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| **Cooper & Company**  Safety, Health and Environmental Manual |

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# Section One: Policies and Procedures

## Acknowledgement Form

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Print Name)

Of, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name of Company)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Work Location)

I hereby acknowledge that I have received a copy of the Cooper & CompanySafety Manual Handbook.

I understand that it is my responsibility to read and understand the policy and procedures contained in the handbook.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Recipient’s Signature) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Date)

I have explained or answered any questions or concern that contractor or employee had after reviewing the Safety Manual Handbook.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(Supervisor’s Signature) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Date)

Please forward this form to the EHS Department

## Access to Medical Records

1. **Purpose**

The purpose of this policy is to provide employees and their designated representatives a right of access to their personal medical records and relevant exposure records.

1. **Employee Notification**

All employees shall be informed of their right to access medical and exposure records, the existence, location and availability of employee exposure and medical records maintained by or for the Company and the person responsible for maintaining and providing access to these.

* Initial notification should be covered in the new employee orientation. A copy of the bulletin board notification and/or copy of this standard can be used and should be documented.
* Annual notification can be made by posting a notice where the employees gather outlining the program.
* A copy (can be from OSHA website) of CFR 1910.1020 shall be maintained at each location and it shall be made available to employees for review.

1. **Access**

* The employee may access his/her records by making a request to the Human Resources Manager.
* A written request must be provided to the Human Resources representative to initiate access to these records.
* Employees, previous employees and designated representatives have the right to review and/or copy relevant Company exposure and medical records. There shall be no cost for this service.
* OSHA has the right to review and/or copy relevant exposure and medical records provided an access order is presented. The Access Order must be posted with a cover letter on an employee bulletin board and the affected employees must be informed.
* Access to an employee record shall be provided by the Company within 15 working days from receipt of the request. If the records cannot be provided within 15 working days, the employee or designated representative requesting the record shall be informed with the reason(s) for the delay and the earliest date when the record(s) can be made available.

1. **Transfer of Records**

Whenever an employer is ceasing to do business, the employer shall transfer all records subject to this section to the successor employer. The successor employer shall receive and maintain these records. Whenever an employer is ceasing to do business and there is no successor employer to receive and maintain the records subject to this standard, the employer shall notify affected current employees of their rights of access to records at least three (3) months prior to the cessation of the employer's business.

1. **Recordkeeping**

The Human Resources Manager is responsible for maintaining and providing access to employees’ medical records. These records are kept separately from other employee records.

Employee exposure and medical records shall be maintained by the Company for the duration of employment plus at least thirty (30) years. The medical records of employees who have worked for less than (1) year for the employer need not be retained beyond the term of employment if they are provided to the employee upon the termination of employment.

These records shall include the following:

* Exposure Records
  + Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained.
  + Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs.
  + Material safety data sheets indicating that the material may pose a hazard to human health. Material Safety Data Sheets. In the absence of an MSDA, a chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.
* Medical Records - a record a record concerning the health status of an employee which is made or maintained by a physician, nurse, or other health care personnel, or technician, including:
  + Medical and employment questionnaires or histories (including job description and occupational exposures).
  + The results of medical examinations (pre-employment, pre-assignment, periodic, or episodic) and laboratory tests (including chest and other X-ray examinations taken for the purpose of establishing a base-line or detecting occupational illnesses and all biological monitoring not defined as an "employee exposure record").
  + Medical opinions, diagnoses, progress notes, recommendations, first aid records, Descriptions of treatments and prescriptions, and employee medical complaints.
* Analyses Using Exposure and/or Medical Records - a compilation of data or study based on information collected from individual employee exposure or medical records.

## Alcohol and Drug Policy

The purpose of this policy is to ensure a safe and productive work environment and to safeguard property of the company and its personnel.

Cooper & Company strictly prohibits the use, sale, transfer, or possession of alcohol, drugs, drug paraphernalia or controlled substances on any premises of the Company or worksites. Company vehicles, as well as private vehicles parked on the Company’s premises or worksites, including parking lots, are locations included within this prohibition.

Additionally, the Company strictly prohibits the presence of any person with any detectable amount of alcohol, drugs, or controlled substances present in his or her body on Company property. Any employee found in violation of this policy is subject to disciplinary action, including immediate discharge. Depending on the circumstances, other action, including notification of appropriate law enforcement agencies, may be taken against any employee who violates this policy.

Any non-employee, including visitors, contractors, employees of contractors, consultants, etc., found in violation of the Company’s policy for a drug and alcohol free work environment, or suspected of having alcohol, drugs, or controlled substances present in his or her body, may be refused entry onto, or removed from, premises, or worksites, and denied future access. Furthermore, depending on the circumstances, other action, including notification of appropriate law enforcement agencies, may be taken against any violator of the Company’s policy.

The Company will require all applicants for employment to submit to a urinalysis and/or blood test for drugs and/or alcohol as a precondition for employment. The Company may also require any employee to submit to urinalysis and/or blood test for drugs and/or alcohol in the following circumstances:

* Following an accident occurring within the course and scope of employment;
* Whenever there is reasonable suspicion to believe that an employee is using drugs or alcohol in violation of the Company’s policy;
* As part of periodic physical examinations; and,
* On a random selection basis and any other time deemed appropriate by the management of the Company, without prior announcement.

Failure to submit to the drug and/or alcohol test noted above will result in disciplinary action, up to and including termination.

## Environmental, Health & Safety Policy

Cooper & Companyvalues the safety of people and the protection of the environment while conducting its business operations. With this in mind, accident prevention in all areas of our company’s business is of utmost importance. Cooper & Company recognizes its responsibility to provide a safe and healthful workplace. In turn, each employee of the company has a personal responsibility to conduct his or her job in a safe and environmentally sound manner. It is also the duty of each employee to report any perceived hazard, unsafe practice or conditions to his or her immediate supervisor. No employee is required to work at a job they know is not safe or healthful.

To provide and maintain safe working conditions for the safety of its employees, contractors and for the public Cooper & Company Environmental, Health and Safety policy is:

1. To comply with all applicable safety and health laws, regulations, practices, or procedures as set forth by governmental authorities and industry standards.
2. To require environmental, health and safety management participation at all levels of the Company.
3. To plan and carry out all phases of operations as part of our continuous improvement process and in a manner that will effectively reduce or eliminate the possibility of accidents that could injure personnel or harm the environment.
4. To conduct frequent inspections of job sites, materials, and equipment to find and eliminate unsafe working conditions or practices and to control health hazards. Inspections shall be made by a competent person.
5. To develop reasonable safety rules and practices and to effectively communicate these rules and practices and provide appropriate training to all employees. Each employee must be instructed in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment to control or eliminate any hazards or other exposure to illness or injury.
6. To provide leadership in safety and accident prevention by continuously improving safety performance and adhering to company and industry best and safe practices.
7. Ensure that only qualified employees by training or experience shall operate equipment and machinery.

## New Employee/Contractor Orientation

1. **Purpose**

To prevent occupational illness and injury by orienting new or contract employees to hazards present in the workplace and the necessary safety precautions.

1. **Responsibility**

The supervisor of a new hire is responsible for ensuring the new/contract employee completes the program.

1. **General**

* All newly hired personnel will be required to complete the New Employee or Contract Employee Safety Orientation as soon as possible after being hired.
* Ongoing training is provided according to the training matrix.
* Each new/contract employee, regardless of prior experience, shall have their job outlined and explained by the supervisor, or designated employee.
* Supervisors shall be responsible for the safety of their subordinates and the safe operation of equipment during normal operations and possible emergencies.
* Observation of the new employee’s work performance should be maintained until the applicable supervisor is satisfied that he or she can perform the duties and requirements in a safe and effective manner.
* The supervisor retains a completed copy of Appendix A and sends the originals to the Environmental, Health and Safety Department at the corporate office.
* All employees’ shall be trained in Stop Work Authority and shall be tested that they understand the Policy. This training shall be documented and kept in the employee’s personnel file.

