



## CONTRACTOR SAFETY MANUAL - CANADA

This document is intended to provide all Contractors, including subcontractors, inspectors, and contract employees with the essential Environmental, Health and Safety (EHS) standards required to successfully complete tasks while working on and/or adjacent to Company job sites. This manual highlights some of the key regulatory requirements, as well as noting where Kinder Morgan has requirements that are above and beyond the regulatory requirements. **It is not intended to replace or limit EHS requirements imposed by Federal, Provincial legislation or to preempt standard industry practice.**

Kinder Morgan (the Company) constantly strives to maintain a safe and healthy workplace for employees and Contractors. Additionally, the Company is cognizant that our operations may impact the environment and our goal is to minimize any adverse environmental effects. To meet these goals we need assistance from our contractors. The Contractor and contract employees shall report any unsafe work condition or environmental condition, which *has* or *could* have an adverse impact. The Contractors' employees shall refuse to work if an unsafe condition is not corrected.

EHS practices and procedures evolve from experience gained over many years. While these guidelines are helpful in preventing accidents, good judgment and common sense also play an important role in accident prevention. It is the Contractor and its employees' responsibility to work safely and to insist that others working with them do the same. Before undertaking a task take a moment to think about safety and the consequences of your actions.

All Contractor employees and inspectors are required to read and sign the applicable Contractor Safety & Environmental Orientation Document (Attachment 1) or equivalent upon completion of the Pre-Job Briefing and Site Orientation conducted prior to the start of any work activity at Company facilities and/or projects. At a minimum the contractor orientation is required annually.

OH&S Regulatory Jurisdictions for British Columbia (WCB of BC OH&S regs), Alberta and Saskatchewan (Labour Canada OH&S Regulations). Contractors are expected to comply with the occupational health and safety legislation that governs the work site. As a general rule, if there is uncertainty over which legislation applies (i.e., federal, provincial) comply with the most stringent legislation.

Thank you for your commitment to our cooperative Contractor Safety Program. Your continued safety is our primary goal!

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# INTRODUCTION

Contractors are required to comply with all applicable Federal, Provincial safety, health and environmental legislation including all Company site-specific and/or business unit policies and procedures applicable to the scope of work being conducted. All Contractors shall have, and adhere to, their own Environmental, Health and Safety Plan. The guidelines presented in this document are not an exhaustive list of all applicable requirements and regulations for the Contractor to conduct work for the Company. Instead, these guidelines highlight certain Company standards that may be applicable for the Contractor based on the scope of work.

It is essential that these rules and safety responsibilities are understood before starting work on Company property and/or projects. Violating safety requirements could jeopardize the welfare of the Contractor and/or Company employees and could result in expulsion from Company property and/or project, and deny the Contractor the opportunity to be considered for future Company projects.

The Company updates this manual periodically. As part of the Contractors obligation, the Contractor shall request from the Company an updated Contractor Safety Manual every six (6) months throughout the term of the project. The most current copy can be found on the Company website at: [http://www.kindermorgan.com/work/contractor\\_co/safety\\_req.cfm](http://www.kindermorgan.com/work/contractor_co/safety_req.cfm)

## **The Company requires that Contractors:**

- Comply with all applicable KM Business Unit and Sites Specific Procedures. (Please contact your KM Project/Hiring Manager for these additional requirements)
- Comply at all times with all applicable Federal and Provincial legislation.
- Maintain communication with the Company Representative throughout the duration of the project. The Company Representative is the employee representing the Company with the primary responsibility of overseeing the completion of the work being performed by Contractor personnel.
- Commit to worker health, safety and environmental protection.
- Maintain an effective EHS compliance program.
- Contractor shall issue some form of company identification (i.e., company logo on hard hats, badges etc.) to each of its employees to be worn in full view while on the job.
- Employ only trained qualified individuals at the work site.
- Provide employees with appropriate equipment and training to protect workers and eliminate adverse environmental impacts.
- Work in a legal and ethical manner to protect the environment, as well as the health and safety of their work force at the project site.
- Cease operations immediately if a health, safety or environmental hazard exists at the work site.
- Review each project to identify activities that may create safety hazards or adverse impacts to the environment or the public.
- Hold jobsite safety meetings with all affected employees.
- Perform EHS site inspections to identify and correct substandard EHS conditions and work practices.

Contractor employees must notify their supervisor of any unsafe conditions observed at the jobsite or work conditions having an adverse impact on the environment or the public. Contractor employees shall refuse to work if an unsafe condition is not eliminated.

Contractors are advised that the Company retains the right to question Contractor employees in regard to the content of this manual and to stop work if Contractor employees are observed operating in disregard to EHS requirements.

If these standards are not clearly understood, or if safety problems arise which are not covered by these standards, contact the Company EHS representative before proceeding. This Company EHS representative and relevant contact information shall be identified at the pre-job meeting.

All Contractors shall provide direct supervision of their employees. Company personnel shall not supervise contractors or subcontractors.

The minimum age requirement for all Contractor and temporary workers is 18.

Additional information specific to Contractor Safety should be accessed through the web site [www.kindermorgan.com](http://www.kindermorgan.com) under "Work with Kinder Morgan." This web site allows access to the various forms available to achieve documentation requirements such as the Contractors Accident / Injury Report.

## **1.0 DEFINITIONS**

**1.1 COMPANY:** Knight Inc. (formerly known as Kinder Morgan, Inc.), Kinder Morgan Energy Partners, L.P. or one of their subsidiaries or business units.

**1.2 COMPETENT PERSON:** A competent person is one who has been trained and is authorized to identify existing and predictable dangers and hazards in employee working conditions and has the authorization and training to take prompt corrective action.

**1.3 CONTRACTOR:** Any person contracted to perform short or long-term work for the Company. With respect to this policy, references to "Contractor" shall also include prime contractors, sub-contractors and third party inspectors, consultants (e.g. customer contract personnel and other contract personnel that may have an effect on the facility or jobsite safety).

**1.4 COMPANY REPRESENTATIVE / INSPECTOR/ QUALIFIED COORDINATOR:** Any person contracted or assigned to perform short or long-term workplace inspections for the Company. References to "representative, inspector or qualified coordinator" in these guidelines shall also include Company and third party contract inspectors.

**1.5 COMPANY PROPERTY, JOBSITE, JOB, WORKSITE, WORKPLACE OR CONSTRUCTION SITE:** Any real property on which Contractor will be working under the Contract Documents, whether owned by Company or not, including: terminals, facilities, stations, roads, parking lots, pipeline right-of-ways, common areas, compressor/pump station or offices.

**1.6 WORK:** Shall mean, any and all services, acts, obligations, duties and responsibilities necessary to the successful completion of the project assigned to or undertaken by Contractor under the Contract Documents, including the furnishing of all labor, services, materials, equipment and other incidentals.

## 2.0 PRE-JOB REQUIREMENTS

**2.1** All Contractors are required to participate in the Company's **Contractor Safety Evaluation Program**. Each Contractor shall be required to subscribe to ISN Software Corporation (ISNetworld) or have a Contractor Exemption / Safety Evaluation form completed and signed by the Company requestor/hiring personnel. Each Contractor that is required to subscribe to ISNetworld will be required to complete a Management System Questionnaire (MSQ) provided by ISNetworld. The Contractor's information shall be entered in ISNetworld's online compliance database and reviewed by the Company requestor/hiring personnel to ensure compliance with the Company Contractor Safety Program.

It is the Company's expectation that the Contractor's status within the ISNetworld database remain satisfactory throughout the duration of the project. If the Contractor fails to meet any applicable requirements outlined above during the duration of the contract the Contractor shall be required to submit an Action Plan outlining the Contractor's plan for correcting any deficiencies and timelines for completion. This Action Plan shall be submitted to the Company requestor/hiring personnel and the Company safety representative for review and approval. If the Contractor fails to meet the approved Action Plan and timelines the Company shall have the right to remove the Contractor from the project.

