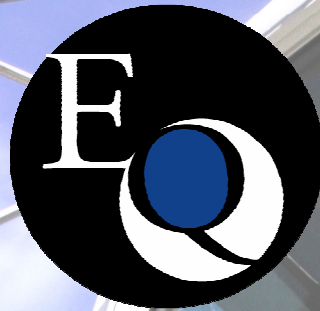


Contractor Environmental, Health & Safety Manual



The Environmental Quality Company

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Contractors shall review this manual and then sign and return the sign-off sheet located in Appendix B to the EQ Environmental, Health & Safety Manager prior to commencement of work on EQ premises.

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Section 1: Introduction

1. Safety Manual Purpose and Scope

- 1.1 The *Contractor Safety Manual* contains policies and procedures applicable to all contractors and contract employees regarding safety, health, and environmental responsibilities on EQ – The Environmental Quality Company (EQ) premises and for work performed for EQ.
- 1.2 Contractors should review with their employees the sections of this manual that are appropriate to the work to be performed. Sections of this manual will apply to contractors working in all of EQ's premises, whether owned or leased, as well as contractors working on EQ projects at EQ customer sites..
- 1.3 This manual does not replace existing site operational specifications. Approved, site-specific procedures must be followed where applicable.
- 1.4 This manual does not relieve contractors of their responsibility for safety, health, and environmental compliance under law, code, ordinance, or statute.

2. General Information

- 2.1 Throughout this manual, reference to a *contractor* means the contractor's company and the companies of their subcontractors, consultants, vendors, and suppliers. Reference to *contractor's management* means personnel responsible for managing, supervising, or directing contract activities and employees. Reference to an *employee* or *contract employee* means the contractor's employees, and employees of subcontractors, consultants, vendors, and suppliers.
- 2.2 Non-compliance with safety or environmental requirements is treated the same as non-compliance with any contract provision, and may result in work stoppage or employee removal from the premises. Willful or repeated non-compliance may result in contractor dismissal and contract termination.
- 2.3 The *Contractor Safety Manual* is an important part of the EQ safety program and will be issued as part of contract documents. Contractors must ensure that their employees, subcontractors, consultants, vendors, suppliers, and visitors comply with the provisions of this manual while on EQ premises.
- 2.4 Compliance with federal, state, or local codes or regulations is required by law. The *Contractor Safety Manual* is a supplementary document to governmental rules, codes, and regulations having jurisdiction, and does not negate, abrogate, or minimize any provisions of these rules, codes, and regulations. It is intended to supplement and enforce the individual program of the contractor and to coordinate overall safety effort. Contractors are responsible for the safety and health of their employees, subcontractors, consultants, vendors, suppliers, and visitors while on EQ premises.
- 2.5 Safety is considered an integral part of quality control, cost reduction, and job efficiency. Managers and supervisors are accountable for the safety performance demonstrated by their employees.

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Section 2: EQ Management System Requirements

1. EQ Management System (EQMS)

EQ has developed a comprehensive management system. The purpose of the EQMS is to ensure consistent operations in all areas. This framework establishes a more organized, disciplined work environment and is the foundation for continued improvement in EQ's processes. The EQMS is intended to provide the elements needed to achieve all of EQ's quality, environmental, health & safety, and economic goals.

2. Mission Statement and Policy

EQ – Mission Statement

EQ is committed to being recognized as the best provider of environmental management services. To reach this goal, EQ will use innovative technologies and services that minimize waste volumes, reduce costs and protect the environment. EQ will set the standard for customer service, associate satisfaction and financial stability.

EQ – Management System Policy

We are **committed** to:

- Ensuring a safe and healthy environment for EQ Associates, our customers and the public;
- Complying with all applicable laws, regulations and other requirements to which we subscribe;
- Continually improving our integrated Quality, Environmental, and Health & Safety Management Systems;
- Providing a comprehensive line of environmental solutions by utilizing continual innovation and new application of current technologies;
- Minimizing the environmental impacts of our services, operations and products, through application of sustainability principles such as recycling, reuse, pollution prevention, emergency preparedness and conservation of materials and natural resources;
- Exceeding our customer's expectations for quality, service and products.
- Educating, training and motivating our EQ Associates because they are the key to applying the management system into our operations, developing new solutions and satisfying our valued customers.

3. Document Control Program

3.1 The purpose of the Document Control Program is to ensure that all documents incorporated into the EQMS are properly managed (i.e., identified, drafted, reviewed, approved, and maintained.)

3.2 Internal EQ documents are controlled electronically. It is the responsibility of the EQ representative to ensure that any documents issued to contractors are the current

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versions(s). It is the responsibility of the contractor to verify that current documents are in their possession prior to the start of work and to remove all obsolete versions of EQ-provided documents from their crews.

4. Corrective and Preventive Action Program

- 4.1 The purpose of the Corrective and Preventive Action Program is to ensure that quality, environmental, and health & safety non-compliances are identified and investigated in a timely manner.
- 4.2 Corrective actions will be taken to rectify non-compliances.
- 4.3 Preventive actions will be taken to prevent the occurrence of non-compliance.
- 4.4 Contractors will participate in this program by:
 - A. Analyzing their processes and work operations to detect and eliminate causes of actual or potential non-compliance.
 - B. Assisting EQ personnel in Root Cause Analyses or other investigation methods to determine the cause of actual or potential non-compliance.
 - C. Implement and record changes in procedures resulting from corrective action.

5. Management of Change Program

- 5.1 The purpose of the Management of Change (MOC) Program is to ensure that changes to the EQ facility or processes do not introduce an unrecognized or unacceptable hazard, or compromise the safeguards built into the EQMS.
- 5.2 In the course of their work, contractors may discover the need for the following:
 - A. Change to an existing EQ process.
 - B. Change to EQ equipment.
 - C. Use of different chemicals or reagents.
- 5.3 If the modification is a “replacement-in-kind,” it is exempt from the MOC procedure.
- 5.4 Contractors shall initiate the MOC procedures by notifying the EQ representative immediately when the need for a change arises. The EQ representative is responsible for completing a “Management of Change Card” (MOCC) detailing the requested modification. Work may not continue until the EQ representative approves the information from the MOCC.



Section 3: Safety Program Administration

1. General Information

- 1.1 The purpose of the contractor safety program is to establish, implement, and execute a practical and effective method for preventing accidents, illnesses, and injuries and protecting the environment.
- 1.2 The *Contractor Safety Manual* will help contractors and their management to recognize, to evaluate, and to control hazardous activities or conditions within their areas of contract responsibility. EQ will not assume or relieve contractors of the responsibility for employee and public safety or regulatory compliance.
- 1.3 This manual defines how the safety program will be administered, identifies responsibilities, and ensures control of work area safety.
- 1.4 Relevant provisions of this manual apply to all contractors. Contracts signed with contractors and the provisions of this manual are intended to complement each other; however, in the event of a conflict between the provisions of this manual and the terms of a specific contract, notify the EQ project representative immediately.
- 1.5 The provisions of this manual apply to all EQ sites; however, each site may have specific safety rules and regulations that apply when a contractor performs work on that site. The EQ representative will define applicable site rules. Contractors are responsible for following the rules and regulations applicable to the site.
- 1.6 Visitors must be escorted by an EQ employee and must follow the safety directives of the employee.

2. Safety Program Administration

- 2.1 The effectiveness of the safety program depends on establishing and maintaining a safety culture through the participation and cooperation of employees and coordination of their efforts in carrying out the following basic responsibilities:
 - A. Plan and coordinate work to avoid personal injury, property damage, environmental risk, and the loss of production.
 - B. Establish and maintain a system for early detection and correction of unsafe practices and conditions.
 - C. Provide adequate protection of public and private properties and the environment and ensure the safety of the public.
 - D. Establish and conduct safety education programs.
 - E. Develop an emergency plan for the work

2.2 Safety Program Implementation

- A. Contractors are responsible for establishing and implementing a safety program for their employees. This program will include maintaining and auditing safety performance for compliance with applicable federal, state, local regulations and with established safety and environmental requirements, including but not limited to the contractor's safety and hazard communication programs.
- B. Contractors are to conduct regularly scheduled safety inspections of the work being conducted by the contract and subcontract personnel. The scope or duration of work may regulate the frequency of these inspections.
- C. Contractors must take immediate corrective action when a violation of job safety, fire, or environmental safety hazard is observed.
- D. Contractors are to regularly review their safety performance. Failure to correct a problem may result in work stoppage in the related area, and work will not be permitted to resume until the problem is corrected. Work stoppages need to be communicated within EQ between the project manager and Environmental, Health and Safety (EHS) manager.
- E. If a contractor fails to correct the problem within a reasonable timeframe, EQ will typically provide written notification and then take corrective action. The cost will be the responsibility of the contractor.
- F. Contractors are required to administer their own safety activities and are responsible for the safety of their employees. If requested by EQ, contractors will submit a written copy or description of their company's safety program.
 - 1. The contractor's safety program must meet federal, state, and local regulatory requirements and be equivalent to or more stringent than EQ's program.
 - 2. Where the programs are in conflict or the contractor's program does not address an issue, the EQ safety program as defined in this manual will govern.
 - 3. If required by the project, contractors and their safety manager or designee must attend a pre-work safety conference with EQ prior to beginning work. The conference is to review procedures, forms, record keeping and reporting, and to ensure a clear understanding of the safety program relevant to the work being performed. The "Contractor Pre-Job Checklist" (QES-FM-071-ALL) will be reviewed during this meeting.

3. Contractor Duties and Responsibilities

- 3.1 Contractors are responsible for ensuring that their employees adhere to the directives of the safety program when performing work for EQ. The contractor will submit to the EQ representative a list of individuals and their respective responsibilities.
- 3.2 The contractor's responsibility as it relates to this manual cannot be delegated to subcontractors, suppliers, or others without written approval from EQ.
- 3.3 Contractors are required to designate a qualified safety manager who is knowledgeable in safety, health, environmental protection, and fire prevention. Contractors are also required to designate a competent person for certain tasks, such as scaffolding, fall protection, trenching, hazardous energy control (lockout/tagout).

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- 3.4 If requested by EQ, contractors will submit a history of experience and qualifications for the person who is to manage the contractor's safety functions.
- 3.5 Safety violations by contract employees constitute non-compliance with provisions of the contract and may result in immediate removal from EQ premises.
- 3.6 Contractors are to train their employees on the safety, health, environmental, and fire prevention requirements for the work they are to perform and enforce adherence to safe work practices and procedures.
- 3.7 Contractors are required to maintain a safety training program designed for employees. At minimum, such programs are to provide employees with information on the following topics:
 - A. Hazards present in their work assignment and surrounding area.
 - B. Personal protective equipment requirements.
 - C. Proper procedures for safe work and for reporting unsafe work conditions.
 - D. Waste disposal and environmental release requirements.
- 3.8 Contractors are responsible for planning and executing work according to the stated objectives of the safety program.
- 3.9 Contractors are to arrange for the proper use, maintenance, and repair of work equipment.
- 3.10 The contractor's manager, supervisor, or other person in charge who directs or allows employees to perform unsafe acts or to work in or around unsafe conditions will be immediately removed from EQ premises.
- 3.11 EQ requires that the following functions are assigned. More than one function may be assigned to an individual.
 - A. The **manager** is responsible for implementing and maintaining the safety program.
 - B. The **supervisor** is responsible for implementing and maintaining the safety program for areas under the supervisor's control. Responsibilities include administration and coordination of the following activities:
 - 1. Thoroughly reviewing accident investigations and initiating corrective action.
 - 2. In the event of an accident, preparing and submitting a written report, and assisting in the investigation according to the requirements.
 - 3. Holding safety meetings.
 - 4. Reviewing safety performance and taking action as necessary within the areas of responsibility.
 - 5. Maintaining effective and prompt communication of safety matters.
 - 6. Monitoring compliance with established environmental and pollution control standards and regulations.

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7. Assigning duties to subcontractors, checking work areas, making housekeeping inspections (accompanied by a subcontractor supervisor), and keeping records of conditions found and corrective actions taken.
 8. Requiring employees to use personal protective equipment such as safety glasses, body harnesses, head and eyewear protection, and ventilation equipment.
 9. Maintaining effective communication of safety matters to employees.
 10. Instilling in personnel, by action, example, and training, an attitude toward safety so workers develop a better awareness of accident prevention.
 11. Assisting in the development and communication of safe work procedures for unusual or hazardous operations.
 12. Maintaining compliance with the requirements of federal, state, local, and other agencies, and with the requirements of the general contractor's and EQ's safety manuals.
- C. The ***contractor's safety manager*** serves as a technical advisor to the contractor's management on health and safety planning, training, and problem resolution. The responsibilities associated with this position include the following:
1. Apply policies, procedures, and work practices to promote and administer assigned functions to aid in this responsibility.
 2. Administer and coordinate medical and emergency first aid services and programs.
 3. Monitor compliance and mandatory safety and health laws, regulations, standards, and codes, and audit and document the results in order to eliminate or control hazards which could contribute to or result in an occupational injury or illness.
 4. Investigate work related injuries, illness, and incidents that involve or could involve actual or potential risk to personnel and property, maintain adequate records of pertinent data, and compile the required reports of occupational injuries and illness.
 5. Administer and coordinate the contractor's alcohol and drug abuse program.
 6. Approve the "Safety Procedure Modification Form" (QES-FM-091-ALL) when its use is required.
 7. Respond to EQ site safety and audit findings with written corrective actions to address identified concerns.

4. Subcontractor Duties and Responsibilities

Subcontractor management, supervisors, and safety personnel have the same duties and responsibilities as the contractor as described in Part 3, *Contractor Duties and Responsibilities*, with the exception that the cost will be assumed by the general contractor or contract manager.

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5. Employee Duties and Responsibilities

- 5.1 Contract employees must not knowingly work in unsafe surroundings or in an unsafe manner.
- 5.2 Contract employees are responsible for learning, understanding, and following the rules and regulations applicable to the work and for reporting observed or anticipated hazards to their supervisor(s). If such hazards are not addressed, employees must report the conditions to the EQ representative.
- 5.3 Contract employees will be issued a pocket reference handbook entitled "Pocket Environmental, Health and Safety Guidelines for Contract Employees" (QES-CM-003-ALL). This handbook outlines general safety procedures. Employees are required to acknowledge that they have received training on the EQ handbook and that they will comply with the requirements for working at EQ by signing the last page of the handbook, removing it from the handbook, and submitting it to the EQ representative.

6. EQ Representative's Responsibilities

- 6.1 The EQ representative's primary responsibilities are listed below:
 - A. Be familiar with the *Contractor Safety Manual* and understand the requirements established in it.
 - B. Reference EQ policies and the *Contractor Safety Manual* in contract documents.
 - C. Issue approvals and resolve problems in accordance with EQ policies.
- 6.2 The EQ representative is to emphasize that the manual is:
 - A. Applicable to all contracts.
 - B. Applicable to all EQ sites.
 - C. A consolidated approach to safety.
 - D. An expectation of minimum safety performance by all contractors.
 - E. Intended to increase requirements as risks increase.
- 6.3 The EQ representative is to provide feedback to EQ EHS personnel.
- 6.4 The EQ representative is to monitor the contractor's performance for compliance with the manual.
- 6.5 The EQ representative is to emphasize the following contractor responsibilities, as applicable:
 - A. Ensure safety of all contractor activities and contract employees.
 - B. Establish and implementing a safety program.
 - C. Conduct safety inspections.
 - D. Ensure that contract employees comply with the safety program.
 - E. Designate a qualified safety manager.

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- F. Provide adequate safety training.
- G. Transfer or provide for these same duties and responsibilities to subcontractor management, supervisors, and safety personnel.

7. Reservation of Rights

- 7.1 EQ reserves the right to interpret, to revise, or to depart from safety policies and procedures at any time without notice. EQ also reserves the right to dictate safety standards during the course of a contract as necessary in the interest of safety.
- 7.2 Compliance with this safety manual or EQ's policies, procedures, and standards does not confer or entitle contractors or their employees to any benefits, rights, or privileges that go to EQ employees by virtue of their status as employees of EQ.
- 7.3 Nothing in this safety manual alters contractor or contract employee status or infringes upon the rights of either.

8. Disciplinary Action

- 8.1 The progression of disciplinary action will be determined by the severity of the incident and other mitigating factors. The emphasis is to be on the desire for EQ to promote safety through a cultural shift and not through enforcement activities. However, non-compliance with safety requirements may result in work stoppage if an immediate threat to safety exists.
- 8.2 Although the disciplinary process is written for the individual, the failure of a contractor to take corrective action may lead to the same penalties being placed against the contractor.
- 8.3 There will be no penalty or retaliation for reporting any safety or environmental incident, but the reporting of an incident will not protect the individual from consequences related to the incident.
- 8.4 Disciplinary actions will progress as follows, under ordinary circumstances:

- A. Documented Verbal Warning**
- B. Written Warning with Corrective Action required**
- C. Dismissal from EQ premises for the duration of the project assignment**
- D. Ban from working on EQ premises and contract termination.**

- 8.5 Temporary or permanent removal from EQ premises may occur if the contractor's manager, supervisor, or person in charge of the work being performed requires, requests, allows, or condones employees to work in or around unsafe acts or conditions or violate environmental permits or regulations.
- 8.6 Immediate and permanent removal from EQ premises may occur if a contractor's manager, supervisor, or employee engages in any of the following activities:
 - A. Openly exhibits disregard, defiance, or disrespect for the safety program.
 - B. Knowingly falsifies investigative documents or testimony involving an investigation.

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- C. Participates in fighting, violence, threats of violence, theft, or destruction of property.
- D. Violates established safety rules, regulations, or codes that endanger themselves or others.
- E. Violates established environmental rules, regulations, or procedures that endanger the environment.



Section 4: Reporting an Emergency

1. General Information

- 1.1 This section establishes the requirements, responsibilities, and methods of notification and response to emergency situations.
- 1.2 Where a specific procedure has not been established, use good judgment in determining what actions to take.
- 1.3 In addition to the reporting requirements of this manual, various policies and procedures require that all reports of accidents, incidents, or near misses be submitted to the EQ EHS representative.
- 1.4 The contractor must identify evacuation route(s), assembly areas, and tornado safe areas to all personnel before they begin work.

2. Emergency Reporting Procedures

- 2.1 Immediately report an emergency on EQ property to the EQ representative by telephone, radio, or messenger.
- 2.2 Emergency procedures including telephone numbers for specific sites will be given to contractors prior to the start of work using the "Contractor Safety Orientation Checklist" (QES-FM-093-ALL).
- 2.3 Place emergency phone numbers in conspicuous places throughout the work area.
- 2.4 Photographs of emergency situations are prohibited unless EQ gives written approval.
- 2.5 Do not make comments regarding emergencies to a media representative. Refer media inquires to the EQ Director of Communications or Emergency Coordinator if the Director of Communications is not yet on the scene.
- 2.6 If there is an evacuation, immediately report to the appropriate assembly area. See an EQ representative to confirm the location of the appropriate assembly area(s) and evacuation route(s) relative to the work area. Keep in mind that wind direction may be a factor in determining which assembly area and evacuation route to choose.
- 2.7 Any event from a near miss to a serious injury or fatality must be reported to the EQ project manager as well as to the EQ site EHS manager within 24 hours of the occurrence.

