Rocketdyne's
Environmental, Health and Safety (EH&S) Contractor Program Requirements

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I. PURPOSE, SCOPE, AND PHILOSOPHY

A. Buyer Contractor Policies

1. Contractor shall adhere to all applicable federal, state, local, municipal and public laws, ordinances, building codes, rules, regulations and orders now existing or later enacted. Should a conflict arise, the most stringent of these laws, ordinances, codes, rules, regulations, orders or contract requirements shall apply. Should any unforeseen consideration or problems arise, they shall be resolved by mutual agreement, recognizing that personnel safety, the environment, and regulatory compliance is of paramount importance.

2. Prior to commencement of any work on Buyer's facilities or property and expressly before arriving at the Buyer's job site, contractors involved in trades-type work (e.g., electrical, pipefitting, mechanical) are required to be pre-approved by Rocketdyne's Environmental, Health and Safety (EH&S) department. Contractors will be denied access to the Buyer's facilities until they have received notification from Rocketdyne that they have been pre-approved. Companies requiring pre-approval include, but are not limited to, general contractors, OEMs (Original Equipment Manufacturers), construction vendors, riggers/millwrights, painters, machine tool service vendors, and other vendors who use power tools and/or are engaged in activities that involve potentially hazardous chemicals or energy sources. To be pre-approved, contractors must submit the following documentation: 1) Completed EH&S Pre-approval Form EHS-F-7.02.01.00.0025; 2) Completed Contractor Training Documentation Matrix (EHS-F-7.02.01.00.0027) and 3) Injury & Illness Prevention Program (IIPP) or equivalent, prior to commencement of any work at Buyer's facilities or property and arriving on the job site. This pre-approval is required for the contractor and any of the contractor's subcontractors, at any tier, that need to access the Buyer's facilities in the performance of contract award. Detailed contractor pre-approval information and forms are located at Rocketdyne Supplier Information Portal: https://arsuppliernet.l3harris.com/suppliernet?q=rocketdyne-suppliernet/doing-business-rocketdyne/contractor-safety-program

   Note: You may be in default of your contract if you are not pre-approved and start work on Buyer's facilities or property without this pre-approval.

3. Contractor is responsible for controlling the manner and methods of its operations and is directly responsible for the safety of its employees and subcontractor's employees and ensuring regulatory compliance. In the event contractor's employees or its subcontractors' employees fail to comply with federal, state, local, or municipal regulations, or this document, Buyer has the right and obligation to stop work, at contractor's expense, until the issue is rectified to Buyer's satisfaction. Furthermore, violations may be referred to the appropriate regulatory agency(s), which may lead to legal, civil, and/or criminal action.

4. Failure of this document to reference specific laws, ordinance, codes, rules, regulations or orders does NOT excuse contractor or contractor's employees from following those regulations that may be applicable to the scope of work being performed by contractor.

5. The requirements of this document may be modified by the specific safety and environmental rules and procedures of individual operating buildings or facilities. These modifications will be noted and indicated on the drawings or through the site's safety work permit process.

6. Contractor shall not permit any person to enter upon Buyer's premises, at the work site or elsewhere, except in accordance with Buyer's safety and security requirements.

7. Contractor is solely responsible for the safety and protection of all persons and property while on or near the work site, including the safety and protection of contractor's employees, agents, delegates, invitees and subcontractors.

8. Contractor agrees to indemnify and hold Buyer harmless from prohibiting any contractor or subcontractor's employees, agents, or invitees from entering onto the work site or project if, in the sole opinion of Rocketdyne, such employee, agent, or invitee fails to comply with the safety, health, and environmental laws, rules, and regulations, discussed in Section I.A.1.

9. All contractor and subcontractor employees that contact or work on asbestos-containing materials during their work activities shall have asbestos awareness training as defined by state/federal regulations. Training shall be completed prior to initiation of work and be current

10. Unless stated otherwise in this document, all reference(s) to contractor shall include contractor's employees, agents, delegates, invitees and subcontractor's employees, agents, delegates, invitees.

11. Contractors shall possess a contractor license that is applicable to their trade classification and state where work is to be performed.

B. Reference Standards

1. Occupational Safety and Health Act (OSHA)

- Title 29 Code of Federal Regulations (CFR), Parts 1910 and 1926

2. National Fire Protection Association (NFPA) Standards comprising the National Fire Codes, including, but not limited to the National Electrical Code (NEC).

3. American National Standard Institute (ANSI)

4. National Institute for Occupational Safety and Health (NIOSH)

5. American Conference of Governmental Industrial Hygienists (ACGIH) Industrial Ventilation Manual

6. Bureau of Labor Statistics (BLS)

7. 40 CFR, Resource Conservation and Recovery Act (RCRA)

8. 49 CFR, Department of Transportation (DOT) of Hazardous Materials and Waste

9. Toxic Substance Control Act (TSCA)

10. Where a standard is referenced in this document, the subject referenced (equipment, material, or work) shall be in compliance with the most recent edition of that standard.

11. The referenced standards are minimum requirements. Where the requirements of this document are in excess of, but not contrary to, the referenced standards, contractor shall comply with the more stringent requirements of this document.

12. Department of Defense (DoD) Contractor's Safety Manual for Ammunition and Explosives, DoD 4145.26-M.

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C. EH&S Orientation

1. Buyer's EH&S Organization or designee will provide contractor all safety rules and regulations in effect at the worksite. Several of Buyer's locations contain processes that are covered by OSHA Process Safety Management (PSM) regulations. As such, specific requirements and detailed information designed to protect all contractor employees and visitors will be conveyed prior to any work being performed within PSM-covered processes. Contractor will be responsible for requiring all of the contractor's employees to receive this information prior to beginning work at Buyer's facility. These rules will include an explanation of Buyer's:

a) Emergency Notification System

b) Hazardous materials or conditions which may affect contractor's employees

c) Safety precautions for facilities in which the contractor may be working

d) Emergency procedures for specific facilities

e) Emergency equipment, alarms, or signals

- Fire extinguishers, fire alarm stations, signal lights, sprinkler systems, emergency lights, and component equipment shall not be removed, disconnected, or reconnected without the specific approval from the Buyer through the Contractor Coordinator. Permission to shut down, remove, modify, or relocate such equipment must be requested through the Contract Coordinator.

- Fire hydrants and fire service control valves shall not be blocked. Permission for the use of fire hydrants must be obtained from the Buyer through the Contract Coordinator.

f) Emergency Exits

- Locations
- Maintaining clear passage

g) Evacuation procedures and emergency assembly areas

h) Plant Fire Safety Rules

i) Existing Buyer regulatory permits and conditions which may be affected or impacted by contractor's scope of work

j) Applicable site specific Safety Work Permits

2. Contractor shall keep records showing to whom this information has been given. In the event there is a change in personnel in contractor's work force, contractor is responsible for providing any new employees with this information and maintaining all necessary records.

3. Contractor shall provide these safety rules and regulations to all subcontractors.

D. Contractor Responsibilities

The contractor is responsible for controlling the manner and methods of its operations and is directly responsible for the safety of its employees and subcontractor's employees and ensuring regulatory compliance. To accomplish this, the contractor will do all things necessary to ensure the safety of contractor's or subcontractor's, employees, agents, or invitees, including the following:

a) Appoint a contractor-designated representative for project and safety coordination at the job site. The designated representative must be on site while work is being accomplished. The contractor may designate a subcontractor's employee as the contractor's representative, but in any event, the contractor remains directly responsible to Rocketdyne for safety performance of all work, including subcontractors.

b) Use only the plant or building entrance designated by Buyer for entering and exiting.

c) Prohibit contractor and subcontractor personnel from entering Buyer's buildings or facilities outside scope of worksite.

d) Follow local plant access control practice. Buyer may require contractor's employees to sign a log upon entering and leaving Buyer's buildings, facilities or test sites. The contractor will also ensure that each contractor employee is issued and wears an Rocketdyne-issued badge.

e) Ensure that all contractor and subcontractor personnel comply with the terms of the contract, including applicable Security Services and EH&S rules. These rules include, but are not limited to, the Confined Space Entry Procedure, Hot Work Permit (HWP), Lockout/Tagout Procedure, and Hazardous Material and Waste Management Procedures.

f) Provide supervisors and employees who are competent and adequately trained to perform required work.

g) Advise contractor's employees and subcontractor's employees of hazards associated with the work to be performed, including any hazard information provided to the contractor by Buyer. It is the contractor's obligation to inform its employees and subcontractor's employees of any hazardous chemical information the contractor receives from Buyer in compliance with state and federal right-to-know legislation and to ensure that the contractor's employees and subcontractor's employees receive proper training.

h) Provide all tools and equipment for the work, including personal protective equipment. The tools and equipment must be properly maintained and appropriate for safe accomplishment of the work. Buyer has the right to refuse or restrict the use of tools, equipment or hazardous materials.

i) Keep the work area free from safety and health hazards. The contractor shall promote safety and maintain good housekeeping throughout all phases of construction.

j) Keep the Contract Coordinator immediately notified and fully informed of any work, which may affect the safety of Buyer's employees or property or which may violate regulatory compliance.

