



SECTION 19
ENVIRONMENTAL



- 1. General:** Compliance with Federal, State, Municipal, and Client Environmental Requirements are of critical concern to Maul Electric, Inc. This part is, for the most part, advisory. Minimal environmental requirements for all company sites are established. Where Federal, State, Municipal and/or Client Requirements meet or exceed the Company Environmental Plans; the more extensive plans shall be followed.
- 2. Compliance:** All company employees and their subcontractors will comply with established environmental requirements. Failure to comply may result in disciplinary action up to and including termination for the offending individual or company. Additionally, each individual must be aware that willful or negligent violation of Federal, State or Municipal Environmental Laws may result in criminal or civil citation to the individual and/or the employer.
- 3. Training:** Equipment operators, general laborers, supervisors and management, etc., must be trained prior to being allowed to participate in or supervise field activities. The training should cover the use of personal protective equipment. The training should also cover work practices which minimize hazardous risks and safe use of engineering controls & equipment.
- 4. Responsibility:** Project Managers must be aware of any potential hazardous materials that will be used or generated as part of the project. The Project Superintendent and Project Manager are responsible for development and implementation of a site environmental plan. Employers are responsible to ensure company and employee compliance with the plan.
- 5. Trash/Rubbish Disposal:** The Project Superintendent shall require compliance with local trash/rubbish disposal requirements such as separation of trash for the purpose of recycling. Hazardous materials, paint containers, etc. may not be permitted in normal trash or refuse.
- 6. Soil Removal And Back Fill:** Subcontractors responsible for excavation, removal of soil or construction demolition debris, backfill, etc. shall ensure that all permits and conditions of Federal, State, Municipal and/or Client are met. Soil sampling may be required and many municipalities restrict the transportation of back fill from one area to another. Excavated soil that may be contaminated may require isolation, containment, sampling, and special methods of disposal.
- 7. Soil Erosion and Conservation:** An environmental survey of the area should be conducted to establish the location of wetlands, wildlife areas, streams, tributaries, watersheds, etc. Silt fencing, sediment-settling ponds, flocking ponds, etc. may be required to prevent soil from entering restricted areas.
- 8. Sources Of Environmental Contaminants:** The following is a partial listing of activities which may generate environmental contaminants:



- A. Excavation work in oil refineries, chemical plants, construction sites, underground storage areas, airports, fuel storage areas, pharmaceutical plants, etc.
 - B. Rags used for wiping spills.
 - C. Absorbent materials used for drying certain spilled materials.
 - D. Construction material containers with residue.
 - E. Draining of contaminated equipment, i.e. hoses, lines, pumps, oil filled electrical switches, etc.
 - F. Tank, drum, vat, vessel cleaning, or residue removal.
 - G. Vehicle fuels, oils, transmission fluids, hydraulic fluids, etc.
 - H. Painting and cleaning solvents.
 - I. Sand blasting spoils.
 - J. Asbestos removal.
 - K. Lead abatement/removal.
 - L. Burning of stumps, brush or construction debris.
- 9. Resource Conservation Recovery Act (RCRA):** RCRA was enacted by the Federal Government to assure proper storage, transportation, and disposal of hazardous wastes. A hazardous waste is defined as having:
- A. **Characteristic Wastes:**
 - 1. A flash point of less than 140 degrees F.
 - 2. A pH of less than 2.0 and greater than 12.5.
 - 3. Reactive/unstable (reacts violently with water or generates toxic gases when mixed with water)
 - 4. A toxicity characteristic (TCLP) i.e. the leachate of the waste contains certain heavy metals.
 - B. **Listed Wastes from Non-Specific Sources:**
 - 1. Certain spent solvents.
 - 2. Certain electroplating sludge.
 - 3. Sludge and solutions from cyanide operations.
 - 4. Certain used oils, waste oils, oil sludge, and oil spill cleanup.
 - C. **Listed Wastes from Specific Sources:**
 - 1. Miscellaneous sludge, residues and waste fractions from the manufacture of wood preservatives, organic chemicals, inorganic chemicals, pesticides, explosives, petroleum refining, leather tanning, inks, pharmaceuticals, paper production, and lead, zinc, iron, or steel refining.
 - 2. Listed acute hazardous wastes.
 - 3. Listed toxic hazardous wastes.



4. Wastes containing certain hazardous constituent's insignificant amounts.

D. **Hazardous Waste Storage:** Hazardous wastes must be stored in the following manner:

1. On an impervious surface.
2. For a period of not more than 90 days.
3. It must be labeled with the type of waste and the date the hazardous waste was first placed in the container.
4. All identification labels must be readily visible and legible.
5. All containers must be sealed and in good condition.
6. Waste must be segregated by type and incompatible wastes must be separated.
7. The storage area must be inspected daily and the inspection must be documented.

E. **Shipment Of Hazardous Wastes:** Waste Manifests must accompany every shipment of hazardous waste. Copies of the Manifest must be sent. The purpose of the Manifest is to:

1. Track the waste movement from cradle to grave.
2. Specify the generator of the waste, the transporter and the disposal facility.
3. Identify each person handling the waste and completing a section of the manifest.