3. Accidents Involving Serious Injury or Death

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- 3.1 In the case of a serious accident, call the EQ emergency telephone numbers for immediate assistance.
- 3.2 If the EQ site has an Emergency Response Team, they may be able to assist in rendering first aid.
- 3.3 Outside medical assistance should be requested by calling 911 unless otherwise directed. (Be aware that it may be necessary to dial a number, such as 9, to get access to an outside line when using site phones.) Notify the EQ contact or Security to escort emergency vehicles to the site.
- 3.4 Clear the area and keep non-essential personnel away.
- 3.5 Provide assistance to rescue personnel if requested.
- 3.6 After proper evacuation of the injured employee, do not disturb or remove anything in the immediate area of an accident scene without EQ permission.
- 3.7 The responsible contractor must make a full investigation and submit an "Accident and Adverse Event Reporting Form" (QES-FM-090-ALL) to the EQ project manager as well as to EQ EHS within 24 hours of the occurrence.

4. Fire or Smoke

- 4.1 In the event of a fire, use the nearest fire alarm pull station, if available, and evacuate the area immediately. If the pull station does not activate (fire alarm is NOT sounding) or if no pull station is available, call the EQ emergency telephone numbers from the nearest phone located in a safe area.

NOTE: EQ personnel will contact the fire department and escort them to the scene.

- 4.2 Contract employees are not required to fight a fire, but are expected to attempt to extinguish the fire after activating the fire alarm system if they are trained and can do so safely.
- 4.3 Any contractors attempting to extinguish a fire should have been trained within the past 12 months in the safe use of fire extinguishers.
- 4.4 Keep non-essential personnel away from the fire.
- 4.5 If explosive materials or compressed gases are involved or other hazards may exist, ensure that affected personnel are immediately evacuated to a safe distance.
- 4.6 Contractor personnel are to evacuate to assigned EQ assembly areas. Once evacuation is complete, contractors must account for everyone for whom they are responsible. If an employee is missing, notify the EQ Emergency Coordinator or fire department personnel immediately.
- 4.7 Responsible or affected contractors must make a full investigation of the incident and submit a written report to the EQ project manager as well as to the EQ EHS manager within 24 hours of the occurrence, using the "Accident and Adverse Event Reporting Form" (QES-FM-090-ALL).

5. Chemical or Hazardous Material Spill

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- 5.1 In case of a spill, call the EQ emergency telephone numbers immediately. Isolate and contain the spill if it is safe to do so, as determined by a competent person.
- 5.2 Comply with the requirements of Section 12, Environmental Issues.
- 5.3 Responsible or affected contractors must make a full investigation and submit an "Accident and Adverse Event Reporting Form" (QES-FM-090-ALL) to the EQ project manager as well as to the EQ EHS manager within 24 hours of the occurrence.

6. Property Damage

- 6.1 If property under EQ control is damaged, notify the EQ representative immediately.
- 6.2 Protect against further damage where possible.
- 6.3 Keep non-essential personnel away from the area.
- 6.4 The responsible contractor must make a full investigation and submit an "Accident and Adverse Event Reporting Form" (QES-FM-090-ALL) to the EQ project manager as well as to the EQ EHS manager within 24 hours of the occurrence.

7. Severe Weather

- 7.1 Upon notification of a severe weather affecting an EQ site, EQ personnel will immediately issue an alert (e.g., by public address announcement and/or building sweep.)
- 7.2 Instructions will be given to personnel to take appropriate actions.
- 7.3 Take the following actions during warning conditions.
 - A. Secure loose materials that can become displaced.
 - B. Seek shelter in designated safe areas if possible. If not, seek shelter in the center of a building or near the strongest supported section of the lower levels of a building.

8. Bomb Threat

- 8.1 If a bomb threat is received, EQ personnel will determine if an evacuation of the site or buildings is required. Once evacuation is complete, each contractor will account for their employees.

9. Evacuation

- 9.1 The EQ Emergency Coordinator will determine if evacuation of buildings and site structures is required. An individual can initiate a building evacuation by pulling a fire alarm pull station or contacting an EQ Emergency Coordinator.
- 9.2 An EQ evacuation also requires that contract employees evacuate.
- 9.3 The evacuation routes and assembly areas are pre-determined at each EQ site and will be communicated to contractors prior to beginning work using the "Contractor Safety Orientation Checklist" (QES-FM-093-ALL).

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- 9.4 Leave the affected location by the designated route and proceed calmly to the designated assembly location.
- 9.5 EQ managers, EHS managers, and/or EQ Emergency Coordinators will remain in the affected area as long as it is safe to ensure that all personnel have evacuated.
- 9.6 After arriving at the assembly area, contractors should relay any problems relating to the emergency to EQ EHS personnel.
- 9.7 When evacuation is complete, contractors must account for their personnel.

10. Transportation

- 10.1 It is the policy of EQ that first aid, medical, and emergency transportation is to be provided by the contractor for employees who sustain occupational injuries or illnesses.
- 10.2 Contact Security or the EQ representative to request and escort an emergency vehicle onto the site.
- 10.3 Contractors must provide non-emergency transportation for their employees from the job site to the specified doctor's office or clinic.

11. Reporting of Non-Referred Medical Treatment

- 11.1 Contractors must notify EQ of employees who have obtained outside medical treatment for an alleged EQ-site related injury or illness. The responsible contractor must submit an "Accident and Adverse Event Report Form" (QES-FM-090-ALL) to the EQ project manager as well as to the EQ EHS manager within 24 hours of the occurrence.



Section 5: Investigation and Reporting of Accidents and Incidents

1. General Information

- 1.1 Accident and incident investigation and reporting promote accident prevention by detecting the causes of accidents. This allows steps to be taken to remove the causes and eliminate future accidents, thus reducing the number and severity of occupational illnesses and injuries.
- 1.2 Accident investigation and reporting also helps to reduce worker compensation, public liability, and property damage insurance premiums.

2. Accident and Incident Investigation

- 2.1 An accident or incident resulting in an injury or illness, fatality, environmental release, damage to property or equipment, or a “near miss” must be reported and investigated. The following categories are recognized by EQ:
 - A. **Near Miss** – An event or occurrence that had or has a high probability of compromising the safety or health of employees.
 - B. **Incident** – An event that interrupts operations or damages property or equipment.
 - C. **First Aid Case (FAC)** - Any employee that is injured on the job and is treated, seen, or administered to by a physician in a clinic, hospital, infirmary, or medical facility because of the on-the-job injury, but is not restricted or given professional care past the first visit is considered to be an OSHA First Aid Case.
 - D. **Recordable Injury or Illness** – An occupational injury or illness that requires medical treatment more than simple first aid and must be reported on the OSHA form 300.
 - E. **Lost Workday Case (LWC)** - those injuries and illnesses that cause the employee to experience days away from work, days of restricted work activity, or both.
- 2.2 The EQ EHS manager and the EQ project manager must be notified immediately of any fatalities, serious injuries or illnesses, and significant property damage occurring on EQ property. The EQ EHS manager will lead the investigation of any of these events.
- 2.3 The contractor or designee responsible for the area or trade involved in the accident or injury will conduct investigations of events not deemed serious and significant. An EQ representative will participate if deemed appropriate by EQ.
- 2.4 Investigation will begin promptly after the accident or incident. The contractor must report accidents that result in fatalities and/or 3 or more injuries requiring overnight hospitalization within 8 hours of occurrence to the State’s Department of Labor.

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- 2.5 All accidents or incidents will be documented on an "Accident and Adverse Event Reporting Form" (QES-FM-090-ALL). The report must be submitted within 24 hours of the occurrence of the accident or incident to the EQ project manager as well as the EQ EHS manager.
- 2.6 All accidents or incidents will be considered non-compliances subject to the Corrective Action Program. (See Section 2: EQ Management System Requirements.)
- 2.7 The investigation and report must be made immediately; however, distribution of the report will not be made until similar investigations and reports required by the applicable agencies are complete.
- 2.8 EQ may take photographs in conjunction with investigations of accidents involving serious personal injury, non-project personnel injuries, substantial property damage, and equipment or material failure.
- 2.9 Information provided to the media is the responsibility of the EQ Director of Communications. Do not give information to the media without written approval from EQ.

3. Reporting Safety Performance

- 3.1 If requested by EQ, contractors who work on EQ premises will submit a "Contractor Pre-Job Checklist" (QES-FM-071-ALL) to the EQ representative.
- 3.2 The checklist will request the following information or verification of the following information as attachments, including but not limited to:
 - A. The contractor's written Environmental Health and Safety Program(s).
 - B. The total number of recordable injuries or illnesses (as recorded on the OSHA 300 Log) that occurred on the job during the last 3 years.
 - C. Accident rates (Total Recordable Incident Rate - TRIR and Days Away Restricted and Transfer - DART) for the last 3 years.
 - D. Lists of personnel expected to be on site during the project and verification of training.



Section 6: Safety Orientation and Training

1. General Information

- 1.1 This section establishes basic training and instruction activities to ensure that employees are trained in hazard recognition and are informed of their responsibilities in carrying out their assignments in an efficient and accident-free manner.
- 1.2 The provisions in this section will also help employees comply with specific OSHA, state, and local safety requirements, as well as the requirements of this safety manual.
- 1.3 It is the contractor's responsibility to provide training in a language that their employees can understand.
- 1.4 The contractor's supervisor must instruct employees on the safest way to perform each task of the work assignment before beginning work.

2. Orientation and Refresher Training

- 2.1 Contractors must instruct newly employed, promoted, or transferred personnel in the safety practices required by their assignments. Employees must receive an EQ EHS orientation prior to starting work.
- 2.2 Initial safety orientation for new employees must include a discussion of the basic safety and environmental regulations at the site. The initial orientation must be performed by EQ or certain pre-approved contractors, and must be documented.
- 2.3 Employees are required to attend safety orientation before going unescorted into the work area.
- 2.4 Other specific, identified training requirements (e.g., Confined Space Entry, Respiratory Protection, Forklift certification, etc.) must be met in addition to this safety orientation before employees are permitted to perform work at an EQ site.
- 2.5 The safety orientation is site-specific, therefore attendance at a separate orientation is required for work performed at each EQ site.
- 2.6 Contractors are required to understand and comply with each safety requirement. Refresher training is required every 2 years for construction/operations/maintenance contractors.

3. Safety Sticker Requirement

- 3.1 Safety stickers will be issued to contractors after they have attended contractor safety orientation. Each sticker indicates the site for which it is valid.
- 3.2 Contractors must have a valid, site-specific safety sticker in their possession when on a work site. The sticker must be readily visible or available.

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- 3.3 Training is required every 2 years. The sticker indicates the calendar year during which the safety orientation was attended.
- 3.4 Contractors must attend a safety orientation course as refresher training before a new sticker is issued.

4. Documentation Requirements

- 4.1 At the conclusion of the orientation, contractors will receive the “Environmental, Health and Safety Pocket Guide for Contract Employees” (QES-CM-003-ALL) handbook.
- 4.2 The last section of the handbook has a tear-out sheet. Contractors are required to complete the form on this sheet and give it to their instructor to be forwarded to the site EHS files.

5. Contractor Self-Certification

- 5.1 Contractors may orient their employees and issue safety stickers on behalf of EQ if they comply with the following requirements:
 - A. The contractor has an instructor authorized by the EQ EHS manager who is a member of the contractor’s staff assigned to work at that site.
 - B. The contractor submits their safety record to the site safety organization for consideration.
 - C. The orientation program is evaluated and approved in writing annually by the EQ EHS manager.
- 5.2 Upon approval by the EQ EHS manager, the EQ representative will provide copies of the “Environmental, Health and Safety Pocket Guide for Contract Employees” (QES-CM-003-ALL) handbook and site-specific stickers for the contractor’s use.
- 5.3 Contractors must document training and provide records to EQ as requested.
- 5.4 A current list of orientation attendees will be maintained by EQ, and the list will be the authority for answering questions regarding employee training.



Section 7: Inspection and Auditing

1. Inspection and Audit Program

- 1.1 If requested by EQ, contractors will establish an inspection and audit program to help eliminate unsafe practices by their employees, establish a hazard-free workplace, and protect the environment.
- 1.2 The inspection and audit program reaffirms the contractor's responsibility for the actions of their employees as originally assigned under the General Duty Clause Provision of the Occupational Safety and Health Act of 1970 (revised). The exercise of these responsibilities by contractors is an effective deterrent to accidents arising from unsafe acts or conditions.

2. Inspection and Auditing Procedures

- 2.1 Control of workplace safety is achieved only when each contractor fulfills contractual and statutory responsibilities by implementing practical steps to maintain safe, healthy, and environmentally sound work practices and conditions.
- 2.2 Contractors are responsible for conducting continual monitoring of their operations to ensure that they are aware of the probable sources of potential injury, illness, or loss due to unsafe acts or conditions.
- 2.3 Contractors must continually monitor and audit the performance of subcontractors and their supervisors. Contractors must notify subcontractors if unsafe practices are observed.
- 2.4 Contractors must appropriately plan the procedures to be followed for each operation. Personnel chosen to perform a planned operation must be trained in all aspects of the procedure, including emergency actions to be taken in the event of a mishap.
- 2.5 In addition to inspections conducted by the contractor, EQ representatives such as insurers or EHS personnel may conduct inspections and audits. Contract activities could also be subject to periodic inspection by OSHA compliance officers. Contractors shall respond in writing to EQ on actions taken on all safety audit findings.
- 2.6 If OSHA compliance officers visit an EQ site, they will be escorted by the EQ EHS manager. The appropriate contractors will then be notified so that an opening conference may be conducted. If the inspection is to occur on EQ property, EQ will organize the inspection in accordance with OSHA regulations. Contractors must forward copies of OSHA inspection reports and citations received by the contractor to EQ. The contractor must post citations as required by OSHA.
- 2.7 Contractors must notify EQ in writing of the existence of hazardous conditions, property, or equipment in work areas that are not under the contractor's control. It is the contractor's responsibility to take necessary precautions against injury until such hazards are removed.
- 2.8 The contractor's equipment must be used, inspected, and maintained as directed by this manual, the manufacturer's instructions, and by applicable federal and state safety,

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health, and environmental regulations. If a conflict exists, the more stringent requirement takes precedence.

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Section 8: Alcohol and Drug Abuse

1. Alcohol and Drug Abuse Policy

- 1.1 Contractors must develop and enforce a policy that prohibits the possession, distribution, promotion, manufacture, sale, use, and abuse of illegal drugs, drug paraphernalia, controlled substances, and alcoholic beverages by employees on EQ premises. Contractors must comply with the Drug Free Workplace Act of 1988.
- 1.2 Contractors must require and fund drug testing and alcohol screening as outlined in paragraphs 2 and 3. Contract employees are prohibited from reporting to the premises under the influence of alcohol or drugs which affect their working ability or safety, including but not limited to their alertness and coordination.
- 1.3 The policy applies to all contractors, contractor's management, and employees. EQ may take legally permissible steps as necessary or appropriate to enforce compliance with this policy.
- 1.4 Employees may possess a prescription medication in its original container to be administered only to the person for whom it is prescribed.

2. Drug Testing

- 2.1 EQ requires the following regarding drug testing:
 - A. Contractors must have a program that includes pre-employment drug testing.
 - B. The EQ representative may request additional drug testing for work with exposure to high risk.
- 2.2 When drug testing is conducted, contractors must require that each employee produce a urine sample to be tested at a minimum for marijuana metabolites (cannabinoids), cocaine metabolites, opiate metabolites, phencyclidine, and amphetamines.
- 2.3 At a minimum, contractors must comply with the DOT Procedures for Transportation Workplace Drug Testing Programs as specified in 49 CFR Part 40. Contractors may assign more stringent screening or confirmation values at their discretion except when regulated by applicable state or federal laws.
- 2.4 Testing methods must conform to applicable state laws, and results must be reviewed by a licensed physician with knowledge of substance abuse disorders.
- 2.5 Certification in the form of the test results or a letter from the laboratory performing the testing must be available to EQ upon request prior to the employee's orientation. Contractors will retain the certification in their files. The EQ project manager may request the certification for archiving with the contract files.
- 2.6 EQ has the right to request that the contractor perform additional testing under the following circumstances:

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A. Accidents or Safety Violations

Following an occupational injury requiring treatment by a physician, an accident or incident involving safety rule violation, damage to equipment or property, careless acts, or in instances where the accident or incident was due to a failure to wear prescribed protective equipment while working on EQ premises.

B. Reasonable Suspicion of Illegal Drug Use

When reasonable suspicion exists that an employee exhibits signs of intoxication, drug influence, or other behavior causing a prudent and reasonable person to have concern for the safety of the employee, other employees, or the public.

C. Suspicious Incidents and Occurrences

When there is suspicion (based on demonstrable information such as an unusual number of post-accident positive test results, incidents of theft, lost productivity, unexplained personal behavior or other facts) that specific employees or other designated work groups (including but not limited to entire crews, work sites, shifts, or sensitive job classifications) are under the influence of drugs.

D. Discovery of Illegal Drugs or Drug Paraphernalia

When an employee is found to be in possession of illegal drugs or drug paraphernalia, or when these items are found in an area controlled or used exclusively by employees.

E. Random Testing

Includes employees in positions where unsafe work behavior, performance, or error in judgment caused by drug abuse may affect the safety of operations or the well being of the employee, other employees, or the public.

2.7 Clarification of Drug Testing Requirements

A. If an employee has been tested previously and the results were confirmed to be negative, he/she will be allowed to return to another EQ project by submitting a copy of the previous test. The test must have been performed within the last year and a copy of the test must be submitted with each project. The test results pertain to the individual and are acceptable if an individual changes companies.

B. Individuals who may be on site for a limited time may be allowed to work without drug testing if they are escorted by an EQ employee or approved contractor.

3. Alcohol Screening

3.1 If the contractor has just cause to believe an employee is abusing alcohol, the employee must be evaluated and a urine or blood screening test must be performed if necessary.

3.2 An employee is considered "under the influence" by meeting the legal definition based on blood alcohol content, or if he/she is unable to perform his/her job in an acceptable manner because of impaired judgment or physical abilities following the use of alcohol.