This includes complying with state and federal Right-to-Know legislation and providing to the Contract Coordinator appropriate Safety Data Sheets (SDS) or other required information about hazardous materials the contractor will bring onto Buyer's property.

k) Follow specific instructions supplied by Contract Coordinator should emergency alarms be activated.

l) Know who to call and what to do in the event of an emergency involving the contractor's work or employees.

m) Provide first-aid and medical services, know where they are located, and how to obtain them for contractor's employees when needed.

n) Notify the Contract Coordinator immediately of any injury or illness to the contractor's employees or subcontractor's employees occurring while on Buyer's property. Provide a copy of each accident report to the Contract Coordinator within one working day. Contractor is responsible to maintain an adequate supply of investigation forms at the job site.

o) Coordinate the use of all radiation producing devices or materials such as radiography equipment and alignment lasers with the Contract Coordinator.

p) Ensure radio and wireless communication devices, laptops, etc., are authorized for use in sensitive areas (i.e., energetic operations and test).

E. Pre-Job Hazard Assessment

1. Certain contractor job tasks have been identified by Buyer as "high risk" and require the contractor's competent person to perform a job hazard assessment prior to work being performed. "High risk" activities include, but not limited to:

- Roof work (unprotected)
- High voltage work (600 volts and above)
- Steel erection
- Erected scaffolds
- Critical lifts
- Shored trenching
- Subsurface investigation (excavating/drilling)
- Operation of gas/diesel/fuel-powered equipment in an enclosed space, building, or within 20 feet of a building or ventilation opening
- Confined space entry

2. Contractor shall document the job hazard assessment

3. Contractor shall conduct a walk-through of the entire "high risk" operation with the Contract Coordinator and/or Buyer's EH&S representative, including reviewing the job hazard assessment, job task steps, anticipated hazards, and associated control/safety measures the contractor plans to implement prior to "high risk" work being performed

4. All contractor and subcontractor personnel involved in the "high risk" work shall be trained to the contractor's job hazard assessment and acknowledge that they have read and understand the assessment.

5. The contractor's job hazard assessment shall be updated in the event of any changes in scope, hazards, or controls. Subsequent review and written acknowledgment shall be required.

6. A copy of the contractor's job hazard assessment shall be readily available at the job site.

7. The contractor shall submit a copy of the job hazard assessment to the Contract Coordinator at the completion of the project.

F. Contractor's EH&S Training

1. Contractor shall instruct each employee in the recognition and correction of unsafe acts, behavior and conditions and the regulations applicable to contractor's work environment. The employee shall use these instructions to control or eliminate any hazards or other exposure to illness or injury.

2. Contractor shall acquaint each contractor's employees with the safety and emergency equipment available and the procedures to be followed in each type of accident occurrence.

3. At a minimum, each contractor shall be required to conduct weekly safety meetings while on site with contractor personnel and subcontractor's employees. Minutes shall be kept onsite and submitted to the Contract Coordinator.

4. Contractor shall provide a qualified supervisor who is responsible for maintaining job site safety and environmental compliance during all phases of construction. The supervisor shall conduct safety meetings with all personnel weekly, monitor site safety and environmental compliance activities continuously and thoroughly investigate all accidents and near misses. Depending on the size and type of project, the supervisor may have other work site responsibilities.

5. All contractor personnel must receive an initial orientation by contractor's supervisor into contractor's safety procedures, Contractor's IIPP, and the requirements of this section.

6. Contractors are responsible for educating their personnel on the requirements of the Federal Hazard Communication Right-to-Know law regarding hazardous chemical inventories, SDSs, container labeling, and emergency procedures.

7. Documentation of Federal Hazard Communication Right-to-Know employee training is of paramount importance. Contractor shall keep complete and have accurate records of contractor's personnel training and attendance. This documentation, as well as the hazardous chemical inventory, and any permits, and SDS file, shall be made available upon request by either Buyer's EH&S organization or an inspector from an outside regulatory agency

G. First Aid and Medical Attention

1. All first aid and medical attention for contractor's workers shall be handled by contractor in accordance with OSHA regulations.

2. Contractor shall be required to set up a first aid station in compliance with OSHA and state regulations.

3. Contractor shall be responsible for containerizing all bio-hazardous waste in an OSHA compliant manner and sanitizing any contaminated work areas.

   a) Buyer will direct contractor where to dispose of the bio-hazardous waste onsite at Rocketdyne.

H. Recording and Reporting of Injuries/Illnesses

1. Contractor shall immediately notify Contract Coordinator of all occupational injuries or illnesses that occur to contractor's employees while on Buyer's property and all near-misses that could have led to an injury or illness.

2. Every contractor and subcontractor shall maintain occupational injury and illness records for employees (unless exempted by OSHA) which shall include the following forms:

   - OSHA 301 - Supplementary Record of Occupational Injuries and Illnesses
   - OSHA 300 - Log and Summary of Occupational Injuries and Illnesses.

3. Contractor shall notify Buyer of the name of contractor's employee who will be knowledgeable in the prevention of accidents at the job site, and whose duty will be to report immediately in writing to Buyer all accidents and injuries occurring, including near misses, at the worksite. If contractor files an accident report with a public authority, contractor shall provide a copy of the report to Buyer, prior to issuance.

4. Contractor shall investigate, as a minimum, each accident and near-miss to determine the cause and implement future corrective measures. Contractor will present a written copy of its investigation report and corrective action measures to Buyer's EH&S department through the Contract Coordinator, within one working day.

I. Personal Attire

1. Contractor's employees shall wear proper clothing while on Buyer's premises. Removal of shirts or wearing of shorts, "tank tops," or open-toed shoes is not allowed.

2. Contractor's employees shall wear hard hats (ANSI/ISEA Z89.1, Class A or Class B rated) at the job site during all phases of construction activities. The contractor shall be responsible to ensure that all contractor's employees adhere to the hard hat policy and that the appropriate signage is posted at the job site.

3. Contractor's employees shall wear appropriate eye protection, consisting as a minimum of safety glasses with side shields (ANSI/ISEA Z87.1) within Buyer's designated areas and as required by OSHA to perform construction activities. Dark tinted lenses are prohibited indoors, excluding welding operations.

4. Contractor's employees shall wear safety-toe footwear (ASTM F2413) when there is potential for injury or within Buyer designated safety-toed footwear areas.

5. For additional requirements concerning personal protective equipment (PPE), please refer to Section III.C.

J. Personal Conduct/Restricted or Prohibited Items

1. Horseplay, fighting, gambling, unauthorized explosives, possession of firearms, drinking alcoholic beverages, use of regulated drugs, being under the influence of drugs or alcohol, theft, vandalism, sabotage, and distribution of unauthorized literature shall be cause to bar those involved from Buyer's property, indefinitely and subject the individual(s) and/or company to possible legal, civil and/or criminal action.

2. Weapons, ammunition, narcotics, and intoxicating beverages are prohibited items and shall not be admitted on Buyer's premises.

3. Cameras, radios, binoculars, recorders, and transmitting devices are restricted items. Such items are permitted onto the premises only if job related and after obtaining prior approval from Security Services through the Contract Coordinator. Prior approval will be additionally required from Buyer's EH&S organization through the Contract Coordinator, whenever explosives or radioactive materials are to be brought upon the premises.

K. Smoking Regulations

Smoking is permitted only in approved locations and will be defined by the Contract Coordinator.

L. Use of Buyer Tools/Equipment

1. Building cranes may be used by the contractor only with the prior approval of the Contract Coordinator and only after appropriate bailment liability documentation is approved by Buyer. Testing or proof loading prior to and/or after the contractor's use shall be at the contractor's expense.

2. With the exception of Section I.L.1., the use of Buyer tools and equipment is strictly forbidden.

M. Buyer Work Safety Permits

1. Permits may be required by Buyer or OSHA for certain work activities. Examples include, but are not limited to the following:

- Lockout/Tagout: Refer to Section III.I. for requirements
- Excavations
- Hot Work Permit: Refer to Section III.B for welding, cutting and spark production requirements
- Confined Space Entry
  a) Entry into a confined or enclosed space or area shall require a "Confined Space Entry Permit" by Contractor to be completed before work begins. Refer to Section III.H for confined space entry requirements.
  b) Buyer shall approve contractor's Confined Space Entry Procedures prior to entry into any confined space.
- Demolition of structures or buildings greater than 36 feet high
- Erection of structures or buildings greater than 36 feet high

- Operation of internal combustion engines below ground
- Operation of tower cranes
- Fire suppression/detection impairment
  a) All work that requires the disconnection, severance, or shutting off of a fire suppression or detection system, shall be coordinated through the Contract Coordinator.
  b) Buyer's authorized representative will be responsible for closing all valves, aborting all fire suppression and detection systems, and completing an "FM Global Red Tag" Impairment Permit.
- Rigging Operations

  All lifts with rigging shall be planned and then performed in accordance with the plan. Any lift the buyer identifies as "Program Critical" or "Safety Critical" will require a written lift plan that will be reviewed by the buyer's Material Handling Specialist.
- Job Safety Analysis (JSA)

  Operations the buyer identifies as "Safety Critical" that are not otherwise addressed will require a written JSA that identifies the job's hazards and the planned methods for controlling those hazards. The JSA will be reviewed by the buyer's EH&S representative.