Link to [NewEmployeeContractorOrientationForm](#NewEmployeeContractorOrientationForm) Appendix A

## Contractors

1. **Purpose**

To minimize injuries to Contractor personnel, property loss and equipment damage while working on behalf of company.

1. **General**

The company sets the minimum acceptable Contractor safety requirements in contractual documentation and in job specific hazard assessments. Visitors, contractors and subcontractors shall be informed of the facility emergency response procedures before they begin work or tour the facility.

Contractors are required to have an ongoing safety program. The program shall include at a minimum:

* Record keeping: Statistical data and analysis of accidents.
* Investigation of accidents: Policy of investigating accidents and implementing corrective measures.
* Training: An established training program which provides for the initial and continuing development of personnel in accordance with Company, OSHA, EPA and other regulatory requirements. Their workers will be trained to do their task(s) as would a regular employee. This training will be documented on the Safety Training Matrix.
* Job Planning: Appropriate procedures for the job(s) to be conducted.
* Safety Meetings: Regular safety meetings are conducted on the job.
* Appropriate regulatory required programs, records and licenses (e.g., code certified welders).

1. **Evaluation**

Prior to awarding the work, Cooper & Company may compare the Contractor’s Safety Program and performance with that of other companies performing similar work. As the job progresses, the Company may:

* Periodically review the Contractor’s safety performance.
* Periodically review the visibility and execution of the Contractor’s Safety Program.
* Provide guidance as appropriate.
* Conduct post-job safety performance review using the Contractor Post Job evaluation form in Appendix B.

1. **Contractor Requirements**

* Contractor will require their personnel to know and follow Company safety procedures.
* Contractors must track all man-hours and incidents associated with their activities on Company facilities.
* Contractor personnel will report to the Company Person-in-Charge immediately upon arrival at the location for the first time. They will be briefed on emergency procedures and safety, including personal protective equipment requirements.

1. **Work Procedures**

* Contractor personnel will be invited to attend regularly scheduled safety meetings, as appropriate. Contract personnel will attend any pre-job safety meetings or Job Safety Analysis concerning their work when requested.
* Contractor is responsible for its employees and the safe conduct of its work.
* Contractor shall cease operations and secure the work site at any time the contractor believes it unsafe to precede with the work [Stop Work].
* Contractor shall at all times conduct its work in a safe manner and with equipment meeting acceptable industry standards.
* Smoking is limited to designated smoking areas.
* Contractor personnel shall comply with informational (warning) signs relating to safety that are posted throughout Company facilities.
* Contractor is responsible for furnishing personnel who have been trained and are qualified to work in the geographical work area. Contractor is also responsible for assuring that each worker is familiar with and has read this program.

1. **Personal Protective Equipment**

* Personal protective equipment will be furnished by Contractor for Contractor personnel.
* Hearing protection will be worn by all personnel while in designated high noise areas.
* As a minimum, contractor personnel and visitors will wear safety glasses with side shields when they are in work locations where the potential for eye injury exists.
* Contractor personnel shall wear hard hats while outside offices unless an area has been specifically designated otherwise (e.g., welding shop.)
* Safety-toe foot wear meeting ANSI requirements will be worn by all contractor personnel while in the work area.
* Contract personnel shall be fully and appropriately clothed for the job and the weather.
* Gloves shall be worn when appropriate and as required by a workplace hazard assessment.
* Jewelry will not be worn in work areas.
* Fall protection devices will be worn when the potential fall distance exceeds six feet. The device shall be a Class III full body harness that meets ANSI requirements. The harness shall be equipped with a one piece shock absorbing lanyard with double locking snaps on each end.
* Retracting life lines that reduce free fall to two feet or less may also be used.
* In circumstances where respiratory protection may be required (e.g., paint and blast), respiratory protection shall be worn and properly maintained by contractor.

1. **Substance Abuse/Contraband Control**

All Contractor personnel are subject to the Company Substance Abuse / Contraband Control program while on Company premises. Any individual found in violation of the Company policy will be subject to removal from the premises. Violation of the policy by Contractor employees may also cause contract cancellation.

Link to[ContractorPostJobEvaluationForm](#ContractorPostJobEvaluationForm)Appendix B

## Visitors

1. **Purpose**

The purpose of this procedure is to ensure visitor safety on Companyproperty.

1. **Responsibility**

The safety of visitors on Company facilities or property is the responsibility of the facility supervisor. The individual(s) bringing visitors to these locations must coordinate their activities with the operating supervisor(s) prior to the trip.

1. **General**

Visitor safety briefings should include:

* Smoking Policy.
* Facility alarms and emergency evacuation procedures.
* Hazardous conditions and substances that may be encountered.
* Personal protective clothing and equipment requirements.
* Reporting of injuries/accidents policy.
* Visitors may not tour work locations unescorted unless prior approval has been obtained.

1. **Personal Protective Equipment**

As a minimum, visitors must wear hardhats, safety toe footwear and safety glasses in work areas.

## Safety Meetings

1. **Purpose**

To promote safe working conditions through regularly scheduled and effective management-employee safety meetings.

1. **Responsibilities**

The Site Manager shall:

* Coordinate the safety meeting and require all employees to attend.
* Maintain attendance check in sheets.
* Follow up on any corrective items or suggestions that come up in the meeting.

Safety Department shall:

* Provide materials for safety meetings.
* Present or provide others to present safety meetings as requested.
* Assist the Site Manager in completing corrective actions as appropriate.

1. **Pre Job Safety Meetings**

Supervisors shall lead meetings to discuss specific hazards as required before work that requires safety consideration starts.

Link to [SafetyMeetingsAttendanceForm](#SafetyMeetingsAttendanceForm) Appendix C

## Incident Investigation, Reporting and Recordkeeping

1. **Purpose**

The purpose of this procedure is to provide a systematic approach to investigating and reporting incidents involving personal injury or property damage.

1. **Reporting Procedure**

An incident report shall be completed for all incidents including first aid, medical treatment, lost time, fatalities, near miss, fire and explosion, vehicle accident, theft, and equipment damage. Individual responsibilities for reporting and investigation shall be pre-determined and assigned prior to incidents.

Written incident reports shall be prepared and include an incident report form and a detailed narrative statement concerning the events. The format of the narrative report may include an introduction, methodology, summary of the incident, investigation board member names, narrative of the event, findings and recommendations. Photographs, witness statements, drawings, etc. should be included.

Incidents involving a fatality or the hospitalization of three or more people must be verbally reported to OSHA within 8 hours of their discovery. Incidents must also be reported to the owner client and immediate supervisor as soon as possible or in a timely manner (within 24 hours of incident). A copy of the incident report shall be forwarded to the EHS department within 24 hours.

1. **Investigation Procedure**

While all incidents shall be investigated, the extent of such investigation shall reflect the seriousness of the incident utilizing a root cause analysis process or other similar method. All major incidents that cause or have the potential to cause fatalities, hospitalizations, and significant property damage shall undergo a root cause analysis. Investigations should begin immediately following the incident.

The following guidelines shall be used for all investigations:

* Proper equipment such as pens/paper, tape measures, rulers, cameras, audio recorder, PPE, marking devices, equipment manuals, etc. shall be provided to assist in conducting the investigation.
* Witness interviews and statements shall be collected as soon as possible following an incident.
* Witness interviews shall be conducted by trained interviewers in a private location. Interviews shall be conducted as a fact finding and not a fault finding mission. Only open-ended questions should be asked. The investigation may require follow-up witness interviews.
* Inspect the site immediately following the incident to identify any evidence. This may include a listing of people, equipment, and materials involved and a recording of environmental factors such as weather, illumination, temperature, noise, ventilation, and physical factors such as fatigue, age, and medical conditions.
* Evidence such as people, positions of equipment, parts, and papers shall be preserved, secured, and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment.
* After all facts are gathered and analyzed causative and contributing factors of the incident should be identified.

1. **Corrective Actions**

Incident investigations shall result in corrective actions. Recommendations for corrective actions should be based on factors that have contributed to or have caused the incident. The incident report and changes to process shall be communicated to all employees.