4. Consequences

- 4.1 An employee who produces a confirmed positive drug test after medical review or is determined to be under the influence of alcohol will be prohibited from working at or entering EQ facilities.
- 4.2 Employees may be barred from EQ premises for the following:
 - A. Refusing to submit to a search or inspection, urine, drug, or blood test when requested by the contractor.
 - B. Degrading, diluting, switching, altering, or tampering with a test sample.
 - C. Using, manufacturing, distributing, or dispensing illegal drugs while on the premises.
- 4.3 Security or other appropriate EQ personnel will be immediately informed of the name of any person that is barred or removed from EQ premises for violation of the alcohol and drug abuse policy.

5. Enforcement

- 5.1 Contractors will remove employees from the premises if they appear on the premises while under the influence of alcohol or drugs.
- 5.2 Contractors must obtain appropriate permission so that employees entering, departing, or on the premises will, upon the contractor's request, undergo a search of their person, locker, desk, or any property under their control for illegal drugs. This includes the employee's personal effects and automobile if it is located on the premises. Such searches may be conducted when there is a reasonable basis to suspect that the employee's work performance or on-the-job behavior may have been affected by drug use or that the employee has sold, purchased, used, or possessed illegal drugs on the premises.



Section 9: Security Program

1. General Information

- 1.1 Contractors must establish a security program and coordinate their security actions with the EQ representative or EQ site security.
- 1.2 EQ is not responsible for lost or stolen property at its facilities.

2. Use of EQ Facilities

- 2.1 EQ facilities are not to be used by contractors, contract employees, subcontractors, vendors, or suppliers without prior authorization. Violation of this policy may result in immediate removal from EQ premises.
- 2.2 Use only designated roads, gates, and doors for entry or exit.
- 2.3 Park in designated areas only.
 - A. EQ reserves the right to tow vehicles that are parked in areas other than those assigned. Vehicle damage, towing, and storage charges are the vehicle owner's responsibility.
 - B. Vehicles parked or operated on site are subject to search without prior notice. Failure to allow a search may result in the vehicle and employee being barred from EQ premises.
- 2.4 Reckless or irresponsible vehicle or machinery operations may result in immediate removal from EQ premises.
- 2.5 The EQ representative determines normal working hours for the contract.
- 2.6 Visitors must be escorted while on EQ premises.

3. Harassment

Harassment, including sexual harassment, will not be tolerated. Violation of this policy may result in immediate removal from EQ premises.

4. Contractor Security

- 4.1 Do not enter or attempt to enter EQ facilities without proper authorization and identification.
- 4.2 Visitors to EQ facilities will be admitted through a security post, where they will sign in. The contractor is to provide visitors with any required personal protective equipment (PPE) before they enter a work area. Visitors must follow the same procedure as other personnel when entering or exiting the work area through a designated security post.

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- 4.3 Visitors must be escorted at all times.
- 4.4 Dismissal of an employee from the premises requires that the contractor's supervisor escort the employee to the designated exit; and as appropriate, obtain the dismissed person's documents, keys, and equipment; ensure that the person immediately leave EQ premises; and notify the EQ representative.

5. Deliveries

- 5.1 Unless waived by the EQ representative, delivery drivers for contractors, subcontractors, vendors, and suppliers must report to a designated security post upon arrival at the work area. The EQ representative will clear entry to the work area.
- 5.2 The driver will sign in or be logged in by the security officer and directed to the appropriate area for receiving and unloading. Upon completion of the delivery, the driver must return to the same gate entered and sign or be logged out. Drivers must remain in the delivery or receiving dock area until they are ready to leave the site.

6. Site Security

EQ provides varying levels of security depending on the facility or jobsite. When security is provided for the site by EQ, this service does not relieve contractors of their contractual duties, obligations, and responsibilities to ensure that their trailers, vans, vehicles, equipment, tools, and storage areas are properly secured at the end of each workday.

7. Contractor Responsibilities

- 7.1 Contractors will provide or direct the following as appropriate:
 - A. Designated parking areas for employees
 - B. A method of identification, such as hard hat decals or a company uniform
 - C. Security personnel for construction entrance roads and non-work periods
 - D. Perimeter security fencing for sites not maintained by EQ
 - E. Site lighting for night security if needed
 - F. A site access plan for approval by EQ
- 7.2 Contractors are responsible for any additional field office security beyond that provided by EQ.
 - A. If additional security measures are instituted, advise EQ of installed audible or visible alarm devices.
 - B. Provide a list of supervisory personnel (name, address, and telephone number) who will be available during non-work periods to assist in the event of a security breach or other problem.
 - C. Advise employees, subcontractors, and suppliers of site speed limits and security measures.
 - D. Provide identification of equipment and machinery by paint scheme, ID tag, or contractor name painted in a prominent location.

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- E. Disable and store motorized machinery during non-work hours to prevent unauthorized operation.
- F. Provide proof of required insurance for vehicles to be used on site upon request, prior to vehicle use.

7.3 Employees are responsible for:

- A. Safe operation of vehicles while on site and when leaving the site.
- B. Locking or securing personal vehicles against theft.

NOTE: EQ does not assume responsibility for damage, fire, or theft to a contractor's vehicle.

- C. Parking in designated areas only.
- D. Ensuring the security of personal tools and equipment.
- E. Reporting accidents or incidents to the contractor's management and to the EQ representative.

8. Firearms

Firearms, including concealed handguns and other weapons, are prohibited on EQ premises regardless of permit. This includes firearms stored in vehicles while parked on EQ premises.



Section 10: Hazard Communication Program

1. General Information

- 1.1 Contractors must establish and maintain a written, comprehensive hazard communication program that complies with applicable federal and state law and includes:
 - A. A list of hazardous materials in the workplace
 - B. Material safety data sheets
 - C. Provisions for container labeling
 - D. An employee training program
- 1.2 Contact the EQ representative or the site EHS manager for specific hazard communication concerns relevant to the location and department where work is being performed.
- 1.3 Refer to the DOT *Emergency Response Guidebook* for information about hazardous material spills.

2. Hazardous Materials List

- 2.1 Contractors must prepare a hazardous materials list before the materials arrive on site.
- 2.2 The hazardous materials lists must contain:
 - A. The chemical name and common name used on the MSDS or container label.
 - B. The quantity of the chemical that will be stored on site.
 - C. The area where the hazardous material is stored.
 - D. The expected length of time the chemical will be stored on site.
- 2.3 The hazardous materials list must be prepared for each work area and updated within 30 days of the addition or removal of a hazardous material, or when the quantity stored changes significantly. The entire hazardous materials list must be updated annually.
- 2.4 Contractors may be requested to submit hard copies of the hazardous materials list and material safety data sheets to the EQ representative before the hazardous materials are brought on site.
- 2.5 The EQ representative will forward a copy of the list to the site EHS manager who will retain the copy for their files.
- 2.6 By receiving and forwarding this information, EQ does not imply acceptance of responsibility or guarantee completeness or accuracy of contractor submittals.
- 2.7 The use of hazardous materials at an EQ facility requires consultation with the site EHS manager.

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- 2.8 Hazardous materials may not be stored on site without consent from the site EHS manager.

3. Material Safety Data Sheets

- 3.1 Contractors must maintain the most current material safety data sheets provided by the manufacturers and distributors of the material. If the contractor does not receive an MSDS from the manufacturer or distributor, the contractor should request one. As a general guideline, an MSDS dated 3 years earlier than the submission date should not be submitted to EQ without verification that it is the latest version of the document.
- 3.2 Beyond the identity information, the MSDS must provide information in the areas required by OSHA in 29 CFR 1910.1200(g) (2).
- 3.3 A copy of each MSDS must be maintained at the work site. The copy must be easily accessible to contractors, employees, and EQ personnel.

4. Container Labels

- 4.1 Contractors must ensure that labels on incoming containers are not removed or defaced, and that containers are easily marked.
- 4.2 Each container must be labeled, logged, or marked with the identity of the hazardous chemical it contains, and it must show appropriate hazard warnings for employee protection. The hazard warning can be messages, words, pictures, or symbols used to convey the hazard. Labels must be legible, in English (plus any other language required), prominently displayed, and meet OSHA and DOT requirements.

5. Hazard Communications

- 5.1 Contractors must have a means of informing employees of the hazardous materials associated with the work they perform, and communicating information on hazards in the EQ facilities at which they are working.
- 5.2 Contractors must train employees to recognize and avoid hazards and train them in the use of personal protective equipment to be used when working with hazardous materials.
- 5.3 Employee Information and Training
- A. Contractors must establish a training and information program for employees potentially exposed to hazardous materials in their work area at the time of initial assignment, and whenever a new hazard is introduced to their work area. The discussion topics must include at a minimum:
1. Existence of the hazard communication standard and its requirements.
 2. Operations in the work area where hazardous materials are present.
 3. Where the contractor will keep the written hazard evaluation procedures, communications program, hazardous materials list, and the required MSDSs.
- B. Training must comply with OSHA standards and, at a minimum, focus on the following:

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1. How the hazard communication program is implemented on site, how to read and interpret information on labels and MSDSs, and how employees can obtain and use the available hazard information.
 2. Hazards of the materials in the workplace.
 3. Measures employees can take to protect themselves from hazards.
 4. Specific procedures put into effect by the contractor to provide protection, such as work practices and using personal protective equipment.
 5. Methods and observations, such as appearance or smell, workers can use to detect the presence of a hazardous material to which they may be exposed.
- C. Where necessary, EQ will provide training on the unique hazards that contractors may encounter at EQ facilities.
- D. For further information, contractors not familiar with the applicable State's hazard communication program are encouraged to contact the Department of Labor in the State where the site is located.
- E. Contractors must report any illness or injury known or suspected to be associated with hazardous material use or potential exposure while in EQ premises to the EQ representative.

5.4 Hazardous Materials

- A. Contractors are responsible for the safe use, storage, transportation, and disposal, in accordance with applicable laws, of chemicals or hazardous material used in the performance of their work.
- B. Contractors must have available for EQ a list of chemicals or materials used in the performance of their work and a copy of the MSDS for each material. The receipt of the list or MSDS by EQ does not relieve the contractor from requiring employees and other persons performing work to assume responsibility for the safe use, storage, and disposal of hazardous materials.
- C. Contractors must require their suppliers, agents, and employees of other persons performing work to use an approved substitute chemical or material in the place of a chemical or material that EQ requests not be used for the work.
- D. Chemicals or materials brought on site by employees and other persons performing work must bear a label stating the identity of the chemical or material, hazards associated with it, and the name of the responsible party bringing the chemical or material onto the site.
- E. Waste resulting from the work must be properly disposed of by the responsible contractor in accordance with local, State, and Federal regulations. If uncertain about proper waste disposal, contact the EQ EHS manager. Do not dispose of waste in site dumpsters.
- F. Hazardous materials, pollutants, and contaminants encountered or generated from soils or facilities in place prior to commencement of work, or from portions of the contract already completed by other contractors, are the responsibility of EQ. These will be disposed of as directed by the site EHS manager in accordance with applicable laws. The contractor must immediately notify EQ if unexpected

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hazardous substances, pollutants, and contaminants are encountered at the work site.

- G. Contractors are required to keep accurate records of the types and quantities of waste, including hazardous waste, and the facilities in which the wastes are treated, incinerated, or disposed. The contractor must provide EQ with copies of these records. Liquids (including muddy water) or chemicals should not be pumped or allowed to flow into a sewer. Do not clean equipment or change lubrication or pneumatic fluids in areas that are not equipped with spill containment and control facilities.



Section 11: Housekeeping

1. General Information

- 1.1 Good housekeeping is mandatory. Contractors must keep their work area neat, clean, and orderly.
- 1.2 If a contractor's work area is not kept clean, EQ may have the area cleaned and charge the cost to the contractor. EQ may also stop work until the area has been cleaned.

2. Housekeeping Procedures

- 2.1 Keep work areas, passageways, fire exits, fire lanes, and stairs in and around the buildings and structures clear at all times.
- 2.2 Store materials, equipment, and tools in an orderly manner.
- 2.3 Keep storage areas and walkways free of dangerous depressions, obstructions, and debris.
- 2.4 Clean the work area daily and dispose of debris in dumpsters, or off site in accordance with the environmental requirements of EQ, the EPA, and other regulatory agencies. The contractor shall contact the EQ representative to confirm the proper location for each type and volume of waste to be disposed of on site. (See Section 12: Environmental Issues.)



Section 12: Environmental Issues

1. Hazardous Waste Management

- 1.1 Contractors are responsible for the safe use and disposal of chemicals and hazardous materials brought onto EQ property in compliance with applicable laws and regulations, and for complying with applicable requirements for generators of hazardous waste.
- 1.2 Contractors that generate hazardous waste must comply with local, State and Federal regulations. No hazardous waste may be disposed in EQ waste containers. If there are questions, consult the EQ EHS manager for disposal directives.
- 1.3 Do not store more than 55 gallons of hazardous waste or one quart of acutely hazardous waste as defined in Part 261, Title 40, Code of Federal Regulations (40 CFR 261) without approval from the EQ EHS manager. Waste containers must be clearly labeled as to their contents. Waste must not be transferred between EQ facilities when it involves crossing or traveling on a public roadway without approval from EQ. Do not dispose of hazardous and chemical waste in company dumpsters.
- 1.4 Contractors that meet the qualifications of a conditionally exempt small quantity generator of hazardous waste as defined in 40 CFR 261.5, must coordinate the transfer of potentially hazardous waste to EQ for disposal. Contractors that do not meet the qualifications of a conditionally exempt small quantity generator are responsible for obtaining an EPA Identification Number and managing hazardous waste generated in accordance with applicable state and federal regulations. Contractors are subject to periodic inspections by the EQ EHS manager to ensure proper management, storage, and documentation practices are being followed.
- 1.5 The disposal of waste materials such as asbestos, lead paint, construction debris, or contaminated soil resulting from demolition, excavation, or maintenance activities that are not the result of hazardous materials or petroleum products brought on site by a contractor must be approved by EQ. These waste streams must be transferred or disposed of in accordance with written procedures approved by the EQ EHS manager.

2. Spill Prevention and Control

- 2.1 To minimize the risk of spills or releases to the environment, contractors must employ appropriate protective procedures such as double containment, overflow protection, employee training, and other measures as part of activities involving the use, storage, or handling of petroleum products or hazardous materials on EQ property.
- 2.2 Containers of hazardous materials and petroleum products should be stored in order to prevent releases to the environment. This requires selecting locations and methods to minimize exposure to rainfall, surface water, and the ground. Enclosures, shelters, and secondary containment should be used where appropriate. Containment pans should be placed under equipment where there is the potential for a leak or discharge. In the event that secondary containment is used in an area that is exposed to rainfall, the following requirements apply:

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- A. Prior to discharge of a containment system to the storm water system, inspect the primary container for signs of leakage and inspect the containment system by visual observation for color, foam, outfall staining, visible sheens, and dry weather flow. The discharge of a containment system that has evidence of contamination is prohibited.
- B. The responsible contractor must maintain a log indicating the individual making the observations, description of accumulated storm water, and the date and time of release.
- C. Submit a copy of the log to the EQ EHS manager.

3. Notification of a Spill or Release to the Environment

- 3.1 Most EQ sites are subject to government notification and reporting requirements when a petroleum product or hazardous material is spilled or released to the environment, including releases to the ground, surface water, sanitary sewer system, or air that are not specifically authorized by the company's environmental permits. A spill or release of a hazardous chemical or petroleum product must be cleaned up immediately.
- 3.2 The responsible contractor must notify EQ immediately, followed by a written incident report within 24 hours that includes the following information:
 - A. Description of the spill or release event.
 - B. Names of individuals involved.
 - C. Date and time of spill or release.
 - D. Copy of the MSDS for the material spilled or released.
 - E. Estimated quantity and type of material spilled or released.
 - F. Duration of the release.
 - G. Steps taken or planned to reduce, eliminate, and prevent recurrence of the spill or release.

4. Discharges to Storm water Conveyance Systems

- 4.1 A discharge to a storm water conveyance system refers to any discharge to a storm water drain, parking lot, ditch, loading dock, or ground that is not connected to a sanitary sewer. The following types of non-storm water discharges may be discharged to the facility's storm water conveyance systems:
 - A. Uncontaminated groundwater
 - B. Water from foundation drains and footing drains.
 - C. Air conditioner condensate without added chemicals.
 - D. Springs.
 - E. Uncontaminated potable water.
 - F. Waterline, sprinkler system, and fire hydrant flushings.
- 4.2 No other non-storm water discharges are permitted unless approved by the EQ EHS manager. Examples of prohibited activities include:
 - A. Discharging of rinse water from vehicle or equipment washing.
 - B. Discharging of treated water systems such as water fountains, cooling tower water, and water used to passivate piping.

- 4.3 An unauthorized or unpermitted non-storm water discharge is considered a release and must be reported and documented in accordance with the notification procedures described in Part 3, preceding.

5. Erosion Control

- 5.1 Settling basins and/or straw barricading around storm sewers is required for ground breaking or any condition that could cause silt to enter a storm sewer.
- 5.2 A city, county, or state soil erosion permit may be required depending on the size and location of the area to be disturbed. The contractor shall confirm requirements and obtain any necessary permits prior to the start of work.

6. Open Burning

Open burning of debris on EQ property is prohibited.

7. Disposal of Waste in Sanitary Sewers

No hazardous materials, chemicals, or petroleum products may be disposed in sanitary sewers.

8. Asbestos

If material that contains asbestos is suspected or encountered, stop work immediately, notify the EQ representative, and proceed only after an asbestos plan has been approved.

9. Training

Contractors are responsible for training their employees on these procedures, and for maintaining training documentation.

10. Recycling

EQ encourages and supports recycling of materials when possible. At the start of work, contractors should prepare a recycling plan and submit it to the EQ representative.



Section 13: Transporting Hazardous Materials

1. General Information

- 1.1 This section references regulatory requirements and corporate policies designed to protect employees, the public, and the environment; to promote safe transportation of hazardous materials; and to enhance compliance with state, federal, and international transportation laws and regulations.
- 1.2 The policies and procedures in this section apply to contractors, subcontractors, and vendors who transport or ship materials to, from, or within EQ facilities. Deviation from these policies and procedures is not permitted without approval from the EQ EHS manager.

2. Transportation Procedures

- 2.1 Contractor employees involved in transporting or shipping hazardous materials are responsible for regulatory compliance and for promoting the safe transportation of dangerous goods.
- 2.2 Only employees who have completed the appropriate DOT training may package and prepare hazardous materials for transport.
- 2.3 Contractors that ship hazardous materials are responsible for complying with site-specific procedures and for ensuring that their employees complete the appropriate DOT training.
- 2.4 Refer to applicable site-specific procedures for more information regarding dangerous goods safety, hazardous materials services, and hazardous waste operations.



