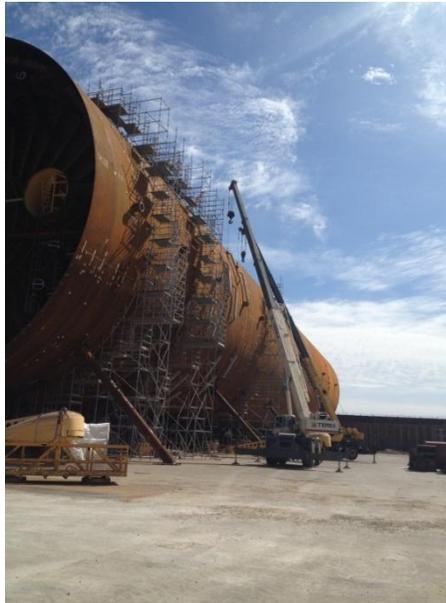


# Williams Offsite Construction Safety Handbook



**Version 2**

Effective date: October 27, 2014

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# Introduction

*Construction Safety Handbook user,*

Williams is committed to the continuous improvement of environmental, health and safety performance to protect the public, our employees, contractors, and the communities where we work and live. Achieving zero injuries and zero incidents is our primary goal.

Williams intends to meet or exceed all applicable environmental, health and safety laws and regulations, and to facilitate full and open discussions to address responsible standards and practices where laws and regulations do not exist.

The safety and health of all workers and the protection of our environment is of utmost importance to Williams. No job is so urgent that it cannot be done safely. Unsafe conditions and/or work practices are not acceptable on Williams' projects and must be resolved before work can continue.

Contractors' safety success can only be accomplished through the committed efforts of Contractors and their employees.

This Handbook is an expression of Williams' understanding and commitment to helping contractors in keeping all contractor workers safe. At Williams, we expect every Williams Employee and Contractor Employee to use the right tools for the job. We hope you will find this Handbook a valuable tool.



Brian Perilloux  
Senior Vice President  
Operational Excellence

## **Purpose**

This Handbook provides Contractor employees and Williams employees with a reference to environmental, health and safety requirements that are generally applicable to Williams' engineering and construction work. This guide provides Williams' minimum requirements for Contractors' environmental, health and safety programs.

Contractors are expected to develop, adopt, maintain and certify the implementation of such health and safety procedures, policies and programs as are necessary to comply with all applicable federal, state and local regulations that may apply to Contractors' work activities to complete the contractual scope of work, including the minimum standard reference in this guide.

Contractors are responsible for the development of a project-specific Environmental, Health & Safety (EH&S) Plan specifically for the scope of work to be performed. Contractors shall submit the required EH&S plan to Williams before beginning work.

Should situations arise where doubt exists regarding proper safe work methods, please bring it to the attention of the Williams Authorized Representative.

Williams is continuously looking for ways to improve our EH&S programs. If you have feedback for improvement or changes to this document, please share them with a Williams Representative.

## **Not Exhaustive and Not Legal Advice**

This handbook is not comprehensive and provides suggested best management practices and guidance to Williams employees and Williams' Contractors regarding contractor work performed on Williams' projects.

## **Safety is a Condition of Continued Service**

**Safety is not an option.** The failure of any contract worker to perform work in a safe manner may result in that worker's removal from Williams' projects or facilities. A Contractor's failure to remove unsafe workers from the project work-site may result in termination of the contract between Williams and that Contractor.

## **Authorization to Stop Work**



Contractor employees and Williams employees are given the authority, and the responsibility, without fear of reprimand or retaliation, to immediately STOP any work activity that they believe presents a danger to themselves, co-workers, to contractors, to the public or to the environment.

Contractor employees and Williams employees are empowered to get involved, to question, and to seek to rectify any situation that is identified as not being in compliance with our safety policies or safe work practices.

Contractor employees and Williams employees have the authority, and the responsibility, to report any unsafe conditions or acts to supervision.

## Drugs and Alcohol



Williams supports and enforces standards, policies, and procedures for maintaining a drug-free and alcohol-free workplace.

Contractors must have an approved Drug and Alcohol program as required conforming to 49 CFR Part 40 before performing any work deemed by Williams to be safety sensitive. The Drug and Alcohol program must include random testing and must include a minimum annual testing rate of 25% of the total population of the contractor's personnel.

Consumption of and/or possession of alcoholic beverages while working on Williams' projects is prohibited. The possession, transfer, purchase, sale, use, or distribution of unauthorized drugs while on Williams' premises or while engaged in Williams' work is prohibited.