1. **Training**

Personnel who conduct or participate in incident investigations shall be trained in their roles and responsibilities for incident response, incident awareness and incident investigation techniques. Training shall be provided initially and annually thereafter.

1. **Recordkeeping**

Records shall be retained for fatalities, injuries, and illnesses that is work-related, a new case and meets one or more of the general recording criteria.

Each recordable injury or illness shall be entered on an OSHA 300 Log and 301 Incident Report, or other equivalent form, within seven (7) calendar days of receiving information that a recordable injury or illness has occurred.

The 300 log shall be signed by a company executive to certify that the log has been examined and that summary is correct and complete to the best of their knowledge.

A copy of the annual summary must be posted in each establishment in a conspicuous place or places where notices to employees are customarily posted. Ensure that the posted annual summary is not altered, defaced or covered by other material.

The annual summary must be posted no later than February 1st of the year following the year covered by the records and the posting kept in place until April 30th.

The OSHA 300 Log, the privacy case list (if one exists), the annual summary, and the OSHA 301 Incident Report forms must be retained for five (5) years following the end of the calendar year that these records cover.

## Stop Work Authority

1. **Purpose**

The purpose of this procedure is to establish authority and guidelines to stop work when employees believe that a situation exists that place them, their coworker(s), contracted personnel, or the public at risk or in danger.

1. **Responsibility**

The Supervisor Shall:

* Ensure no actions are taken as reprisal or retribution against individuals who raise safety concerns or stop an activity they believe is unsafe.
* Create a culture where Stop Work Authority is exercised freely.
* Resolve any issues that have resulted in an individual stopping an activity and provide feedback.

The Employee Shall:

* Initiate a Stop Work Intervention when warranted.
* Have the authority and obligation to stop any task or operation where concerns or questions regarding the control of HSE risk exist.
* Report to the supervisor in charge any activity or condition the employee believes is unsafe or for which they have initiated a Stop Work.

1. **Procedure**

When an unsafe condition is identified the Stop Work Intervention will be initiated, coordinated through the supervisor, and initiated in a positive manner.

* Stop work if an activity or condition is believed to be unsafe, could adversely affect the safe operation or cause damage to the facility, or to clarify work instructions or to propose additional controls.
* Notify supervision/management and affected personnel when you stop work or decline to perform an activity.
* Resolve any issues that have resulted in an employee stopping work or an activity. It is the desired outcome of any Stop Work Intervention that the identified safety concern(s) have been addressed to the satisfaction of all involved persons prior to the resumption of work. Most issues can be adequately resolved in a timely manner at the job site, occasionally additional investigation and corrective actions may be required to identify and address root causes.
* Once all issues have been resolved the work or stopped activity may resume. No work will resume until all stop work issues and concerns have been adequately addressed.

All Stop Work Interventions shall be documented for lessons learned and corrective measures to be put into place.

Stop Work reports shall be reviewed by supervision in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learning’s.

1. **Training**

Employees shall receive Stop Work Authority training before initial assignment. The training shall be documented including the employee name, the dates of training and subject.

# Section Two: Safety Requirements

**Asbestos Containing Pipe Coating Removal**

1. **Purpose**

The purpose of this program is to provide basic precautions and protections for employees to avoid exposure to asbestos containing material when removing materials from pipe.

1. **General Requirements**

* Prior to the start of the job and as needed during a job, a trained Competent Person must conduct an inspection of the work site, materials and equipment.
* The Competent Person:
  + Must be capable of identifying asbestos hazards and selecting appropriate control strategies.
  + Must determine whether the pipe wrap material is intact and will likely remain intact during removal.
  + Shall have authorization to take prompt corrective actions to eliminate a hazard.
* Workers within the regulated or designated area must not eat, drink or smoke. These activities must be conducted outside of these areas to prevent accidental inhalation or ingestion of airborne asbestos fibers.
* In addition to establishing a perimeter around the regulated area, warning signs must be posted around the regulated area in sufficient number to identify the hazard.

1. **Removal**

* Removal and handling of asbestos-containing materials must comply with all applicable local, state, and federal regulations and the requirements of this policy.
* Removal of pipe coating must be performed by trained workers only.
* 6 mil thick polyethylene sheeting must always be placed under the pipeline during coating removal to collect any debris generated.
* Adequately wet the pipeline coating with an amended water solution using a low-pressure garden style sprayer or other similar device to prevent any visible dust emissions during the coating removal process.
* Non-friable pipe wrap is not considered regulated ACM when it is intact and manually removed with hand tools that slice, punch, or sheer the material.
* The pipe wrap shall be removed only with manual methods that will not cause the material to become friable. The material *shall not* be sanded, abraded, or ground.
* A utility knife or similar tool may be used to cut the coating into uniform squares to prevent tearing or crumbling of the coating and to remove it intact in a non-friable condition.
* The use of high-speed abrasive disks and compressed air as a means by which to remove the coating is prohibited.

1. **Cleanup and Disposal**

* The wet intact coating pieces should be placed into labeled asbestos waste bags.
* These bags should be air tight, puncture resistant, and labeled with the name of the waste generator and the location where the waste was generated.
* These bags should only be half filled, and the end closed by a "goose-neck" method and sealed with duct tape.
* Vacuum cleaners equipped with HEPA filters must be used to collect all debris generated by coating removal and to decontaminate disposable clothing of workers and supervisors in the designated area upon exiting the regulated area.
* Sealed, secured and labeled containers of ACM waste must be removed and transported to a pre-arranged disposal location as soon as technically feasible.
* Vehicles used for transport should be labeled properly during loading and unloading.
* A waste shipment record must be maintained.

1. **PPE**

PPE must be worn by all who enter the regulated area. Proper PPE for asbestos workers includes but not limited to:

* Respirators
* Full body disposable suits
* Safety goggles
* Disposable gloves
* Disposable Over boots or Gumboots (Gumboots must be thoroughly washed afterwards)

The respirator may not be required following collection of air monitoring data by a Competent person which demonstrates that exposures are below OSHA's Permissible Exposure Limit. (The program must demonstrate a negative exposure assessment within the last 12 months or state asbestos containing pipe coating removal projects are and will be below the permissible exposure limit).

1. **Training**

Employees who perform asbestos pipe coating removal work must complete classroom and hands-on training, by an approved training provider, in the following:

* Methods of recognizing asbestos
* Health effects of asbestos
* Respirator training
* Requirements for posting signs
* Cleanup and disposal methods
* Recognition and handling of intact and non-intact material
* Hands on training for acceptable removal methods

## Assured Equipment Grounding

1. **Purpose**

Provide specific requirements for proper equipment groundingcovering all cord sets, receptacles which are not part of the building or structure & equipment connected by cord & plug which are available for use or used by employees. Ground-fault protection for personnel shall be provided on this equipment by using either ground-fault circuit interrupters or an assured equipment grounding conductor inspection program.

1. **General**

* Ground-fault protection for personnel shall be provided on this equipment by using either ground-fault circuit interrupters or an assured equipment grounding conductor inspection program.
* Supervisors are designated as the competent person responsible for implementing and enforcing the requirements of this program.

1. **Ground-fault circuit interrupters (GFCI)**

* Ground-fault protection will be provided for personnel on construction sites on all 120-volt single phase, 15 and 20 ampere receptacle outlets, which are not a part of the permanent wiring and which are in use by employees.
* Ground fault circuit interrupters will be used when an outlet is near a water source, or when damp or wet conditions exist and portable electrical equipment is being used.
* GFCIs shall be tested periodically to ensure their operability.

1. **Assured Equipment Grounding Conductor Inspection Program**

* Each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except those that are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects and for indication of possible internal damage. Equipment found damaged or defective may not be used until repaired.
* The following tests shall be performed on all cord and plug equipment used in a portable fashion or like equipment that is moved from site to site.
* Double insulated tools, equipment used in connection with ground fault circuit interrupters, or equipment used in a building permanent wiring system are not subject to these testing requirements.

