have equivalent training or the academic background for the topics to be taught to provide competent instruction. We make a determination as to amount of training to be provided using the following criteria:

- Emergency Response Activities

- First Responder Awareness Level – 2 Hours
- First Responder Operations Level – 8 Hours
- Hazardous Materials Technician – 24 Hours
- Hazardous Materials Specialist – 24 Hours
- On-Scene Incident Commander – 24Hours
- Hazardous Waste Operations
 - General Site Workers – 40 Hours off site plus 3 days of field experience
 - Occasional Workers with limited tasks, specialized skills, working in fully characterized areas not likely to exceed established exposure limits, and not required to wear respiratory protection - 24 Hours off site plus 1 day of supervised field experience.
 - Should Occasional workers exceed established exposure limits or need to wear respirators they shall complete additional training - 16 hours off site plus 2 days of supervised field experience
 - Managers and supervisors shall be trained equivalent to a general site worker and have an additional 8 hours of specialized training on topics to include, but not limited to spill control and containment, ppe programs, site specific safety and health programs, and health hazard monitoring procedures and techniques.

We want to offer the best training for our workers. Our program format consist of formal classroom instruction and hands on activities. Our training programs are designed to exceed the minimal requirements specified under the HAZWOPER and RCRA regulations detailed under 29 CFR 1910.120(e)/(q) and 40 CFR 265.16.

Employees are trained prior to assignment to job duties. Training is based on the duties and functions of assigned personnel. Annual refresher training takes place for all individuals conducting hazardous waste operations and emergency response.

Upon completion of training, certificates and wallet cards documenting training are provided to all participants. Copies of certificates are kept in participant's personnel records and at our corporate office, and are accessible to all employees, their representatives, the Secretary of Labor, or designee.

Employees at all hazardous waste sites have been trained to the level required by their job function and responsibility prior to performing any hazardous waste operation.

All emergency responders have received refresher training sufficient to maintain or demonstrate competency annually.

We provide for pre-entry briefing 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. The Project Manager is responsible that this plan is being followed.

Organizational Structure

The Project Manager is the general supervisor who has the responsibility and authority to direct all hazardous waste operations.

The Project Manager is the site safety and health supervisor who has the responsibility and authority to develop and implement the site safety and health plan and verify compliance.

Other personnel who are needed for hazardous waste site operations and emergency response are assigned employees of EMA who have received appropriate training. Their general functions and responsibilities are detailed in our site specific safety and health plan, and are generally dictated by our scope of services detailed by our contracts with host employers.

The lines of authority, responsibility, and communication are as follows: The Project Manager has ultimate responsibility for this plan and carrying out assigned duties in accordance with the developed site specific safety and health plan and required SOP's. All employees shall have a direct line of communication with the Project Manager. All employees have the authority to stop a job if hazards are identified which may jeopardize the safety of the operations at hand. EMA provides the training necessary to allow our employees to identify and predict various job site hazards and the authority to take prompt corrective action.

Our organizational structure is reviewed and updated as necessary to reflect the current status of waste site operations.

Site-Specific Safety and Health Plan

Our site-specific safety and health plan is a program that aids in eliminating or effectively controlling anticipated safety and health hazards. The site safety and health plan identifies the hazards of each phase of the specific site operation and is kept on the work site. The site safety and health plan addresses the safety and health hazards of each phase of site operation and includes the requirements and procedures for employee protection.

We have a safety and health risk and hazard analysis for each site task and operation identified in the work plan. EMA utilizes this analysis to identify and predict hazards associated with our tasks. Once hazards are identified we utilize engineering controls, work practices, and ppe to minimize our exposure to as low as reasonably achievable, but at a minimum, below the most stringent recognized exposure levels established by OSHA, NIOSH, or the ACGIH.

Personal protective equipment is used by employees for some of the site tasks and operations being conducted. See the Personal Protective Equipment Plan for details.