2. Conditions noted on the permit(s) shall be exactly identical to the actual job conditions. When the conditions of a job change, or when new tools requiring permits are needed to do the job, other than those originally covered in the initial permit, WORK SHALL STOP IMMEDIATELY because the permit is invalid. The permit is only good for what it describes--no more. Work cannot progress until the situation can be carefully analyzed and a new permit issued for the new conditions.
3. Contractor shall present permit to Contract Coordinator for work scope concurrence and for Contract Coordinator's initials showing proof of approval.
4. Contractor must ensure that the contractor's employees are knowledgeable of the permit requirements.
5. The permit must be posted in the work area. If the permit cannot be posted, it should be carried by one of the contractor's supervisors in that area. Contract Coordinator will periodically question contractor's employees as to the location of the permit and its requirements. Permits shall not remain in contractor's trailer.
6. Communication is the key to enhancing the effectiveness of the work permit system. Contractor's employees, agents, delegates, invitees and subcontractors, and Buyer's Contract Coordinator, including operators and facility supervisors, should all be aware of the specific requirements of each permit. This then allows each to review the ongoing work and look for possible changing conditions or deviations during their daily work routine.

N. Hazardous Material Usage

1. Before work can begin, contractor shall provide to Buyer's EH&S organization, through the Contract Coordinator, or directly to EH&S, a hazardous material inventory and the corresponding SDSs.
2. Hazardous materials shall not be brought onto Buyer's property until approval is received from Buyer's EH&S organization..
3. The hazardous material inventory, along with all SDSs shall be made available to the Contract Coordinator on an immediate basis.
4. Contractors are required to strictly enforce container labeling. All containers of hazardous substances shall be labeled. Label shall identify substance, appropriate hazard warnings, and emergency procedures.
5. In the event that containers suspected of containing hazardous substances are received without the manufacturer's label, the shipment shall be rejected. All containers of hazardous substances must be appropriately labeled and identified.

6. If a shipment of properly labeled containers is received by contractor without a SDS, contractor shall immediately request the SDS from the manufacturer. No material shall be brought onsite or used without prior EH&S approval and associated SDS.

7. A SDS is not required for subsequent deliveries of the same product, and same manufacturer, for the same job.

8. Contractor shall store hazardous materials in Buyer approved staging areas and provide spill containment for storage of liquid hazardous materials. Upon request, contractor shall provide Buyer's Contract Coordinator with a list of hazardous materials used on Buyer's property for each day and the quantities used for each material.

O. Air Contaminants and Noise Control

Rocketdyne employees shall not be subjected to excessive air contaminants and noise from contractor's operations. Protective measures may include, but not limited to the following:

- Keeping levels of gases, dust, fumes, etc., below OSHA's Permissible Exposure Level (PEL) in non-office areas and 1/10 the PEL for office locations
- Isolation of heating, ventilating and air conditioning systems
- Installation of barriers, temporary walls or approved fire retardant plastic
- Working off shift hours

II. ENVIRONMENTAL PROTECTION REQUIREMENTS

A. General

1. Federal, state and local regulations have specific requirements, pursuant to the handling, management and disposal of hazardous materials including, but not limited to, asbestos and lead-containing materials, specifically lead-based paint; PCB ballasts; fluorescent light tubes; and contaminated soil. The contractor must comply with the specific requirements associated with this specification, including but not limited to required licenses, certifications, permits and insurance.

2. The contractor shall submit to Buyer a close-out package to include, at a minimum, all daily logs, sign-in and sign-out sheets, safety meetings, personnel air/blood monitoring data, SDSs of the materials used, HEPA (High Efficiency Particulate Air (filters)) inspection logs, agency notification and permits, copies of manifests, and general field notes. The close-out package must be submitted to Contract Coordinator within two-weeks after the end of the project.

B. Air Conditioning Systems

Should the contractor perform task(s) such as repairing, servicing, or disposing of an air conditioning system, the contractor must comply with all regulatory requirements specified in 40 CFR Part 82 and local air district rules.

1. Included in these requirements, at a minimum, the contractor shall be certified to perform such work and provide Buyer with current certifications and documentation at least 24 hours prior to the start of the project and the specified task.

2. Subcontractor shall complete Refrigerant Usage Logs whenever working on refrigerant containing units. EH&S provides the Usage Log forms and the completed Usage Log forms and they are to be provided to EH&S when the project is completed and/or when requested by EH&S.

C. Air Quality

1. At any time during repairing, servicing or disposing operations, the contractor shall at all times comply with all applicable United States Environmental Protection Agency (USEPA) Rules and Regulations , including specific permit requirements and conditions that are the contractor's responsibilities.

2. Buyer or outside agencies have the right to ask for the proper certifications and documentation to perform the operation. Should Buyer find the work is being performed without the proper certification and documentation, Buyer has the right and obligation to stop work, at the contractor's expense, until the issue is rectified.

3. Contractor shall present all applicable local air district Air Permits to Operate, prior to commencing work.

4. Contractor shall present all applicable Air Permits to Operate, prior to commencing work.

5. Contractor may be required to complete Engine Usage Logs when operating (owned or rented) fuel-burning engines at some Rocketdyne sites. When required, EH&S will provide the Usage Log forms and the completed Usage Logs should be sent to EH&S when the project is completed and/or when requested by EH&S.

6. All hazardous materials (paints, solvents, adhesives, etc.) used by contractor shall comply with Regulatory requirements at all times.

D. Asbestos

1. Contractor shall assume all building materials containing asbestos, and shall not be disturbed, unless indicated on drawings. If such areas must be disturbed, contractor shall coordinate with Contract Coordinator to obtain written approval from Buyer's EH&S organization.

2. Buyer defines all asbestos-containing material (ACM) as a material containing any amount of asbestos fibers.

3. All contractor and subcontractor employees that contact or work on asbestos-containing materials during their work activities shall have asbestos awareness training as defined by OSHA. Training shall be current and completed prior to initiation of work.

4. If the project's scope of work involves asbestos abatement and consulting services, please refer to Buyer's drawings or Statement of Work.

5. Contractor shall make appropriate local air district asbestos notifications for renovation or demolition activities when applicable.

E. Lead

1. Contractor shall not install lead-containing materials, unless approved by Buyer's EH&S organization. Furthermore, contractor shall assume all existing paint contains lead, unless analytical data proves otherwise. Paint containing lead shall not be disturbed, unless the activities have been documented in a lead work plan, in accordance with OSHA Regulations, and submitted to Buyer's EH&S organization for review. Activities, which may involve lead include:

   - Painting and decorating with lead-containing paint or other materials
   - Demolition or salvage of structures where lead or materials containing lead are present
   - Removal or encapsulation
   - New construction, alteration, repair or renovation of structures, substrates, or portions t hereof, that contain lead
   - Installation of products containing lead
   - Lead contamination/emergency clean up
   - Transportation disposal, storage, or containment of lead or materials containing lead on the site

2. Contractor shall remove lead-containing materials in such a way that does not generate lead dust and follow the specific requirements listed in 29 CFR 1926.62.

3. Contractor shall assume responsibility for the proper packaging of the lead waste prior to disposal.

4. Buyer shall assume responsibility for disposal of all lead-containing waste that is generated.

5. Upon request, contractor shall provide Buyer with contractor's personnel air monitoring data and blood lead levels consistent with medical confidentiality provisions.

   a) If any contractor's employee or their designated agents exceed the OSHA Permissible Exposure Level for lead of 50 micrograms per cubic meter (50 $\mu g/m^3$), or have elevated blood levels greater than 50 micrograms per deciliter (50 50 $\mu g/dl$), the employee shall be removed from the work area and additional engineering work control measures shall be implemented by contractor.

F. Water Discharge

1. Contractor shall not discharge wastewater to Buyer's ground, sanitary system, or storm drains unless written authorization has been obtained from Buyer's EH&S organization. All equipment or area washdown water shall be contained and discharged according to instructions from Buyer's Contract Coordinator.
2. All concrete cutting water shall be managed according to instructions from Buyer's Contract Coordinator.

G. Hazardous Waste

1. Contractor shall notify Buyer's Contract Coordinator prior to generation of any hazardous waste.
2. All hazardous waste shall be handled, managed and packaged to meet all federal, state and local regulations.
3. Contractor shall store hazardous or potentially hazardous wastes in Buyer provided hazardous waste containers in Buyer approved staging area(s). Buyer shall be responsible for disposal of all contractor-generated hazardous wastes. Contractors are also responsible for supplying appropriate waste containers and maintaining them in good condition.
4. Contractor shall make a good faith effort to minimize hazardous waste generation.
5. Should the contractor or their designated agents not comply with the federal, state, local, or municipal regulations, or with this document, Buyer has the right to stop work, at contractor's expense, until the issue is rectified. The cost for project delays shall be assumed by contractor.
    a) Violations may be referred to the appropriate regulatory agency(s), which may lead to legal, civil, and/or criminal action.

H. Radiation

When applicable, prior to the conduct of site operations, Buyer's EH&S organization shall review and approve contractor's radiation safety procedures. Unless specified otherwise in writing, the contractor shall bear primary responsibility for safe conduct of licensed or registered operations while on Buyer's property

I. Soil, Concrete, and Asphalt Handling

1. One week prior to the start of an excavation, the contractor shall notify the Contract Coordinator. The Buyer will specify through the Contract Coordinator how all excavated soil, concrete and asphalt is to be managed including:
    - Staging/storing areas
    - Requirements for stormwater run-on/run-off control
    - Requirements for covering/underlayment
    - Disposal of excess excavation materials
2. Historical process data shows the potential for soil and/or groundwater and/or concrete/asphalt contamination. Should the contractor find any potential contamination spots in the soil, concrete, or asphalt, the contractor shall immediately stop the project and notify the Contract Coordinator. If contamination is found and/or suspected during excavation, the Buyer will determine how the contaminated media is to be managed including:
    - Air monitoring required during excavation
    - Sampling and analysis
    - Waste characterization
    - Disposal
3. Unless already specified by contract, the Buyer shall arrange for containers, transportation and disposal of the contaminated media.
4. Media that is found not to be contaminated shall be disposed of by contractor or as otherwise specified by contract.