Section 14: Motor Vehicles and Heavy Equipment

1. Motor Vehicle and Heavy Equipment Procedures

- 1.1 Construction vehicles and heavy equipment brought on site must be inspected, tested, and certified to be in safe operating condition. The certification documentation must be available for EQ's review prior to bringing the equipment on site.
- 1.2 Equipment operators must be licensed or certified to operate that equipment. Certification is required for crane operators, powered industrial trucks, and others as required by OSHA. Training documentation must be current and be provided at EQ request.
- 1.3 Use of motor vehicles to transport hazardous material must comply with DOT requirements and be carried out with EQ's approval.
- 1.4 Motor vehicles must be properly equipped and maintained in accordance with the manufacturer's recommendations.
- 1.5 Only authorized, licensed drivers are allowed to operate vehicles or equipment.
- 1.6 Shut off engine during fueling and maintenance, or when leaving a motor vehicle unattended.
- 1.7 Use wheel chocks during loading and anytime the vehicle could possibly roll.
- 1.8 Do not use a motor vehicle or equipment having an obstructed view to the rear, unless the vehicle has a backup alarm audible above the surrounding noise level, or a guide.
- 1.9 Heavy machinery, equipment, or their parts which are suspended or held aloft by slings, hoists, or jacks must be substantially blocked or cribbed to prevent falling or shifting. Do not work under or between suspended loads.
- 1.10 Bulldozer and scraper blades, end-loader buckets, dump bodies, hydraulic lifts, and similar equipment must be either fully lowered or blocked when being repaired or when not in use. Controls must be in neutral position, with motors stopped and brakes set, unless the work being performed requires otherwise.
- 1.11 Hauling vehicles for which the payload is loaded by cranes, power shovels, loaders, or similar equipment must have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.
- 1.12 Arrange and label control handles for tailgates, dump trucks, and heavy equipment for ease of identification when dumping.
- 1.13 Check vehicles at the beginning of each shift to ensure that equipment and accessories are in safe operating condition, and free of damage that could cause failure when in use.
- 1.14 Do not ride with arms or legs outside of the truck body, in a standing position, on running boards, seated on side fenders, tailgates, truck cabs, cab shields, rear of truck, or on the load.
- 1.15 Do not drive above the posted speed. Weather, traffic, width and characteristics of the road, type of motor vehicle, and other existing site conditions may reduce the speed limit.

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- 1.16 Conspicuously post rated load capacities, operating speeds, and special hazard warnings on equipment. Instructions or warnings must be visible to the operator while at the control station.
- 1.17 A competent person must inspect machinery and equipment prior to each use. Deficiencies must be corrected and defective parts replaced before continued use.
- 1.18 Belts, gears, shafts, pulleys, sprockets, spindles, drums, flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if parts are exposed or create a hazard.
- 1.19 An accessible fire extinguisher of 5BC rating or higher must be available at the operator stations or cabs of construction vehicles.
- 1.20 Rollover protection specified by OSHA is required for applicable equipment operated in the work area.
- 1.21 Operators of vehicles or equipment are to use seat belts or other restraint devices at all times during operation of vehicles or equipment.

2. Loading Dock Vehicle Safety

- 2.1 Motor vehicles parked in an EQ loading dock area must have the engine turned off.
- 2.2 When loading or unloading a motor vehicle at a dock, set the emergency brake and place wheel chocks under both sides of the rear wheels, or engage dock-locks if available, to prevent the vehicle from rolling.
- 2.3 Where chains or other dock fall protection is removed to allow safe unloading or loading, it must be replaced when the vehicle is moved or the space is open.
- 2.4 Drivers must follow all instructions posted or verbal instructions provided by EQ as they relate to the area's operations.



Section 15: Safety Procedures and Permits

1. General Information

- 1.1 Sections 15 through 32 of this manual contain specific, technical safety procedures to be followed by contractors and their employees.
- 1.2 The technical safety procedures are not intended to be “all inclusive.” If certain provisions of these safety procedures are less stringent than applicable federal, state, or local statutory safety regulations, the statutory regulations take precedence. Where EQ standards are more stringent than federal, state, or local regulations, the more stringent standards take precedence.

2. Safety Procedures

- 2.1 The safety procedures in sections 15 through 32 apply to all contractors unless otherwise noted. Contractors and their employees are responsible for familiarizing themselves with applicable site-specific procedures.
- 2.2 Contractors must review these procedures with the EQ representative to determine which procedures are applicable to the contract.
- 2.3 Contractors and employees must review the applicable safety procedures described in these sections to determine their roles and responsibilities as they relate to the work.
- 2.4 EQ and contractors will enforce the provisions of these safety procedures.
- 2.5 Contractors are responsible for administering and controlling the activities of the work area. Where work is performed within existing EQ facilities or structures, the EQ representative and EHS manager reserve the right to assume the responsibility for administration and permitting, which will be determined on a case-by-case basis.

3. Site Procedures and Permits

- 3.1 EQ facilities have specific site procedures, permit requirements, medical clearance and surveillance requirements with which contractors must fully comply. Examples include, but are not limited to the following: hazardous energy control, hot work, earthwork clearance, confined space, crane use, respiratory protection, and hearing conservation. Site-specific requirements and the requirements in this manual must be met, with the most stringent requirements taking precedence. Contact the EQ representative for site-specific requirements and permitting questions.
- 3.2 Permits are required for certain work activities, including the following:
 - A. Hot work
 - B. Excavation and trenching
 - C. Lockout/Tagout and high voltage electrical work
 - D. Confined space entry
 - E. Cranes or heavy lift equipment

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- 3.3 The EQ representative must authorize any work to be completed. The EQ representative or EHS manager will approve any work permits needed.
- 3.4 Permit requests must be submitted with as much lead time as possible to allow coordination of the various groups involved in the process. At a minimum for non-emergency work, EQ requests the following advance notice for the permits:
 - A. Lockout/Tagout – 2 days
 - B. Hot Work Permit – 2 days
 - C. Earthwork Clearance Permit – 2 days
 - D. Confined Space Entry (Contractor's Permit) – 3 days
 - E. Crane Use Notification – 2 weeks

4. Safety Procedure Modification

- 4.1 If working conditions dictate that current safety procedures are inadequate or unusable, the safety procedures defined in this manual may be modified.
- 4.2 The modified procedure must conform to the following rules:
 - A. It must be specific to an activity, a location and a time period.
 - B. It must be proposed on the "Safety Procedure Modification Form" (QES-FM-091-ALL) and signed by the EQ representative (or individual responsible for the area in which the work is being done) and the contractor's safety manager.
 - C. It must be submitted to the EQ EHS manager for final approval and signature.



Section 16: Protecting Employees and the Public

1. Exterior Protection Procedures

- 1.1 When it is necessary to maintain employee or public use of work areas involving sidewalks, entrances to buildings, lobbies, corridors, aisles, stairways, and vehicular roadways, protect the public with appropriate guardrails, barricades, temporary partitions, shields, and adequate visibility. The work should be done in accordance with EQ work permits, the state's building code and other applicable regulations.
- 1.2 Contractors shall keep sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, and exits clear of obstructions to permit safe entrance and exit at all times.
- 1.3 Conspicuously post appropriate warnings and instructional safety signs. In addition, a signal person must control the movement of motorized equipment in areas where traffic might be endangered.
- 1.4 Provide sidewalks, sheds, canopies, catch-platforms, and appropriate fences when it is necessary to maintain public pedestrian traffic adjacent to the erection, demolition, or alteration of outside walls on a structure.
- 1.5 Barricades meeting local requirements must be provided where sidewalk, shed, bridge fences, or guardrails are not required between work areas and pedestrian walkways, roadways, or occupied buildings. Secure barricades to prevent accidental displacement and maintain them except where temporary removal is necessary to perform work. Barricade the area where work is being done overhead.
- 1.6 Provide temporary sidewalks when a permanent sidewalk is obstructed by work. Install temporary sidewalks in accordance with the requirements listed above.
- 1.7 Maintain warning lights from dusk to sunrise around excavations, barricades, or obstructions in designated areas. Provide illumination from dusk to sunrise for temporary walkways.
- 1.8 When exit routes or assembly areas are affected by work, notify the EQ EHS manager of the effects and proposed alternatives.

2. Interior Protection Procedures

- 2.1 Before starting work in occupied buildings, contractors must coordinate with EQ. Include steps in the work plan to provide protection for people and property in areas that may be affected by the work. Electricity and gas outages, excessive noise generation, chemical fumes, asbestos, and fire exit blockage are examples of risks that should be considered in the plan.
- 2.2 The work plan should address these risks and include provisions for proper communication of the risks and related control measures. Control measures may include providing protective equipment, scheduling work during non-business hours, area evacuation, etc.

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- 2.3 Contractors must notify the EQ representative if they encounter an occurrence that may threaten people or property.



Section 17: Personal Protective Equipment

1. General Information

- 1.1 This section defines the requirements for the use of personal protective equipment (PPE) to control or eliminate hazards or exposure to illness or injury.
- 1.2 Unless otherwise noted, contractors are to provide the required and needed PPE, medical clearance, and the training described in this section and are responsible for the compliance of their employees. The contractor's safety manager will make regular field inspections to verify compliance.
- 1.3 The contractor's designated safety representative will review PPE to ensure that only equipment complying with OSHA, ANSI, NIOSH, and MSHA regulations or this manual is used.
- 1.4 A contract employee who refuses to use the prescribed PPE or willfully damages this equipment will be subject to the disciplinary procedures outlined in Section 3 of this manual.
- 1.5 Contract employees must be trained on the use, inspection, care, and storage of all PPE.
- 1.6 Defective safety equipment shall be removed from service and rendered unusable.

2. Head, Eye, and Face Protection

- 2.1 Wearing an approved, non-conductive safety hat is mandatory in construction areas and designated site areas at all times. Refer to ANSI Z89.1, *Safety Requirements for Industrial Head Protection*, and NIOSH standards.
- 2.2 Construction areas and designated site areas require eye protection at all times. Minimum eye protection includes approved safety glasses with side shields or goggles that meet the standards specified in ANSI Z87.1, *Practice for Occupational and Educational Eye and Face Protection*. Dark safety glasses are prohibited when working indoors.
- 2.3 Eye protection is required by OSHA to protect against flying particles, molten metal, hazardous materials, gases, vapors, and light radiation. Employees must wear appropriate eye and face protection during certain tasks, including but not limited to:
 - A. Welding, burning, or cutting with torches.
 - B. Using abrasive wheels, grinders, circular saws, or files.
 - C. Chipping concrete, stone, or metal.
 - D. Working with materials subject to scaling, flaking, or shipping.
 - E. Drilling.
 - F. Working under dusty conditions.
 - G. Waterproofing.
 - H. Using powder-actuated or pneumatic tools.
 - I. Working with compressed air or gases.
 - J. Working with chemicals or hazardous materials.

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- K. Using chop saws, chain saws, masonry saws, or similar equipment.
- L. Working in the immediate area of operations listed above.
- M. Working in laboratories.

3. Respiratory Protection

- 3.1 Respiratory protection devices approved by NIOSH must be worn by employees exposed to hazardous concentrations of dust, fumes, mists, gases, smoke, sprays, vapors, or other hazards as required by OSHA.
- 3.2 The contractor is responsible for monitoring their job sites for respiratory hazards. They shall take steps to remove their employees if a potentially hazardous situation develops, or they shall provide respiratory equipment.
- 3.3 A respiratory protection program must be established that includes medical surveillance; training; equipment selection, storage, and maintenance; fitness testing; and recordkeeping.
- 3.4 Some EQ sites require respiratory protection in designated areas. The contractor should verify site requirements with the EQ representative prior to beginning work.

4. Hearing Protection

- 4.1 Approved hearing protection must be worn by employees exposed to noise levels above 85 decibels and in site-designated areas. Hearing protection must attenuate noise levels to less than 85 decibels.
- 4.2 Hearing protection must be worn where signs indicate hearing protection is required or where equipment exceeds acceptable noise limits.
- 4.3 A hearing conservation program must be established as required by OSHA.

5. Fall Protection

- 5.1 Fall protection is required for work performed at certain heights as established by OSHA regulations. This includes work at heights greater than 4 feet in general and heights greater than 6 feet in construction areas.
- 5.2 One or a combination of the following fall protection systems can be used on EQ sites:
 - A. A fall arrest system consisting of a full body harness, shock absorbent lanyard(s), or a self-retracting lifeline that meets OSHA standards (Certain work mandates fall protection requires 2 shock absorbent lanyards.)
 - B. Guardrail systems
 - C. Work platforms with standard guardrails
 - D. Interior and exterior safety nets
- 5.3 Body harnesses, shock absorbent lanyards, and self-retracting lifelines, regardless of configuration, must be subjected to a documented monthly inspection by the contractor. Inspection records are to be maintained by the contractor so that they are available upon request to EQ.
- 5.4 In addition to monthly inspections, the contractor is expected to conduct additional inspections in accordance with regulatory requirements. According to OSHA standard 29

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CFR 1926.502(d)(21), personal fall arrest systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.

6. Footwear

- 6.1 Employees must wear shoes or boots. Sandals, open-toe shoes, and bare feet are prohibited in industrial and construction work environments.
- 6.2 Contractors must ensure that the appropriate protective footwear is worn by employees in areas where safety shoes signs are posted and in areas where workers are exposed to foot injuries due to falling or rolling objects, objects piercing the sole, or where workers' feet are exposed to electrical hazards. All personnel in construction and demolition areas are required at all times to wear safety footwear meeting the ANSI Standard Z41-1999 requirements for toe-cap protection. Appropriate foot protection must be worn for operating tamping equipment and when handling and carrying heavy tools or objects.

7. Hand and Skin Protection

- 7.1 Wear appropriate hand protection when handling objects or substances that could cut, burn, injure the hand, or be absorbed into the skin, and when exposed to harmful temperature extremes.
- 7.2 Certain areas may require a higher level of protection in the form of coveralls or chemical protective clothing. Do not enter these areas without appropriate clearance, training, and protection.
- 7.3 Shirts with sleeves must be worn at all times.
- 7.4 Shorts are prohibited.

8. Welding, Cutting and Burning

- 8.1 Wear a welding helmet with welding hood (combination hard hat) when welding. Soft caps are prohibited.
- 8.2 Face shields or goggles that fit on hard hats must be worn along with approved safety glasses during grinding operations.
- 8.3 For overhead work, wear fire-resistant hard hats and fire-retardant shoulder covers.
- 8.4 Keep clothing free of oil, grease, and flammable material. Button collars and cuffs, and turn pant cuffs inside pants. Pockets must be covered with flaps and buttoned, or removed from the front of vests, shirts, and aprons.
- 8.5 Welders and their helpers must wear gloves and proper infrared/ultraviolet eye protection in addition to safety glasses.
- 8.6 Workers engaged in oxy-acetylene welding or cutting must wear a welding helmet or safety goggles that are equipped with suitable filter lenses.
- 8.7 Workers who are engaged in electric arc welding must use shields or helmets that are equipped with suitable filter lenses that fit on a hard hat.

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- 8.8 Wear approved safety glasses or goggles under a combination hard hat or welding hood.
- 8.9 Do not perform welding, burning, or open flame work on staging suspended by fiber or synthetic rope.

9. Additional Personal Protective Equipment

The contractor must furnish any additional equipment required by unusual circumstances (such as high temperature work or handling corrosive liquids) and not specifically covered in this section. Use of such must be reviewed with the EQ representative and/or EHS manager.

10. Safe Lifting Program

- 10.1 Contractors should have a program that identifies which occupations and activities have routinely occurring lifting hazards.
- 10.2 At a minimum, contractors should train employees identified in paragraph 11.1 on the following topics: recognizing lifting hazards, proper lifting techniques, back safety, and ergonomics.



Section 18: Lockout / Tagout

1. General Information

- 1.1 This section provides standard procedures for rendering inactive any electrical equipment or operating systems (stored energy systems) when equipment is down for repair, removal, replacement, or installation of new equipment.
- 1.2 Approved, site-specific procedures must be followed when working on existing systems operated by EQ.
- 1.3 “Danger – Do Not Operate” or equivalent tags must be used with locks.

2. Lockout / Tagout Procedures

- 2.1 Do not work on equipment until it is de-energized and tested.
- 2.2 Approved, site-specific and/or equipment-specific procedures for lockout/tagout must be followed. Lockout/tagout must include the following elements:
 - A. Use only standard tags and single-key locks.
 - B. When tags are used, fill in the spaces provided to indicate a description of the equipment, circuit number involved, date, signature, company name and contact number. Attach tags securely. Do not use tags without locks.
 - C. Never alter tags. Destroy dedicated tags immediately upon removal.
 - D. Do not operate equipment with a tag or lock attached regardless of the circumstances.
 - E. Operating a valve or switch to which danger tags are attached, or removing a lock without authorization may result in removal from EQ premises.
 - F. If the tag originator is off the site, the originator’s supervisor and the EQ representative or designee may remove the lock and tag, or authorize removal after verifying the system or device is safe. The authorization to remove the lock must be in writing. For existing EQ facilities, authorization must involve the site facility operations manager.
 - G. A minimum 2-tier lockout/tagout system is required for existing EQ facilities.
 1. Personnel responsible for facility operations at the site must place the first lock on any circuit that is being locked out. After ensuring that all parties have completed their work and removed their locks, the party who placed the first lock will remove their lock.
 2. Each company working in the area affected by the lockout must place an additional lock. A supervisor may place one lock for multiple individuals,

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but only if all of the individuals are under his/her direct supervision. When each company/person completes work in the area, the person who placed the lock will remove it. (Every individual working in the affected area has the right to place a lock.)

- H. EQ or the EQ designated representative is responsible for breaking flanges, placing blanks, draining, and decontaminating certain equipment or systems (such as those containing hazardous waste) prior to release for work. No work requiring lockout/tagout should be conducted without authorization from EQ.
- I. Tags required beyond one shift will be replaced by the oncoming shift, or by the EQ representative if no work is scheduled and the system remains shut down. Engineers or superintendents may be designated by EQ to act in this capacity. Long term lockouts may not require shift replacement, if so determined by the EQ representative.

3. New Equipment and Facilities

3.1 Electrically Operated Systems

- A. The EQ representative places multi-lock devices when other trades are involved in the shutdown.
- B. The EQ representative opens the switch, pulls power and control fuses, places the lock and tag, and tests the equipment to verify it is inactive.
- C. Personnel from other trades performing work place their locks and tags on the EQ representative's multi-lock device. Where several persons of the same trade are involved, the foreman may place one lock on the multi-lock device, and then the tradespersons may place their locks and tags on the multi-lock device after witnessing a proper test.
- D. Upon completion of the work, personnel from other trades remove their locks and tags.
- E. The EQ representative's lock and tag is the last to be removed. After ensuring that everyone is clear, the representative removes the lock and tag.
- F. New work is inspected and tested.