Contact information for ISNetworld:

ISN Software Corporation

(214) 303-4900

[www.isnetworld.com](http://www.isnetworld.com)

**2.2** The General/Prime Contractor shall evaluate all subcontractors prior to being hired to ensure they meet Company requirements. The General/Prime Contractor may utilize the [CSM-005-CAN Sub-Contractor Prequalification](#) form or equivalent to document this evaluation.

**2.3** The Company has the right to review each Contractors' safety data and supporting documentation submitted on the Standardized Contractor Questionnaire.

**2.4** The Company shall evaluate the safety performance of the Contractors as the job progresses. At a minimum this shall include periodic job site reviews.

**2.5** The Company reserves the right to request copies of all applicable procedures, plans and documentation specific to training, inspections, permitting and accident/injury reporting.

**2.6** On all major projects, multi-contractor projects and other projects that are unique or carry significant health and safety risk or as determined by the Company; the Contractor shall be required to develop a project specific Health and Safety Plan (HASP). The HASP shall establish the health and safety expectations for the project, describe the key processes to be utilized during the project by the Contractor their subcontractors and assign areas of responsibility.

- Based on the project scope of work the Contractor shall develop a detailed work plan describing the project objective, timelines, required manpower, and the resources required to complete the project.
- Based on the detailed work plan the Contractor shall conduct a Hazard Evaluation to identify hazards anticipated during the project and measures that will be implemented to eliminate or control the hazards. In conjunction with the Hazard Evaluation the Contractor shall develop a task/crew specific Job Hazard Analysis (JHA) or Job Safety Analysis (JSA) for each task/crew. At a minimum, the JHA/JSA will address each of the applicable subjects identified in the table of contents of this manual that is related to each task/crew. The Contractor may utilize the [Project Specific - Health and Safety Plan Outline CSM-011-CAN](#)

to assist in this process. Each JHA/JSA will describe the hazards and the methods, programs, processes, and specific equipment or materials to be used in controlling the hazards.

- The Contractor HASP must also contain their plans for utilizing sub-contractors and ensure the subcontractor meets Company requirements. The general/prime contractor may utilize [CSM-005-CAN Sub-Contractor Prequalification Form](#) or equivalent to document this evaluation. The subcontractor evaluation documentation must be completed and contained in the contractors HASP.
- Changing conditions, work scope, or new information may warrant modifications to the Project Specific – Health and Safety Plan and any applicable JHA's/JSA's.
- The original HASP and JHA's/JSA's and any modifications or changes shall be submitted to the Company safety representative.

2.7 After the project is awarded, the Contractors' employees shall participate in the Contractor Employee Orientation Program consisting of the following elements:

#### **Safety Orientation**

- Prior to beginning any work with the Company, hiring manager and Company representative(s) along with the General/Prime Contractor's representative(s) and any applicable Company Operations personnel and EHS staff shall conduct a pre-job meeting covering this Contractor Safety Manual and any site specific procedure requirements. This initial Contractor orientation shall be documented utilizing the [Contractor Pre-Job Orientation Report CSM-003-CAN](#).
- The Contractor shall ensure that all of their employees and sub-contractors receive the appropriate safety orientation. This can be accomplished by viewing the Companies "Contractor Safety DVD" and/or reviewing all applicable requirements outlined in the Contractor Safety Manual based on the scope of work, along with a review of any site specific procedures and requirements, emergency action plans and special circumstances associated with the project.
- The site-specific orientation shall include a review of emergency procedures, restricted areas, security, hazards that contract personnel may encounter, evacuation routes, assembly areas, emergency systems (such as eye washes, safety showers) and Contractor access and parking requirements.
- All Contractor employee orientations shall be documented. Each Contractor employee shall sign the **Contractor Safety & Environmental Orientation Document** (or equivalent form) to verify full understanding of the covered topics.
- A copy of the completed form shall be provided to the Company project representative and placed in the job file.
- Where applicable Contractor employees shall be issued the Company's current "Contractor Safety Orientation" sticker for their hard hats.

2.8 All Contractor employees and visitors to Company facilities or job sites shall sign in each time they enter/leave Company property. If necessary complete [CSM-006-CAN Contractors/Visitors Log](#).

2.9 Visitors shall not be granted entry without an escort and prior permission from Company site personnel.

### **3.0 GENERAL INSURANCE REQUIREMENTS**

3.1 All Contractors shall have insurance that complies with the Company Contract Administration and Procurement Department requirements. All changes in coverage of the Contractor's insurance policies shall be approved by the Company Contract Administrator.

#### 4.0 **ACCIDENT / INJURY REPORTING**

4.1 Reportable Incident is defined as any act, accident, injury, occurrence, unwanted release of energy, unwanted release of product or near miss (defined below) situation that is not considered a normal operating procedure; an occurrence that results in employee injury or monetary loss.

4.2 A *Near Miss* is an undesired event or a condition that, under slightly different circumstances, could have resulted in injury, damage or other loss.

4.3 The Contractor shall immediately report all Reportable Incidents to the Company representative and the local or project safety representative.

4.4 The Contractor supervisor shall submit a copy of the written report and investigation (use form [CSM-001-CAN Contractor Incident Report](#) form for proper documentation) to the Company Representative within 48 hours of occurrence. A determination must be made immediately as to whether any regulatory agencies need to be notified.

- The Contractor shall investigate all incidents that result in, or have the potential to result in, injury or illness, property damage, process/product loss or harm to the environment.
- The investigative process includes identifying root causes or causal factors that contributed to the occurrence, determining the necessary corrective actions and timely follow-up to ensure that corrective actions have been completed.
- After the Company Representative has completed the investigation section in form CSM-001-CAN the report shall be forwarded to the Company EHS representative and joint committee for review.
- In addition to the Contractor's analysis/investigation, the Company retains the right to investigate any illnesses, injuries, fatalities, accidents or near misses occurring at its jobsite.

4.5 Contractors shall maintain an Injury Log for their respective employees. As required by the Company safety representative, Contractors and subcontractors shall be required to supply a safety and environmental performance report on a monthly basis, summarizing injuries and illnesses with total work hours and the total number of employees and the total number of spills and/or releases to the environment that have occurred on the project. In addition, all significant near misses shall be reported. The Contractor shall utilize the [Contractor Incident Reporting Log CSM-007-CAN](#) to communicate this data.

#### 5.0 **ASBESTOS**

5.1 The potential of encountering Asbestos-Containing Material (ACM) while performing work in Company facilities exists. It is the responsibility of the Company to identify those areas where ACM may be present and to inform Contractors of the presence and location of the ACM. All historical information pertaining to ACM located at a facility shall be available to Contractors. If a sample is required, the sampling and analysis shall be performed in accordance with all Federal and Provincial legislation and the analytical results will be provided to the Company.

5.2 The Contractor shall contact the Company representative prior to removal of ACM as the Contractor might be required to notify the applicable Provincial department and provide a Code of Practice for removal and handling.

**5.3** All Contractors who perform work where a potential for exposure to asbestos exists are responsible for ensuring compliance with any requirements for asbestos and shall have a written ACM Compliance Program that meets the requirements of Federal and Provincial legislation.

**5.4** The contractor must retain all documentation of asbestos containing materials inventories, risk assessments, inspections, air monitoring results, corrective actions taken, work procedures, training and instruction to workers and written notifications required by Federal and Provincial legislation.

## **6.0 CHAINS, SLINGS, AND CABLES**

**6.1** The Contractor shall ensure all chains, slings and cables are applicable for the job and are maintained according to the manufacturers requirements and ASME B30.0-1990, slings.