10. Storage And Use Of Hazardous Materials At Company Sites:

- A. The following rules for the use and storage of hazardous materials at Company sites will be followed:
- B. Fuel storage areas will be protected against damage from motor vehicles and other construction equipment by installation of "bumpers", curbs, stops, or other devices.
- C. Oils, chemicals, fuel tanks, and portable fuel dispensing containers will be stored in a containment device to prevent spillage or leakage to the ground.
- D. Catch basins or other devices will be installed under equipment being refueled.
- E. Piping or equipment containing hazardous materials will not be cleaned to the ground, soil, or allowed to run off to sewers or other estuaries.
- F. Hazardous materials will be used in accordance with the manufacturer recommendations.
- G. Material Safety Data Sheets for all hazardous materials will be provided to the Project Superintendent prior to bringing any hazardous material on site.



- H. Hazardous materials transferred into containers other than the original manufacturer container will contain hazard and warning labels in accordance with the OSHA Hazard Communication Standard and manufacturers specifications. Under no circumstances will unlabeled containers be allowed.
 - I. Labels must be removed from empty containers that have been cleaned of hazardous residue or material.
- 11. Medical Surveillance:** All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year shall be provided by Maul Electric, Inc at no cost to the employee medical monitoring.
- 12. Engineering Controls:** Feasible engineering controls include the use of pressurized cabs or control booths on equipment, and/or the use of remotely operated material handling equipment. Engineering controls, work practices & PPE shall be used to reduce & maintain exposure limits.
- 1. Air monitoring shall be used by the supervisor to identify & qualify airborne levels of hazardous substances. The monitoring shall address initial entry, periodic monitoring, possible IDLH & wherever exposure may be a possibility.
- 13. Decontamination Procedures:** The supervisor shall be responsible to ensure all personnel are properly decontaminated and area is restricted from all unauthorized personnel. The supervisor shall modify decontamination procedures as needed
- 1. Decontamination procedures shall be developed by the Supervisor that is specific for the site. The procedures shall be reviewed with the workers and walk through of the decontamination line with all workers prior to commencing work. All workers, equipment, and personal protective equipment that entered the contaminated area must be properly decontaminated before exiting the area.
 - 2. The decontamination area shall be established in an area to minimized cross contamination of clean areas and personnel.
 - 3. If the decontamination procedure developed by the Supervisor indicates a need for regular showers and change rooms outside of a contaminated area, they shall be provided and meet the requirements of 29 CFR 1910.141. If temperature conditions prevent the effective use of water, then other effective means for cleansing shall be provided and used.
- 14. Emergency Response Procedures:** The purpose of this section is for individuals who are likely to witness or discover a hazardous substance release & who have



been trained to initiate an emergency response sequence by notifying the proper authorities of the release.

- 15. Training:** All Maul Electric, Inc employees who are likely to witness or discover a hazardous substance release shall be trained at the awareness level unless otherwise determined by Maul Electric, Inc Management. The instructor shall have the training and/or academic credentials and instructional experience to demonstrate competency to provide training. Employees who are trained in accordance with the plan shall receive annual refresher training. A record of methods used must be kept on file.
- 15.1. Employees who are likely to witness or discover a hazardous substance release and shall receive 8 hours awareness level training or have had sufficient experience to demonstrate competency in areas of initiating an emergency response sequence by notifying the proper authorities of the release and will be maintained as part of their training records.
 - 15.2. Employees who receive 8 hours first response operation level training or have had sufficient experience to demonstrate competency in areas of responding to releases or potential releases of hazardous substance, to protect wear by persons, property or the environment. Their function is to contain the release from a safe distance and help it from spreading. Certification is required and will be maintained as part of their training records.
 - 15.3. Employees who receive 24 hours technician level of training equal to first responder operations level with knowledge of how to implement emergency response plan, know the classification, identification & verification of known or unknown substances, functions within an assigned role in the ICS, how to select & use of proper PPE, perform advanced containment, & understands decontamination & toxicology. Certification is required and will be maintained as part of their training record.
 - 15.4. In addition to the 24 hours of training for the technical level, the specialist must be able to develop a site safety & control plan. This person is required to have at least 24 hours of training equal to the first responder operations level. This person knows how to implement the program & system, PPE, hazard risks, State & Federal regulations & decontamination. Certification is required and will be maintained as part of their training record.
 - 15.5. In addition to the 24 hours of training for the first responder level, the On-Scene Incident Commander must be able to implement the program and system, PPE, hazard risks, State, Federal regulations and decontamination. Certification is required and will be maintained as part of their training record.



- 16. Emergency Response Plan:** An emergency response plan shall be developed & implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing & available for inspection by employees, their representatives & OSHA.

 - a. The minimum items should be addressed:
 - 1) Pre-emergency planning & coordination with outside parties.
 - 2) Personnel roles, lines of authority, training & communications.
 - 3) Emergency recognition & prevention.
 - 4) Safe distances & places of refuge

- 17. Responsibilities:** Maul Electric, Inc most qualified employee has responsibility for controlling the operations at the site during the emergency response until properly relieved by a “Qualified” senior official.

- 18. Medical Surveillance:** Maul Electric, Inc emergency response employees who exhibit signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency shall be provided with medical consultation at no cost to the employee. They may also be placed on a medical monitoring program based on the exposure.

- 19. Personal Protective Equipment:** All Maul Electric, Inc employees will utilize the appropriate PPE dictated by the individual controlling the response provided they are currently trained in the use of the PPE. For all unknown materials Level B (see section 4) shall be utilized until it has been deemed by the controlling individual that it is safe to downgrade PPE.

- 20. Post Emergency Response:** Maul Electric, Inc does not remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site? This shall be the responsibility of the Host Employer, Contractors, and/or State or Federal authorities.