All Williams employees and Contractor employees shall report to work in a fit and proper condition to perform their jobs in a safe, competent manner. Any person under the influence of alcohol or controlled substances is prohibited from entering the premises, engaging in business, or operating equipment. Violators will be permanently removed from all Williams' projects.

Williams' Representatives may request a search be performed on individuals suspected of having an altered work state.

Any Williams employee or Contractor employee found to be in violation of the drug and alcohol policy, or test positive on any drug or alcohol test, will not be permitted to work on any Williams' project.

Use of prescription or over-the-counter medication is permitted only if such use does not have side effects that could adversely affect work performance. Contractor workers should consult with their physicians before taking any medications that might adversely affect their safety and work performance.

## **Reporting Requirements (Metrics)**

Contractor will provide to Company, on a monthly basis, a summary of all accidents and near misses/hits experienced on the project, the total man-hours worked on the project (for Contractor and sub-contractor). Injuries for Contractor and their sub-contractors will be categorized as recordable – lost time, restricted duty, medical case, fatality, or non-recordable – first aid.

Contractor must provide Company with updated records by the 9<sup>th</sup> day of each month, communicating the following safety data as it occurs while performing work on Company projects to include:

- Contact information and project information
- Contractor and Sub-contractor man-hours worked
- Number of employees (Contractor and sub-contractor)
- Number of injuries and illnesses of each type in connection with each Project (Recordables)
- First Aid cases
- Lost Time Incidents
- Number of no-injury incidents (i.e., damaged equipment, pipeline strikes, power line strikes, near misses/hits)
- Number of Motor Vehicle Accidents (MVAs) related to this project work
- Miles driven
- Contractor and sub-contractor Employee Hours Worked
- Contractor and sub-contractor Employee Miles Driven
- Recordable injuries

- Environmental Spills and Releases (reportable and non-reportable)
- NOVs
- Inadvertent Returns

## **Safety Meetings**

Contractors will provide safety and site orientation to all contract workers and subcontractors. Written documentation, including the training program synopsis and a list of contract employees and/or subcontract employees that attended the training, will be submitted to a Williams' Representative upon request.

## **Pre-Job (Kick-Off) Meetings**

Pre-job (Kick-off) meetings are required for all projects. These meetings will include Contractors' management team, the Williams management team, and possibly other company support teams when necessary.

The meeting purpose is:

- To ensure all parties understand the scope of work
- To discuss planning that has been done as it relates to environmental, health and safety
- To discuss quality initiatives
- To identify and discuss safety hazards

## **Professional Conduct**

Williams expects its employees and contractors to conduct themselves in a professional manner. Horseplay, practical jokes, and harassment are not allowed. No form of harassment or fighting will be tolerated while on locations under Williams' control. Depending on the severity, additional repercussions, such as involvement of regulatory agencies and law enforcement, may result.

## Environmental, Health & Safety Meetings



Contractors are responsible for conducting Daily Safety Tailgate (Toolbox) meetings with their workers and subcontractors that will address the specific tasks, assignments, and environmental, health, and safety processes to be followed and completed safely.

Some Safety Tailgate meetings may address tasks such as:

- A critical lift
- Work around above ground or underground utilities
- Significant operational change
- Pressure testing
- Confined space entry
- Inclement weather
- An incident where lessons learned need to be conveyed

## Job Planning

Work plans/permits are intended to eliminate incidents, service disruptions, and abnormal conditions caused by lack of communication, coordination or planning of construction/fabrication activities.

Work Plans may include but are not limited to the following work activities:

- Non-Routine Work
- Hot Work
- Confined Space
- Isolation of Hazardous Energy

- Electrical Safety
- Lifting and Rigging
- Bypassing Critical Protection
- Work at Height
- Simultaneous operations

## **Job Safety Analysis**

If the job/project requires a JSA, it will be discussed in either a Safety Tailgate meeting or formal Safety meeting.

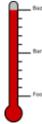
Prior to starting any work that has the potential to result in the injury of workers, harm to the environment, or damage to property, the contractor shall perform and document a JSA. It is recommended that this JSA includes routine, non-routine, and high-risk work. A JSA is a method used to identify, analyze and record:

- The steps involved in performing a specific job
- The existing or potential safety and health hazards associated with each step
- The recommended actions and/or procedures that will eliminate or reduce these hazards and the risks of a workplace injury or illness

Typically there are ten energy sources to be aware of while at a construction site. The following Energy Sources should be considered during all construction activities.