- All chains, slings and cables shall have an identification tag attached that shows its load rating and limitations. Never exceed the assigned load rating for chains/slings/cables.
- Chains shall not be used for vertical lifting of materials weighing over 453 kg.. If needed the Contractor can request a variance. All variances shall be approved by a Company safety representative..

**6.2** Daily inspections before each use shall be conducted by the Contractor to look for wear, abrasions, collapse and any other visible damage.

- A person trained to recognize defects shall perform the required inspections. Defective or damaged chains, slings, cables or components shall be removed from service immediately. Hooks, rings, links or any coupling device shall have the same or higher rating as the chain to which it is affixed. Never use makeshift links or coupling devices. Make sure attachments meet the same load standards as the cable.

## **7.0 CONFINED SPACE ENTRY**

**7.1** Where confined space hazards exist, the Contractor is required to have a written Confined Space Entry Program. The Contractor's written program shall meet the minimum requirements of applicable Provincial legislation.

**7.2** *Confined space* means a space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit; and
- Is not designed for continuous employee occupancy. Contains or has the potential to contain a hazardous atmosphere;
- Contains a material that has the potential for engulfing an entrant;
- Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
- Contains any other recognized serious safety or health hazard.

**7.3** Confined spaces may include, but are not limited to pipes, pits, tanks, vessels, vaults and manholes.

**7.4** The Contractor employees shall not enter a Permit Required Confined Space until they have:

- Been trained in Confined Space Entry;
- Completed and posted a written confined space permit issued by the Contractor at the entry location;
- Ensured that all potential sources of toxic fumes and flammable vapors have been identified and isolated;

- Assigned a trained attendant dedicated exclusively to those duties detailed in the Confined Space procedure and capable of initiating an emergency rescue.

7.5 If applicable, Contractors shall develop a project specific confined space procedure for back-welding and it shall be approved by a Company safety representative.

7.6 Training records and certificates shall be documented and maintained by the Contractor and made available upon Company request. Confined space entry permits must be maintained by the Contractor for at least year.

## **8.0 CONTROL OF ALCOHOL, ILLEGAL DRUGS**

8.1 The possession of firearms or other perceived dangerous weapons while on Company property is strictly prohibited.

8.2 The use, sale, purchase, transfer or possession of alcohol or any illegal drugs while on Company property or job site is strictly prohibited.

## **9.0 ELECTRICAL SAFETY**

9.1 The Contractor shall be responsible for implementing all electrical safety requirements in accordance with Federal and Provincial legislation.

9.2 The Contractor shall contact the local utility company and be aware of any special requirements. Contractor shall maintain the clearance to the power line facilities in accordance with applicable Provincial legislation.

9.3 The Contractor shall identify all overhead power lines with signage. When it is determined that electrical lines may be affected, the Contractor shall take steps to elevate, cover or otherwise protect such cables from incidental contact. The Contractor shall advise their employees of the location of any power lines, the hazards involved and the protective measures to be taken.

9.4 Contractor shall clearly mark all lifting or boom type equipment to show the maximum height or extension possible as measured from the ground level. If the work cannot be performed while maintaining the proper working clearances, a detailed work planning meeting shall be held with the Company representatives, Contractor and utility company.

9.5 In addition to Federal and Provincial legislation, where applicable the Contractor shall meet the following general guidelines:

- Canadian Standards Association – CSA
- Underwriters Laboratories of Canada - ULC
- National Fire Protection Association - NFPA - 70E (Latest edition)

9.6 In work areas where the exact locations of the underground electrical power lines are unknown, the Contractor shall locate and clearly identify all such lines prior to beginning excavation. Power cable systems within the work area shall be de-energized during excavation whenever there is doubt about cable location.

9.7 The Contractor shall protect employees from electric shock while using power tools, appliances and related equipment. The Contractor shall install a Ground Fault Interrupter (GFI) on all power outlets/sources that will be used during construction and maintenance or receive a variance from the KM contractor safety group prior to the project starting.

9.8 For Company equipment operating on 440 volts or higher Contractors shall use caution around all electrical equipment, especially in wet weather. In addition to the following safety precautions, applicable laws, regulations and operating procedures shall be followed when work is performed with or around electrical equipment:

- Always follow Lockout/Tagout procedures.
- Only qualified and authorized employees shall work on electrical equipment.
- All electrical equipment shall be properly grounded and/or bonded. Reconnect all grounding/bonding cables that were removed before energizing the equipment.
- All electrical equipment will be treated as if it were energized.
- The Contractor shall not leave cover plates off of electrical connection boxes, pressure switches or similar small electrical equipment. Replace all cover plate bolts or screws when work is completed and equipment energized. Do not leave the door or front panel open on any motor controller or other electrical enclosure.
- The Contractor employees working with live electrical components shall be provided with applicable rubber insulating gloves, blankets, hoods, sleeves and line hoses.
- When working next to high voltage power lines appropriate safety measures such as grounding maybe required.
- Guards and barriers shall be used to prevent accidental contact with exposed circuits.

## **10.0 EMERGENCY RESPONSE PROCEDURES**

**10.1** The following are the emergency response plan requirements for Contractors working at Company facilities: These must be developed for each job location and meet applicable Provincial legislation.

**10.2** Emergency Response Plan must include the following:

- Identification of potential emergencies.
- Procedures for dealing with identified emergencies.
- Identification of, location and operating procedures for emergency equipment.
- The emergency response training requirements.
- The location and use of emergency facilities.
- The fire protection requirements.
- The alarm and emergency communication requirements.
- The first aid services requirements.
- Procedures for evacuation and rescue.
- The designed rescue and evacuation workers.

**10.3** The Contractor and contract personnel shall be familiar with the Company site specific Emergency Response Plan, including the location of assembly areas and routes of evacuation. In the event of a fire or hazardous materials release the Contractor and their personnel are to follow the direction of Company personnel unless otherwise directed by emergency personnel (e.g., fire department, police or other regulatory personnel).

**10.4** The following is a brief summary of Contractor requirements in the event of an emergency:

- Shut-off all equipment if doing so does not present a risk of bodily injury;
- Evacuate the area. In the event of a fire or other emergency incident, contract employees are to

immediately evacuate the area by the safest available route. Normally, evacuation routes shall be as specified by Company personnel;

- Confirm all Contractor employees are accounted for;
- All Contractor employees shall remain at the assembly areas until directed otherwise by Company or emergency personnel.

**10.5** If any Contractor employee suspects that an emergency condition exists, they shall immediately contact Company personnel or local authorities (e.g., call 911 or the particular emergency phone number in the area).

## **11.0 ENVIRONMENTAL REQUIREMENTS**

**11.1** The Contractor shall review and comply with all applicable environmental permits and conditions prior to commencing work.

**11.2** The Contractor shall comply with all applicable Federal and Provincial environmental legislation and local municipal requirements.

**11.3** The Contractor shall handle, treat, characterize and dispose of all waste in accordance with any specific contract requirements, such as Company approval of the disposal site. Waste and hazardous materials shall be secured while on the worksite.

**11.4** The Contractor shall perform work in a manner that prevents offsite effects of soil erosion and sedimentation using best soil conservation practices.. The Contractor shall stay on approved access roads, working and parking areas. Clear and grade only areas necessary for construction by separating and replacing topsoil in accordance with project requirements. Sediment barriers shall be installed, inspected and maintained to contain spoil on the construction site and away from wetlands and water bodies. Disturbed areas shall be stabilized as soon as possible following construction in compliance with permit conditions or in accordance with landowner requirements.

**11.5** If artifacts or human remains are discovered, work shall stop immediately in the areas of the discovery and a Company representative shall be notified. Work in the area may resume only after the Company provides approval.