5. After the excavation is complete, for each particular area, the contractor shall allow Buyer sufficient time to collect soil samples prior to any further construction.

III. HEALTH and SAFETY REQUIREMENTS

A. Fire Protection and Prevention

Contractor's personnel shall observe Buyer's plant fire safety rules and regulations. These include, but are not limited to:

1. Contractor shall provide the number of fire extinguishers and fire protection devices required by law and any additional protection devices required by Buyer. Contractor shall also maintain the equipment in good operating condition (i.e., fully charged). All fires shall be promptly reported to Buyer's Security Control Center in accordance with emergency procedures.
2. Buyer's Security Services personnel responsible for fire protection will give contractor's employees instructions concerning operations which tend to compromise fire prevention practices or standards.
3. Smoking is permitted only in approved areas and will be defined by Buyer.
4. Welding, burning, cutting, spark producing equipment, or heating operations require prior approval and a valid permit from Buyer's authorized representative through the Contract Coordinator.
5. Operation of gasoline engine or diesel engine-driven equipment, i.e., forklifts, air compressors, generators, pumps, are not permitted in occupied buildings unless the equipment has been inspected and conditions approved by Buyer's EH&S organization through the Contract Coordinator, e.g., equipped with an approved exhaust purifying device. While on Buyer's premises, all gasoline or diesel-powered engines shall be shut down before fuel tanks are opened or refueled. Refueling shall not occur within a building. Such equipment shall be properly maintained and their exhaust emissions shall not exceed permissible levels.
6. Liquefied petroleum fuel tanks require inspection by Buyer prior to initial operation.
7. Roofing kettles and tar pots used on Buyer's premises must be inspected and approved by Buyer upon arrival at the job site. The unit must be disconnected from the towing vehicle at all times when in operation and will be kept at a safe distance from buildings.
8. The use, handling, or storage of explosives and all blasting operations require approval of Buyer's EH&S organization through the Contract Coordinator. Contractor must request approval for the use of explosives at least 24 hours in advance of such requirement.
9. Aisles, exits, and stairways shall be clear and accessible at all times and in good repair. When it is necessary to close off, block or repair an aisle, exit or stairway, prior approval must be obtained from Buyer's EH&S organization through the Contract Coordinator.

B. Welding, Cutting, and Spark Production

1. Contractor's personnel shall observe Buyer's plant safety regulations regarding welding, cutting, burning, grinding or heating operations, open-flame operations and spark production.
2. Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other "hot work" is being done. The HWP must be completed prior to any welding, cutting, burning, grinding or heating operation, open-flame operations and spark production, or other "hot work" being performed. Buyer's representative will respond to inspect the proposed operation. No work shall be performed without Buyer's signature approval on the HWP. The HWP shall be prominently displayed within the work area. Upon completion of the job, the permit shall be forwarded to the Buyer, through the Contract Coordinator. No welding, cutting, or other "hot work" shall be done where the application of flammable paints or the presence of other combustible materials or heavy dust concentration creates a fire hazard.
3. Contractor shall provide a fire watch person to observe the area where the "hot work" is occurring. The fire watch person shall have no other responsibilities, other than observing the operation for evidence of fire. The fire watch person shall observe the area of "hot work" for the

period specified on the HWP but no less than at least 30 minutes following the cessation of “hot work” activities.

4. Welding equipment used on the premises must be of an approved type and in good operating condition. When overhead welding operations are to be performed, arrangements shall be made through the Contract Coordinator for removal, whenever possible, of the hazardous materials from the immediate area to a safe location. Contractor will provide adequate standby personnel, barriers, and warning signs on lower floor level while performing overhead burning, cutting or welding operations, or other “hot work” operations. Contractor is responsible for furnishing glass cloth blanket, or other approved ceiling covering to protect materials which cannot be removed from the work area and which may be damaged by such operations.

5. When welding or cutting operations are performed with oxygen and acetylene tanks, the tanks must be properly secured in an upright position and equipped with shutoff wrenches. Each oxygen and acetylene tank must be shut off at the tank and hoses bled down when the welding operations are completed for the day. Electrical arc welding equipment, including power sources such as gasoline engines, must also be shut off when not in use.

6. Contractor shall exercise extreme care in the use of all open flame equipment. The Contract Coordinator shall be informed daily of all such activities. The following items are of particular importance and shall be strictly enforced by contractor:

    a) Contractor shall enforce strict compliance with the above HWP.

    b) Contractor’s welding, cutting and spark production or other “hot work” operations, will be permitted in flammable liquid areas only if operations are shut down, vapor checks made, solvents removed and automatic sprinklers are in service.

    c) Contractor shall use fire-resistant tarpaulins to contain sparks and hot metals.

    d) Contractor shall confine flammable liquids within approved safety containers.

7. Contractor shall perform welding, cutting and other “hot work” operations in accordance with OSHA regulations. These shall include, but not be limited to:

    a) All exposed combustible materials located below the welding and cutting area must be removed to a safe location, covered with a fire-resistant material or protected by an approved spark catcher to contain all sparks and slag.

    b) An approved fire extinguisher must be within the immediate area, which is within 20 feet of any welding, cutting, or “hot work” operations.

    c) The user must inspect all leads, grounds, clamps, welding machines, hoses, gauges, torches, and cylinders before they are put into operation.

    d) All fittings, couplings and connections are to be “leak-free.”

    e) Provide adequate ventilation while cutting, welding, soldering, or working on galvanized material while working within enclosed shelters.

    f) All work must have a separate and adequate ground, pulled from the welding machine to the item being welded.

    g) Adequate measures, e.g., flash screens, shall be taken to shield the eyes of personnel in the vicinity from flash burns and the welding rays.

    h) At the end of each shift (or when not in use for extended periods), the welding machine shall be turned off.

    i) An OSHA-approved welding helmet which attaches to a hard hat must be worn. Use appropriate fillers for the hazard.

    j) Electric welding is prohibited from any metal ladder.

    k) Compressed gas cylinders must be secured vertically to an adequate support while in storage or transit. The protective cap must be on during storage and transit. Under no circumstances shall acetylene cylinders be laid down.

l) Keep oil and grease away from oxygen regulators, hoses, and fittings. Do not store wrenches, dies, cutters, or other grease-covered tools in the same compartment with oxygen equipment.

m) Approved cutting goggles must be worn. Use appropriate filters for the hazards.

n) Gloves shall be worn to protect hands and wrists. Flying chips and weld slag travel a considerable distance and may be dangerous to other personnel in the area and, therefore, shall require a screening or shielding. Heavy leather work gloves, long sleeve shirts or jackets, and goggles and/or a full face shield shall be worn when welding, cleaning, grinding, and brushing surfaces. The same precautions shall be taken for wire brushing and power brushing. Flame-resistant aprons of leather or other suitable material shall be worn as protection against radiating heat and sparks. Clothing should be free of oil and grease.

o) Torches shall never be left in a vessel due to potential leaks.

p) Oxygen shall not be used to operate pneumatic tools, pressurize a container, blow out lines, or as a substitute for compressed air or other gases.

q) Cylinders and hoses shall be placed where they are not exposed to sparks and slag from a welding or cutting operation or other “hot work” operations.

r) Cylinders shall be raised to upper levels with approved rigging gear. Do not lift them with slings or by the protective cap or valve.

s) Do not strike an arc on cylinders or use them as rollers.

8. Welding and cutting on barrels or other containers shall be in accordance with all prevailing codes, ordinances and regulations, including all procedures directed by Buyer’s Contract Coordinator.

C. PPE

1. If engineering or administrative controls cannot be implemented to limit harmful exposure to airborne contaminants, MSHA (Mine Safety and Health Administration) or NIOSH-approved respirators shall be provided by contractor for their workers and any of their subcontractor’s.

2. The respirator shall be applicable and suitable for the purpose intended.

3. Contractor shall be responsible for the establishment and maintenance of the respirator protective program in accordance with OSHA and the requirements listed below:

a) Respirators shall be selected on the basis of hazards to which the worker is exposed.

b) The user shall be instructed and trained in the proper use, maintenance and fit of respirators and their limitations.

c) Where practical, the respirators should be assigned to individual workers.

d) Respirators shall be cleaned, disinfected and filters replaced as per manufacturer’s recommendations.

e) Employees should not be assigned to a task requiring use of respirators, unless it has been determined that they are physically able to perform the work and use the equipment. Contractor’s physician shall determine what health and physical conditions are pertinent on an annual basis.

4. Contractor is responsible for providing and requiring employees to wear appropriate personal protective equipment for all operations where there is an exposure to hazardous conditions, where there is the need for using such equipment to reduce the hazards to employees, where required by the specifications or SDS, or where required by plant operating procedures. It is the contractor’s responsibility to ensure their employees and subcontractor’s employees conform to the OSHA regulations regarding PPE. The most stringent requirements shall take precedence and shall include, but not be limited to:

a) Hard hats (metal hard hats shall not be worn), industrial safety glasses with side shields, full-length trousers, and leather shoes are required equipment and must be worn at all times when on the worksite. Hard hats and safety glasses shall be worn with welding

helmets and face shields. Flexible slip-on side shields are not acceptable. Additional equipment such as hearing protection, safety goggles, face shields, personal fall protection equipment, gloves, safety nets, respirators and similar safety items may be required depending on the nature of the work area and the work involved.

b) When the possibility of loose particles or flying projectiles exists, the proper safety wearing apparel and safety protection devices shall be worn. A full face shield may be required at the discretion of the Contract Coordinator.

c) Safety-toe footwear (ASTM F2413) shall be worn when there is potential for injury or within Buyer designated areas.