1. **Testing for Continuity**

All tests, other than the visual inspections and periodic testing of the GFCI button, shall be documented and kept on file at the applicable field or plant location. All required tests shall be performed by the user or person responsible for maintaining the equipment:

* Before first use;
* Before equipment is returned to service following repairs;
* Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over);
* At intervals not exceeding three (3) months.
* Tests performed under the Assured Equipment Grounding Conductor Inspection Program must be documented. Test documentation shall identify each item of equipment tested and indicate the last date it was tested.
* Equipment found to be defective may not be used until repaired.

## Benzene Awareness

1. **Purpose**

The purpose of this program is to inform personnel of the dangers of benzene exposure, benzene permissible exposure limits, regulated areas, exposure monitoring, medical surveillance, personal protection, and basic emergency preparedness procedures

1. **Responsibility**

* Senior management will provide the resources, guidance, equipment, and enforcement necessary to protect personnel from exposure to benzene and ensure compliance with this policy.
* All personnel will comply with all elements of this program to prevent benzene exposure.
* Environmental, Health and Safety (EHS) Department will assist supervisors, managers, and other employees to implement and maintain the elements of this policy.

1. **Exposure Limits**

OSHA Permissible Exposure Limit (PEL), Subpart Z Tables Z-1-A

* 8-hour Time-Weighted Average **1 ppm**
* 12-hour Time-Weighted Average **0.67 ppm**
* Short-Term Exposure Limit (STEL) **5 ppm**
* Action Level **0.5 ppm**

1. **Regulated Areas**

Regulated area shall be established wherever the airborne concentration of benzene exceeds or can reasonably be expected to exceed the PEL or STEL. Access to regulated areas shall be limited to authorized persons.

1. **Physical and Chemical Characteristics of Benzene**

* Benzene can be found in locations such as petroleum refining sites, tank gauging, field maintenance, paint storage area, and areas where paint is being used and in the fuel storage area.
* Benzene is clear, colorless liquid with a distinctive sweet odor. Benzene is a flammable liquid. Its vapors can form explosive mixtures.
* Benzene vapors are heavier than air; thus the vapors may travel along the ground and be ignited by open flames or sparks at locations remote from the site at which benzene is handled.
* A concentration exceeding 3,250 ppm is considered a potential fire explosion hazard.

1. **Health Effects of Benzene**

Short term effects of overexposure may include irritation of eyes, nose and skin, breathlessness, irritability, euphoria, headache, dizziness, or nausea. Long term effects may result in blood disorders such as leukemia and anemia.

1. **Exposure Monitoring**

Each workplace with the potential for benzene exposure shall be monitored. Workplace exposure to benzene above the Action Level shall be carefully evaluated by the Environmental, Safety and Health Department to determine proper engineering controls, administrative controls, and PPE selection. Employees shall be notified of the monitoring results within 15 working days.

1. **Medical Surveillance**

A medical surveillance program shall be made available for employees who are or may be exposed to benzene at or above the action level 30 or more days per year; for employees who are or may be exposed to benzene at or above the PELs 10 or more days per year. If an employee refuses to take a medical examination, the employee will sign a release affirming that he or she had been offered the benefits and refused to participate.

1. **Methods of Compliance**

Engineering controls, work practices controls, shall be used to minimize employee exposure to or below the PELs. Wherever feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PELs, it shall be documented why such types of controls are not feasible to reduce employee exposures.

The following are minimal work practices for protection from benzene exposure:

* Use only the amount needed for your work. Excessive chemicals produce increased risk to the work place.
* Store benzene in a vented flammable storage cabinet.
* Wear proper PPE: Respiratory, eye and face, boots, gloves and apron protection.
* Use only approved containers.
* Cleanup spills as quickly as possible.
* All ignition sources must be controlled when benzene is used, handled or stored.
* No smoking in work areas.
* Fire extinguishers must be readily available in work areas.

1. **Protective Clothing and Equipment**

The selection of PPE will be based upon the working conditions, amount and duration of exposure, and other environmental factors. Selection of PPE for protection from benzene will be conducted by the Environmental, Safety and Health Department or on-site safety professional.

1. **Communication of Benzene Hazards**

Signs, labels, and verbal (briefings, training) shall be used to communicate benzene hazards to employees. As part of the benzene communication strategy, material safety data sheets (MSDS) for benzene are available to employees. Benzene awareness training is provided annually to employees.

* Signs will be posted at entrances to regulated areas. The sign shall bear the legend:

**DANGER BENZENE CANCER HAZARD FLAMMABLE – NO SMOKING AUTHORIZED PERSONNEL ONLY RESPIRATOR REQUIRED**

* Labels for containers will have the following wording, as a minimum:

**DANGER CONTAINS BENZENE CANCER HAZARD FLAMMABLE**

1. **Recordkeeping**

In compliance with the OSHA benzene standard, records shall be maintained for employee exposure, medical surveillance, monitoring and sampling results, exposure levels and respiratory devices to be worn. Exposure records are kept for 30 years after employee termination or after the completion of the job or project.

Exposure and medical monitoring records are made available to the affected employees or their representatives and OSHA upon their request. Any transfer of the records will require written approval of the Environmental, Safety and Health Department.

1. **Site Specific Contingency and Emergency Plans**

All employees will be made aware of any Emergency or Contingency plans at off-site locations. In addition all employees will be made aware of any benzene that is located at a host facility and where specifically the benzene is located and used at the host facility. All employees must be made aware of any additional safety rules and requirements while at a host facility.

## Asbestos Abatement

1. **Purpose**

To reduce prolonged exposure to asbestos fibers that has been proven to cause debilitating respiratory diseases such as asbestosis, lung cancer, mesothelioma and cancer of the stomach and colon. This program shall be implemented to reduce employee exposure to or below the TWA and/or excursion limit.

1. **Exposure**

Asbestos can be found in materials used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, and fire-resistant drywall.

Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls.

No employee shall be exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air in 30 minutes.

Where the TWA and/or excursion limit is exceeded, a written program shall be established and implemented to reduce employee exposure to or below the TWA and to or below the excursion limit.

1. **Assessment and Monitoring**

Where exposure monitoring is required, determinations of exposure will be made from breathing zone air samples that are representative of the 8 hour TWA and 30 minute short term exposure of each employee. All air sampling shall be documented.

Representative 8 hour TWA exposure will be determined on the basis of one or more samples representing full shift exposure for employees in each work area. Representative 30 minute short term exposures will be determined on the basis of one or more samples representing 30 minute exposure associated with operation that are most likely to produce exposures above the excursion limit for employees in each work area.

A competent person will conduct an exposure assessment immediately before or at the initiation of an operation that may expose a worker to asbestos to determine expected exposures. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment," and to provide information to assure that all control systems are appropriate for that operation and will work properly.

Affected employees will be notified of any monitoring results in writing either individually or by posting in a centrally located area. Employees and their designated representatives will be provided with an opportunity to observe any monitoring of employee exposure to asbestos.

1. **Signs and Labels**

Areas that contain Asbestos Containing Material (ACM) and/or Presumed Asbestos Containing Material (PACM) shall be appropriately marked with signs and labels that meet OSHA requirements. Signs shall be posted at the entrance of mechanical rooms/boiler rooms/etc. which contain the ACM/PACM. The sign must identify the material present, its location, and the appropriate work practices to ensure that ACM is not disturbed. These signs must be comprehensible to those employees who may encounter them (such as, in foreign language, pictographs, graphics, or awareness training etc.). Some examples are:

**DANGER**

**PIPE INSULATION WITHIN THIS ROOM CONTAINS ASBESTOS FIBERS**

**AVOID BREATHING DUST**

**CANCER AND LUNG DISEASE HAZARD**

**SEE MAINTENANCE SUPERVISOR FOR APPROPRIATE WORK PRACTICES**

1. **Regulated Areas**

Regulated areas shall be established whenever airborne concentrations of ACM or PACM are in excess of the TWA and/or the excursion limit.