**11.6** The Contractor shall not agitate, take, feed or otherwise harm wildlife or migratory birds or their nests. If wildlife or migratory birds and/or nests is affected by the construction activity, Contractor shall stop activity in the area and notify a Company representative. Work in area may resume only after the Company provides approval.

**11.7** All Contractors who meet the requirements for needing a Spill Prevention Plan shall comply with all applicable Provincial and Federal requirements. The Spill Prevention Plan, if needed, shall be submitted to the Company.

**11.8** Spills resulting from Contractor activity shall be reported to a Company representative immediately, and reported to regulatory agencies and cleaned-up in accordance with state and federal regulations. Contractors and inspectors are required to immediately investigate and document all Contractor incidents within 48 hours. Utilize [CSM-001-CAN Contractor Incident Report](#) form for proper documentation. These types of spills include, but are not limited to: small quantities of hydraulic fluid, motor oil and fuel spilled during equipment refueling operations. For spills of petroleum product, chemicals or other hazardous materials release, also see Hazardous Materials Section 18.0.

## **12.0 EXCAVATIONS/TRENCHING/SHORING**

**12.1** All excavation (trenching/shoring) projects shall comply with the requirements outlined in Federal and Provincial legislation. ( Canada CLC Part II – 3.12, Alberta OH&S Code part 32, Saskatchewan OH&S Regulations Part XVII, British Columbia OH&S Regulations part 20 section 20.78 – 20.95)

**12.2** Adequate protective systems such as benching, sloping or shoring are required when the sides of a trench are more than 1.2 meters (4 feet) deep. The use of protective systems are also required if an excavation is less than 1.2 meters (4 feet) in depth and the soil is unstable.

**12.3** Excavations over 6.0 meters (20 feet) deep, where support structures are required or that do not meet regulatory requirements shall be designed by a Professional Engineer (PE). This design shall outline the Contractor's plan for excavation requirements, such as trenching, sloping and or shielding for the particular project. The PE design documentation shall be on site.

**12.4** All excavations shall be inspected daily by a trained "competent person". The Contractor's Competent Person shall conduct daily excavation inspections prior to anyone entering an excavation and this documentation shall be present at each excavation. Use form [CSM-002-CAN Excavation Inspection Report](#) or equivalent to document these inspections. If the inspection shows the area to be unsafe, the unsafe condition shall be mitigated prior to resuming work. When a worker is in a trench that is more than 1.2 meters (4 feet) deep an employer or contractor shall ensure that a competent worker is stationed on the surface to alert the worker in the trench about the unsafe conditions and provide emergency assistance.

**12.5** A secured ladder, ramp or other means of egress shall be provided within 8 meters (25 feet) of all workers in a trench that exceeds 1.2 meters (4 feet) in depth.

**12.6** Each job specification will determine what atmospheric monitoring (e.g., O<sub>2</sub>, LEL, H<sub>2</sub>S, CO), will be conducted prior to an employee entering an excavation that exceeds 1.2 meters (4 feet) in depth and has the potential to contain a hazardous atmosphere.

**12.7** Excavated material shall be placed at least 1 meter (3 feet) away from the edge of the excavation and shall be piled so that employees will not be endangered by falling debris. (i.e. tools, spoil pile, rocks, broken concrete or other debris).

**12.8** If walkways are provided over excavations, they shall be capable of supporting the weight of the traffic, guardrails and toe boards if employees will be working below the walkway.

**12.9** After dark, excavations shall be secured to keep vehicles and unauthorized personnel out. It is required that all excavations in high profile/traffic areas warn of the danger by utilizing high visibility fencing material placed 1.2 meters (4 feet) from the edge of the excavation when possible.

**12.10** A Company representative shall review each excavation inspection report for accuracy and completion and retain in the job file.

**12.11** See the Company facility or business unit's site specific excavation procedures for any additional requirements.

### **13.0 FALL PROTECTION**

**13.1** Fall protection devices shall be used whenever fall hazards exist. Contractors are required to have a written Fall Protection Compliance Program that meets the minimum content requirements of the applicable Provincial legislation and to follow that program at all times.

**13.2** Training records and certificates shall be documented and maintained by the Contractor and made available to the Company upon request.

**13.3** Workers who may fall 2.4 meters (8 feet) or more or may be injured in a fall of less than 2.4 meters (8 feet) must be protected by guardrails or personal fall arrest systems. Personal fall arrest systems shall be rigged so that the worker cannot fall more than 1.2 meters (4 feet) or contact any hazard at a lower level.

**13.4** The Contractor shall provide a competent person to oversee fall protection and compliance.

**13.5** Full body harnesses, shock absorbing lanyards and a proper attachment point are the minimum requirements for a personal fall arrest system. All fall protection devices shall be properly stored, maintained and inspected for defects before each use. Harnesses, lifelines, retractable lifelines and lanyards shall be constructed of a durable material and marked with a tag stating maximum load and name of the manufacturer. Lanyards and vertical lifelines shall have a minimum breaking strength of 18.3 kilonewtons (5,000 pounds). The Contractor is responsible to supply all fall protection equipment required for their employees. Positioning devices shall be rigged to prevent free falls more than 0.7 meters (2 feet).

**13.6** The Contractor shall provide a "rescue plan" wherever personal fall arrest equipment is employed.

#### **14.0 FIRE PREVENTION AND PROTECTION**

**14.1** A *Fire Watch* is an individual who has been designated for monitoring the hot work site where open flames are present, where work on in-service equipment is being performed or where sparks have the potential for landing on adjacent in-service equipment. This individual is capable of evaluating unsafe conditions and initiating emergency action in the event of a fire. The fire watch can have no other assigned duties while conducting this task.

**14.2** The Contractor shall supply fire fighting equipment and ensure a fire watch is present while performing any hot work within 15 meters (50 feet) of combustible material or as requested by the Company.

**14.3** Fire fighting equipment and a fire watch supplied by the Contractor shall be present while performing any hot work. Access to fire fighting equipment shall be maintained at all times.

**14.5** Fire response equipment shall be inspected on a periodic basis and maintained in good working condition.

**14.6** Smoking is allowed only in designated areas. Designated smoking areas will be identified during the project pre-job construction meeting.

**14.7** "Strike anywhere" matches or uncovered and trigger-type lighters are not allowed where potentially hazardous atmospheres may exist.

#### **15.0 FIRST AID & BLOODBORNE PATHOGENS**

**15.1** The Contractor must comply with all applicable first aid requirements imposed by federal or provincial legislation. In addition, the following are the minimum first aid requirements for Contractors working at Company facilities:

- **First Aid Trained Personnel:** The Contractor shall have personnel trained and immediately available to provide first aid treatment at the job site. All trained personnel shall possess a current (First Aid) certificate.
- **First Aid Kit:** Each Contractor shall supply each job site with sufficient first aid supplies based on the potential exposures and number of employees at the job site. Contractor shall develop a site map showing the first aid locations.
- **Emergency Procedures:** Each Contractor shall post a copy of the Company's and/or Contractor's emergency medical procedures at the job site or have a copy immediately available, at all times, to all

employees. The procedure shall include:

- The name of the hospital or emergency care center where employees are to be transported for treatment of non life-threatening injuries;
- Travel route to the hospital or emergency care center and emergency telephone numbers;
- The statement "IN CASE OF SERIOUS INJURY CALL" a specified emergency number(s).

**15.2** The Contractor must comply with all applicable bloodborne pathogens requirements imposed by federal or provincial legislation. In addition, the following are the minimum bloodborne pathogens requirements for Contractor's working at Company facilities or jobsite:

- The Contractor's shall maintain employees properly trained in basic bloodborne pathogen exposure, control and post accident sanitation procedures.
- The Contractor shall provide bloodborne pathogen supplies in a location accessible to all Contractor employees.