Our organization conducts area and personnel air monitoring utilizing direct reading and passive dosimetry for IDLH conditions and to monitor exposures during the following operations:

- Preliminary evaluations prior to site entry
- Immediately after initial site entry
- On emergency responses
- Periodically on a representative cross section of the work force(25%)
- High risk employees/ high exposure tasks

The environmental sampling techniques and instrumentation that are used, including methods of maintenance and calibration of monitoring and sampling equipment, are conducted by individuals competent to use and interpret readings from appropriate industrial hygiene equipment. When exposures/potential exposures exist, engineering controls, work practices, and ppe are implemented to minimize our exposures.

We encounter confined space situations, we have established confined space entry procedures. See Confined Space Entry Program.

At EMA, our comprehensive work plan (Part of the site specific safety and health program), for our various site activities, are developed utilizing the U.S. Coast guard example located in Appendix B of the "NIOSH/OSHA/USCG/EPA Occupational Safety and Health Manual for Hazardous Waste Site Activities", October 1985. See attachment.

Emergency Response

Prior to the commencement of emergency response operations, an emergency response plan will be developed as part of the site specific safety and health program. At EMA, our emergency response plan (Part of the site specific safety and health program), for our various site activities, are developed utilizing the U.S. Coast guard example located in Appendix B of the "NIOSH/OSHA/USCG/EPA Occupational Safety and Health Manual for Hazardous Waste Site Activities", October 1985. See attachment.

The program addresses at a minimum the following:

- Pre-emergency planning and coordination with outside parties
- Personnel roles, lines of authority, training, and communication
- Emergency recognition and prevention
- Safe distances and places of refuge
- Site security and control
- Evacuation routes and procedures
- Decontamination
- Emergency medical treatment
- Emergency alerting and response procedures
- Critiques of response and follow-up
- Personal protective equipment and emergency equipment

When an emergency arises the Project Manager shall institute the Incident Command System and develop a site specific safety plan in accordance with the attachment to this written plan. This will ensure that all of the above elements have been covered,

Additionally, The "Senior Official", or Project Manager, will ensure:

- Proper PPE is being selected and worn based on the hazards. (Supplied air respirators for emergency response where inhalation hazards are known or suspected). APR's may be utilized after characterization of exposures and assurance they will provide adequate protection.
- Limit access to response area by emergency responders and ensure the "buddy system" is utilized.
- Back up personnel are available for rescue and provision of advanced first aid and medical support.
- An individual will be assigned as a safety official to monitor operation and predict and identify recognized hazards.
- Operations are altered, modified, or terminated when an IDLH condition is identified to protect all associated response personnel.
- Implement appropriate decontamination procedures
- Ensure post emergency response activities are completed such as proper containment, transportation, and disposal of materials confined, as well as a critique of the effectiveness of containment, control, and mitigation of releases.
- All containerized or controlled materials shall be disposed of in accordance with 40 CFR 260-268 (RCRA) and state and local regulations.

Contractor Safety

Because we use contractors' or subcontractors' services for work in hazardous waste operations, we have informed them of the site emergency response procedures and any potential fire, explosion, health, safety, or other hazards of the operation.

We routinely make the written safety and health program available to any contractor who will be involved with the hazardous waste operation. Additionally, contractors are informed they must meet all requirements outlined in the EMA Safety Plan.

Medical Surveillance and Record keeping

All EMA employees shall have appropriate medical surveillance in accordance with 29 CFR 1910.120(f), if such employees:

- Experience signs/symptoms of possible overexposure to hazardous substances.
- Wear a respirator or are a member of our hazmat team.
- May be exposed above established exposure levels 30 days or greater in a year.

Medical surveillance shall be:

- Provided prior to assignment
- Conducted on an annual basis at a minimum (more frequent upon physician recommendation)
- Conducted upon termination of employment
- Provided as soon as possible upon development of signs or symptoms

Medical surveillance records and exposure monitoring records shall be available for review by employees, assigned representatives, or OSHA.

Medical surveillance records shall be maintained for a period of employment plus 30 years. If EMA were to terminate business activities, records will be forwarded to the Director of NIOSH.

Exposure monitoring records will be maintained for a minimum of 30 years.

Attachments

The following attachments shall be utilized by the Project Manager to assist in meeting the requirements of this program:

- Generic Site Safety Plan
- Hazardous Substance Information Form
- Decontamination Procedures for Three Typical Levels of Protection