* The boundaries are set in a manner that minimizes the number of persons within the area and protects persons outside the area from exposure to airborne asbestos.
* Only authorized personnel may be allowed enter regulated areas and they must use respirators.
* No smoking, eating, drinking, chewing tobacco or gum, or applying cosmetics is permitted in regulated areas.
* Warning signs have to be displayed at each regulated area and must be posted at all approaches to regulated areas.
* Asbestos work performed within regulated areas will be supervised by a competent person.

1. **Multi-Contractor Worksites**

Facilities with ACM have particular responsibilities for notifying the following of it’s presence of at the work site:

* Prospective contractors applying or bidding for work if their employees could be working in or adjacent to areas containing the ACM.
* Employees who could be working in or adjacent to areas containing the ACM.
* All other employers with employees who could be working in or adjacent to areas containing the ACM.

Any employer performing work which requires the establishment of a regulated area must inform all other employers on the worksite of the nature of the work, the requirements pertaining to the regulated area, and the measures employed to assure other employees are not exposed to asbestos.

If employees working immediately adjacent to a Class I asbestos job are exposed to asbestos due to the inadequate containment of such a job, their employer shall either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

The employer of employees working adjacent to a regulated area shall:

* Take steps daily to ascertain the integrity of the enclosure or other control methods that are being used by the asbestos employer to assure that asbestos fibers do not migrate into the work area.
* Comply with applicable protective requirements to protect their employees.

1. **Engineering and Work Practice Controls**

The following engineering and work practice controls shall be used to reduce employee exposure to airborne concentrations of asbestos to the extent that they are feasible.

* Asbestos must be handled in a wet state. This “wet” method must also be used when products containing asbestos are removed from bags, cartons, or containers. If this is not possible, removal must be done in an enclosed or well ventilated area.
* Respirators must be used where engineering controls have been instituted but are insufficient to reduce exposure to the required level.
* Use vacuum cleaners equipped with HEPA filters to collect all debris and dust containing ACM and PACM, except for roofing material.
* Ensure prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers, except in roofing operations.
* Use local exhaust ventilation equipped with HEPA filter dust collection systems.
* Use enclosure or isolation of processes producing asbestos dust.
* Use ventilation of the regulated area to move contaminated air away from the breathing zone of employees and toward a filtration or collection device equipped with a HEPA filter.

1. **PPE**

Respirator shall be used for work practice controls, work operation, to reduce exposure and in emergencies. The respirator shall be provided at no cost to the employees and shall be NIOSH approved.

Protective clothing, such as coveralls or similar whole-body clothing, head coverings, gloves, and foot coverings will be worn by employees exposed to airborne concentrations of asbestos that exceed the PELs, or for which a required negative exposure assessment is not produced. Contaminated clothing will be laundered so as to prevent the release of airborne asbestos in excess of the PELs. Any person who gives contaminated clothing to another person for laundering will inform that person of this requirement.

1. **Training**

Asbestos Awareness training is provided and documented for any employee(s) whose work activities may expose them to asbestos containing material (ACM) or presumed asbestos containing material (PACM) but do not disturb the ACM or PACM during their work activities.

Training shall be provided to all employees who are exposed to airborne concentrations at or above the permissible exposure limit (PEL) prior to initial assignment and annually thereafter. Training shall be conducted in a manner that the employee is able to understand & shall include health effects associated with exposure to asbestos.

Written materials relating to the employee training program will be readily available to affected employees, the assistant Secretary of Labor for Occupational Safety and Health and the director of the National Institute for Occupational Safety and Health.

## Anti-Corruption

1. **Scope**

This policy applies to all individuals working at all levels, including senior managers, officers, directors, employees (whether permanent, fixed-term or temporary), consultants, contractors, trainees, seconded staff, homeworkers, casual employees and agency staff, volunteers, interns, agents, sponsors, or any other person associated with us, or any of our subsidiaries or their employees, wherever located.

1. **Bribery**

A bribe is an inducement or reward offered, promised or provided in order to gain any commercial, contractual, regulatory or personal advantage.

Examples:

* Offering a bribe- You offer a potential business partner tickets to a major sporting event, but only if they agree to do business with us.

This would be an offence as you are making the offer to gain a commercial and contractual advantage. We may also be found to have committed an offence because the offer has been made to obtain business. It may also be an offence for the potential client to accept your offer.

* Receiving a bribe - A supplier gives your nephew a job, but makes it clear that in return they expect you to use your influence in our organization to ensure we continue to do business with them.

It is an offence for a supplier to make such an offer. It would be an offence for you to accept the offer as you would be doing so to gain a personal advantage.

1. **Hospitality and Gifts**

This policy does not prohibit normal and appropriate hospitality (given and received) to or from third parties and the giving or receipt of gifts, provided that this is done in accordance with company policy.

Normal and appropriate hospitality and gifts would include where the hospitality or gift:

* Is not made with the intention of influencing a third party to obtain or retain business or a business advantage, or to reward the provision or retention of business or a business advantage, or in explicit or implicit exchange for favors or benefits;
* Complies with local law;
* Is given in our name, not in your name;
* Does not include cash or a cash equivalent (such as gift certificates or vouchers);
* Is appropriate in the circumstances. For example, in the United States it is customary for small gifts to be given at Christmas time;
* Taking into account the reason for the gift, is of an appropriate type and value and given at an appropriate time;
* Is given openly, not secretly; and
* Is not offered to, or accepted from, government officials or representatives, or politicians or political parties, without the prior approval of the Compliance Manager.

1. **Prohibited Behavior**

It is not acceptable for you (or someone on your behalf) to:

* Give, promise to give, or offer, a payment, gift or hospitality with the expectation or hope that a business advantage will be received, or to reward a business advantage already given;
* Give, promise to give, or offer, a payment, gift or hospitality to a government official, agent or representative to "facilitate" or expedite a routine procedure;
* Accept payment from a third party that you know or suspect is offered with the expectation that it will obtain a business advantage for them;
* Accept a gift or hospitality from a third party if you know or suspect that it is offered or provided with an expectation that a business advantage will be provided by us in return;
* Threaten or retaliate against another employee who has refused to commit a bribery offence or who has raised concerns under this policy; or
* Engage in any activity that might lead to a breach of this policy.

1. **Facilitation Payments and Kickbacks**

* We do not make, and will not accept, facilitation payments or "kickbacks" of any kind.
* If you are asked to make a payment on our behalf, you should always be mindful of what the payment is for and whether the amount requested is proportionate to the goods or services provided. You should always ask for a receipt which details the reason for the payment. If you have any suspicions, concerns or queries regarding a payment, you should raise these with the Compliance Manager.
* Kickbacks are typically payments made in return for a business favor or advantage. All employees must avoid any activity that might lead to, or suggest, that a facilitation payment or kickback will be made or accepted by us.

1. **Donations**

We do not make charitable donations or contributions to political parties.

1. **Responsibilities**

* Each employee as described in the scope of this policy must ensure that they have read, understand and comply with this policy.
* The prevention, detection and reporting of bribery and other forms of corruption are the responsibility of all those working for us or under our control. All employees are required to avoid any activity that might lead to, or suggest, a breach of this policy.
* Each employee must notify their manager and/or the Compliance Manager as soon as possible if they believe or suspect that a conflict with this policy has occurred, or may occur in the future. For example, if a client or potential client offers an employee something to gain a business advantage with us, or indicates to an employee that a gift or payment is required to secure their business. Further "red flags" that may indicate bribery or corruption are set out in the Schedule.
* Any employee who breaches this policy will face disciplinary action, which could result in dismissal for gross misconduct.

1. **Record-Keeping**

* Financial records must be kept and have appropriate internal controls in place which will evidence the business reason for making payments to third parties.
* A written record of all hospitality or gifts accepted or offered, which will be subject to managerial review, must be declared and recorded.
* All expenses claims relating to hospitality, gifts or expenses incurred to third parties must be submitted in accordance with our expenses policies and specifically record the reason for the expenditure.
* All accounts, invoices, memoranda and other documents and records relating to dealings with third parties, such as clients, suppliers and business contacts, should be prepared and maintained with strict accuracy and completeness. No accounts must be kept "off-book" to facilitate or conceal improper payments.