## **16.0 HAZARDOUS ATMOSPHERES**

**16.1** Contractors are not to enter ANY area containing hazardous concentrations of toxic gases unless they are properly trained and utilize calibrated equipment, follow proper monitoring procedures and provide the proper personnel protective equipment (PPE).

**16.2** All personnel working in a potential H<sub>2</sub>S environment shall have certificates to verify they have been properly trained and are proficient in the use of emergency air packs. All personnel working in an H<sub>2</sub>S environment shall be required to be clean-shaven in a manner consistent with accepted practices governing SCBA use with H<sub>2</sub>S gas.

### **16.3 H<sub>2</sub>S Characteristics**

- The definition of H<sub>2</sub>S is a heavier-than-air toxic gas. At lower concentrations it has the odor of rotten eggs; at higher concentrations it may deaden the sense of smell. H<sub>2</sub>S is extremely toxic and can cause death.
- It can be detected by monitoring with properly calibrated direct-read instrumentation; if monitor alarms, immediately exit the area.
- A self-contained breathing apparatus (SCBA) is required for H<sub>2</sub>S levels exceeding the permissible exposure limit:

**THE PERMISSIBLE EXPOSURE LIMIT FOR H<sub>2</sub>S IS 10 PPM.**

- A code of practice may be required for H<sub>2</sub>S governing the storage, handling, use and disposal of material.

### **16.4 Benzene Characteristics**

- A carcinogenic volatile aromatic organic chemical found in hydrocarbons. It also has a characteristic hydrocarbon odor at higher concentrations.
- Benzene can cause immediate toxicity at high concentrations but is also a long-term carcinogen at low concentrations.
- Benzene concentrations are monitored using Draeger tube air monitoring equipment. Immediately exit the area if monitoring results are above the permissible exposure limit. Personnel may wear an air-purifying respirator with organic vapor cartridges if concentration exceeds permissible exposure limit:

**THE PERMISSIBLE EXPOSURE LIMIT FOR BENZENE IS 0.5 PPM.**

- A code of practice may be required for Benzene governing the storage, handling, use and disposal of material.

**16.5 Nitrogen and Other Inert Gases Characteristics**

- Gases are not toxic in themselves, but may cause asphyxiation due to lack of oxygen, particularly in low areas and trenches. Inert gases have no color or odor and cannot be detected by sight or smell.
- Monitor for sufficient oxygen level with properly calibrated direct-reading instrumentation when inert gases are in use.
- If oxygen is low, personnel shall exit and ventilate the area:

**THE OXYGEN LEVEL SHALL BE BETWEEN 19.5% AND 23%**

**17.0 HAZARDOUS ENERGY CONTROL (LOCKOUT/TAGOUT)**

**17.1** The Contractor's hazardous energy control procedures shall follow applicable guidelines as outlined in applicable Provincial legislation. The Contractor's key individual responsible for Lockout/Tagout shall be identified to a Company operations personnel and/or Company Representative.

**17.2** All Lockout/Tagout will be coordinated with Company operations personnel prior to the Contractor working in an area of hazardous or stored energy.

**17.3** The Contractor may not perform work until written approval, in the form of a Company Work Permit, has been received and understood.

**17.4** The Contractor will ensure that they understand the Company's lockout/tagout requirements and adhere to all lockout and tagout warnings including:

- Unauthorized removal of lockout/tagout devices is prohibited;
- Unauthorized operation or servicing of equipment is prohibited.

**18.0 HOT WORK PERMITS**

**18.1** *Hot Work* shall be defined as any work that involves the use of open flames or other sources of ignition with the potential to generate a spark, heat or static electricity that could cause a fire or explosion.

**18.2** The Contractor shall establish written hot work procedures that meet the minimum requirements outlined in applicable Provincial legislation.

**18.3** A Hot Work Permit is required PRIOR to the start of any hot work and/or work that creates a source of ignition. Hot work permits will be coordinated with Company operations personnel or designee prior to commencing any hot work. Contractors performing hot work shall be responsible for the safe execution of assigned tasks. If an unsafe condition (or potentially unsafe condition) arises, work shall be stopped and the condition reported to Company management or designee.

**18.4** Work involving open flames or other sources of ignition on the exterior of tanks, pipelines and other structures that contain flammable or combustible liquids or any other hazardous atmosphere, presents a wide variety of potential hazards.

**18.5** Adequate knowledge of the work to be performed is essential. Proper safeguards shall be established to guard against unsuspected changes in the situation that may alter the working conditions. Hot work intended for "in-service"

equipment shall follow procedures set forth for all hot work activities. Special precautions shall be identified in the hot work permit.

**18.6** Unless rated for the hazardous location, cell phones, computers, radios, lighting or pagers shall not be allowed in an area where a hazardous atmosphere may exist, unless the atmosphere has been determined to be non-hazardous and a hot work permit has been completed - no exceptions.

## **19.0 IDENTIFICATION OF HAZARDOUS MATERIALS**

**19.1** All Contractor and/or or sub-contractor employees shall be trained by their company in Hazard Communication (HazCom). The Contractor shall maintain a written program in accordance with applicable Federal and Provincial legislation that instructs employees on Workplace Hazardous Materials Information System (WHMIS) and Material Safety Data Sheets (MSDS), labels and safe hazardous material handling.

- Contractors shall maintain a list of hazardous chemicals, their use and storage location on the job and associated MSDS. Training shall be performed that identifies the hazards associated with the specific chemicals and their proper handling procedures.
- All chemicals containers used on site shall be clearly labeled, and safety precautions/warnings shall be clearly visible as per WHMIS requirements.
  - The use of non-approved containers is prohibited.
- Contractor employees shall be informed by the Contractor of all hazards associated with performing tasks and the physical hazards that may be present at the jobsite.

**19.2** Company representative shall inform the Contractor of known hazardous material(s) that may be present, how and where to locate material safety data sheets (MSDS) for these chemicals.

**19.3** Contractors are required to maintain copies of MSDS for any and all Contractor -supplied materials requiring special handling on the job site.

**19.4** Each Contractor and sub-contractor is required to provide the Company a copy of the MSDS for all chemicals brought on site.

## **20.0 JOB HAZARD ANALYSIS**

**20.1** Contractor shall conduct a daily Job Hazard Analysis and/or Safe Work Permit to identify Critical Tasks, any additional Personal Protective Equipment (PPE) requirements, special equipment or operators and to develop controls for any potential hazards. This assessment shall be based on the daily job scope and work area to confirm the existence of safe working conditions for their employees.

**20.2** The Job Hazard Analysis and/or Safe Work Permit shall be documented and utilized on a daily basis for each Contractor crew. Contractor shall communicate any controls required to the Company representatives.

**20.3** Company representative shall review each Job Hazard Analysis and/or Safe Work Permits for accuracy and completion, and retained in the job files.

## **21.0 LEAD IN CONSTRUCTION**

**21.1** The likelihood of encountering Lead while conducting construction and maintenance activities on equipment in Company facilities exists. It is the responsibility of the Company to identify those areas where Lead may be present and to inform Contractors of the presence and location of Lead prior to conducting work. If Lead is identified in

excess of threshold limits, abatement of lead-bearing materials shall be completed prior to the demolition or repair work.

**21.2** All Contractors who perform any type of work where there is exposure to regulated levels of Lead as well as maintenance or repair operations where there is exposure to Lead shall comply with applicable provincial legislation and have a written compliance program governing the storage, handling, use and disposal of material.

**21.3** All Lead abatement workers shall be adequately trained to understand the hazards associated with lead exposure, the nature of operations that could expose them to lead, the purpose of medical surveillance, use of engineering work practices and respiratory protection to minimize exposure.

**21.4** Training records and certificates shall be documented and maintained by the Contractor and made available to the Company upon request.