# Energy Sources

TYPE	DESCRIPTION (EXAMPLES)
<p><b>Gravity</b></p> 	<ul style="list-style-type: none"> <li>• Trips, Slips and Falls</li> <li>• Falling Object</li> <li>• Lifts (Critical Lifts)</li> <li>• Collapsing Temporary Supports</li> <li>• Stable Ground and Slopes</li> <li>• Excavation (holes and spoils)</li> <li>• Other</li> </ul>
<p><b>Motion</b></p> 	<ul style="list-style-type: none"> <li>• Vehicles, Trucks, Machines</li> <li>• Walking (be seen on the job site)</li> <li>• Moving Materials/Equipment</li> <li>• Flowing (gas, water, oil, product, etc.)</li> <li>• Wind</li> <li>• Lifting/Lowering</li> <li>• Position (body/equipment)</li> <li>• Straining or Bending (human)</li> <li>• Other</li> </ul>
<p><b>Mechanical</b></p> 	<ul style="list-style-type: none"> <li>• Rotating Equipment</li> <li>• Compressed Springs/Strained Connections</li> <li>• Motors/Pumps</li> <li>• Integrity (Maintenance/Wear and Tear/Corrosion/Paint/Etc.) □ Other</li> </ul>
<p><b>Electrical</b></p> 	<ul style="list-style-type: none"> <li>• Power lines</li> <li>• Transformers</li> <li>• Static Charges</li> <li>• Atmospheric (lightning)</li> <li>• Energized Equipment</li> <li>• Wiring</li> <li>• Batteries</li> <li>• Other</li> </ul>
<p><b>Pressure</b></p> 	<ul style="list-style-type: none"> <li>• Piping</li> <li>• Vessels</li> <li>• Tanks</li> <li>• Compressed Cylinders</li> <li>• Control Lines (instrument Air, etc.)</li> <li>• Pneumatic and Hydraulic Equipment □ Other</li> </ul>

TYPE	DESCRIPTION (EXAMPLES)
<p><b>Temperature</b></p> 	<ul style="list-style-type: none"> <li>• Ignition Sources (in combustible areas)</li> <li>• Hot or Cold Surfaces</li> <li>• Liquid or Gases</li> <li>• Steam</li> <li>• Friction</li> <li>• Open Flame</li> <li>• Weather Conditions</li> <li>• Other</li> </ul>
<p><b>Chemical</b></p> 	<ul style="list-style-type: none"> <li>• Flammable/Hazardous Vapors</li> <li>• Reactive Materials/Hazards</li> <li>• Toxic Compounds or Chemicals</li> <li>• Oxygen deficient atmospheres</li> <li>• Fumes, Dust and Debris</li> <li>• Combustible Materials (grinding, open flame, environment, etc.)</li> <li>• Integrity (corrosive, etc.)</li> <li>• Other</li> </ul>
<p><b>Radiant</b></p> 	<ul style="list-style-type: none"> <li>• Lighting Issues</li> <li>• Welding Arc</li> <li>• X-Rays</li> <li>• Microwaves</li> <li>• Solar Rays (e.g. sunburn/skin)</li> <li>• Heat (flares/exhaust stacks, etc.)</li> <li>• Human environment/ weather (Heat) <input type="checkbox"/> Other</li> </ul>
<p><b>Sound</b></p> 	<ul style="list-style-type: none"> <li>• Equipment Noise</li> <li>• Impact Noise and Vibration</li> <li>• High Pressure Releases</li> <li>• Human environment/public</li> <li>• Noise Impacting Work Communication <input type="checkbox"/> Other</li> </ul>
<p><b>Biological</b></p> 	<ul style="list-style-type: none"> <li>• Blood Borne Pathogens</li> <li>• Bacteria/Viruses</li> <li>• Insects/Animals</li> <li>• Improperly Handled Food</li> <li>• Contaminated Water(s)</li> <li>• Other</li> </ul>

## Hot Work Permits

A Hot Work Permit must be obtained before performing Hot Work in an area where flammable or combustible gases, vapors, mists or solids may be present.

The use of non-spark-proof tools and/or non-explosion-proof equipment, and other work involving open flames shall be controlled so as not to cause a fire or explosion hazard.

Hot Work Permits are issued for only the work area listed on the permit. If any other work is required in the area for which the Hot Work permission was issued, a separate permit must be issued for the work not covered under the original permit.

## Fire Watch



Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or any of the following conditions exist:

- Appreciable combustible material, in building construction or contents, closer than 35 feet (10.7 m) to the point of operation
- Appreciable combustibles are more than 35ft (10.7 m) away but are easily ignited by sparks

## Health Management

Contractors shall meet or exceed the requirement of 29 CFR 1926.50 throughout the performance of the work, and include provisions for health, sanitation and medical facilities and services. Williams employees and Contractor employees shall be made aware of potential exposures at each worksite.