5. Contractor shall have extra safety glasses and hard hats available on worksite. Safety glass cleaner shall also be made readily available to all contractors' employees on worksite.

D. Material Handling, Storage, and Disposal

1. General

a) Contractor shall be responsible for using safe methods of handling, storage and disposal of materials at the worksite.

b) Contractor's personnel shall observe Buyer's plant safety rules and regulations for receiving, handling, storage and disposal of all materials.

2. Material Handling

a) Rigging equipment for material handling shall be of the proper size and rating. All rigging equipment shall be inspected by contractor prior to use on each shift and as necessary during its use to ensure that it is safe. Defective rigging equipment shall be removed from service. All rigging equipment not in use shall be properly secured.

b) Tags or guidelines shall be used for controlling loads.

c) Special custom design grabs, hooks, clamps, or other lifting accessories (for such units as modular panels, prefabricated structures and similar materials) shall be marked to indicate safe working loads and shall be proof tested prior to use of 125 percent of their rated load.

3. Material Storage

a) All materials stored shall be stacked, braced, racked, blocked, interlocked, or otherwise secured to prevent sliding, rolling, falling or collapse.

b) Flammable material storage shall be as previously described.

c) Materials stored inside buildings under construction shall not be placed within 6 feet of any hoist way or inside floor opening or within 10 feet of an exterior wall which does not extend above the top of the material stored.

d) Materials stored on existing structurally supported floors and roofs shall not exceed the uniform design load capacity of the floor or roof.

e) Storage location shall be approved by the Contract Coordinator.

4. Material Disposal

a) Disposal of debris and waste materials such as chemicals, cleaning solvents, lubricating oils, cutting oils, toxic materials and other hazardous materials, shall comply with Buyer's procedures, and all applicable ordinances, regulations and laws of local, city, county, state, and national government agencies. For disposal of hazardous material, please refer to Section II.G.

b) The disposal method of debris and non-hazardous waste materials shall be selected by Buyer. Buyer's EH&S organization will select each disposal method to ensure compliance with applicable ordinances, regulations and laws of local, city, county, state, and federal agencies having jurisdiction. Contractor shall comply with each waste disposal method selected.

c) Contractor shall take steps necessary to prevent discharging of lubricating oils and cleaning solvents onto the ground and/or into sewers and sewage disposal systems to prevent contaminating rivers, streams, and the environment. These fluids (after use) shall be stored in waste drums or other approved containers and disposed of in a legal and authorized manner, including adherence to the Environmental Protection Agency (EPA) rules.

E. Ladders, Scaffolds, and Work in Elevated Locations

1. Ladders

The use or erection of ladders shall comply with OSHA regulations and shall include, but not be limited to:

a) Each user must visually inspect each ladder for defects before using.

b) While ascending or descending a ladder, carry nothing which will prevent holding onto the ladder with both hands. Use handline if necessary to raise or lower materials.

c) Metal ladders shall not be used around electrical equipment.

d) Ladders must be securely tied off.

e) When working with ladders, work facing the ladder with both feet on the rungs.

f) All ladders shall have appropriate shoes and footings.

g) Workers shall not stand with their waist above the top step of a step ladder.

2. Scaffolds

The use of scaffolds shall comply with OSHA regulations and shall include, but not be limited to:

a) The erection and dismantling of scaffolds shall be performed under the supervision and direction of a qualified person meeting the requirements defined in OSHA. All scaffolds must be erected level and plumb and on a firm base. Platforms must be secured to the scaffold structure.

b) Never exceed safe working loads on scaffolds. Each scaffold shall be designed and constructed using a dead load safety factor that will ensure the scaffold supports, without failure, its own weight and four times the maximum intended working (live) load applied or transmitted to it.

c) Never rig from scaffold handrails or braces.

d) Scaffold handrails, mid-rails, or brace members shall not be climbed. Use ladders for access.

e) Appropriate handrails, toe boards and cleats are in place as required.

f) Since federal standards are detailed in their specifications for the dozens of types of scaffolds, OSHA 29 CFR Section 1926.451 must be referred to for each particular job's scaffolding requirements.

3. Safety Harnesses

a) The use of safety harnesses shall comply with OSHA regulations. Safety harnesses with energy-absorbing lanyards are required to be worn and tied off when working on:

- Sloping roofs
- Flat roofs without handrails within 6 feet of the edge of the roof or an opening.
- Open-sided floors or platforms
- Any suspended scaffolds, platforms, or stages.
- Any scaffold with incomplete handrails.
- Aerial devices (any vehicle-mounted or self-propelled device, telescoping extensible or articulating, or both, which is primarily designed to position people)

- Elevated work platforms (a device designed to elevate a platform in a vertical axis, e.g., a Vertical Tower or Scissor Lift) with incomplete rails or rails less than 42 inches high
- Any steel erection
- Confined spaces, where required by the Permit, and may include such locations as manholes, tanks, pressure vessels and tunnels
- Generally, any elevated work area that is without protection to prevent workers from falling, and the person can fall a distance of at least 6 feet

b) Safety belts are not permitted to be used.

F. Walking/Working Surfaces

1. Openings in Floors, Walls and Stairwells

a) The protection of unguarded openings in floors, walls and stairwells shall be in compliance with OSHA regulations.

b) All holes or openings through floors, decking, or walls at all elevations shall have properly identified hole covers or be barricaded immediately. Floor openings shall be guarded by a standard railing and toe boards or a cover. All open-sided floors or platforms, 30 inches or more above adjacent floor or ground level, shall be guarded by standard railings or the equivalent on all open sides, except where there is an entrance to a ramp, stairway, or fixed ladder.

c) Equipment or material shall not be stored on a hole cover.

d) Covers shall be secured in place against accidental displacement and extend adequately beyond the edge of the hole or opening.

e) Covers must be fabricated from minimum ¾-inch thick exterior grade plywood provided one dimension of the opening is greater than 12 inches. Covers must have a sign on it stating: “DANGER - FLOOR OPENING - DO NOT REMOVE.”

2. Stairways, Platforms, Runways, Walkways and Ramps

a) The fabrication and use of temporary stairways, walkways and ramps shall be in compliance with OSHA and ANSI regulations.

b) On all structures of two or more floors, stairways, platforms, runways, walkways, and ramps shall be provided for employees during the construction period.

c) Handrails and guardrails shall be as required by OSHA, capable of withstanding a minimum force of 200 pounds in any direction.

G. Signs, Signals, and Barricades

1. The fabrication and use of barricades and handrails shall be in compliance with Buyer’s plant safety rules and with OSHA and ANSI regulations. Special attention shall be given by contractor to the following items:

a) To protect workers from injury, contractor shall construct removable replaceable handrails, temporary barricades or secured covers for all openings in the roof and floors, open trenches in the roof and floor, open trenches crossing roads and pedestrian walkways, and open manholes in accordance with all applicable safety regulations. Such handrails, barricades, and covers may be removed only when removal is necessary for the performance of work near the opening, trench or manhole. They shall be replaced when any of the following occur:

- The workers take a break or leave the area; or
- The work is not completed by the end of the working day; or
- As soon as their absence is no longer necessary for the performance of the work.

b) When such handrails, barricades or covers are removed by contractor or any subcontractor, they shall be replaced or rebuilt as necessary by contractor or subcontractor which removed them.

c) Contractor shall post areas where it is necessary to do overhead work.

2. Contractor shall be responsible for posting, installing, and maintaining signs, signals, and barricades to detour the passage of persons or vehicles at all locations where potential hazards exist.

3. Contractor's employees shall obey all signs, signals, and barricades which are posted to warn of potential or existing hazard. Contractor shall prepare a barricade plan and drawing when a pathway, aisle, thoroughfare or exit route must be blocked to perform work safely. The barricade plan and drawing must be signed off by the Buyer's authorized representative.

4. Barricades must be 42 inches high, square and level. Barricades should be kept 4 feet back from the edge of excavations, trenches, holes, platforms, and roofs.

5. The selection and use of signs and tags shall be in conformance with the ANSI D6.1,235.1, and ANSI D6.1,235.2 or equivalent (Part VI FHWA MUTCD).

6. Contractor shall be responsible for attaching danger tags to a piece of equipment (or part of a structure) to warn of potential or immediate hazards.

7. Flagmen must wear red or orange vests. Flags must be of color and size meeting OSHA standards.

H. Confined Space Entry

1. Definition

a) A confined or enclosed space is defined as a special configuration that could result in any of the following:

(1) Atmospheric Condition: a condition in which a dangerous air contamination, oxygen deficiency, flammable atmosphere, or oxygen enrichment may exist or develop.

(2) Entry/Exit Access: a condition where the emergency removal of a suddenly disabled person is difficult due to the location or size of the access opening.

(3) Engulfment Condition: a condition where the risk of engulfment exists or could develop.

b) A confined space or enclosed area has the following characteristics:

(1) Large enough and so configured that a person can bodily enter and perform assigned work.

(2) The primary function is for something other than human occupancy.

(3) The space may contain known or potential hazards.

(4) There is limited or restricted means of entry and exit, i.e., use of hands or a contortion of the body to enter into or to exit from the confined space.

c) Confined or enclosed space entry means any action resulting in any part of the worker's face breaking the plane of any opening of the confined space, and includes any ensuing work activities inside the confined space.