## **22.0 NOISE / HEARING CONSERVATION**

**22.1** Hearing protection shall be worn in all areas where ear protection requirements are posted by the Company or the Contractor and meet the applicable Provincial legislation for Noise.

**22.2** Contractors are required to wear hearing protection when operating or using any equipment that emits noise at a level greater than 85 decibels that meets Canadian Standards Association (CSA) Z94.2-02.

**22.3** As a general rule of thumb, if monitoring devices are not readily available, Contractors shall wear hearing protection if it is necessary to speak above normal conversational tones in order to be heard.

## **23.0 PERMIT TO BEGIN WORK**

**23.1** The Contractor is responsible for obtaining all applicable agency required permits and making all required notifications PRIOR to the start of work, unless permits are obtained and notifications are made by the Company. This includes "One Call" or excavation notices within required timelines.

**23.2** Where applicable, the Company may require the Contractor to obtain a safe work permit on a daily basis from Company operations personnel or a Company representative PRIOR to the start of work. The permits shall identify work to be completed, additional permits that may be required, potential hazards and safety measures to be followed. Additional permits that may be required are discussed in applicable sections of this manual.

**23.3** Work Permit means a daily written authorization that describes the scope of the work to be completed, describes where and when the work is to be completed, special precautions, personal protective equipment required, and emergency information. To be valid, the permit shall be signed by the designated permit issuer and it shall indicate the date and time of expiration.

## **24.0 PERSONAL PROTECTIVE EQUIPMENT**

**24.1** The Contractors is required to maintain a written Personal Protective Equipment (PPE) program in accordance with applicable Provincial legislation. Contractors shall provide training in the proper use, maintenance and inspection of PPE to their employees PRIOR to beginning work. The Contractor shall conduct an annual review of their PPE program and share the results with the joint committee.

**24.2** The daily Job Hazard Analysis and/or Safe Work Permit shall identify and document any special or additional Personal Protective Equipment (PPE) requirements based on the scope of work to be conducted. (See the Job Hazard Analysis section 19.0.)

**24.3** All personal protective equipment shall comply with the applicable standards specified for that equipment.

**24.4** The Company shall not supply PPE to Contractor's employees.

**24.5** The minimum PPE includes: hard hats, safety glasses with side shields, leather boots and shall include if needed, any Business Unit or Site-Specific PPE:

- **Eye and Face Protection** Eye protection equipment shall comply with the latest revision of CAN/CSA-Z94.3-92, or Z94.3-99, or Z94.3-02.
- **Head Protection** (Hardhats) Head protection shall comply with the latest revision of ANSI Z89.1 or CAN/CSA-Z94.1-92. Hardhats shall be worn with the bill forward.
- **Foot Protection** Leather boots are required as a minimum. Where foot hazards exist boots with safety toes shall be required and shall meet CAN/CSA-Z195-M92 (R2000) or CSA Z195-02. Open-toe footwear and tennis shoes are prohibited.
- **Hearing Protection** Hearing protection shall be worn in areas that have been identified or where there is a potential for exposure to high sound levels (in excess of 85 dB for 8 hours exposure) and meet CSA-Z94.2-02.
- **Hand Protection** appropriate protective gloves shall be worn where hand hazards exist or where an employee is conducting physical work.

**24.6** PPE shall be upgraded when performing tasks that require additional protection or when changes in conditions are noted during monitoring of the site. Specific PPE requirements for handling hazardous substances are available in the MSDS.

## **25.0 RADIATION PRODUCING EQUIPMENT**

**25.1** The Contractor shall be in compliance with all Federal and Provincial legislation dealing with radioactive materials.

**25.2** Only properly trained, qualified personnel shall be allowed to use radiation-producing equipment or materials at Company facilities. The Contractor shall maintain records of all training and qualifications.

**25.3** Radiation warning devices and signs containing the internationally recognized symbol for radiation shall be placed around the perimeter of any area which may be affected by radiation.

**25.4** When radiographic equipment is used, the Contractor shall ensure that the area is clear and that all personnel are at a safe distance from the radiation source.

**25.5** Only properly trained and qualified persons shall be allowed entrance to these restricted areas. All dark rooms shall have a carbon monoxide monitor/alarm installed.

**25.6** Nuclear Density Gravimeters and Sulfur Analyzers contain radioactive sources that Contractors shall be aware of:

- The Contractor may not transport, commission or decommission gravimeters without written permission from the Company;
- If the Contractor must work in proximity to a gravimeter, work activities shall be coordinated with the Company Representative. Work time around the radioactive source should be minimized by pre-project planning;
- If the Contractor damages a gravimeter or observes one that may be damaged, they shall contact the

Company representative immediately.

## **26.0 REGULATORY AGENCY INSPECTIONS**

**26.1** Company policy is to cooperate with authorized regulatory agency inspections. The Contractor is required to ensure that regulatory inspections are treated with high priority and with the utmost professionalism.

**26.2** Upon notification of a regulatory agency inspection, or when it is apparent an inspection is about to take place, the Contractor shall immediately notify the Company representative and ask the agency inspector to wait to begin the inspection until the Contractor speaks with the Company EHS representative.

**26.3** Where applicable, the Contractor shall ask the regulatory inspector to sign the visitor's register/log.

**26.4** The Contractor shall ensure the regulatory inspector follows all company safety requirements, procedures and PPE requirements.

**26.5** At a minimum, a Company representative shall accompany any regulatory inspector.

**26.6** The Contractor shall take immediate action to correct violations as requested.

**26.7** The Contractor shall verify any readings by having qualified employees perform parallel sampling and/or monitoring.

**26.8** After the agency inspection exit interview:

- The Contractor shall coordinate with the Company representative to determine potential violation items, actions for compliance, responsible parties and estimated completion date for actions.
- The Contractor shall type his/her walk-around notes and supply them to the Company representative.
- The Contractor shall correct all conditions that are in violation of regulations or standards.
- The Contractor shall document corrections taken.
- If the Contractor receives a citation, the Contractor shall notify the Company representative immediately, post at the worksite any written report related to the inspection and provide a copy to the joint committee.

## **27.0 RESPIRATORY PROTECTION**

**27.1** Where applicable, all Contractors shall follow an approved written program relating to respirator use during work activities as required by applicable provincial legislation.

**27.2** Contractor employees potentially exposed to hazardous materials above permissible exposure limits are required to have applicable respiratory protection available. Any respiratory equipment shall be in accordance with CSA Standard CAN/CSA-Z94.4-92, Selection, Use and Care of Respirators.

**27.3** All applicable Contractor employees shall be certified as medically fit for duty by a medical professional prior to issuance of respiratory protective equipment.

**27.4** The Contractor's written respiratory protection program, training records and certificates, medical clearance to use respiratory protective equipment and fit test records shall be documented and maintained by the Contractor and made available to the Company upon request. Contractor employees subject to Contractor's respiratory protection program shall be clean shaven at all times.

**27.5** The Contractor shall appoint a designated individual to perform air monitoring at the jobsite as needed to ensure compliance with any applicable regulations. This designated individual will inform Contractor employees when respiratory protection is required and will continue to monitor to determine if site conditions change.

**27.6** The Contractor shall ensure employees required to by the protection program to wear a respirator which requires an effective seal with the face for proper functioning must be clean shaven at all times.

**27.7** Employers must use only approved respirators when protecting employees from dusts produced during abrasive-blasting operations.

**27.8** For abrasive blasting operations - operators shall be equipped with heavy canvas or leather gloves and aprons or equivalent protection to protect them from the impact of abrasives.

### **Supplied Breathing Air Use**

**27.9** The Contractor shall ensure supplied breathing air sources meet the requirements for Grade D breathing air described in ANSI/Compressed Gas Association Commodity Specification for Air, G-7.1-1989. If compressors are used to supply breathing air, they shall have suitable in-line air purifying devices to ensure Grade D air quality. Use compressors designated as oil-less whenever possible.