3.2 Piping Systems

- A. The piping contractor places multi-lock devices when other trades are involved in the shutdown.
- B. The piping contractor de-energizes, locks, tags, and tests the system.
- C. Personnel from other trades performing work place their locks and tags on the piping contractor's multi-lock device. Where several persons of the same trade are involved, the foreman may place one lock on the multi-lock device, and then the tradespersons may place their locks and tags on the multi-lock device.
- D. Upon completion of work, personnel from other crafts remove their locks and tags.
- E. The piping contractor's lock and tag is the last to be removed. After ensuring everyone is clear, the piping contractor removes the lock and tag and notifies EQ that work is complete.

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4. Existing Operating Facilities and Equipment

4.1 Electrically Operated Systems

- A. The EQ representative de-energizes the system, demonstrates that the power is off to the electrician and other contractors, and locks and tags the system.
- B. A qualified person ensures that fuses are removed and locks, tags, and verifies that the system is inactive.
- C. Other personnel may place locks and tags as described in paragraph 3.1.C.
- D. Upon completion of work, the EQ representative removes their lock and tag and replaces fuses where required.
- E. The EQ representative checks the system and re-energizes the circuits.
- F. New work is inspected and tested.

4.2 Piping systems

- A. The EQ representative de-energizes the system and places a lock and tag.
- B. The EQ representative directs the contractor as to where to make the first break of flanges and where to place blanks. The EQ representative then verifies the system is empty and decontaminated.
- C. The contractor verifies the system is de-energized, makes the first break in the flange, places blanks as directed by the EQ representative, and places the piping contractor's tag and lock. The EQ representative places their lock and tag.
- D. Personnel of other trades may then place locks and tags, perform work, and remove them upon completion of work.
- E. The appropriate contractor ensures the system is clear and removes their lock and tag. When completed, the contractor notifies EQ that the system is acceptable, and the contractor's lock and tag is removed.
- F. The EQ representative removes their lock and tag and re-energizes the system.
- G. New systems are inspected and tested.

5. Shop Equipment

- 5.1 Authorized operators of shop equipment must lock out their equipment to change tools, chucks, blades, and perform similar tasks. A power disconnect switch will be provided for this purpose at or near the equipment unless the equipment can be unplugged.
- 5.2 Do not use pushbutton controls or butterfly valves for lockout.
- 5.3 Do not use a tag without a lock without coordinating with EQ.

6. Locks and Multi-Lock Devices

- 6.1 Use only single-key locks. The key must remain in the possession of the person placing the lock.
- 6.2 The prime trade directly related to the item to be locked out will provide and install multi-lock devices.



Section 19: Confined Space Entry

1. Confined Space Entry Procedures

- 1.1 A confined space is an enclosed area that has a limited means of egress and is subject to the accumulation of toxic or flammable contaminants or has an oxygen-deficient atmosphere.
- 1.2 Entry into a confined space is not allowed unless a Confined Space Permit and applicable work permits are being used in accordance with site facility requirements.
- 1.3 Prior to entry, the entry contractor must provide a copy of the company's written confined space program and documentation of effective confined space entry training in accordance with OSHA requirements. This program and documentation will be reviewed before entries can be made. Training documentation that demonstrates training is current for all contractors participating in the confined space entry permit must be provided.
- 1.4 Prior to the entry date, contractors must specify their plan and purpose. The EQ representative will communicate all known hazards to the responsible Entry Supervisor at this time.
- 1.5 Personnel, equipment, and supplies needed for entry must be present at the confined space before beginning work.
- 1.6 The contractor must use their permit, which must include all items required by OSHA. Contractors must abide by the provisions and restrictions of their permit and any additional restrictions required by the site.
- 1.7 If space or work conditions change, the Entry Supervisor must terminate work and issue a new permit.
- 1.8 Violation of these requirements may result in immediate removal from EQ premises.

2. Confined Space Monitoring

- 2.1 The confined space may need to be continuously monitored with monitoring equipment. The contractor is responsible for providing this equipment and being qualified to use it. Prior to use, all monitoring equipment must be calibrated each day according to the manufacturer's guidelines.
- 2.2 Contractors are responsible for the safety and health of their employees and must not allow them to enter a confined space that is unsafe or enter a confined space without a permit.
- 2.3 The contractor must pay the costs of additional inspection, evaluation, or consultation provided by EQ for the benefit of the contractor concerning the safety of the confined space.
- 2.4 Additional monitoring equipment may be needed as determined by EQ. Contractors must ensure that employees, visitors, vendors, consultants, or other persons under their direction or assisting them are thoroughly trained and understand these requirements before they are allowed to enter a confined space.

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3. Working in Confined Spaces

- 3.1 The following rules apply to work performed in confined spaces:
- A. Ventilation must be of adequate volume to safely maintain the airflow within the confined space. The contractor must be able to prove calculations of the airflow volume upon request.
 - B. Employees or the person supervising the work must report unsafe conditions immediately.
 - C. Welding, cutting, brazing, and purging operations have specific requirements. Consult with the EQ representative.
 - D. Chemicals used or transported inside the confined space have specific requirements. Consult with the EQ representative.
 - E. Tools such as grinders, drills, and sanders have specific requirements. Consult with the EQ representative.
 - F. Rescue and response plans and resources must be available, trained, and equipped as required by OSHA.
- 3.2 The EQ representative or the Entry Supervisor will stop confined space entry during an emergency and not allow entry except as necessary to respond to the emergency.
- 3.3 Employees and the issuer of the permit will determine sources of power, fluids, gases, ventilation, and other means of disturbing the work area within the confined space. Potential disturbances must be locked, tagged, and secured prior to allowing entry in a manner consistent with the Lockout / Tagout section of this manual.
- 3.4 Employees must be able to identify the location of a purge gas release and where the gas is being vented. Purge gas must not be vented inside a building or in a confined space.
- 3.5 Wear hearing protection if the noise level inside the confined space is greater than 85 decibels.



Section 20: Electrical Safety

1. General Information

- 1.1 This procedure applies to the installation of temporary and permanent electrical work and the use of electrical power to operate equipment and electrical power tools.
- 1.2 Approved, site-specific procedures must be followed for work on electrically charged components.

2. Electrical Safety Procedures

- 2.1 Temporary and permanent electrical work, installation, and wire capacities must conform to the National Electrical Code, applicable federal, state, and local codes and the EQ electrical guidelines or requirements provided by project managers.
- 2.2 Only qualified electricians familiar with code requirements are allowed to perform electrical work.
- 2.3 Employees are not permitted to work near an unprotected electrical power circuit unless they are protected against electrical shock by de-energizing the circuit and grounding it, or are protected by effective insulation or other means, and are wearing required personal protective equipment. Work around energized systems must be done in accordance with the site-specific procedure. If no site-specific procedure exists, the EQ EHS manager must approve the process.
- 2.4 Do not operate electrical tools or equipment in wet areas or areas where potentially flammable dusts, vapors, or liquids are present, unless specifically approved for the location.
- 2.5 Switches must be enclosed and grounded. Panel boards must have provisions for closing and locking the main switch and fuse box compartment.
- 2.6 Avoid wearing rings, necklaces, or other conductive apparel.
- 2.7 Extension cords:
 - A. Limit the use of extension cords as much as possible.
 - B. Extension cords used with portable electric tools and appliances must be extra hard usage as defined in ANSI/NFPA 70 Article 400 (Table 400-4), heavy duty (no less than 12 gauge conductors for construction work) and of the 3-wire grounding type conforming to the type and configuration required by OSHA standards. Acceptable types of flexible cords include hard service cord (types S, ST, SO, and STO) and junior hard service cord (types SJ, SJO, SJT, and SJTO).
 - C. Flat electrical extension cords are prohibited.
 - D. Where possible, elevate (at least 7 feet) or otherwise protect from damage, electrical cords and trailing cables that could create a trip hazard to people in the

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- area. Repair electrical cords with heat shrink tape only. Do not splice damaged electrical cords.
- E. Protect portable electric tools and cords by a ground fault circuit interrupter (GFCI) throughout each phase of the work. GFCI protection for temporary wiring is mandated on construction sites at all times.
 - F. Plugs must be of the dead front type.
- 2.8 In areas where water or moisture is present or likely to be present, always use GFCIs on power circuits. If permanent power circuits are not GFCI, use a portable GFCI box with electrical tools and equipment. Test GFCIs on a regular basis.
 - 2.9 Should a circuit breaker or other protective device “trip,” ensure that a qualified electrician checks the circuit and equipment and corrects problems before resetting the breaker.
 - 2.10 Provide suitable means for identifying electrical equipment and circuits, especially when two or more voltages are used on the same job. Mark circuits for the voltage and the area of service they provide.
 - 2.11 OSHA regulations governing the operation of heavy equipment in proximity to high-voltage power lines are very specific. Wide loads over 10 feet require a specified escort. An outage approval must be obtained from the EQ EHS manager before heavy equipment, which can reach within arcing distance and is to be located within 50 feet of high-voltage lines or equipment, may be brought on site.
 - 2.12 Do not leave electrical boxes, switch gear, cabinets, and electrical rooms open when not directly attended. Insulate energized parts when covers have been removed or doors are ajar. Do not use cardboard, plywood, or other flammable material to cover energized circuits.
 - 2.13 The contractor should perform monthly inspections on drop cords, GFCIs, electrical tools and equipment.
 - 2.14 A contractor may not use assured grounding conductor programs as a substitute for GFCI control. An assured grounding conductor program may be implemented in *addition* to GFCI control.



Section 21: Welding, Cutting, and Burning

1. General Information

Contractors must follow approved, site-specific procedures for welding, cutting, and burning. If no site-specific procedures exist, contractors are to use the procedures described in this section.

2. Permits

- 2.1 Welding, cutting, or spark-producing work is prohibited until the EQ representative or EHS manager has issued the proper permit.
- 2.2 Within areas with sprinkler protection, the sprinkler system shall be operational at all times during the performance of open flame work – unless the EQ EHS manager has issued special permission. Under no circumstance are hot-work permits to be issued for areas in which the sprinkler system is impaired or malfunctions.

3. Handling and Storage of Cylinders

- 3.1 A suitable cylinder truck with chain or other secure form of fastening must be used to keep cylinders from being knocked over while in use or in storage. An acceptable cylinder wrench must be installed on each cylinder truck.
- 3.2 Cylinders must be legibly marked to identify content.
- 3.3 Do not store cylinders of oxygen near cylinders of acetylene or other fuel gas. Separate cylinders by a minimum of 20 feet, or with a 5-foot non-combustible barrier with at least a 2-hour fire rating. Do not place cylinders where they can contact an electrical circuit.
- 3.4 Keep oxygen cylinders, cylinder valves, couplings, regulators, hoses, and apparatus free from oil and grease. Do not handle oxygen cylinders or apparatus with oily hands or gloves.
- 3.5 Keep cylinders in storage away from sources of heat, flame, and direct sunlight. Remove combustibles from the storage area.
- 3.6 Close valves on empty cylinders. Keep valve protection caps in place except when cylinders are in use or connected for use.
- 3.7 Provide a suitable platform when moving cylinders by crane or derrick. Do not use slings, hooks, or electric magnets. Acetylene cylinders should be protected in a cradle while being transported by crane or derrick.
- 3.8 Cylinder caps should remain installed on the cylinder until connected to equipment. Keep the cylinder cap near the cylinder when in use.
- 3.9 Secure compressed gas cylinders in an upright position at all times, except for short periods of time when cylinders are being hoisted or carried. Empty cylinders must be

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labeled "Empty." If a cylinder is not equipped with a valve wheel, keep a key or cylinder wrench on the valve stem while in use.

- 3.10 Do not store or take compressed gas cylinders into closed or confined areas, or near elevators or stairs.
- 3.11 Store compressed gas cylinders in well-ventilated, properly constructed storage racks that are labeled for the type of gases to be stored. If a leak develops in a cylinder and it cannot be immediately corrected, move the cylinder to a safe location outside the building.
- 3.12 Visually inspect cylinders to ensure they are safe before use.

4. Welding, Cutting, and Other Hot Work Operations

- 4.1 Each welding, cutting, or spark-producing operation requires a fire watch.
 - A. A fire watch consists of a properly trained person standing by with an approved fire extinguisher provided by the contractor.
 - B. The fire extinguisher must be of a size and type (10 lb. ABC or BC) that will extinguish a fire that may ignite on materials being welded or cut or on materials immediately adjacent to welding and cutting operations.
 - C. The fire-watch person must remain in the area for a minimum of 30 minutes after the hot work is completed to ensure the site is safe.
- 4.2 Frequently inspect hoses, lines, and leads for leaks, worn areas, and loose connections.
- 4.3 Remove combustible materials from the area prior to beginning work.
- 4.4 Provide flash arresters fitted to the regulators at both the fuel and oxygen cylinders. Additional flashback arresters may be fitted to the torch for oxygen and acetylene hoses.
- 4.5 Welding return current must not pass through any of the following:
 - A. Acetylene, fuel gas, oxygen, or compressed gas cylinders.
 - B. Tanks or containers used for gasoline, oil, or flammable/combustible material.
 - C. Pipes carrying compressed air, steam, gases, or flammable/combustible liquids.
 - D. Conduits carrying electrical conductors.
 - E. Chains, wire ropes, metal hand railings, ladders, machines, shafts, bearings, or weighing scales.
 - F. Critical instrumentation.
- 4.6 Shield arc welding and cutting operations by using non-combustible or flame-proof screens.
- 4.7 Provide a mechanically strong and electrically adequate ground for the service required.
- 4.8 If possible, support and elevate welding cables to allow the safe passage of workers and equipment.
- 4.9 Keep welding cables away from ladders and stairways. Prevent doors from closing on, or otherwise damaging welding cables.
- 4.10 Use insulated cable connectors to couple or uncouple several lengths of cable for a welding circuit. Use insulated cable connectors on the ground line and the electrode holder line.

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- 4.11 Use an electrode holder of adequately rated current capacity, insulated to protect the operator against possible shock, and to prevent a short or flash when laid on grounded material.
- 4.12 Do not use cables with worn or damaged insulation.
- 4.13 Insulate connection lugs on welding machines.
- 4.14 Wear suitable eye protection and other personal protective equipment.
- 4.15 Ensure adequate ventilation.
- 4.16 When welding overhead, take precautions to prevent sparks from falling on other workers.
- 4.17 Do not use regulators, leads, torches, or other associated equipment that is damaged or defective.



Section 22: Fire Prevention and Protection

1. Fire Prevention and Protection Procedures

1.1 Temporary Heating Equipment

- A. Temporary heaters are prohibited unless approved by the EQ EHS manager.
- B. Operation and maintenance of temporary heating equipment is the responsibility of the contractor. Heaters must bear the UL label (or approved equal).
- C. Contractors must ensure that heaters are in working order and provide trained personnel to be in attendance at all time heaters are in operation.
- D. A tip over shut-off device must be included for space heating equipment.
- E. Do not place clothing or flammable items on or near heaters.
- F. Operators must be trained for fire watch and use of fire extinguishers and the contractor must retain the training documentation.
- G. Provide adequate ventilation when using liquid fuels in an enclosed environment, and conduct atmospheric testing as needed.

1.2 Flammable and Combustible Materials

- A. Storage and use of flammable liquids is prohibited without the approval of the EQ EHS manager.
- B. Store and handle flammable and combustible materials with regard to their fire characteristics. Materials must be clearly labeled.
- C. Store flammable liquids and gasses outdoors in an approved manner and dispense only in approved safety containers.
- D. Separate and store combustible materials or equipment in non-combustible containers in a proper manner.
- E. If approved for use, do not store more than a 1-day supply of combustible materials or containers in one location within the building. Locate supplemental fire fighting equipment in the vicinity of these containers and materials.

1.3 Fire protection equipment must be furnished for all phases of the work as required by law.

1.4 Fire extinguishers should only be used by employees who have received documented fire extinguisher training within the past 12 months.

1.5 Use fire resistant materials for temporary structures.

1.6 Provide access to the work area and around the perimeter. Maintain access in a serviceable condition suitable at all times for use by heavy fire fighting equipment.

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- 1.7 Do not drive trucks and motor vehicles within the perimeter of buildings, unless they are designed for that purpose and approved by the EQ representative.
- 1.8 Perform torch-cutting and welding operations in accordance with the applicable fire and safety regulations. Use fire resistant tarpaulins when torch-cutting or welding.
- 1.9 Remove combustible waste materials, rubbish and debris daily.
- 1.10 Replace temporary fire fighting or fire protection equipment immediately after use, and remove when work is complete.
- 1.11 Do not fuel equipment while the motor is running.
- 1.12 Provide proper safety waste cans for disposing oily rags or combustible materials.
- 1.13 If the installation of sprinkler systems and fire alarm systems is within the scope of work to be done, they must be placed in service as early in the project as possible.
- 1.14 Gasoline or diesel powered portable generators must be approved by the EQ EHS manager and used only when a qualified operator is present.
- 1.15 Post "No Open Flame" signs where applicable.

2. Temporary Fuel Tanks

- 2.1 Temporary fuel tanks (gasoline, diesel, and fuel oil) are only allowed when approved by the EQ EHS manager.
- 2.2 Tanks must meet construction and design criteria provided by the EQ representative.
- 2.3 Temporary fuel tanks may require a permit in accordance with local and state regulations.
- 2.4 Temporary fuel tanks shall have required marking and signage. Provide secondary containment where feasible.



Section 23: Small Tools

1. General Information

Contractors must follow approved, site-specific procedures for using small tools. If no site-specific procedures exist, contractors are to use the procedures described in this section.

2. Power, Air and Hand Tools

- 2.1 Power, air, and hand tools must be operated in accordance with the manufacturer's recommendations.
- 2.2 Keep hand tools in good condition, inspected, cleaned, sharpened, oiled, and not abused. Replace worn tools immediately.
- 2.3 Inspect tools for damage and worn parts before use. Remove damaged or frayed cords from service. Do not hoist or lower tools by the cord or hose; use hand lines.
- 2.4 A qualified person must inspect power tools before use and at least once per month.
- 2.5 Do not force tools beyond their capacity by using "cheater bars" or other shortcuts.
- 2.6 Do not use power tools if safety equipment such as shields, tool rests, hoods, and guards have been removed or rendered inoperative.
- 2.7 Employees must wear the required personal protective equipment when using tools under conditions that expose them to flying objects or harmful dust.
- 2.8 Ground electrically powered tools. Protect outlets used for 110-volt tools by ground fault circuit interruption devices throughout each phase of the work.
- 2.9 Do not use gasoline-powered tools in unventilated areas, enclosed spaces, or in close proximity to enclosed spaces. Dispense gasoline and other flammable liquids only from UL approved safety cans or equivalent.
- 2.10 Use portable grinders with hood-type guards with side enclosures that cover the spindle and at least 50% of the wheel. Inspect wheels regularly for signs of fracture.
- 2.11 Equip bench grinders with deflector shields and side-cover guards. Tool rests must have a maximum clearance of $\frac{1}{8}$ inch from the wheel.
- 2.12 Secure couplings to hoses supplying pneumatic tools to prevent accidental disconnection.
- 2.13 Protect air-supply lines, inspect lines regularly, and maintain lines in good condition. Provide excess flow valves on supplying hoses exceeding a $\frac{1}{2}$ inch in diameter.
- 2.14 Reduce the operating pressure of compressed air used for cleaning purposes to 30 psi or less. Avoid operating pressure in excess of 30 psi.