2. General

a) Buyer's EH&S organization shall review and approve contractor's Confined Space Entry Procedure(s) prior to any entry into a confined or enclosed space.

b) Entry into a confined or enclosed space or area shall require a "Confined Space Entry Permit" issued by the contractor before work begins. Refer to Section I.M of this document for permit requirements. Refer also to Section III.C for PPE requirements.

c) Contractor shall provide proper barriers with appropriate warning signs and lighting for nighttime visibility must be provided around uncovered manholes. Stacked up equipment or poorly braced rails are not adequate.

d) No confined space shall be entered until tested by the contractor and found free of dangerous atmospheres, such as flammable or explosive mixtures, hazardous vapors or oxygen levels. Manholes should be tested through a hole in their cover. If there is no hole, the cover should be raised only far enough to clear the test probe. Potentially hazardous mixtures are usually heavier than air, so additional testing at the bottom of the space should be done once the cover is raised.

e) All water must be pumped out. The pump shall be positioned where emissions will not contaminate the space. Where seepage is unavoidable, a pump must be kept running rather than waiting for a build-up. Rubber footwear and clothing must be worn in damp or wet locations.

f) An adequate supply of oxygen (minimum 19.5 percent, and maximum 23.5 percent) must be maintained using positive mechanical ventilation. One person shall remain outside above the manhole and serve as an "attendant" whose sole responsibility is to monitor and maintain two-way communication with the authorized entrant(s) and to provide assistance and summon rescue personnel in case of emergency. The "attendant" may not enter the confined space to perform rescue, unless equipped and trained to do so.

g) A "secondary stand-by" shall be readily available to the "attendant" and shall summon for emergency assistance.

h) A safety harness with life line attached shall be worn by the person or persons working in the confined space when required by the Confined Space Entry Permit. The contractor shall provide and have in place a mechanical means of retrieval.

i) Access ladders must be in good condition.

3. Electrical

Refer to Section III.J for required safety precautions during any work activity in a confined space where energized electrical cable and grounding cable is present.

4. Safety Equipment

Before entering any area or confined space where hazardous air contaminants or oxygen-depleted or oxygen-enriched atmospheres are possible or suspected to exist, contractor must ensure proper safety equipment is used, including a recovery line and backup person. When contractor's employees work alongside Buyer's employees in the same confined space, contractor's employees shall follow Buyer's procedures so as not to endanger employees with conflicting instructions.

I. Lockout/Tagout

1. Contractor shall follow all OSHA regulations governing control of hazardous energy.

2. The purpose of Lockout/Tagout is to minimize the risk of personnel injury and equipment damage by emphasizing the requirement of achieving a controlled energy condition for the equipment being worked on before the actual work begins, and by preventing unauthorized or inadvertent energization of equipment.

3. Definitions

a) Authorized Employee/Person: A person who is authorized to control hazardous energy associated with equipment in order to perform work on that equipment.

b) Affected Employee/Person: A person whose job requires operation or use of equipment which MAY be serviced or maintained under Lockout/Tagout procedure or whose job requires the person's presence around equipment on which such servicing or maintenance can be performed. An affected employee and the authorized employee may be one in the same.

c) Energy Control Point: A single point at which hazardous energy flow can be effectively and positively controlled so that it cannot cause injury or loss of resources.

d) Energy Source: Any source of electrical, mechanical (motion), hydraulic, pneumatic, chemical, thermal, potential/stored (due to pressure, vacuum, gravity, or springs), or other energy.

4. The Authorized Employee shall undertake the following actions for the control of hazardous energy.

a) Identify:

(1) Hazardous energy sources: Identify combinations of hazardous energy sources. Buyer will provide available plans, prints, drawings, manuals or schematics as necessary to help identify all energy sources and paths.

(2) Control points for each hazardous energy source: Identify all energy control points. These include electrical switches, circuit breakers, and valves or physical setups that block energy such as misaligned pipes, line blanking devices, or missing links. Plans, prints, drawings, and schematics may be reviewed as necessary. Also identify those energy control points that must be locked in a safe position in order to prevent rebuild-up of energy (e.g., vent valves, relief valves, or electrical shorting bars).

(3) Appropriate energy control methods: Identify the method used to control the energy. The use of locks, tags, and other devices such as blocks, chains, etc.

b) Notify Contract Coordinator, affected employees, and the area manager of the work to be done and possible hazards. Ensure that personnel are removed from hazardous areas.

c) Contract Coordinator must apply Buyer's facility lock to each energy control point in the contractor's lockout scheme.

d) Shut down the equipment according to established procedures or practices.

e) Control the energy by:

(1) Isolation: An energy path that is blocked or broken so that it cannot flow to cause injury (i.e., turning off a circuit breaker or switch or physically disconnecting electrical wires to interrupt current).

(2) Blocking: An energy source is "blocked" if there is some physical barrier installed or some physical setup that prevents parts from moving, objects from falling or activation of switches or connections from being tampered with.

(3) Dissipation: Energy that is reduced to a level no longer hazardous to a person (e.g., grounding electrical hazard points, allowing cold or hot objects to equilibrate to ambient temperature, releasing pressure or vacuum to ambient pressure, and allowing springs to relax to zero stored energy).

NOTE: Relying upon configuring limit switches, interlock devices, and control circuit devices (such as push buttons and selector switches) as the sole means of de-energizing equipment and controlling the energy is NOT allowed.

f) Apply locks, tags, and/or other energy control devices. Each authorized person working on the equipment MUST ensure that the equipment cannot be mistakenly or intentionally reactivated without deliberate steps to overcome/circumvent the energy controls. This is to be accomplished by:

(1) Locking out each energy control point

(a) Whenever a lock is applied, a tag must be applied with it.

(b) Lock the appropriate disconnect in the OFF or other appropriate safe position.

(c) Due to the design of the equipment, it may be necessary to use a chain, block, or other device to achieve effective energy control through lockout.

(2) If it is not possible to apply a lock due to the design of the equipment or the use of the lock may itself present a hazard, then apply a tag at each energy control point.

(a) Attach the tag in such a way that it would be plainly visible and attach it in the same location in which a lock would have been.

(b) Tagout alone does not provide the same positive hazardous energy control that lockout does. Therefore, additional safety measures MUST be used. These include: stationing a person to monitor the control point; removing an isolating circuit element; blocking a control switch; opening an extra disconnecting device; removing a valve handle; removing fuses, disconnecting wires, barricading the immediate area, etc.

g) Verify in a positive manner that all energy is controlled.

(1) Verification includes using circuit testers, multi-meters, receptacle testers, or pressure gages to ensure energy control.

(2) (If the authorized employee leaves a job while using lockout/tagout for any reason (lunch break, shift change, called to work on another job, etc.) that employee MUST re-verify the energy controls before beginning work again. During the absence things may have changed. The responsibility for safety is ultimately with the individual performing the work.

5. The following actions shall be taken by the Authorized Employee in preparation for restoring equipment to normal service:

a) Inspect the equipment to ensure that the work necessitating energy control has been completed and that the system is safe to re-energize (i.e., that nonessential items are cleared and that components are operational).

b) Re-identify the energy types involved, hazards presented and the controls that were employed. Ensure that controls are in the OFF or other appropriate safe position.

c) Notify Contract Coordinator, affected employees and area manager that the energy control devices are going to be removed and ensure affected employees have been safely positioned away from the operation.

d) Remove the energy control devices. It may be necessary to request permission from the Contract Coordinator, manager or designee to re-energize the equipment. When authorized, reactivate energy sources using an approved startup sequence.

e) Notify affected Contract Coordinator, employees and manager for area that the servicing or maintenance is completed and the equipment is ready to use.

6. Contractor must be knowledgeable about Buyer's lockout/tagout and lock system to avoid confusion over importance of work involved.

7. Contractor must inform affected Buyer's employees of the contractor's lockout/tagout tag and lock system to ensure safety to all personnel.

J. Electrical Work

1. General Requirements

a) Only a Qualified Person who is trained and knowledgeable of the construction and operation of electrical equipment or a specific work method and is trained to recognize and avoid electrical hazards that might be present with respect to that equipment or work method. Unqualified Persons are prohibited from working on or entering electrical equipment, cabinets or panels while energized.

b) All electrical work, installation, and wire capacities shall be in accordance with the pertinent provisions of NFPA Standard 70 (latest revision) and area classifications.

c) The construction and installation of permanent and temporary electrical power transmission and distribution lines shall comply with OSHA regulations 29 CFR 1910 Subpart S, and NFPA Standard 70E.

d) Prior to starting electrical work which involves cutting, splicing, or tapping existing cables, contractor will request Buyer to tag and identify all cables present in the area. Contractor shall check to make sure that the circuit to be worked on has been de-energized and the source locked out. Contractor must attach their personal protective locks in parallel with a Buyer facility lock on the disconnect device. Buyer facility locks will be installed by the

Contract Coordinator. Review one line diagram to be sure there are no alternate power sources.

(1) Contractor will check for energized cable with a device intended for the purpose before cutting into the cable or opening a splice or termination. Solidly ground the cable to a known low resistance ground point while working on the cable.

(2) Electrical lines shall be de-energized while work is performed. When it is necessary to work with energized lines, only qualified personnel, properly equipped with rubber gloves and blankets which have been tested regularly in accordance with ANSI, shall be utilized

(3) At least two people shall be assigned to work on any energized lines or in substations.