1. **Reporting of Misconduct**

Any issue or suspicion of malpractice should be reported at the earliest possible stage. If it is unclear whether a particular act constitutes bribery or corruption, report to the line manager and/or the Compliance Manager.

It must be reported to the Compliance Manager as soon as possible if you are offered a bribe by a third party, are asked to make one, suspect that this may happen in the future, or believe that you are a victim of another form of unlawful activity.

1. **Employee Protection**

* Employees who refuse to accept or offer a bribe, or those who raise concerns or report another's wrongdoing, are sometimes worried about possible repercussions. We aim to encourage openness and will support anyone who raises genuine concerns in good faith under this policy, even if they turn out to be mistaken.
* We are committed to ensuring no one suffers any detrimental treatment as a result of refusing to take part in bribery or corruption, or because of reporting in good faith their suspicion that an actual or potential bribery or other corruption offence has taken place, or may take place in the future. Detrimental treatment includes dismissal, disciplinary action, threats or other unfavorable treatment connected with raising a concern. If you believe that you have suffered any such treatment, you should inform the Compliance Manager immediately. If the matter is not remedied, and you are an employee, you should raise it formally using our Grievance Procedure.

1. **Training and Communication**

* All employees will receive regular training on how to implement and adhere to this policy.
* Our zero-tolerance approach to bribery and corruption must be communicated to all suppliers, contractors, agents and business and other partners at the outset of our relationship with them and as appropriate thereafter.

## Asbestos Awareness

1. **Purpose**

To reduce prolonged exposure to asbestos fibers that has been proven to cause debilitating respiratory diseases such as asbestosis, lung cancer, mesothelioma and cancer of the stomach and colon.

1. **Exposure**

Asbestos can be found in materials used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, and fire-resistant drywall.

Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls.

1. **Signs and Labels**

Areas that contain Asbestos Containing Material (ACM) and/or Presumed Asbestos Containing Material (PACM) shall be appropriately marked with signs and labels. Signs shall be posted at the entrance of mechanical rooms/boiler rooms/etc. which contain the ACM/PACM. The sign must identify the material present, its location, and the appropriate work practices to ensure that ACM is not disturbed. These signs must be comprehensible to those employees who may encounter them (such as, in foreign language, pictographs, graphics, or awareness training etc.). Some examples are:

**DANGER**

**PIPE INSULATION WITHIN THIS ROOM CONTAINS ASBESTOS FIBERS**

**AVOID BREATHING DUST**

**CANCER AND LUNG DISEASE HAZARD**

**SEE MAINTENANCE SUPERVISOR FOR APPROPRIATE WORK PRACTICES**

1. **Multi-Contractor Worksites**

Facilities with ACM have particular responsibilities for notifying the following of it’s presence of at the work site:

* Prospective contractors applying or bidding for work if their employees could be working in or adjacent to areas containing the ACM.
* Employees who could be working in or adjacent to areas containing the ACM.
* All other employers with employees who could be working in or adjacent to areas containing the ACM.

Any employer performing work which requires the establishment of a regulated area must inform all other employers on the worksite of the nature of the work, the requirements pertaining to the regulated area, and the measures employed to assure other employees are not exposed to asbestos.

If employees working immediately adjacent to a Class I asbestos job are exposed to asbestos due to the inadequate containment of such a job, their employer shall either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

The employer of employees working adjacent to a regulated area shall:

* Take steps daily to ascertain the integrity of the enclosure or other control methods that are being used by the asbestos employer to assure that asbestos fibers do not migrate into the work area.
* Comply with applicable protective requirements to protect their employees.

1. **Training**

Asbestos Awareness training is provided and documented for any employee(s) whose work activities may expose them to asbestos containing material (ACM) or presumed asbestos containing material (PACM) but do not disturb the ACM or PACM during their work activities.

## Behavior Based Safety

1. **Purpose**

This procedure is to be used to identify behaviors (safe or at risk) on work sites at a peer level.

The purpose is to identify, evaluate, and modify behaviors to drive continuous improvement in our safety culture.

1. **Observation and Feedback**

All employees who have completed orientation and are authorized to perform work are also authorized to participate in the BBS program. Observations may be conducted by any employee at any time.

Observations shall be conducted of employees’ work behavior. Observations shall be recorded on the Safety Observation Checklist. Observers must provide direct, measurable, and specific information on employee’s work behavior identifying both safe and unsafe behaviors.

Employees will use the Safety Observation Checklist during performance of normal tasks, including travel to the job site. Employees shall professionally discuss the At Risk behavior with the person in order to avoid injury. Reinforcement for safe behaviors observed is encouraged.

Upon completion of an observation, the observer is expected to have a discussion with the observed to get feedback. The observer will:

* Review the observation with observed employee.
* Start with positive comments.
* Reinforce safe behaviors observed first.
* Describe and discuss unsafe behaviors observed.
* Solicit from observed employee an explanation of his/her unsafe behavior with open ended questions.
* Re-emphasize no consequence to observed employee.

1. **Trend Analysis**

The data from the observations is collected and used to determine where the greatest “at risk” behavior is taking place. Once identified, corrective actions, such as training, coaching and supervisory observations will be undertaken in order to encourage safe behavior.

Individual departments, as well as the company as a whole, will collect and compare data. The data shall be tracked so that numerical and statistical comparisons can be made over time.

Once the trend analysis is complete, appropriate action plans must be developed to address unsafe behaviors. Action planning will include:

* Evaluate unsafe behaviors from trend analysis and prioritize.
* Develop action plan for unsafe behaviors based on comments and feedback from data sheets.
* Designate responsible parties and timeframes within the action plan.
* Define who is responsible for action planning.
* Ensure management support.

1. **Training**

The company shall explain and communicate Behavior Based Safety process to all employees expected to use the process including manager, supervisors, employees and new hires. Training shall be conducted initially and periodically. Training on the observation process will include:

* How to conduct the observation.
* How to complete the observation form.
* The meaning of different behaviors.
* Feedback training and role play (mentoring and coaching).
* Employees shall be made aware that they may be observed at any time.

**Safety Observation Checklist**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Observer Name:** | | **Date:** | | | | **Time:** |
|  | |  | | | |  |
| **Work Group Observed:** | | | | | | **Location/Facility:** |
| **Drilling** | | **Completion** | | | |  |
| **Construction** | | **Production** | | | | **Job Task Observed:** |
| **Maintenance** | | **Workover/Simulation** | | | |  |
| **Office** | | **Plant** | | | |  |
| **1.0** | **Personal Protective Equipment (PPE)** | | **Safe** | **At Risk** | **Comments** | |
| 1.1 | Eye and Face Protection | |  |  |  | |
| 1.2 | Hand Protection | |  |  |  | |
| 1.3 | Body Protection | |  |  |  | |
| 1.4 | Hearing Protection | |  |  |  | |
| 1.5 | Fall Protection | |  |  |  | |
| 1.6 | Respiratory Protection | |  |  |  | |
| 1.7 | Head Protection | |  |  |  | |
| 1.8 | Foot Protection | |  |  |  | |
| **2.0** | **Body Use and Position** | | **Safe** | **At Risk** | **Comments** | |
| 2.1 | Walking | |  |  |  | |
| 2.2 | Climbing | |  |  |  | |
| 2.3 | Line of Fire | |  |  |  | |
| 2.4 | Hot Surface/Tight or Confined Space | |  |  |  | |
| 2.5 | Eyes on Work | |  |  |  | |
| 2.6 | Lifting/Pulling/Pushing/Carrying | |  |  |  | |
| 2.7 | Slipping/Tripping Hazard | |  |  |  | |
| 2.8 | Pinch Points | |  |  |  | |
| **3.0** | **Tools/Equipment** | | **Safe** | **At Risk** | **Comments** | |
| 3.1 | Selection/Condition/Inspection | |  |  |  | |
| 3.2 | Proper Use | |  |  |  | |
| **4.0** | **Procedure** | | **Safe** | **At Risk** | **Comments** | |
| 4.1 | Equipment Isolation/Line Clearing | |  |  |  | |
| 4.2 | Hazardous Energy Control | |  |  |  | |
| 4.3 | Work Permits | |  |  |  | |
| 4.4 | Job Preparation/Hazard Identification | |  |  |  | |
| 4.5 | Communication | |  |  |  | |
| 4.6 | HAZCOM | |  |  |  | |
| 4.7 | MSDS | |  |  |  | |
| 4.8 | Air Monitoring | |  |  |  | |
| **5.0** | **Working Environment** | | **Safe** | **At Risk** | **Comments** | |
| 5.1 | Facility/Area Condition | |  |  |  | |
| 5.2 | Guards/Barricades/Safety Devices | |  |  |  | |
| 5.3 | Obstruction of Safety Equipment | |  |  |  | |
| 5.4 | Housekeeping/Storage | |  |  |  | |
| **6.0** | **Mobile Equipment** | | **Safe** | **At Risk** | **Comments** | |
| 6.1 | Forklift/Manlift/Scissorlift | |  |  |  | |
| 6.2 | Crane/Rigging | |  |  |  | |
| 6.3 | Motor Vehicle | |  |  |  | |
| **Corrective Action Taken:** | | | | | | |
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## Benzene Exposure

