## Hazardous Waste Management-RCRA

1. **Purpose**

The purpose of this document is to assist personnel who generate or handle hazardous waste to control all potential negative environmental impacts and meet regulatory compliance with Resource Conservation and Recovery Act (RCRA).

1. **Responsibility**

Senior Management Shall:

* Provide the resources, guidance, equipment, communication, and enforcement necessary to protect the environment and ensure compliance with this policy.
* Establish environmental protection policies based on regulatory requirements, customer needs and community expectations.
* Assess the environmental condition of property and appropriately address possible environmental impacts caused by operations, if any.

Supervisors Shall:

* Ensure that hazardous waste in their work areas is properly identified, segregated, collected, stored, and inspected.
* Ensure that no chemicals are abandoned in place due to personnel retirement, termination of employment, graduation, or other reason for departure.
* Insure employees are aware of environmental concerns, actions and responsibilities relating to our activities and promote an understanding of the business value of ecologically sustainable operation, through training and communications.
* Select materials and/or products to use in processing, when possible, that are environmentally friendly.
* Ensure that employees receive appropriate RCRA training.

All Personnel Shall:

* Comply with all elements of this program to prevent environmental harm and non­compliance.
* Identify, segregate, collect, and properly store controlled wastes.
* Immediately report leaks, releases, and chemical emergencies.
* Attend scheduled RCRA and U.S. Department of Transportation training.

Environmental, Health and Safety (EHS) Department Shall:

* Assist supervisors, managers, and other employees to implement and maintain the elements of this policy.
* Ensure that a waste minimization program is implemented.
* Respond to spills and releases as needed.

1. **Written Safety & Health Program**

This written procedure will serve as a written safety and health program for employees involved in hazardous waste operations that shall be available for inspection by employees, their representatives and OSHA personnel. The program shall be designed to identify, evaluate and control safety and health hazards for the purpose of employee protection, to provide for emergency response meeting and to address as appropriate site analysis, engineering controls, maximum exposure limits, hazardous waste handling procedures and uses of new technologies.

1. **Determining Hazardous Waste**

Each waste product must be determined as either hazardous or non-hazardous. Material Safety Data Sheets (MSDS) contain information stipulating the hazardous components of a product, unless the manufacturer is claiming proprietary status of the formula. In this case, the manufacturer must be contacted for a hazardous or non-hazardous status of the product.

If the hazardous contents of the material are known, then no sampling is required. In the event a material has been accumulated and its waste classification is not known, the substance must be identified before it can be shipped for disposal.

If a waste is non-hazardous, disposal should follow established State procedures for non-hazardous waste. Non-hazardous waste can be thrown in any receptacle EXCEPT for the receptacles that are labeled "Hazardous Waste."

Once a determination has been made that a chemical waste meets the EPA definition of hazardous waste, it is then required to comply with U.S. EPA and State hazardous waste regulations pertaining to the accumulation, storage, labeling, inspection, and disposal of hazardous waste.

If there is any question about whether a material should be classified as hazardous, the EHS Department should be contacted for guidance.

1. **Medical Surveillance**

Medical evaluations will be provided at no cost to all affected employees before handling hazardous waste. All medical services required will be rendered under the direction of a physician or other licensed health care professional (PLHCP). Medical surveillance shall be instituted when:

* Employees who are or may be exposed to hazardous substances or health hazards at or above the permissible exposure limits or, if there is no 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.
* Employees who wear respiratory protection for 30 days or more per year, or as required by of 29 CFR 1910.134).
* Employees who are injured, become ill or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation.
* Members of emergency response (“hazmat”) teams.

1. **Engineering Controls and Work Practices**

Engineering controls and work practices shall be instituted to reduce and maintain employee exposure to or below the permissible exposure limits for substances regulated by 29 CFR Part 1910.

Before handling any known or suspected hazardous waste, employees shall refer to the MSDS if available to determine what type of personal protective equipment and special handling considerations are required for the particular material they will be handling. If the waste is known to be hazardous but no MSDS is available, protective equipment must still be utilized.

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.

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 reduce and maintain employee exposures to or below the permissible exposure limits.

1. **Personal Protective Equipment**

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.

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.

Positive pressure self-contained breathing apparatus, or positive pressure air-line 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.

Totally-encapsulating chemical protective suits (protection equivalent to Level A protection) 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.

The level of protection provided by PPE selection shall be increased when additional information on site conditions indicates that increased protection is necessary to reduce employee exposures below permissible exposure limits and published exposure levels for hazardous substances and health hazards.

1. **Monitoring**

Monitoring shall be performed in 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 personal protective equipment so that employees are not exposed to levels which exceed permissible exposure limits, or published exposure levels if there are no permissible exposure limits for hazardous substances.

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

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 permissible exposure limits or published exposure levels since prior monitoring. Situations where it shall be considered whether the possibility that exposures have risen are as follows:

* When work begins on a different portion of the site.
* When contaminants other than those previously identified are being handled.
* When a different type of operation is initiated (e.g., drum opening as opposed to exploratory well drilling).
* When employees are handling leaking drums or containers or working in areas with obvious liquid contamination (e.g., a spill or lagoon).

After the actual clean-up phase of any hazardous waste operation commences; for example, when soil, surface water or containers are moved or disturbed; monitoring shall be provided to those employees likely to have the highest exposures to hazardous substances and health hazards likely to be present above permissible exposure limits 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 permissible exposure limits or published exposure limits, then monitoring shall continue to determine all employees likely to be above those limits.

1. **Decontamination**

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.

All employees leaving a contaminated area shall be appropriately decontaminated; all contaminated clothing and equipment leaving a contaminated area shall be appropriately disposed ofor decontaminated.

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.

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

All equipment and solvents used for decontamination shall be decontaminated or disposed of properly.

Protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained or replaced as needed to maintain their effectiveness.

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.

Unauthorized employees shall not remove protective clothing or equipment from change rooms.

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

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 29 CFR 1910.141.If temperature conditions prevent the effective use of water, then other effective means for cleansing shall be provided and used.

1. **Training**

All employees working on site (such as but not limited to equipment operators, general laborers and others) and their supervisors and management responsible for the site shall receive training before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards. The training shall be provided at the level required by their job function and responsibility. Training shall include at a minimum the following:

* Names of personnel and alternates responsible for site safety and health.
* Safety, health and other hazards present on the site.
* Use of personal protective equipment.
* Work practices by which the employee can minimize risks from hazards.
* Safe use of engineering controls and equipment on the site.
* Medical surveillance requirements including recognition of symptoms and signs which might indicate over exposure to hazards.
* Elements of the site safety and health plan.