(4) When it becomes necessary to transport equipment or machinery under overhead lines in a manner that encroaches on specified clearances, the job should be scheduled so the lines can be de-energized.

(5) Operations conducted adjacent to overhead lines should not be initiated until coordinated with the Buyer and local utility officials (where required).

(6) Materials and supplies should not be stored under overhead transmission and distribution lines because often times when contractor's attempt to remove these supplies, they come into contact with the overhead lines.

(7) Operations adjacent to overhead lines are prohibited unless one of the following conditions is satisfied:

(a) Power has been shut off and positive means taken to prevent the lines from being energized.

(b) Equipment, or any part, does not have the capability of coming within the minimum clearance allowed by OSHA from energized overhead lines, or the equipment has been positioned and blocked to assure no part, including cables, can come within the minimum clearances allowed by OSHA.

(c) The safe distance requirements from overhead lines energized between 600-50,000 volts shall be at least:

- 4 foot for boom-type equipment in transit
- 10 foot for boom-type equipment in operation
- 10 foot for people working near overhead lines.

2. Grounding Requirements

a) All electrical circuits shall be grounded in accordance with the NEC, unless otherwise noted in this specification.

b) A ground should be provided for non-current-carrying metallic parts of equipment such as: generators (if not exempted by NEC 250-6), electrically powered welders, switches, motor-controller cases, fuse boxes, distribution cabinets, frames, motors of electrically operated cranes, electric elevators, metal frames of non-electric elevators to which electric conductors are attached, other electric equipment and metal enclosures around electric equipment.

c) Portable and semi-portable electrical tools and equipment shall be grounded by a multi-conductor cord having an identified grounding conductor and a multi-contact polarized plug-in receptacle.

d) Semi-portable equipment, flood lights and work lights shall be grounded. The protective ground of such equipment shall be maintained during moving unless supply circuits are de-energized.

e) Tools protected by a system of double insulation, or its equivalent, need not be grounded. Double-insulated tools shall be distinctly marked and listed by UL or approved by FM.

f) Grounding circuits shall be checked to ensure that the circuit between the ground and a grounded power conductor has a resistance which is low enough to permit current flow sufficient to cause the fuse or circuit breaker to interrupt the current.

g) Contractor shall have a policy/program for the use, installation and maintenance of personal protective grounds. The Contract Coordinator will provide available fault current values on the system(s).

h) All 120-volt single-phase 15 and 20 ampere receptacle outlets which are not a part of the permanent wiring of the building or structure shall have ground-fault circuit interrupters (GFCI) for personnel protection or an assured equipment-grounding conductor program. Permanent wiring of electrical circuits should be grounded in accordance with NEC. GFCIs may be sensitive to some equipment such as concrete vibrators. In these instances, other precautions shall be taken to protect the equipment/personnel.

i) Contractor and its employees and subcontractor employees shall comply with the latest edition of NFPA Standard 70E.

3. Temporary Wiring

a) Temporary wiring shall be guarded, buried or isolated by elevation to prevent accidental contact by workers or equipment.

b) Outdoor lighting strings shall consist of lamp sockets and connection plugs permanently molded to the conductor insulation.

c) Flexible cord sets shall be of a type listed by the UL. Flexible cord sets used on construction worksites shall contain the number of conductors required for the service, plus an equipment ground wire. The cords shall be hard usage or extra-hard usage as specified in the NEC. Approved cords may be identified by the word “Outdoor” or letters “WA” on the jacket.

d) Bulbs attached to festoon lighting strings and extension cords should be protected by wire guards or equivalent unless deeply recessed in a reflector.

e) When temporary wiring is used in tanks or other confined spaces, an approved switch, identified and marked, shall be provided at or near the entrance to such spaces for cutting off the current in emergencies.

f) Exposed empty light sockets and broken bulbs shall not be permitted.

g) Temporary lights shall be equipped with heavy-duty electric cords with connections and insulation maintained in safe condition. Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this suspension. Splices should have insulation equal to that of the cable.

h) Portable electric lighting used in moist and/or hazardous locations such as drums, tanks, vessels and confined spaces shall be operated at a maximum of 12 volts.

i) Temporary lights shall be equipped with guards to prevent accidental contact with the bulb.

j) Attachment plugs for use in work areas shall be constructed so that they will endure rough use. They shall be equipped with a cord grip to prevent strain on the terminal screws.

K. Motor Vehicle and Equipment

1. Contractor’s personnel shall observe Buyer’s posted speed limits, parking regulations and prevailing OSHA regulations when operating vehicles and moving equipment at Buyer’s facilities.

2. Only the vehicles and moving equipment absolutely necessary for contractor’s work shall be allowed within Buyer’s facility. Seat belts shall be worn by all personnel within an operating vehicle while on Buyer’s property.

3. The driver of each vehicle is responsible for the safety of all passengers and the stability of materials being hauled or handled by the equipment.

4. All vehicles which are not necessary for work shall park in areas designated by the Contract Coordinator.

5. All contractor vehicles must be covered by contractor's insurance requirements as indicated in Buyer's Contract.

6. Blocking of plant roadways is prohibited except where specifically authorized by the Contract Coordinator.

7. Speed limits shall be strictly followed on Buyer's property.

8. All contractors' equipment (i.e., backhoes, cranes, front end loaders, dozers, earth movers) shall have functioning backup warning devices.

9. All stationary equipment shall be grounded or isolated, when working near, above, or below grade energized lines or equipment.

10. All vehicle operators shall possess a valid drivers license and be recognized by the respective state's Department of Motor Vehicles.

11. All contractors' equipment, whether owned, leased, or borrowed, shall be free of defects and free from leaks of oils, coolants, or other chemicals.

12. Operation of gasoline engine or diesel engine driven equipment, i.e., forklift, air compressors, generators, pumps, are not permitted in buildings or enclosed area(s) unless the equipment has been inspected and conditions approved by Buyer's EH&S organization through the Contract Coordinator, prior to initiation of work. While on Buyer's premises, all gasoline or diesel-powered engines shall be shut down before fuel tanks are opened or refueled; propane powered equipment shall be in good working condition. Refueling within a building is prohibited. If Buyer's EH&S organization authorizes use of gasoline or diesel engine driven equipment within a building or enclosed area, conditional approval will be granted on, but not necessarily limited to, the following requirements:

    a) The contractor shall use an appropriate ventilation method including but not limited to opening doors. Additionally, the contractor shall coordinate all activities with the Contract Coordinator in order to eliminate any emission buildup.

    b) The contractor shall conduct continuous air monitoring and record Carbon Monoxide and/or oxygen deficient atmosphere to detect and alert occupants of any hazardous levels near the operation.

    c) Carbon Monoxide emissions shall not exceed a PEL of 25 ppm as a time weighted average (TWA) for a normal 8 hour workday or a Ceiling Threshold of 200 ppm.

L. Excavations and Trenching

1. The sides of all excavations and trenches must be properly sloped, shored or sheeted before entering according to OSHA regulations and shall be capable of withstanding all soil pressures, including stresses which can be exerted by water, heavy loads or vibrations.

    a) Shoring and sheeting procedures shall be reviewed by contractor's "Competent Person" before work begins.

    b) Shoring and sheeting shall be removed after trenching installation work has been fully completed.

    c) Contractor may use OSHA compliant movable steel plate trench boxes or shields during trenching work.

2. Location of all underground structures or utilities shall be verified and marked before digging begins. Contractor shall take all necessary precautions to prevent any hazard from developing. In the event any underground structure is encountered, Contractor shall provide proper support to the structure as required to maintain its integrity and stability. In the event an unexpected or unknown underground utility is encountered, all work shall immediately stop until the utility is identified and the hazard has been properly mitigated.

3. All excavations and trenches must have safe access ways and be properly barricaded. Barricades with flashing lights are required at night. Excavated material may be used to barricade one side of the excavation or trench. The edge of the excavated material shall be at

least 3 feet from the edge of the excavation or trench. Excavated material must be piled at least 3 feet high when used as a barricade.

4. Check for soil erosion and stability of all excavation walls before entering and after a heavy rain or thaw. Check shoring and sheeting daily or more often in extremely wet weather for stability and for accumulation of water. Checking shall be done by a person who is competent and knowledgeable for this type of work.

    a) Workmen will not be permitted in trenches or excavations until accumulated water has been totally removed.

5. The area must be cleared and approved by contractor's Designated Representative prior to the start of excavation.

6. Workers will not be permitted in trenches or excavations while equipment is being used next to the edge.

7. The use of explosives will not be allowed at any time, unless written approval from the Contract Coordinator is first obtained.

8. The written excavation plan must be available onsite for review.

M. Concrete, Concrete Forms, and Shoring

1. All equipment and materials used in concrete construction and masonry work shall be as required by OSHA and also the applicable requirements prescribed in ANSI A10.9. Wall shoring shall also be designed to meet applicable federal and state codes.

2. Form work and shoring shall be designed, erected, supported, braced, and maintained so that it will safely support all vertical and lateral loads that may be imposed upon it during placement of concrete.

3. Structural calculations regarding strength and stability of form work and shoring shall be made available to the Contract Coordinator upon request.

4. Forms shall not be removed until the concrete can support its own weight and any superimposed load.

N. Cranes and Derricks

1. Contractor shall comply with the manufacturer's specifications and limitations applicable to the operation of any and all cranes and derricks. Attachments used with cranes shall not exceed the capacity, rating, or scope recommended by the manufacturer. A copy of the crane manufacturer's operating manual shall be available in the cab of each crane at all times. Manufacturer's load rating plates (in view of the operator) shall be attached to all load-hoisting equipment.