**27.10** For oil-lubricated compressors, the Contractor shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 PPM. Locate compressors in an area to prevent taking in contaminated air.

**27.11** For compressors that are not oil-lubricated, the employer shall ensure that carbon monoxide levels in the breathing air do not exceed 10 PPM.

**27.12** Air-purifying devices shall be tagged with the most recent date the air-purifying devices were changed.

## **28.0 RIGHT-OF-WAY/ ROADSIDE WORK**

**28.1** The Contractor shall follow an approved written plan relating to vehicular traffic control during roadside work activities. This plan shall be in compliance with applicable provincial legislations. This plan shall be available on site for review by a Company Representative.

**28.2** Contractor employees working in a public road right-of-way or otherwise exposed to vehicular traffic shall be provided, and instructed to wear, warning garments marked with or made of reflective or highly visible material with a minimum type 2 criteria. Contractor employees exposed to the hazards of mobile equipment shall be provided a type 3 criteria garment.

**28.3** Barricades, cones, flashers and warning signs shall be placed at strategic locations when working on or near roads and other areas where vehicular traffic may be a hazard. Signs and flashers shall meet the requirements of applicable state and local traffic authorities.

## **29.0 SCAFFOLDS AND LADDERS**

**29.1** Scaffolds and ladders shall be installed and used in accordance with the requirements outlined in applicable provincial legislation.

**29.2** The Contractor shall provide a competent person to oversee scaffold erection and use.

**29.3** The Contractor shall ensure that Scaffolding design and construction provides:

- A fall arrest system in place for each employee placed more than 2.4 meters (8 feet) above a lower level;
- Level footing capable of supporting the loaded scaffold without settling;
- Components that can support at least 4 times the maximum intended load.
- In addition:
  - Scaffolds shall not be altered from their original design
  - Wire or fiber rope used for scaffold suspension shall be capable of supporting at least six times the intended load
  - An access ladder or equivalent form of safe access shall be provided
  - All scaffolding is required to have guardrails and toe boards.
  - Overhead protection shall be provided to all employees working on or near scaffolding
  - Pole scaffolds shall be tied to the building or structure at intervals of no more than 8 meters (25 feet)
  - Scaffolds shall be inspected by a competent person before each work shift and after any occurrence that could affect the structural integrity. This inspection documentation shall be attached to each scaffold.
  - Entry point of scaffold will be tagged with a color coded tag indicating one of the following:
    - **Green tag** – ‘Safe for Use’
    - **Yellow tag** – ‘Caution’ potential or unusual hazard or similar wording
    - **Red tag** – ‘Unsafe for Use’
  - An untagged scaffold cannot be accessed except by a competent scaffold person. Scaffold tags require duty rating of scaffold, date of last inspection, name of competent worker who last inspected scaffold, any precautions that must be taken on scaffold and expiry date of tag.

**29.4** The Company onsite representative shall review each scaffolding inspection form for accuracy and completion daily.

**29.5** The Contractor shall ensure ladders meet the requirements of CSA Standard Can 3-Z11-M81 (R2001) portable ladders, ANSI Standard A14.1-2000 wood ladders, ANSI Standard A14.2-2000 portable metal ladders, and ANSI Standard A14.5-2000 portable reinforced plastic ladders.

**29.6** The contractor shall ensure ladders are:

- Inspected before each use.
- Extend 1 meter (3 feet) above the upper landing surface.
- Secured at the top to prevent slippage and workers use the three point contact rule while working or climbing on a ladder
- The Contractor shall not allow ladders to project into passageways or doorways where they could be struck by personnel, moving equipment, or materials being handled without protection by barricades or guards.
- A fall protection is required when working on portable ladders above 2.4 meters (8 feet) or when the

worker cannot maintain three-point contact with the ladder.

### **30.0 SECURITY REQUIREMENTS (CONTRACTOR)**

**30.1** When entering Company facilities, the Contractor employee's vehicles and belongings are subject to screening. To enter the facility, all Contractor employees shall present valid government photo identification (e.g. provincial issued Drivers License, Passport, Government issued photo ID) to security or facility personnel, sign in and out of the facility, identify the Contractor's contact person and have a clear explanation of their duties at the facility.

**30.2** Contractor employees may be required to review security requirements and complete certain security paperwork before being allowed to enter Company facilities. Furthermore, Contractor employees shall fully cooperate with all security requirements.

**30.3** A Facility Security Plan has been implemented at each facility that prescribes the security measures based on national and/or local threat levels. Depending on the nature of the threat, you may see a heightened security at the facility.

**30.4** Restricted Areas shall be designated by signs at the facility or the entire facility may be designated as a Restricted Area. These Restricted Areas require a higher level of protection and only authorized personnel may be allowed access.

**30.5** Security Awareness is paramount to security. Anyone entering the facility should be aware at all times and report anything that is suspicious. Your awareness should include at a minimum:

- Report any suspicious activity.
- Be observant while on the facility and report any suspicious or dangerous substances or devices.
- Do not film or photograph the facility unless authorized. Report any unauthorized filming or photography immediately.
- Be aware of any individuals who appear agitated or nervous.
- Report anyone who is wearing unusual layers of clothing or appears to be concealing something.
- Do not allow someone to use you to gain access to a facility or restricted area.
- Do not lend your facility ID to anyone.

### **31.0 TRAINING REQUIREMENTS**

**31.1** The Contractor is obligated to perform the requisite safety training of its personnel relative to the scope of the subject work activities. Training and documentation for the proper use and care of applicable safety equipment shall be provided by the Contractor.

**31.2** It is the Contractor's responsibility to have a means of identifying short service employees. Short Service Employees (SSE's) are defined as those with less than 6 months experience with the Contractor and/or those with less than 6 months of actual job task experience. This can be accomplished with a unique colored hard hat or have a readily distinctive and easily visible marker on their hard hat while on the job site. Short service employees shall be properly trained and mentored by the Contractor throughout the first 6 months or when the employee is assigned a new job task or work location.

**31.3** The Contractor shall conduct safety meetings to instruct their personnel in the recognition and avoidance of hazards in the work place.

**31.4** Training shall be documented by the Contractor or each employee involved in the subject work activities. The documentation shall include each training topic discussed, content, attendees, dates and the name(s) of instructors or persons presiding.

**31.5** Safety meetings shall be conducted at an appropriate frequency, in light of the safety characteristics of the assignment, but no less than once per week.

**31.6** Safety meetings shall focus on topics related to the scope of work to be conducted to ensure all contract employees understand the safety requirements.

**31.7** Company Representatives/Inspectors shall attend these meetings to evaluate their value and improve communications.

**31.8** Contractor shall ensure pre-placement qualifications are conducted on all job tasks to ensure employees are qualified to perform the task based on the scope of work to be performed.

## **32.0 VEHICLE/MOBILE EQUIPMENT**

### **VEHICLE SAFETY**

**32.1** All Contractor personnel shall have the valid driver's licenses, training or certifications to operate equipment on public roadways.

**32.2 Permission** is required for vehicular entry into all Company facilities. Special permission above and beyond the previous requirement is needed for vehicles to enter restricted areas such as dike areas.

**32.3 The** Contractor shall comply with all applicable provincial laws. All persons shall be transported to and from the job site in a safe manner. Each passenger shall have adequate seating. Standing up in a moving vehicle is strictly prohibited. While on Company right of ways riding in the back of a pick-up or similar truck that has not been equipped with seat belts is prohibited. Seat belts must be worn by driver and all passengers while on public roadways.

**32.4** All posted speed limits and traffic regulating signs shall be observed. Persons shall only drive on designated roads or right of ways.