1. **Purpose**

The purpose of this program is to inform personnel of the dangers of benzene exposure, benzene permissible exposure limits, regulated areas, exposure monitoring, medical surveillance, personal protection, and basic emergency preparedness procedures. The plan should be reviewed and revised to reflect the most recent exposure monitoring data.

1. **Responsibility**

* Senior management will provide the resources, guidance, equipment, and enforcement necessary to protect personnel from exposure to benzene and ensure compliance with this policy.
* All personnel will comply with all elements of this program to prevent benzene exposure.
* Environmental, Health and Safety (EHS) Department will assist supervisors, managers, and other employees to implement and maintain the elements of this policy.

1. **Exposure Limits**

OSHA Permissible Exposure Limit (PEL), Subpart Z Tables Z-1-A

* 8-hour Time-Weighted Average **1 ppm**
* 12-hour Time-Weighted Average **0.67 ppm**
* Short-Term Exposure Limit (STEL) **5 ppm**
* Action Level **0.5 ppm**

1. **Regulated Areas**

Regulated areas shall be established wherever the airborne concentration of benzene exceeds or can reasonably be expected to exceed the PEL or STEL. Access to regulated areas shall be limited to authorized persons.

1. **Physical and Chemical Characteristics of Benzene**

* Benzene can be found in locations such as petroleum refining sites, tank gauging, field maintenance, paint storage area, burning coal, refineries, printing facilities, in the production of plastic, detergents, pesticides, rubbers, dyes, resins, lubricants, and areas where paint is being used and in the fuel storage area.
* Benzene is clear, colorless liquid at room temperature, with a distinctive sweet, harsh odor. Benzene is highly flammable and toxic. Its vapors can form explosive mixtures. Benzene dissolves only slightly in water and will float on the top of water.
* Benzene vapors are heavier than air – 2.7 times as dense; thus the vapors may travel along the ground and be ignited by open flames or sparks at locations remote from the site at which benzene is used, handled or stored.
* Benzene has a flash point of 12 degrees, an autoignition temperature of 1,076 degrees and a lower explosion limit (LEL) of 1.3% and an upper flammable limit (UFL) of 7.5%.
* A concentration exceeding 3,250 ppm is considered a potential fire explosion hazard.

1. **Health Effects of Benzene**

Exposure to benzene, even at low concentrations, can lead to inflammation of the nasal airways and throat.

High level exposures can severely damage the lungs causing fluid accumulation and bleeding, which is often fatal.

Benzene exposure can lead to excessive bleeding and negatively affect the immune system, increasing the chance for infection. Females that have breathed high levels of benzene for many months, experienced irregular menstrual periods and decrease in the size of their ovaries.

Short term effects of overexposure may include irritation of eyes, nose and skin, breathlessness, irritability, euphoria, headache, dizziness, or nausea.

Long term effects may result in blood disorders such as leukemia and anemia.

1. **Exposure Monitoring**

Each workplace with the potential for benzene exposure shall be monitored. Employees shall be notified of the monitoring results within 15 working days. The following measures shall be used to monitor employee benzene exposure:

* Initial monitoring of workplaces and work operations
* Periodic monitoring and monitoring frequency
  + at or above the action level but below the TWA - annually.
  + above the TWA - every six months.
  + monitoring for STEL - repeated as necessary.
* Additional monitoring
  + when a change in the production, process, control equipment, personnel or work practices which may result in new or additional exposure to benzene.
  + after the cleanup of a spill or repair of the leak, rupture or other breakdown.

1. **Medical Surveillance**

A medical surveillance program shall be made available for employees who are or may be exposed to benzene at or above the action level 30 or more days per year; for employees who are or may be exposed to benzene at or above the PELs 10 or more days per year. If an employee refuses to take a medical examination, the employee will sign a release affirming that he or she had been offered the benefits and refused to participate.

* Initial Examination

Medical examinations shall include the following elements:

* + Detailed occupational history
  + Complete physical examination
  + Laboratory tests - A complete blood count
  + Additional tests as necessary
* Periodic Examinations – Annually

For persons required to use respirators for at least 30 days a year, a pulmonary function test shall be performed every three (3) years.

* Emergency Examinations

If an employee is exposed to benzene in an emergency situation, the employer shall have the employee provide a urine sample at the end of the employee’s shift and have a urinary phenol test performed on the sample within 72 hours.

* Periodic examinations if directed by physicians :
  + Termination Exam – Employees shall be provided with a medical exam upon termination of employment or termination of exposure.
  + Physician’s Written Opinions - employer shall obtain and provide employee with written copy of physician’s opinion within 15 days of examination.

1. **Methods of Compliance**

Engineering controls, work practices controls, shall be used to minimize employee exposure to or below the PELs. When exposures are above the PEL, a written program will be established and implemented to reduce employee exposure to, below the PEL, or to the lowest levels achievable by means of engineering and work practice controls when possible. The written program will include a schedule for development and implementation of the engineering and work practice controls. The plan will be reviewed and revised according to the most recent exposure monitoring data.

Wherever feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PELs, it shall be documented why such types of controls are not feasible to reduce employee exposures and PPE, including respiratory protection, will be provided to employees.

The following are minimal work practices for protection from benzene exposure:

* Use only the amount needed for your work. Excessive chemicals produce increased risk to the work place.
* Store benzene in a vented flammable storage cabinet.
* Wear proper PPE: Respiratory, eye and face, boots, gloves and apron protection to prevent eye contact and limit dermal exposure.
* Use only approved containers.
* Cleanup spills as quickly as possible.
* All ignition sources must be controlled and kept a safety distance away when benzene is used, handled or stored.
* No smoking in work areas.
* Fire extinguishers must be readily available in work areas.

1. **Respiratory Protection for Benzene**

The following guidelines shall be used for respiratory protection. When air-purifying respirators are used, the employees will replace the air-purifying element (cartridge) at the expiration of service life, or at the beginning of each shift in which they will be used, whichever comes first.

|  |  |
| --- | --- |
| **Employee Exposure** | **Respiratory Protection Needed** |
| < or = 10ppm | Half-mask air purifying Respirator (APR) with Organic Vapor Cartridges |
| < or = 50ppm | Full-mask air purifying Respirator (APR) with Organic Vapor Cartridges or Full-facepiece gas mask with chin-style canisters |
| < or = 100ppm | Full-facepiece powered air-purifying respirator with organic vapor canister |
| < or = 1,000ppm | Supplied-air respirator with full facepiece in positive-pressure mode. |
| > 1,000ppm or unknown concentrations | Self-contained breathing apparatus with full facepiece in positive-pressure mode or Full-facepiece positive-pressure supplied-air respirator with auxiliary self-contained air supply. |

1. **Protective Clothing and Equipment**

The selection of PPE will be based upon the working conditions, amount and duration of exposure, and other environmental factors. Selection of PPE for protection from benzene will be conducted by the Environmental, Safety and Health Department or on-site safety professional. Protective clothing and equipment shall be provided at no cost to the employee.