2. All cranes and derricks exceeding three tons rated capacity shall not be used unless certified by a Department of Occupational Safety and Health (DOSH) certifying agent.

3. All equipment used for hoisting will be inspected daily by contractor before operations are begun. Cranes or equipment that has been idle shall be inspected by contractor before being put into operation. Maintenance and inspection of cranes or equipment shall be in accordance with ANSI standards.

    a) Inspection records shall be made available to the Contract Coordinator if requested by Buyer.

4. Operating cranes or equipment in the vicinity of overhead power lines should not start without the special, written approval of the Contract Coordinator. Approval will include an action plan implemented to insure safe operation. This plan may include building barricades, warning signs, a limited device for boom extension, grounding of equipment, use of nylon slings, wearing insulated gloves and boots, and/or limited access. These are preventive measures. First consideration should be given to alternative methods and routes that will keep equipment away from these areas.

5. The riding of crane hooks and/or "wrecking balls" is prohibited. Doing so will result in immediate dismissal.

6. Rigging equipment shall be certified and inspected by qualified state or manufacturer representatives prior to use and as necessary during its use to ensure that it is safe. Inspection documentation shall be submitted to the Contract Coordinator upon request.

7. Only personnel qualified by training and experience shall operate cranes or derricks. Upon request, contractor shall provide qualification and experience resumes for all operators. Operators will be required to wear hard hat identification.

8. One person shall be designated to perform signaling.

9. During assembly and disassembly of crane booms and derrick sections, all components shall be adequately supported so that these components will not shift or fall.

10. When making a lift with a crane, contractor shall have the area cleared, roped or barricaded off, and shall have someone supervising the lift. No one shall stand or pass under suspended loads. Tag lines shall be used for controlling loads.

11. Cranes and derricks shall not be refueled while in operation.

12. When working near energized lines and equipment, the cranes shall be grounded or isolated.

13. All cranes and derricks not in use shall be properly secured.

14. Outriggers must be fully extended for any lift. Where cribbing is used under the outrigger, it must only be used under the pedestal.

15. The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous, or is not possible because of structural design or worksite conditions.

16. All certified crane operators must be in possession of their card issued to them by the National Commission for the Certification of Crane Operators (NCCCO).

O. Steel Erection

1. The erection of new structural steel and removal of structural steel from existing structures shall comply with OSHA regulations. Contractor shall also comply with Buyer's specific site safety regulations regarding welding, cutting and spark production when work encompasses any existing facility equipment or structures, including the posting of area(s) where it is necessary to do overhead work.

2. During the placing of solid structural members, the load shall not be released from the hoisting line or lifting equipment until the members are secured with not less than two bolts (or the equivalent) at each connection and drawn up wrench tight.

   a) Tags or guidelines shall be used for controlling loads.

3. Before extra members are assembled, all joint bolts must be in place. Under no circumstances shall the second level of the structure be erected until all the joint bolts of the first elevation are installed.

4. Contractor shall provide and maintain all necessary temporary guying, bracing, falsework, cribbing or other elements required of steel frame to resist safely all wind or seismic forces and construction loads during erection.

5. All partially erected structural steel shall be braced or secured in an approved manner during interruptions of work or at the end of the working day.

6. Loads should not be placed on structural supports until members are positively secured from movement or accidental displacement.

P. Miscellaneous Provisions

1. General

   a) Contractor is solely responsible for contractor's equipment and goods. Buyer is not responsible for any losses by theft (or by whatever nature) of contractor's property.

b) Loose clothing, rings and other jewelry shall not be worn around operating tools or machines. Keep sleeves buttoned. Industrial leather gloves shall be worn when using tools, but not with rotating equipment.

2. Illumination

a) Contractor shall ensure that construction areas, aisles, stairs, ramps, runways, corridors, offices, shops, and storage areas where work is in progress shall be adequately lighted with either natural or artificial illumination. Refer to OSHA Standards for illuminated light levels in all work or access areas.

3. Sanitation

a) Contractor shall furnish an adequate supply of potable water, containers, and disposable cups to contractor's employees for drinking water.

b) Contractor shall furnish adequate toilet facilities for contractor's employees. All portable toilets shall be kept clean, sanitary, and located in an easily accessible area. If they are to be used at night, the area shall be well lighted.

4. Hand and Power Tools

a) All hand and power tools and similar equipment, whether furnished by contractor or contractor's employees shall be maintained in a safe operating condition. Damaged tools shall be immediately repaired or replaced. Tools shall be used only for the purpose for which they were designed.

b) Any tools that are designed to have guards must have those guards in place at all times. Any worker removing a guard or using an unguarded tool shall be subject to dismissal from the worksite.

c) Grinders are particularly hazardous. Workers shall be trained in their use. While the grinders are rotating, the operator shall assure that he/she is in a balanced position and that the momentum of the disc will carry the tool away from the operator if it becomes stuck.

5. Powder-Actuated Tools

a) Powder-actuated tools shall meet ANSI A10.3.

b) Only trained workers holding a valid operator's card can use a powder-actuated tool.

c) Containers shall be lockable and bear the label, "POWDER-ACTUATED TOOL" on the outside. The container shall be kept under lock and key storage.

d) The tool shall not be used:

- in an explosive environment
- on hard or brittle material
- on unbacked, thin, soft material
- within 1/2 inch of the edge of steel
- within 3 inches of the edge of masonry
- on thin concrete
- on spalled areas
- on existing holes

e) Eye protection shall be worn by operators and assistants.

f) The tool shall be inspected prior to use. Defective tools shall not be used.

g) Tools shall not be loaded until ready for use. Tools shall be unloaded if work is interrupted.

h) Upon misfire, the tool shall be held in place for 30 seconds.

i) Warning signs bearing the words “POWDER-ACTUATED TOOLS IN USE,” shall be conspicuously posted within 50 feet of use.

6. Laser Equipment

a) Anticipated laser use for leveling or surveying must be approved by Buyer’s EH&S organization.

Q. Safety Inspection and Housekeeping

1. Contractor shall check the work area daily at the beginning and at the end of each work shift to ensure safe working conditions are maintained and all safety procedures are followed.

2. Contractor shall be responsible for properly organizing all activities on the job site to the extent that good housekeeping shall be practiced at all times. This shall include, but not be limited to:

a) As the job progresses, work areas must be kept clean at all times.

b) All materials, tools, and equipment must be stored in a stable position to prevent rolling or falling. Materials and supplies shall be kept away from edges of floors, hoistways, stairways, and floor openings. When exterior walls are being built, materials and supplies shall be kept away from the perimeter of the building.

c) A safe access way to all work areas and storage areas must be maintained. All stairways, corridors, ladders, catwalks, ramps, passageways, and work platforms shall be kept clear of loose material and trash.

d) Forms and scrap lumber with protruding nails and all other debris shall be cleared from work areas, passageways, stairs, and in and around buildings or other structures.

e) Combustible scrap and debris shall be removed at regular intervals. Safe means shall be provided to facilitate such removal.

f) Contractor shall supply an adequate number of dumpsters to ensure a clean working area at all times. Contractor shall load and transport all refuse and debris to a suitable disposal area away from the job site and make disposition in a lawful manner. Contractor shall be responsible for daily cleanup of common areas, such as parking lots and roadways. Contractor’s parking and staging areas shall also be maintained clean and free of all debris at all times.

g) Contractor shall restrict the use and storage of flammable liquids and gases to a minimum. Store all flammables not actually needed for immediate use outside building, in a secure shelter. Store all flammables outside building during non-work hours. Store rags or wiping waste with oily or flammable residue away from flammable liquids and in approved closed, metal containers, located outside the building.

(1) Contractor shall collect and dispose of flammable debris and dust as it is accumulated.

(2) Storage locations for gasoline or other flammable materials used for vehicles or equipment shall be in areas agreed to by the Contract Coordinator. These areas shall be diked to retain spilled material and have appropriately placed fire extinguisher.

h) Cords and hoses shall be kept a minimum of 7 feet overhead or laid flat outside of walkways.

i) Tools and equipment shall not be strewn about where they might cause tripping or falling hazards and shall, at the end of each workday, be collected and stored in the tool room or craft gag boxes.

j) Each contractor employee shall be instructed to practice required housekeeping as part of assigned duties.

IV. ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
ACM	Asbestos-Containing Material
ANSI	American National Standard Institute

BLS	Bureau of Labor Statistics
CFR	Code of Federal Regulations
DoD	Department of Defense
DOSH	Department of Occupational Safety and Health
DOT	Department of Transportation
EHS	Environmental, Health and Safety
EPA	Environmental Protection Agency
GFCI	Ground-fault Circuit Interrupters
HEPA	High-Efficiency Particulate Air (Filters)
HWP	How Work Permit
IIP	Injury and Illness Prevention Program
JSA	Job Safety Analysis
MSHA	Mine Safety and Health Administration
NCCCO	National Commission for the Certification of Crane Operators
NEC	National Electrical Code
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
OEM	Original Equipment Manufacturers
OSHA	Occupational Safety and Health Act
PCB	Poly Chlorinated Biphenyls
PEL	Permissible Exposure Level
PPE	Personal Protective Equipment
PSM	Process Safety Management
RCRA	Resource Conservation and Recovery Act
SDS	Safety Data Sheets
SWPPP	Storm Water Pollution Prevention Plan
TSCA	Toxic Substance Control Act
TWA	Time Weighted Average
USEPA	United States Environmental Protection Agency