**32.5** Reckless driving and horseplay is prohibited.

### **MOBILE EQUIPMENT OPERATION**

**32.6** Only properly trained, qualified personnel shall be permitted to operate equipment or machinery. The Contractor shall keep records of training and qualifications on file and made available to the Company upon request.

**32.7** Contractors are prohibited from operating Company owned equipment or machinery, except under specific written authorization by Company management.

**32.8 When** operating vehicles and equipment, whether on or off-road, proper PPE and safety equipment shall be used (such as approved helmets for off-road vehicles). The Contractor shall be responsible for providing such PPE and safety equipment.

**32.9 All** cranes, mobile hydraulic and boom cranes shall meet applicable Federal and provincial legislation and have the proper inspection documentation.

**32.10 Contractor** shall ensure all warning signs, rated load capacity charts, recommended operating speeds and other information is available for all mobile heavy equipment.

**32.11** Equipment operators shall not:

- Operate equipment outside of the manufacturer's recommended limits.
- Modify equipment in such a way as to render the equipment unsafe or exceed the equipment's rated load or working capacity.
- Allow anyone within the operating radius of a crane or backhoe.
- Allow passengers on industrial equipment designed for one person.
- Allow anyone to ride on equipment or in a bucket on a backhoe.

**32.12** Prior to using a crane or hoist, ensure that it has been certified and is in safe operating condition. The controls, lines, slings and other accessories shall be inspected per an established inspection program and show no sign of disrepair.

- Comply with the manufacturer's specifications and limitations applicable to the operation of the equipment.
- Establish and follow safe operating procedures for lifting and moving loads.
- Develop a written critical lift plan for lifts that the Company deems critical due to the scope of work, hazards or costs associated with the lift.

**32.13** Contractors are required to secure and remove keys from all vehicles and mobile equipment that remain on the right of way without supervision or security.

#### **ATV REQUIREMENTS**

**32.14** PPE Requirements:

ATVs without roll-over protection:

- The use of an approved helmet is required
- Safety glasses or goggles are required
- Hand and foot protection as required

ATVs with roll-over protection:

- The use of seatbelts while operating an ATV with roll protection is required
- A hardhat is required
- Safety glasses or goggles are required
- Hand and foot protection as required

Note: All ATV's will be equipped with an aerial whip with flagging.

**32.15** Training/Awareness:

An awareness program is expected to be completed at minimum to familiarize the ATV user to pipeline specific concerns, conditions and hazards.

**32.16** Contractor Requirements:

It is the expectation of all contract employees to follow the minimum guidelines of the Company that employs them as well as federal or provincial legislation.

**32.17** The Company requires all ATV users to familiarize them self with the machine they will be using prior to bringing it to the ROW. ATV users are also required to consult their owner's manual and manufacture's recommendations for use.

### **33.0 WATER/DOCK SAFETY**

Contractors who perform work on marine docks or who are at risk of falling into water shall be protected from the fall utilizing the proper fall protection equipment and/or shall use an approved personal floatation devices.

### **34.0 WELDING SAFETY**

**34.1** The Contractor shall meet all provincial legislation requirements as it relates to welding safety and compressed gas cylinders.

**34.2** Persons welding and cutting shall be qualified and trained in accordance with applicable codes and shall be thoroughly familiar with potential hazards of the operation and precautions necessary to ensure safety.

- Grinder guards shall be required on all abrasive grinding wheels.
- Safety Glasses are required under any welding hood.

### **35.0 WORK CLOTHING**

**35.1** Normal Work Attire: Sleeved shirts and long pants are required at all times. Sleeveless shirts, tank top type shirts, or shirtless attire are not allowed. Where hazards exist due to moving parts on machinery or equipment, clothing shall be maintained to avoid entanglement.

**35.2** Special Work Clothing: Appropriate work clothing shall be worn where exposure to fire, extreme heat or cold, corrosive chemicals, electrical hazards, body impacts, cuts from handled materials or other specialized hazards are possible. See the facility or business unit's site specific procedures for any additional requirements such as Fire Retardant Clothing (FRC). When FRC is required, the Contractor shall supply it to their employees and ensure it is in good condition.

### **36.0 WORKSITE SAFETY**

**36.1** It is the responsibility of each Contractor to inspect each work area at the beginning of each shift, and periodically thereafter, to ensure safe working conditions exist. These inspection shall be documented and any hazards identified are corrected immediately.

**36.2** The Contractor shall inform each of its affected employees of any concealed dangers or changes in work conditions. The Contractor shall comply with all applicable regulations. Where feasible a joint committee shall conduct these inspections.

**36.3** The Contractor shall provide illumination bright enough for work to proceed without risking personal injury or affecting the quality of work.

**36.4** The Contractor shall ensure all employees are protected from severe weather conditions including but not limited to: hurricanes, tornadoes, lightning storms and flooding. If lightning is seen and the time delay to its subsequent thunder is 30 seconds or less, or if thunderclouds are building overhead the Contractor shall implement their lightning safety action plan without delay.

- Remember the "Flash to Bang" method to estimate lightning from a location - If you see lightning, count the number of seconds until you hear thunder. Divide the number of seconds by five to get the distance the lightning is away from you.
- For example, if you see lightning and it takes 10 seconds before you hear the thunder, then the lightning is 2 miles away from you (10 divided by 5 = 2 miles, too close!).
- Work should not resume until 30 minutes after the last thunder clap.

**36.5** All tools shall be used, maintained and inspected in accordance with the manufacturer's specifications.

**36.6** The Contractor shall clean their work areas following the end of each work shift. Debris shall be placed in appropriate containers and properly disposed. All tools and equipment remaining at the job site shall be properly stored.

**36.7** The Contractor shall provide an adequate supply of fresh drinking water on a daily basis for its employees. Portable rest room facilities shall be required and provided and maintained by the Contractor.

**36.8** Pets are not allowed on Company property or Job Site.

## **37.0 STOP WORK AUTHORITY**

**37.1** It is Your Obligation:

All contractor supervisors and or Kinder Morgan representatives have the authority and obligation to suspend a work task or group operation when the control of safety or environmental risk is not clearly established or understood.

**37.2** When Do I Stop Work?

- When any employee brings to your attention an unsafe act or condition.
- When you observe any work or task that is not within established guidelines, standards, regulations or practices
- When you perceive an unsafe condition or a lack of understanding that could result in an undesirable event

**37.3** What Happens Next?

- If necessary, the contractor supervisor and/or Kinder Morgan representative shall stop any associated work activities, remove person (s) from area and stabilize the situation. (Make the area safe as possible)
- Notify all affected personnel and Kinder Morgan chief inspector of the stop work issue. The projects "Chief Inspector" shall make the final determination as whether to proceed.

**37.4** Follow-up:

- Most issues can be adequately resolved in a timely fashion at the job site.
- Any intervention will be supported and there will be no repercussions for using your Stop Work Authority.

**37.5** Why?

- It's about doing the right thing
- The right way
- To manage risk
- To protect people, environment and assets

For further information, visit the [Contractor Companies – Safety Compliance](#) webpage on [www.kindermorgan.com](http://www.kindermorgan.com).

**Contractor Safety Forms:**

[CSM-001-CAN Contractor Accident / Injury Report](#)

[CSM-002-CAN Excavation Inspection Report](#)

[CSM-003-CAN Contractor Pre-Job Safety Orientation Report](#)

[CSM-004-CAN Job Hazard Analysis](#)

[CSM-005-CAN Sub-Contractor Prequalification](#)

[CSM-006-CAN Kinder Morgan Contractors / Visitors Log](#)

[CSM-007-CAN Contractor Incident Reporting Log](#)

[CSM-008-CAN Visitor Safety Orientation](#)

[CSM-011-CAN Project Specific - Health and Safety Plan Outline](#)