Employees are required to use protective clothing, protective gloves, eye protection, and the appropriate respiratory protection to prevent eye contact and limit dermal exposure to benzene.

1. **Basic Emergency Procedures**

* All personnel will be informed of the site specific emergency plan.
* Inhalation: If inhaled, move to fresh air. If not breathing give artificial respiration. If breathing difficulty, give oxygen.
* Skin Contact**:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.
* Eye Contact: if in contact with eyes, flush with large amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers.
* Ingestion**:** If swallowed, wash mouth out with water.

1. **Communication of Benzene Hazards**

Signs, labels, and verbal (briefings, training) shall be used to communicate benzene hazards to employees. As part of the benzene communication strategy, safety data sheets (SDS) for benzene are available to employees. Benzene awareness training is provided annually to employees. The written plan shall be made available to the Assistant Secretary, the Director, affected employees and designated employee representatives.

* Signs will be posted at entrances to regulated areas. The sign shall bear the legend:

**DANGER BENZENE CANCER HAZARD FLAMMABLE – NO SMOKING AUTHORIZED PERSONNEL ONLY RESPIRATOR REQUIRED**

* Labels for containers will have the following wording, as a minimum:

**DANGER CONTAINS BENZENE CANCER HAZARD FLAMMABLE**

1. **Recordkeeping**

In compliance with the OSHA benzene standard, records shall be maintained for employee exposure, medical surveillance, monitoring and sampling results, exposure levels and respiratory devices to be worn. Exposure records are kept for 30 years after employee termination or after the completion of the job or project.

Exposure and medical monitoring records are made available to the affected employees or their representatives and OSHA upon their request. Any transfer of the records will require written approval of the Environmental, Safety and Health Department.

# Section Three: Forms

## Appendix A: New Employee/Contractor Orientation Form

Employee’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hire Date: \_\_\_\_\_\_\_\_\_\_\_\_

Job Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

All new employee’s must review all items listed below with a supervisor and must sign this form to verify their understanding. The following information was provided and or explained and understood by the person receiving it.

Employee Reviewer Initials Initials

1. Review HS&E Mission Statement \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

2. General HS&E requirements including designated \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

smoking areas, high noise areas, housekeeping,

jewelry, cell phones, etc. (Review

Basic Shop Rules posted in all shops)

3. Location of MSDS books, HS&E Manuals \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

4. Drugs, alcohol and weapons not allowed \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

5. Proper PPE \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

6. Adequate “department / position specific” safety \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

orientation

7. Location of any emergency equipment – fire \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

extinguishers, first aid boxes, etc.

8. Safety meetings explained \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

9. Explanation of how / where to receive HS&E \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

information (bulletin boards, training material,

safety meetings)

10. Reporting requirements for Incidents – All injuries \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

and incidents reported, who to report them to, etc.

11. Environmental awareness and waste management \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

procedures

12. Identify Mentor, Safety representative & HS&E \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Committee

13. Location of hazardous chemicals \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

14. Emergency preparedness, emergency exits, etc. \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

15. Stop Work Authority \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Employee Signature & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Supervisor Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2nd Reviewer Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature & Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Appendix B: Contractor Post Job Evaluation

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| General | | | | | | | | | | | |
| *Evaluation Date:* | | *Evaluator Name:* | | | *Evaluator Title:* | | | | | | *Phone*: |
| *Contractor Company Name:* | | | *Contractor Director/Manager:* | | | | | | | *Contractor Site Supervisor:* | |
| *Project Name:* | | | *Contract Number:* | | | | | | | *Task Evaluated:* | |
| *Have you shared this evaluation with your contractor : Yes  No* | | | | | | | | | | | |
| # | Activity Description | | | Yes | | | No | N/A | Comments | | |
| 1 | Did the contractor take steps to reduce the risks and/or mitigate the potential impacts of his/her work? (JSA, JHA, etc.) | | |  | | |  |  |  | | |
| 2 | Did the Contractor's JSA adequately identify job safety and environment hazards? | | |  | | |  |  |  | | |
| 3 | Did the Contractor's JSA process identify each job step? | | |  | | |  |  |  | | |
| 4 | Did the contractor implement a work site inspection program for safety and environmental concerns? | | |  | | |  |  |  | | |
| 5 | Was there a behavior based safety observation in place? (crews knowledgeable about process, did regular observations, etc.) | | |  | | |  |  |  | | |
| 6 | Was Stop Work Authority used properly? Was it discussed and the issues resolved? If no, explain in the comments section. | | |  | | |  |  |  | | |
| 7 | Was there participation by contractor employees and management in meetings, in discussing and resolving HSE concerns, safety talks, etc.? | | |  | | |  |  |  | | |
| 8 | Did the contractor's employees have required training certifications (excavation, Operator Qualification, crane operator, welder, etc.)? | | |  | | |  |  |  | | |
| 9 | Did the contractor assure appropriate PPE, safety and spill clean-up equipment was available, used by workers, and properly maintained? | | |  | | |  |  |  | | |
| 10 | Did the contractor implement their HSE program components at the work site? (Lock Out Tag Out, Fall Hazard, Excavation, Confined Space, Hot Work, etc.) | | |  | | |  |  |  | | |
| 11 | Did the contractor follow our HSE program components when applicable? | | |  | | |  |  |  | | |
| 12 | Did the contractor comply with Safe Work Permits? | | |  | | |  |  |  | | |
| 13 | Were safety and environmental incidents and near misses reported and investigated properly? | | |  | | |  |  |  | | |
| 14 | Did the contractor have emergency response plans in place and implemented at the work site (plans posted, emergency numbers posted, drills held, etc.)? | | |  | | |  |  |  | | |
| 15 | Were SSE's identified? | | |  | | |  |  |  | | |
| 16 | Were mentors assigned to each SSE? | | |  | | |  |  |  | | |
| 17 | Was the worksite left clean after job was completed? | | |  | | |  |  |  | | |
| 18 | Was contractor's equipment maintained and suitable to perform the work assigned (PM, pre use inspections, etc)? | | |  | | |  |  |  | | |
| 19 | Did the contractor manage the project with quality workmanship? Did they estimate costs accurately, schedule work to meet time lines, provide sufficient manpower, maintain quality control, provide a good finished product, etc.? | | |  | | |  |  |  | | |
| *General Comments:* | | | | | | | | | | | |
| Recommendation | | | | | | | | | | | |
| *Recommend for re-hire* | | | | | | *Yes* | | | | | |
| *Recommend for re-hire with established plan to improve* | | | | | | *Yes* | | | | | |
| *Recommend for re-hire only after in depth evaluation* | | | | | | *Yes* | | | | | |
| *Do not recommend for re-hire* | | | | | | *Yes* | | | | | |
| *Recommendation Comments:* | | | | | | | | | | | |

## Appendix C: Safety Meetings Attendance Form

**DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**TOPIC: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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## Appendix D: Hepatitis B Vaccine Declination

**I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to me; however, I decline the vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no cost to me.**

**If I choose to have a vaccination to Hepatitis B I will contact Human Resources to arrange for the vaccination.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NAME DATE**

## Appendix E: Job Safety Analysis (JSA)

|  |  |
| --- | --- |
| *Date:* | *Job:* |
| *Department:* | *Location:* |
| *Supervisor:* | *Participants:* |

|  |  |  |
| --- | --- | --- |
| *Basic Job Steps:* | *Potential Hazards:* | *Recommended Controls:* |
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