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3. Powder-Actuated Tools

- 3.1 Powder-actuated tools must not be used unless approved in writing by the EQ EHS manager. Contractors must submit documentation from their insurance company certifying that the use of powder-actuated tools is under the liability provisions of the insurance policy and under specific circumstances of the work. In addition, the contractor will submit documentation certifying that the type and use of powder-actuated tools are in accordance with applicable laws.
- 3.2 Powder-actuated tools must meet applicable requirements of ANSI-A 10.3-1970 as stipulated by OSHA, and be UL listed or FM approved.
- 3.3 Post signs throughout the area warning of the use of powder-actuated tools.
- 3.4 Powder-actuated tools must be .22 or .25 caliber cushioned pistol grip design.
- 3.5 Loads, studs, and nails used in powder-actuated tools must be specifically approved by the manufacturer for use in that tool.
- 3.6 Do not use loads, studs, and nails in powder-actuated tools for any purpose other than recommended by the manufacturer.
- 3.7 Do not use powder-actuated tools when adjacent areas are occupied by personnel.
- 3.8 Powder-actuated tools must be designed so that discharging the powering load can only be accomplished when the barrel of the tool is firmly depressed against the work surface.
- 3.9 Powder-actuated tools must be pistol-driven and designed so that the pistons always remain captive within the tool.
- 3.10 Employees must not operate powder-actuated tools until they have satisfactorily completed the manufacturer's sponsored training for the tool and have evidence of this training readily available.
- 3.11 Do not use powder-actuated tools in areas where hazardous accumulations of ignitable dust, gases, or liquids could be present or collect until the area has been proven free from such hazards with appropriate instrumentation. Store loads that are not being used in a location and manner specifically approved by EQ for that purpose.
- 3.12 Goggles, face shields, or substantial eye protection must be worn by each person within 25 feet of the point of discharge.
- 3.13 Personnel not directly involved with the operation of powder-actuated tools must stay clear unless granted specific permission by the contractor, and applicable provisions of the procedure regarding personal protective equipment have been met.
- 3.14 Do not leave powder-actuated tools or loads unattended at any time. Powder-actuated tools, loads, studs, and nails must be stored in a locked box or otherwise secured when not in use. Do not load the tool until ready for use.
- 3.15 Handle misfires in accordance with manufacturer's training. Dispose of misfired loads safely in a manner approved by EQ. Misfired loads are considered to be ammunition.
- 3.16 Powder-actuated tools must be regularly inspected and maintained. Maintenance work must be performed by competent technicians as directed by the manufacturer's literature. Parts used in maintenance or repair of powder-actuated tools must be exact replacement parts.



Section 24: Ladders

1. Manufactured Ladders

- 1.1 Manufactured ladders, ladder maintenance and use must comply with OSHA, ANSI, manufacturer's specifications, and job procedures.
- 1.2 Only fiberglass ladders are allowed except with special permission from the EQ representative.
- 1.3 Metal ladders are prohibited.
- 1.4 Do not use wooden ladders except with special permission from the EQ representative.
- 1.5 Do not use ladders with broken or missing rungs, broken or split side-rails, or damaged components. Damaged ladders must be immediately removed from the work area or destroyed.
- 1.6 Equip portable ladders with non-skid safety feet and place on a stable base. Keep the access areas at the top and bottom of ladders clear. Stepladders must be fully opened when in use. Safety latches on extension ladders must be fully engaged.
- 1.7 Always face the ladder when climbing or descending. When working, face the ladder with both feet securely on the rungs. Never stand on the top step or sit on the top of the ladder, straddle the ladder, fold up, lean stepladders, or work 2 people from the same ladder.
- 1.8 Post warning signs (or equivalent indicators, flags, tape, banners, etc.) when doing overhead work in traffic areas.
- 1.9 Protection from falls is a key consideration when working from ladders above 10 feet.
- 1.10 Keep ladders free of lines, ropes, hoses, wires, cables, oil, grease, and debris. Do not leave objects on ladders.
- 1.11 Do not use single portable ladders over 30 feet in length. Use separate ladders with intermediate landing platforms to reach heights above 30 feet.
- 1.12 Extend side rails 36 inches above the landing. When this is not practical, install a grab rail. Ladders in use must be tied, blocked, or otherwise secured.
- 1.13 Ladders must be inspected before use and at least once per month.

2. Ladder Training Requirements

- 2.1 Contractors must provide a training program and related documentation for employees using ladders. The training program will provide the procedures necessary for employees to recognize the ladder hazards.
- 2.2 Contractors must ensure that a competent person has trained each employee in the following topics:

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- A. Nature of fall hazards in the work area.
 - B. Correct procedures for erecting, maintaining, and disassembling a fall protection system.
 - C. Proper construction, use, and placement of ladders and care in handling ladders.
 - D. Maximum intended load-carrying capacities of ladders.
- 2.3 Contractors must ensure that employees maintain the required understanding and knowledge of ladder safety.



Section 25: Scaffolds

1. Scaffold Design and Erection

- 1.1 Scaffolds must be designed, built, inspected, and tagged by trained, competent persons in accordance with OSHA requirements. Carefully plan each application to ensure that scaffolds are used where required and that scaffolds conform to the applicable scaffold erection requirements.
- 1.2 Lean-to scaffolds and make-shift platforms are prohibited.
- 1.3 Do not use scaffolds for storing material except material being used while on the scaffold. Place material over cross members. Do not allow tools, material, or debris to accumulate on scaffolds.
- 1.4 Adequately design scaffolds to carry, without failure, 4 times the maximum intended load in addition to the weight of the scaffold. Never overload a scaffold.
- 1.5 Immediately replace weakened or damaged scaffolds.
- 1.6 Scaffold or staging more than 6 feet above the ground or floor, suspended from an overhead support, or erected with stationary supports, must have standard guardrails and toe boards properly attached.
- 1.7 Guardrails must be 2 inches by 4 inches, approximately 42 inches high, with a midrail. Do not use diagonal braces as guardrails. Supports must be at intervals not to exceed 8 feet.
- 1.8 Toe boards must be a minimum of 4 inches high. Cleat or secure planking to prevent displacement. Platforms must be the complete width of the scaffold being erected. Secure the scaffold horizontally and vertically at intervals specified in the applicable regulations.
- 1.9 Scaffolds with any dimension of less than 45 inches must be equipped with outriggers and standard guardrails when the working platform is at a height of 4 feet or higher.
- 1.10 Equip mobile scaffolds with outriggers and lock casters. Guard mobile scaffolds with standard railing, regardless of height. Mobile scaffolds must not be constructed or used where there is a change of elevation in the floor level.
- 1.11 Moving a mobile scaffold with personnel on it must be performed in accordance with OSHA requirements.

2. Use of Scaffolds

- 2.1 Follow the fall protection requirements described in Section 17 when working on, erecting, and dismantling scaffolds, or on scaffolds not meeting guarding requirements.
- 2.2 A competent person must inspect scaffolds before work begins.

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- 2.3 Prior to use, a competent person must inspect scaffolds on which weakened or damaged weight bearing parts have been replaced.

3. Scaffold Tags

- 3.1 The contractor erecting the scaffold must attach a standard industry tag to a completed scaffold at the point of access to signify the scaffold was designed and erected by trained, competent persons and is safe for use.
- 3.2 The tag must state the intended purpose of the scaffold and indicate the level of personal protective equipment required to use the scaffold. The tag and the handwriting on it must be capable of withstanding extended periods of inclement weather.

4. Scissors Lifts and Man Lifts

Operate scissors lifts and man lifts in accordance with the manufacturer's recommendations and the OSHA requirements. Operators should be trained in the safe operation of the equipment prior to use. The operator's manual shall be attached to the equipment.



Section 26: Cranes and Rigging

1. General Information

- 1.1 Contractors whose activities require the use of cranes are responsible for proper set up and operation. Evidence of up-to-date crane inspections (annual) must be provided to EQ prior to use. Cranes may be rejected for any defect, no matter how minor.
- 1.2 This procedure applies to the following types of cranes: crawler cranes, locomotive cranes, wheel mounted cranes of both truck and self-propelled wheel type, and any variations that have the same fundamental characteristics. This procedure also applies to other powered vehicles that may be used to hoist or lift equipment or material that breaks the roof line. All lift plans must contain a section regarding handling emergencies should a crane collapse, turn over, or drop a load.
- 1.3 All lifts that require material or equipment to break a roof line require prior notice to staff and employees who may be affected. This will be accomplished by the contractor proposing to conduct the work, the project engineer or the EQ representative contacting the appropriate facility supervisor or representative to initiate notification to all affected employees. Notification requirements will be accomplished by using the EQ representative.
- 1.4 All lifts which require breaking a roof line require a lift plan. Lift plans will be submitted no later than 2 week prior to the lift. Lift plans must be approved by the EQ representative and EHS manager. Lift plans must contain crane, rigging, and load details as well as sketches or electronic drawings that include both a plan view showing swing direction and crane placement with respect to the facility and a crane elevation showing the boom angle and extension extremes of the lift.

If a material or equipment lift does not require a formal lift plan according to the above criteria, a Job Hazard Analysis of the lift must be performed prior to the lift. Evidence of such an analysis may be demanded at any time by the EQ representative or EHS manager.

For all lifts, a pre-lift meeting shall be conducted for all personnel involved with, or in the area of, the lift so that all are aware of the planned activity and the potential hazards associated with the lift.
- 1.5 Prior to any lift, contractors will provide the EQ EHS manager, the project manager, or the EQ representative with documented evidence of an annual inspection in accordance with OSHA requirements for all cranes, hoisting, and associated rigging equipment brought onto the site. If the inspection record is not produced, if 1 year has elapsed since the last inspection, or if the crane or its associated rigging exhibits any damage or excessive wear, the crane cannot be used.
- 1.6 The crane operator or other competent person will perform a daily inspection of cranes in accordance with OSHA requirements. The person performing this inspection will document results in writing, and documentation will be available for examination upon request. In addition to daily inspections, if a crane is moved or the process changes during operations it must be re-inspected prior to performing the lift in order to reflect the changes.

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- 1.7 A third-party crane inspection is required for all critical lifts. A critical lift may include, but is not limited to:
- A. Any lift exceeding 75% of the crane's rated capacity at the required lifting configuration;
 - B. Any lift that requires the use of more than one crane or is made in combination with other lifting equipment;
 - C. Any lift located in an area where there is exposure to electrical hazards, overhead piping systems, vessels, operational buildings, etc.

A critical lift may also involve the lifting of specialized equipment which has been designed, engineered or fabricated for a specific process or function, the loss of which would severely impact a project. The determination of what constitutes a critical lift shall be made by the EHS manager in consultation with the EQ representative on the basis of the submitted lift plan.

- 1.8 At no time will any lift be made over occupied space. In addition, all lifts over occupied space shall be conducted before or after normal EQ site working hours and weekends. A lift will be made during normal working hours only under certain circumstances and only with approval of the EQ EHS manager. At no time will lifts be made over personnel, active roadways, moving or parked vehicles.

2. Recordkeeping

- 2.1 Records pertaining to crane inspections will be kept on site with the crane or in the contractor's temporary office.
- 2.2 The crane operations and maintenance manual shall be available for inspection at each crane or hoisting equipment.

3. Operator Qualifications and Operating Procedures

- 3.1 Only designated crane operators who have been licensed by an approved agency and who meet the minimum DOT requirements as provided in DOT 391 may operate cranes and hoisting equipment.
- 3.2 Rental cranes and other lifting equipment not subject to DOT requirements must have the operator approved by the EQ representative.
- 3.3 No one other than the designated operator will be in or on the crane during operations. Exceptions are oilers or supervisors whose duties may require their presence.
- 3.4 Crane operating procedures must be in accordance with OSHA requirements, 29 CFR 1926.550 Subpart N.

4. Maintenance

Records indicating a preventative maintenance program based on the equipment manufacturer's recommendations must be made available to EQ and be available for inspection if requested.

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5. Rigging Requirements

- 5.1 A qualified rigger must inspect rigging equipment prior to each use and immediately remove from service and destroy any damaged or defective slings.
- 5.2 Rigging devices, including slings, must have permanently affixed identification stating size, grade, rated capacity, and manufacturer.
- 5.3 Remove rigging not in use from the immediate work area.
- 5.4 Hang rigging and slings on a rigging frame to eliminate bends and kinks.
- 5.5 Do not leave slings lying on the ground or exposed to dirt or the elements.
- 5.6 Do not shorten slings using bolts, knots, or other devices.
- 5.7 A licensed engineer or the manufacturer must certify lifting beams and spreader bars as to their configuration and lifting capacity.

6. Work Platforms Suspended from Cranes

Cranes may be used to hoist, lower, and suspend personnel on a work platform ONLY when such action results in the least hazardous exposure to employees. This activity must be approved in writing by the EQ EHS manager.



Section 27: Floor, Roof and Wall Openings

1. Floor, Roof, and Wall Opening Procedures

- 1.1 Conditions must be controlled where there is a danger of employees or materials falling through floor, roof, or wall openings, or from floor or roof perimeters.
- 1.2 Remove guarding and covers only after other means of fall protection are in place. Employees installing or removing guarding and covers must be protected by alternative fall protection throughout the process. The contractor responsible for the removal of guarding and covers is responsible for their replacement.
- 1.3 Perimeter, floor, roof, and wall opening protection must be maintained throughout all phases of the work. Notification of a violation that is not corrected immediately will result in implementation of the disciplinary procedures outlined in Section 3 of this manual.
- 1.4 In accordance with OSHA standards, installation of a standard railing is required for floor perimeter and wall opening protection.
 - A. A standard railing consists of a top rail, a midrail, and toe boards.
 - B. Wire rope used as railing (as top and midrail) must be ½ inch in diameter with at least 3 J-type fist grip wire rope clamps at each connection and turn buckles every 100 feet. Thimbles must be used where the wire rope is connected.
- 1.5 For routine maintenance activities on low-sloped roofs (less than 4:12 pitch), no fall protection is required when safe access is provided and walking paths are marked and located at more than 10 feet from unprotected sides or edges. When the access, walking path, or maintenance area is less than 10 feet from an unprotected side or edge, one of the conventional methods of fall protection or a combination of these must be implemented. Maintenance activities would include routine maintenance such as inspection or minor repair of equipment or the roof.
- 1.6 For construction work performed on low sloped roofs (less than 4:12 pitch), a warning line system may be used as an alternative protection system where it can be reasonably anticipated that workers will be within 25 feet of an unprotected side or edge. Construction work would include roofing, equipment replacement, or major repairs.
 - A. In such cases, the warning line system must meet OSHA standards and must be established no less than 10 feet from the unprotected edge.
 - B. Where a warning line system is used, no materials are allowed outside the warning line zone.
 - C. Regardless of the type of work, the use of one of the conventional fall protection systems allowed by EQ or a combination of them is required whenever workers are within 10 feet of unprotected sides or edges.
- 1.7 Any deviation from the fall protection requirements of this manual requires a completed safety modification (QES-FM-091-ALL) that has been approved by the contractor's safety

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manager and the EQ EHS manager. Alternative fall protection methods must be as safe as those required by EQ and must comply with OSHA standards.

2. Stair Railings

- 2.1 Stair railings must be constructed similar to a standard railing, but the vertical height must be 34 to 36 inches from the top rail to the surface tread in line with the face of the riser, at the forward edge of the riser.
- 2.2 Provide a minimum clearance of 3 inches between the handrail and other surfaces or objects.

3. Floor Opening Covers

- 3.1 Floor opening covers must be used for openings greater than 2 inches and must be capable of supporting the maximum intended load and installed to prevent accidental displacement.
- 3.2 Protect floor openings by a cover and standard railing and protect from movement. Clearly mark and anchor covers.

4. Stairs

- 4.1 During construction, provide temporary stairs on structures that are 2 or more floors or more than 20 feet high until permanent stairways are in place.
- 4.2 Keep stairways free of hazardous objects. Do not allow debris and loose material to accumulate on stairways. Storage of combustibles under stairways is NOT allowed.
- 4.3 Permanent steel stairways having hollow pan-type treads and landings that are to be used prior to concrete placement must have pans filled with solid material to the level of the nosing.
- 4.4 Temporary stairs must have a landing not less than 30 inches wide in the direction of travel for every 12 feet of vertical rise. Use full-width wooden treads for temporary service.
- 4.5 Provide uniform riser height and tread width throughout the flights of stairs.

5. Runways and Openings

- 5.1 Install standard guarding at wall openings from which there is a drop of more than 3 feet.
- 5.2 Guard runways using a standard railing, or the equivalent, on open sides above the floor or ground level. When tools, machine parts, or materials are likely to be used on the runway, provide a toe board on each exposed side.
- 5.3 Regardless of height, open-side floors, walkways, platforms, or runways above or adjacent to dangerous equipment and similar hazards must be guarded with a standard railing.



Section 28: Excavation and Trenches

1. General Information

- 1.1 The contractor will provide EQ a list of persons who are trained to serve as the “competent person” as well as a list of additional personnel that have received training on the basics of hazard recognition and safe work practices for excavation operations and will be working in or around excavations. A “competent person” must be on site during all excavation and trenching work.

2. Training Requirements

- 2.1 Contractors shall provide training to ensure the purpose and function of the trenching and excavation program is understood by their employees and subcontractors under their control and possess the knowledge and skills required for safe trenching and excavation operations on EQ sites.
- 2.2 EQ reserves the right to request employees be re-trained in the event of an incident, when periodic inspections reveal a need, or when EQ or an EQ representative has reason to believe there are deviations from or inadequacies in the employee’s knowledge or use of these procedures.

3. Earthwork Clearance Permit

- 3.1 Excavation performed on EQ property by any type of machine or tool requires an Earthwork Clearance Permit (ECP) prior to starting work. This would include using stakes, erecting tents, and putting up signs.
- 3.2 The contractor in charge of the work must perform the following tasks:
 - A. Complete the ECP and forward it to the EQ representative for approval.
 - B. Ensure that the utility providers and other locating services are contacted and that the area impacted is free from utilities and other hazards.
 - C. Ensure that approval signatures on the ECP are obtained after the required personnel have reviewed the field drawings or sketches. Electronic approval is acceptable.
 - D. Present the completed ECP to the operator.
 - E. Protect the excavation area from unauthorized personnel by means of barricades or fencing.
- 3.3 Do not begin excavation until the ECP is present at the excavation site and signed by the required personnel.
- 3.4 The ECP must remain at the excavation site during the entire time of the excavation.

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4. Protective Design

- 4.1 Excavations and trenches over 4 feet deep must be sloped, shored, benched, braced, or supported. When soil conditions are unstable, excavations less than 4 feet must be sloped, shored, or supported as required by regulations.
- 4.2 Each employee in an excavation will be protected from cave-ins by an adequately designed protective system. Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transferred to the system.
- 4.3 Slopes and configurations of sloping and benching systems will be properly selected and constructed as follows:
 - A. Option 1 – Excavations will be sloped at an angle not steeper than one and one-half horizontal to vertical (34° measured from the horizontal).
 - B. Option 2 – Determination of slopes and configurations is made using 29 CFR 1926.652 Appendices A and B – “Maximum Allowable Slopes.”
 - C. Option 3 – A sloping and benching system approved by a professional engineer registered in the state where the work is being performed.

5. Design and Construction of Protection Systems

- 5.1 Ensure shoring materials and equipment are in good condition. Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.
- 5.2 Manufactured materials and equipment used for protective systems shall be used and maintained in a manner that is consistent with all specifications, recommendations, and limitations issued or made by the manufacturer and in a manner that will prevent employee exposure to hazards.
- 5.3 Deviation from the manufacturer’s specifications, recommendations, and limitations will only be allowed after the manufacturer issues specific written approval and it is accepted by the EQ EHS manager.
- 5.4 Timber shoring of any kind is unauthorized on EQ sites unless approved in writing by the EQ EHS manager.

6. Inspections

- 6.1 Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions.
- 6.2 An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other events which could appreciably increase the likelihood of a hazard when employee exposure can be reasonably anticipated. Water must not be allowed to accumulate in a trench or excavation.
- 6.3 If dangerous ground movements such as tension cracking are apparent, stop work in the excavation until the problem has been corrected.

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7. Egress

- 7.1 Egress means shall be provided from trenches and excavations. A stairway, ladder, ramp, or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.
- 7.2 Ladders must be in good condition, extend from the floor of the trench to 3 feet above the top of the excavation, and secured at the top.

8. Completion of Work

- 8.1 Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.
- 8.2 Individual members of support systems shall not be subjected to loads exceeding those which the members were designed to withstand.
- 8.3 Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.
- 8.4 Removal shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.
- 8.5 Backfilling shall progress together with the removal of support systems from excavations.

9. Drilling Operations

- 9.1 An ECP is required for drilling operations in order to prevent drilling in restricted areas.
- 9.2 Inspect the drilling area for hazards before starting the drilling operation. Utility lines must be located and marked prior to any drilling operations. OSHA mandated clearance from power lines is required.
- 9.3 Drill crews and other employees must stay clear of augers or drill stems that are in motion.
- 9.4 When drill helpers assist the drill operator during installation or operation of a drilling rig, the helpers must be in sight of or communication with the operator at all times.
- 9.5 Attend drilling rigs while in operation. Do not drill from positions that hinder access to the controls, or from insecure footing or staging.
- 9.6 A competent person must inspect drilling equipment at the start of each shift, and defects must be corrected before the equipment is used.
- 9.7 Warn workers in the area around the drilling operation before each drilling cycle is started.



Section 29: Concrete and Formwork

1. General Information

The following procedures apply to the erection of concrete formwork and placement of concrete for either cast-in-place or precast work.

2. Concrete and Formwork Procedures

- 2.1 Equipment and materials used in concrete construction and masonry work must meet the applicable requirements as described in the ANSI publication *Safety Requirements for Concrete Construction and Masonry Work*.
- 2.2 Employees working more than 6 feet above an adjacent surface while placing reinforcing steel or setting/dismantling forms must use a body harness with two lanyards. Follow 100 percent tie-off and fall protection practices.
- 2.3 Cover protruding reinforcing steel with a minimum of 2-inch thick material or standard caps where employees may be required to work above or pass through.
- 2.4 Do not work above vertically protruding reinforcing steel unless the steel has been protected to eliminate the hazard.
- 2.5 Affix impalement caps on reinforcing steel that is less than 6 feet high.
- 2.6 Do not ride concrete buckets or operate concrete buckets over occupied areas.
- 2.7 Cover reinforcing mats used as walkways with plywood for safe footing.
- 2.8 Wear NIOSH-approved, supplied-air respirators and hoods when sandblasting.
- 2.9 Concrete workers must wear appropriate shirts, boots, and gloves to reduce the danger of concrete burns.
- 2.10 Remove excess materials from the work area in accordance with EQ Housekeeping procedures.
- 2.11 Exposure to electrical panels or other electrically charged equipment (permanent or temporary) should be identified and communicated to contract employees prior to the start of concrete finish work involving long metal-handled bull floats or other long-reach tools which may inadvertently come in contact with the electrically charged equipment.



Section 30: Steel Erection

1. Training

A qualified person is required to train exposed workers in fall protection and workers engaged in special, high risk activities. Inspection also requires a qualified person.

2. Hoisting and Rigging

- 2.1 Inspection of the worksite and equipment must be carried out at the beginning of each shift by a qualified person. A qualified rigger must also inspect the rigging prior to each shift.
- 2.2 For crane operations, safety latches on hooks may not be deactivated unless a qualified rigger determines it is safer to place purlins and joists without them, or equivalent protection is provided in a site-specific erection plan.
- 2.3 The standard allows employees engaged in initial steel erection or hooking/unhooking to work under loads in some specific instances. The load must be rigged by a qualified rigger.
- 2.4 Crane regulations prohibit the use of cranes to hoist personnel unless all provisions are met. When employees work under loads (allowed in specific instances), requirements in OSHA 29 CFR 1926.753(d) must be followed. Multiple lift rigging (with a maximum of 5 “Christmas Treeing” of steel members in one load) is permitted as long as the requirements of OSHA 29 CFR 1926.753(e) are met.
- 2.5 Crane operators are responsible for operations under their control and have the authority to stop and refuse to handle loads until safety has been assured.

3. Permanent Floors

Install permanent floors as soon as practical following the erection of structural members. Do not allow more than 2 floors (24 feet) of unfinished bolting or welding above the foundation or the uppermost secured floor.

4. Temporary Floors

- 4.1 Solidly plank the erection floor over its entire surface except for access openings. Use planking that is fully able to bear the loads, full size, undressed, laid tight, and secured against movement.
- 4.2 A guarding system must be installed and use the following:
 - A. A standard railing consists of a top rail, intermediate rail (midrail), toe board, 4-foot vertical debris nets, and posts.
 - B. The top rail must be approximately 42 inches from the upper surface of the rail to the floor, platform, or ramp level. The top rail, if using wire rope, must be ½ inch

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wire rope with at least 3 J-type fist grip wire rope clamps at each connection, and turn buckles every 100 feet. Use thimbles where wire rope is connected.

- C. The midrail is located halfway between the top rail and the floor, runway, platform, or ramp. The midrail must be ½ inch wire rope with 3 J-type fist grip wire rope clamps at each connection and turn buckles every 100 feet. Use thimbles where wire rope is connected.
- D. The toe board must be at least 4 inches in height, securely fastened, and not have more than ¼ inch gap between it and the floor level where vertical debris nets cannot be installed.

5. Steel Work

- 5.1 When setting structural steel, secure each connection with at least 2 wrench-tightened bolts before the load is released.
- 5.2 Do not hoist material to a structure unless it is ready to be put in place and secured.
- 5.3 Comply with the fall protection requirement (see Section 17 – Personal Protective Equipment) for work performed over 6 feet. (One hundred percent fall protection is required for steel erection work.)
- 5.4 When loads are being hoisted, walking under the lift or permitting an employee to be exposed to the swing of the lift is prohibited.
- 5.5 Use a tag line to control loads.
- 5.6 Post barricades and “Danger Men Working Overhead” signs around the erection area.

6. Fall Protection

Deckers in a Controlled Decking Zone (CDZ), connectors, and all others engaged in steel erection must be protected at heights greater than 10 feet with fall protection. Connectors must wear fall arrest or restraint equipment and be able to be tied off or they must be provided with another means of fall protection that is compliant with regulations. Deckers may be protected by a CDZ.



Section 31: Roadway Work

1. Work on or adjacent to existing public and work site roadways must be performed in accordance with the requirements of ANSI D6.1-1971, *Manual on Uniform Traffic Control Devices for Streets and Highways*.
2. Contractors are to obtain any permits required by local, state, or federal law.
3. Unless otherwise specified, the contractor performing this work is responsible for furnishing, setting up, and maintaining traffic control signs, devices, barricades, arrow boards, and flagpersons. The EQ EHD manager must approve traffic control provisions.
4. The responsible contractor must ensure that:
 - A. Roadways, walkways, and other means of access and egress are free of trash, rubbish, mud, sand, and loose material.
 - B. Where required, a wheel wash station is provided.
 - C. Vehicles and equipment are clean prior to leaving the site. The contractor is responsible for immediate cleanup and public liability.
 - D. Reflective vests are to be worn at all times during performance of roadway work.



Section 32: Work Area Conditions

1. General Information

- 1.1 Contractor employees must define and clearly identify work areas using tape, signs, or barricades to prevent unwarranted entry.
- 1.2 The contractor is to provide the equipment needed to mark work areas.

2. Drinking Water

- 2.1 Contractors must provide an adequate supply of drinking water where employees are working.
- 2.2 Clearly mark containers used for drinking water and do not use them for any other purposes.

3. Toilets and Washing Facilities

- 3.1 Contractors must provide toilets for employees according to applicable sanitary work standards and where required by State law, or make arrangements with the EQ representative for using the EQ facilities.
- 3.2 Contractors must provide adequate washing facilities for employees where required by State law, or make arrangements with the EQ representative for using the EQ facilities.

4. Lighting

Light work areas, ramps, runways, corridors, offices, shops, and storage areas to at least the minimum illumination intensities listed below while work is in progress.

<i>Foot-Candles</i>	<i>Area of Operation</i>
5	General areas, ramps, warehouse
10	Operations involving machinery

5. Material Use and Waste Management

- 5.1 Place receptacles and dumpsters around the work area for collection of waste materials.
- 5.2 Hazardous waste or potentially hazardous waste, as determined by the methods and definitions from environmental regulations, must be stored and collected in approved containers in special areas. (See Section 12 – Environmental Issues)
- 5.3 Do not abandon material in the work area. If material in the work area is traced to a contractor, that contractor is responsible for expenses involved in collecting, moving, disposal of the material, and general clean up.

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- 5.4 Waste haulers, disposers, recyclers, and scavengers are not allowed in the work area without EQ permission. It is the responsibility of the contractor to provide copies of licenses, permits, and authorization.
- 5.5 Do not remove hazardous waste from the work area without EQ authorization. Do not bring waste into the work area and dispose of it using EQ's systems or facilities. Contractors must inspect dumpsters frequently and remove potentially hazardous material or waste and place it in the appropriate storage area.
- 5.6 Do not allow used oils, paint waste, or similar products to accumulate or be dumped in the work area. Spills must be immediately cleaned up by the generator of the spill to the satisfaction of EQ and disposed of in accordance with instructions from EQ, provided it can be safely done. (See Section 12 – Environmental Issues)

6. Dust and Erosion Control

- 6.1 Creating uncontrolled dust by any means is not acceptable. It is the responsibility of the contractor to:
 - A. Explore methods of dust control for work that is expected to produce dust prior to starting work.
 - B. Take immediate action to control or eliminate dust that may be inadvertently created.
- 6.2 Tree protection, erosion, and sediment control must be provided and maintained where applicable.
 - A. Contractors that create or could create tree loss or erosion must take the steps necessary to control and guard against these situations.
 - B. Settling basins and/or straw barricading around existing storm sewers is required for work (excavation or disturbance of soil) that could cause silt to enter a storm sewer.



Section 33: Hazardous Waste Operations & Emergency Response (HAZWOPER)

1. General Information

- 1.1 The OSHA HAZWOPER regulations apply to the following activities:
- A. Clean up operations required by a governmental body that are conducted at uncontrolled hazardous waste sites and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substances has been ascertained.
 - B. Corrective actions involving clean up operations at sites covered by the Resource Conservation and Recovery Act (RCRA).
 - C. Voluntary clean up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites.
 - D. Operations involving hazardous waste that are conducted at treatment, storage, disposal (TSD) facilities.
 - E. Emergency response operations for releases, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

2. Training

- 2.1 Contractors must provide HAZWOPER training for employees working in A through E above. Written certificates must be made available to EQ upon request.
- 2.2 General site workers (equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose workers to hazardous substances and health hazards shall receive:
- A. 40-hour off site hazardous waste instruction.
 - B. 8-hour annual refresher training.
 - C. 3 days of field experience under the direct supervision of a trained, experienced supervisor.
- 2.3 Workers on site only occasionally for a specific limited task (e.g., ground water monitoring, land surveying, geophysical surveying, etc.) and who are unlikely to be exposed over permissible exposure limits (PELs) and published exposure limits shall receive:
- A. 24-hour off-site hazardous waste instruction.
 - B. 8-hour annual refresher training.
 - C. 1 day of field experience under the direct supervision of a trained, experienced supervisor.

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- 2.4 Workers regularly on site who work in areas which have been monitored and fully characterized indicating that exposures are under PELs and published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive:
 - A. 24-hour off-site hazardous waste instruction.
 - B. 8-hour annual refresher training.
 - C. 1 day of field experience under the direct supervision of a trained, experienced supervisor.
- 2.5 Workers exposed to health hazards or hazardous substances at TSDs shall receive:
 - A. 24-hour hazardous waste instruction.
 - B. 8-hour annual refresher training.
- 2.6 Management and supervisors who are directly responsible for employees engaged in hazardous waste activities must receive training equal to that of their employees as well as 8 additional hours of specialized training.
- 2.7 Employees who are engaged in responding to hazardous emergency situations at hazardous waste sites that may expose them to hazardous substances shall be trained in how to respond to such emergencies.
- 2.8 All training must comply with the requirements in OSHA standards 29 CFR 1910.120 and 29 CFR 1926.65.



Section 34: Transportation Work Identification Credential (TWIC)

1. A Transportation Worker Identification Credential (TWIC) Card is required per 72 FR 3492; January 25, 2007 (Federal Register). TWIC cards are mandatory for all contractors, subcontractors, transporters, and workers who require unescorted access to secure areas of ports, vessels, outer continental shelf facilities, and all credentialed merchant mariners as mandated by the Maritime Transportation Security Act (MTSA).



APPENDIX A: Definitions and Acronyms

1. Definitions

All Clear: When an emergency situation is over, the Emergency Coordinator authorizes employees to return to normal work activities.

Assembly Area: A pre-determined location in which to assemble and conduct a roll call or head count in case of an emergency. Also may be called a *rally point*.

Assured Grounding Conductor Program: A scheduled program for testing construction site electrical tools and extension cords to assure their proper grounding, polarity, and resistance.

Barricade: A device used to direct or protect pedestrian traffic from a work activity.

Body Harness: A harness comprised of straps that help distribute fall arrest forces over at least the thighs, pelvis, waist, chest, and shoulders and that can be attached to other components of a fall arrest system.

Christmas Treeing: The practice of suspending multiple structural steel members from one another horizontally and hoisting them in a single lift.

Clean Up Operation: An operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people of the environment.

Cleat: A cross-piece positioned on edge upon which a person may step to ascend or descend a ladder or scaffold.

Combination hard hat: A hard hat with a welding helmet attached.

Competent Person: As defined by OSHA, an individual who is capable of identifying existing and predictable hazards in the work area and who has the authority to correct or eliminate the hazards.

Contract Employee: An employee of a contractor, and the employees of subcontractors, consultants, vendors, and suppliers.

Contractor: A firm contracted to EQ to perform specified work on EQ premises. For this manual, references to "contractor" mean the contractor's company, and the companies of their subcontractors, consultants, vendors, and suppliers.

Contractor's Management: Personnel employed by a contractor who are responsible for managing, supervising, or directing contract activities and non-EQ employees on site.

Contractor's Safety Manager: An approved, competent safety professional employed by and assigned by the contractor to manage the safety program for a specific contract.

Emergency: Any unplanned event that adversely affects personnel, the environment, or EQ business is considered an emergency.

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Emergency Coordinator: The designated EQ representative in charge or the ranking emergency response officer on the scene.

Emergency Contact List: An approved list of individuals appointed to be designated coordinators of emergency response activities.

Emergency Response: A response effort by employees from outside the immediate response area or by other designated responders (i.e., mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

Employee: An employee of the contractor, and the employees of subcontractors, consultants, vendors, and suppliers.

EQ Approval: Where possible, a specific approval source (EQ representative, EQ EHS manager, etc.) is required. The term *EQ approval* is used when the approval source may vary depending upon the situation or when approval is obtained through normal EQ business practices. For projects, the project manager must be the final and/or confirming authority.

EQ Representative: An authorized EQ employee responsible for work performed by a specific contractor (i.e., project manager). In some cases authority may be formally delegated to a responsible representative that is not an EQ employee.

Ground Fault Circuit Interrupter (GFCI): A device for the protection of personnel that de-energizes a circuit or portion of a circuit.

Grounding: A conducting connection between an electrical circuit or equipment and earth, or to a conducting body that serves as earth.

Hazard Communication: A comprehensive program to ensure that hazards from chemicals are evaluated and that information pertaining to those hazards is communicated to contractors and their employees.

Hazardous Material: A substances or mixture of substances that may produce adverse effects on the health or safety of a human being, due to characteristics such as being explosive, flammable, poisonous, irritating, or corrosive.

Hazardous Substance: A substance to which exposure results or may result in adverse effects on the health and safety of employees.

Hazardous Waste: A chemical waste which may pose a hazard to people or the environment.

Job Hazard Analysis: The process of carefully studying and recording each step of a job to identify existing and potential safety and health hazards, then evaluating the hazards to determine the best way to perform the job by eliminating or significantly reducing and controlling any hazards.

Lanyard: A rope that is suitable for supporting one person when one end is fastened to a body harness and the other end secured to a substantial object or lifeline.

Medical Review Officer: A licensed physician responsible for receiving laboratory results generated by a drug testing program, who has knowledge of substance abuse disorders and has

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been trained to interpret and evaluate an individual's positive test result with his or her medical history and other biomedical information.

Non-Public Area: An area with posted requirements for personal protective equipment or other safety precautions necessary for entry, such as construction sites, mechanical rooms, above-ceiling areas, laboratories, and confined spaces.

Outage Approval: Authorization from the appropriate EQ manager to shut down electrical service to a facility or equipment.

Outrigger: A structural member of a supported scaffold used to increase the base width of the scaffold to provide increased stability.

Permissible Exposure Limit: The exposure, inhalation, or dermal permissible exposure limit specified in 29 CFR 1910, Subparts G and Z.

Premises: All EQ sites, facilities, and property (owned and leased).

Public Area: An area where the general public operates. Public areas include offices, assembly areas, break areas, and conference rooms.

Published Exposure Level: The exposure limits published in "NIOSH Recommendations for Occupational Health Standards," or if none is specified, the exposure limits published in the standards specified by the American Council of Governmental Industrial Hygienists in their publication "Threshold Limit Values and Biological Exposure Indices for 1987-88."

Qualified Person: An individual who has a recognized degree, certificate, or professional standing or extensive knowledge, training, and experience and who has successfully demonstrated the ability to resolve problems related to the work.

Rally Point: See *Assembly Area*.

Recordable: Occupational illnesses or injuries as defined in OSHA 29 CFR 1904.12.

Safety Shoes or Protective Footwear: Footwear that contains a protective toe box specially designed and manufactured to meet the requirements established in the ANSI – Z41 standard. However, protective footwear (safety shoes) may also include other types of protection, including metatarsal guards and anti-static protection.

Security Post: The area where all non-EQ personnel check in to the site. Depending on the EQ site, the security post may be a guard shack or gate house with security personnel, or it could be the main office or front desk with reception/administrative personnel.

Site: Refers to any location on EQ premises (owned or leased) where contractor employees may perform work and includes both interior (within buildings) and exterior (grounds, undeveloped property, etc.) spaces.

Tag Line: A rope that is tied to a structural member and used to control the movement of the member during placement.

Uncontrolled Hazardous Waste Site: An area identified as an uncontrolled hazardous waste site by a governmental body, whether Federal, state, local or other where an accumulation of hazardous substances creates a threat to the health and safety of individuals and/or the environment. Some sites are found on public lands such as those created by former municipal, county or state landfills where illegal or poorly managed waste disposal has taken place. Other sites are found on private property, often belonging to generators or former generators of hazardous wastes. Examples of such sites include, but are not limited to, surface impoundments,

landfills, dumps, and tank and drum farms. Normal operations at TSD sites are not covered by this definition.

2. Acronyms

ANSI	American National Standards Institute
BMP	Best Management Practice
CFR	Code of Federal Regulations
DOT	Department of Transportation
EC	Emergency Coordinator
EHS	Environmental, Health & Safety
EPA	Environmental Protection Agency
EQ	The Environmental Quality Company
EQMS	EQ Management System
ERT	Emergency Response Team
FAC	First-Aid Case
GFCI	Ground Fault Circuit Interrupter
LWC	Lost Workday Case
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PM	Project Manager
QEHS	Quality, Environmental, Health & Safety
SAMHA	Substance Abuse and Mental Health Administration
UL	Underwriters Laboratories Inc.



APPENDIX B: Contractor Sign-Off Sheet

1. General Information

- 1.1 The Contractor Sign-Off Sheet, when signed by the contractor, serves as acknowledgment of receipt of the manual, and understanding of the requirements therein.
- 1.2 After reviewing the *Contractor Environmental, Health & Safety Manual*, contractors shall sign and return the sign-off sheet to the EQ Environmental, Health & Safety manager prior to the commencement of work at the EQ site.
- 1.3 The site EHS manager shall retain the sign-off sheet for their files.



Contractor Environmental Health & Safety Manual Sign-Off Sheet

EQ has developed the preceding *Contractor Environmental, Health & Safety Manual* (“manual”) to prevent injury and protect human health and the environment.

The information provided in the manual applies to all contractors, all employees of contractors, and subcontractors and their employees. It is mandatory that all contractors read the manual as well as comply with all Federal, State, and local safety and environmental protection codes. The information in the manual was meant to protect personnel and property and is not intended to supersede any Federal, State or local codes.

It is imperative that all contractors understand that the safety and health of their employees is solely the responsibility of the individual contractor. The employee/employer responsibility cannot be delegated to others, nor shall it be assumed that EQ – The Environmental Quality Company accepts this responsibility in any way.

As an authorized representative of _____, I acknowledge the receipt of the EQ-ENVIRONMENTAL QUALITY COMPANY Contractor Environmental, Health & Safety Manual and understand the requirements thereof. I also understand that that it is my sole responsibility to disseminate this information to my employees and subcontractors.

Signature – Contractor Representative	Signature – EQ Representative / EHS Manager
Printed Name	Printed Name
Date	Date

Contractor:

FAX OR HAND CARRY SIGNED APPENDIX A TO THE APPROPRIATE EQ REPRESENTATIVE OR ENVIRONMENTAL, HEALTH AND SAFETY MANAGER PRIOR TO COMMENCEMENT OF WORK ON EQ PREMISES AND SCHEDULE SAFETY ORIENTATION

EQ Site	City, State	Fax Number
EQ – Atlanta	Atlanta, GA	(404) 494-3560
EQ – Augusta	Augusta, GA	(706) 771-9124
EQ – Bayonne	Bayonne, NJ	(201) 436-3545
EQ – Belleville (MDI, WDI, WER)	Belleville, MI	(734) 699-3499
EQ – Corporate Office	Wayne, MI	(734) 329-8140
EQ – Detroit (T&P)	Detroit, MI	(313) 923-0217
EQ – Florida	Tampa, FL	(813) 628-0842
EQ – Indianapolis	Indianapolis, IN	(317) 247-7170
EQ – Industrial Services	Ypsilanti, MI	(734) 547-2501
EQ – Mobile Recycling	Mt. Airy, NC	(336) 719-0057
EQ – Northeast	Wrentham, MA	(508) 384-6028
EQ – Ohio	Rudolph, OH	(419) 686-0601
EQ – Pittsburgh	Pittsburgh, PA	(412) 472-1044
EQ – Resource Recovery	Romulus, MI	(734) 326-9375
EQ – Salt Lake City	Salt Lake City, UT	(801) 531-4677

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APPENDIX C: Forms and Checklists

1. General Information

- 1.1 The forms and checklists in this appendix are to be used to document environmental and safety related information.
- 1.2 Equivalent, site-specific forms may be used if appropriate.
- 1.3 These forms may be filled out by hand or electronically.
- 1.4 Contractors may use their own safety forms rather than those in the manual if they obtain prior approval from the EQ representative. Contractor form content must at least equal that of the EQ forms.

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CONTRACTOR PRE-JOB CHECKLIST

Please complete and return with the requested attachments to the EQ Project Manager, QEHS Manager or his/her designee prior to beginning any work. This checklist is also to be completed for any Subcontractors.

Company Name:		Start Date:	Stop Date:	
Job Location:	EQ PO #:	EQ Project Manager:		
Work Description:				
PART 1: CONFINED SPACE				
Is confined space work anticipated? (If no, proceed to Part 2.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written Confined Space Entry Procedure.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of all personnel anticipated working in the confined space.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List anticipated rescue team.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
PART 2: LOCKOUT / TAGOUT				
Is work requiring Lockout / Tagout anticipated? (If no, proceed to Part 3.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written Lockout / Tagout Procedure	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of all personnel anticipated performing lockout / tagout.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
PART 3: MAN LIFT / AERIAL PLATFORM / SCISSORS LIFT				
Is work requiring a manlift anticipated? (If no, proceed to Part 4)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written Program(s).	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of all personnel anticipated using lifts.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
PART 4: FORKLIFT (POWERED INDUSTRIAL TRUCK)				
Is work requiring a forklift anticipated ? (If no, proceed to Part 5)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written Forklift Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of all personnel anticipated using a forklift.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
PART 5: RIGGING / CRANES				
Is work requiring a crane or having any rigging requirements anticipated? (If no, proceed to Part 6)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written Rigging and Crane Programs.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of competent personnel.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Up-to-date inspections for crane, hoisting, and rigging equipment.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
3 rd Party Crain Inspection (required for all "critical lifts").	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Lift Plan (if required).	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Job Hazard Analysis of the lift (if a Lift Plan is not required).	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Licensed Engineer or Manufacturer's certification for lifting beams and spreader bars.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Preventative Maintenance Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Crane operator' s certification.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Will a work platform suspended from a crane be used for hoisting, lowering, and/or suspending personnel?	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
		<input type="checkbox"/> Approved		<input type="checkbox"/> Denied
		EQ EHS Mgr. Initials:		

PART 6: HOT WORK			
Is Hot Work anticipated? <i>(If no, proceed to Part 7)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Please attach the following:	Attached?		
Copy of written Hot Work Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
List of all personnel anticipated doing hot work.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Will the project require open flame work in an area with no sprinkler protection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:
PART 7: TRENCHING / EXCAVATIONS			
Is trenching/excavation work anticipated? <i>(If no, proceed to Part 8)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Do you have an approved plan for disposal of all material that cannot be returned to the trench/excavation?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Do you have appropriate materials for barricading or securing work area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Please attach the following:	Attached?		
Copy of written Trenching/Excavation Procedure.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
List of competent personnel.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Will the project require timber shoring?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
PART 8: ELECTRICAL / HIGH VOLTAGE			
Is electrical work anticipated? <i>(If no, proceed to Part 9)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Do you anticipate any High Voltage work?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Please attach the following:	Attached?		
Copy of written High Voltage Safety Plan.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Copy of written Electrical Safety Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
List of competent personnel.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Do you have an electrical procedure for work around energized systems? <i>(if no EQ site-specific procedure exists).</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
PART 9: ARC FLASH			
Is work that has arc flash potential anticipated? <i>(If no, proceed to Part 10.)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Do you have a written Arc Flash Potential Procedure?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Do you have all materials required to safely perform arc flash potential work?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Please attach the following:	Attached?		
Copy of Arc Flash Potential Procedure.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
List of competent personnel.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Does the work require and Outage Approval? Required before heavy equipment that can reach arcing distance and is to be brought within 50 ft. of high-voltage lines, may be brought on site.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
PART 10: NOISE EXPOSURE			
Is work that generates high sound levels anticipated? <i>(If no, proceed to Part 11)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Please attach the following:	Attached?		
Copy of written Hearing Conservation Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
List of all personnel anticipated doing work generating high sound levels.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Verification of personnel training (copies of certs., cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
PART 11: METERS & EQUIPMENT			
Is work that requires use of calibrated equipment anticipated? <i>(If no, proceed to Part 12.)</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:
Can you prove that the equipment has been calibrated as required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

PART 12: HAZARDOUS MATERIALS				
Is work that involves chemicals anticipated? (If no, proceed to Part 13.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copies of MSDSs for any chemicals brought on site.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Copy of written Hazard Communication Program.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Copy of written spill control procedures.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Copies of any required permits.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Disposal location and approval numbers for disposal of waste on site.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of personnel anticipated doing work with chemicals	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certificates, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List trade names of hazardous materials which you or your subcontractors will be using on site. Attach additional pages if necessary.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
PART 13: POWDER-ACTUATED TOOLS				
Is the use of powder-actuated tools anticipated? (If no, proceed to Part 14.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Specify:	
Please attach the following:	Attached?			
Copy of written program/procedures.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Insurance Company certification.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Certification that the type and use of the tools are in accordance with applicable laws.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
List of all personnel anticipated doing hot work.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Verification of personnel training (copies of certs, cards, etc.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Use of powder-actuated tools requires approval from EQ.				<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:
PART 14: ROADWAY WORK				
Is work on or adjacent to public roadways anticipated? (If no, proceed to Part 15)	<input type="checkbox"/> Yes	<input type="checkbox"/> No		Specify:
Please attach the following:	Attached?			
Copies of any permits required by local state or federal law.	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
Are traffic control provisions (signs, devices, barricades, arrow boards, flag persons) required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:	
PART 15: FIRE PREVENTION & PROTECTION				
Is temporary heating equipment needed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:	
Is the storage and/or use of flammable and combustible liquids anticipated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:	
Is the use of gasoline or diesel powered portable generators anticipated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:	
Is the use of temporary fuel tanks (gasoline, diesel, fuel oil) anticipated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved <input type="checkbox"/> Denied EQ EHS Mgr. Initials:	

PART 16: HAZWOPER		Specify:
Is work to take place at an uncontrolled hazardous waste site, or is exposure to hazardous waste at a TSDF anticipated? <i>(If no, proceed to Part 17)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Please attach the following:	<i>Attached?</i>	
Verification of personnel training (copies of certs., cards, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No	

PART 17: TWIC		Specify:
Will unescorted access to secure areas of ports, vessels, and/or outer continental shelf facilities be required for this project? <i>(If no, proceed to Part 18)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Please attach the following:	<i>Attached?</i>	
Copy of Terminal Worker Identification Credential card for all personnel	<input type="checkbox"/> Yes <input type="checkbox"/> No	

PART 18: OSHA RECORDKEEPING		Specify:
Please attach the following:	<i>Attached?</i>	
OSHA 300 Log for previous 3 years.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Total Recordable Injury (TRIR) Rate* for previous 3 years.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Days Away Restricted and Transfer (DART) Rate* for previous 3 yrs.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

* Rate = $N \times 200,000 / T$ where N = number of incidents and T = total man-hours for the year.

PART 17: List any additional Health & Safety or Environmental concerns below:

I certify that the above responses are to the best of my knowledge, true, accurate and complete.	
Name (Print):	Title:
Signature:	Date:



CONTRACTOR ORIENTATION FORM

The following checklist shall be reviewed with all contractors by the EQ representative, or EHS manager prior to the start of work at an EQ site. This checklist is not meant to replace EQ's "Contractor Environmental, Health & Safety Manual" (QES-CM-002-ALL) or "Contractor Pre-Job Checklist," (QES-FM-071-ALL) but to facilitate the site safety orientation. All participants in the orientation shall sign an attendance sheet, which will be attached to the signed "Contractor Sign-Off Sheet" (Appendix B in the manual) and filed in the EHS Manager's office. A copy of this completed form shall be distributed to the Contractor for reference while on site.

EQ site name/location:

General Information:

All vehicles shall observe a maximum speed of _____ unless otherwise posted.

The minimum PPE requirements for this site are:
Additional PPE requirements for this project are:

Smoking is permitted in the following area(s):

Eating is permitted in the following area(s)

Toilets and washing facilities are located in the following area(s):

Location of MSDSs at this site:
Any additional Hazard Communication Program Information (if necessary):

Emergency Information: *In case of emergency, Contractor is to notify EQ personnel immediately.*

Emergency procedures for this site are:

- Location(s) of:
- First-aid kit(s):
 - Eyewash(es) / Safety Shower(s):
 - Assembly Area(s) or Rally Point(s):
 - Windsock(s):
 - Additional safety equipment (if available):

Evacuation routes for the Contractor's work area include:

All accidents (personal injury, property damage, spills/releases, etc.) shall be reported to the EQ representative or EHS manager as soon as emergency conditions no longer exists. A written report by the Contractor is required within 24 hours of the event.

The closest clinic to this site is (name, address, phone number, hours):

The closest hospital to this site is (name, address, phone number):

Description of actual and potential hazards that may be encountered on this site:

Review of "Contractor Pre-Job Checklist" (QES-FM-071-ALL) and any additional concerns:

EQ Site Contact Information:

Name:	Relationship to Project <i>(i.e., Project Manager, EHS Manager, Operations Manager, Emergency Coordinator, etc.):</i>	Phone Number(s):

Additional Information:



ACCIDENT AND ADVERSE EVENT REPORT

Project Name:	Project Number:
Employer of Injured:	Direct Supervisor:
Project Leader:	EQ Contact for Project:
Accident Date:	Accident Time: <input type="checkbox"/> AM <input type="checkbox"/> PM
Incident Type: <input type="checkbox"/> Injury <input type="checkbox"/> Illness <input type="checkbox"/> Exposure <input type="checkbox"/> Near Miss <input type="checkbox"/> Spill <input type="checkbox"/> Adverse Event/Property Damage	
<input type="checkbox"/> Other: (<i>Specify</i>)	

INJURED PERSON INFORMATION (Please attach additional pages if necessary)

Last Name:	First Name:	MI:
Exact Location of Accident:		
Injured Part of Body:		
Nature of Injury:		
What Job Was Being Done At The Time of the Incident?		
How Often Does Injured Employee Normally Perform Job? What Is Their Level Of Experience For The Type Of Work Being Completed?		
When Was The Last Time Injured Employee Performed Job?		

GENERAL INCIDENT INFORMATION

How Did the Incident Happen?	
What Was The Primary Unsafe Act Or Primary Unsafe Condition That Contributed To The Incident? (Examples: Using improper equipment, improper position of task, mechanical or material failure, inadequate guards or barriers)	
What Material Caused The Incident? (Use of wrong tool, malfunctioning equipment, using defective equipment)	
Were There Any Job Factors That Contributed To The Incident? (Inadequate design or layout, improper handling of materials, inadequate risk assessment)	
Were There Any Personal Factors That Contributed To The Incident? (Improper attempt to save time, impaired judgment or understanding of the job)	
Were There Any Environmental Conditions That Contributed To The Incident? (Slippery pavement due to weather, improper lighting, condition of area)	
Are There Any Underlying Reasons For The Conditions Or Actions Listed Above? (Required training was rescheduled, busy schedules, problem with supplies or tools)	

INFORMATION RELATING TO THE INCIDENT OR ADVERSE EVENT

Are There Written Safety Instructions Concerning This Job?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Were These Rules / Regulations Being Followed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Was The Injured Employee Instructed In These Rules / Regulations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Did This Accident Result In Lost Workdays?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

ADVERSE EVENT SECTION ONLY

What Was Damaged?	
What Is The Cost of Repair?	
Did The Event Result In A Regulatory Notification?	<input type="checkbox"/> Yes <input type="checkbox"/> No
What Agency Was Notified?	
Who Did The Notification?	
Date And Time Of Notification?	
Was A Notice Of Violation Issued Or Penalties Issued?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did The Event Result In A Site Visit By A Regulatory Agency?	<input type="checkbox"/> Yes <input type="checkbox"/> No

CORRECTIVE ACTION PLANNED / TAKEN

--

CONTRACT MANAGER

Corrective Action Applied To Injured And/Or Other Person And/Or Condition?	
Any Other Corrective Action?	
Who Is Responsible For Action Items?	
Contract Manager Signature?	

EQ PROJECT MANAGER

What Actions Have YOU Taken And/Or Do You Plan To Take To Prevent Occurrences Of This Or Any Similar Accident?	
What Further Recommendations Do You Take?	
Who Is Responsible For Action Items?	
EQ Project Manager Signature?	



SAFETY PROCEDURE MODIFICATION FORM

The following modification is made to the policy/procedure in the EQ *Contractor Environmental, Health & Safety Manual*. It has been modified as needed for the work. This modification, when agreed upon as indicated by the signatures of the authorities listed below, is effective for the project, location, and time period stated.

Policy / Procedure Identification:

Modification:

Project / Contract Name:

*Location:

Effective From: To:

Approved:

EQ EHS Manager:

Date:

EQ Project Manager:

Date:

Contractor's Safety Manager:

Date:

***Post a copy of the completed waiver at the job site location**

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