Contractor shall provide documentation supporting its compliance with the requirements of the regulation.

## **Asbestos**



Asbestos can be dangerous if not handled properly. Breathing asbestos dust is hazardous. Asbestos insulation that is not damaged or friable (hand Pressure can crumble, pulverize, or reduce it to powder when dry) generally does not produce asbestos fibers at a dangerous level, especially in non-enclosed structures.

To minimize health risks, it is important not to drill, cut, remove, tear, step on, brush against, hammer on, or in any way disturbs suspected asbestos. Contact an Authorized Williams Representative if it is necessary to disturb any suspected asbestos, or if you notice any determination in the conditions of the suspected asbestos. Only trained personnel with proper equipment will disturb or remove asbestos.

## **Lead**



Overexposure to lead can result in serious short-term (acute) or longer term (chronic) health effects. Inorganic lead may be absorbed into the body by ingestion or inhalation. Lead is most commonly found in paints and coatings. Abrasive blasting or burning of painted surfaces probably pose the greatest potential for lead exposure. Check with the Authorized Williams Representative to identify areas that may pose the threat of lead.

## **Welding, Burning, Cutting, Fumes & Ultraviolet Light**

An evaluation of PPE shall be completed for each welding and cutting task. These are minimum requirements for protective devices and solutions:

- Hardhats with full-face shields and safety glasses are required for all buffing, chipping and grinding operations.
- Helmets with protective ANSI approved shaded lenses, proper gloves, and arm protection shall be used during all arc welding or gas cutting operations.
- Goggles or other suitable eye protection with appropriate shade selection shall be used during all gas welding, cutting or brazing operations.
- Helpers and personnel in the immediate area shall use proper eye protection. When not engaged in a welding or brazing activity, safety glasses with side shields shall be worn by welders and welders' helpers.
- Except when engaged in light work, such as test fitting pieces, all welders should wear flameproof gauntlet gloves.

## **Heat Stress and Fatigue and Cold Weather**

Contractors are expected to have heat and cold weather plans. Williams employees and Contractor employees are to be made aware of heat stress and fatigue management plans, which will address workers' heat stress and fatigue, as well as cold weather work.

Fatigue in the workplace is a real issue and is a hazard that can be addressed successfully. Contractors should raise the awareness of workers to recognize symptoms of dehydration, fatigue and heat stroke.

Workers that are on the job for extended hours and those who are not getting the proper rest for any reason are subject to effects of fatigue.

Excessive fatigue can impair driving skill and can negatively impact reaction time.

Contractors should pay close attention to and monitor the condition of employees who are working extended hours and talk to employees before they leave the work site to assess their condition.

## Housekeeping



Work areas, i.e. exits, aisle space, and emergency equipment, shall be kept clean and free from obstructions and debris. Parking vehicles or storing equipment in the path of exits is forbidden.

Do not obstruct stairways, aisles or passageways. Keep equipment rooms clean at all times and do not use them as storage areas.

Keep all floor surfaces clean and dry. Spilled oil, material, or liquids on floors or walkways shall be promptly cleaned or removed. *Caution* or *Wet Floor* signs should be posted as required.

## Personal Electronic Devices



Personal electronic devices (i.e. phones, pagers, cameras, ipads, ipods, and computers) are ignition sources. These devices may not be used without an approved Hot Work Permit while inside the boundary of an in-service system where hydro-carbons may be present. Any questions related to application of this expectation should be directed to the Williams' Representative on-site.

Cell phone use on construction sites is prohibited unless used in a designated area.

## **Motor Vehicles**



Contractor Employees and Williams' Employees (and subcontractors' employees) are required to follow all applicable rules and regulations, including locally established speed limits, when operating motor vehicles on Williams' property or Williams' project job sites.

No one driving any type of motor vehicle or operating any type of work equipment while working on a Williams project shall use cellular telephones, in either hand-held or hands-free mode. This usage is strictly prohibited.

## **Tools and Equipment**



Contractors shall ensure that all their equipment and tools are in good condition and meet regulatory and functional requirements.

## Personal Protective Equipment

PPE is never a substitute for engineering, manufacturing or administrative controls or safe work practices.

Contractors shall require and ensure that all its employees wear personal protective equipment when working conditions expose its employees to hazardous conditions as specified in 29 CFR 1926 Subpart E, Personal Protective and Life Saving Equipment; 29 CFR 1926 Subpart M, Fall Protection; and 29 CFR 1910 Subpart I, Personal Protective Equipment (PPE).

Contractor shall provide (at no additional cost to Company) and Contractor's personnel shall be required to wear various types of PPE at times while on the job site.

Minimum PPE requirements for construction sites (excluding office areas and occupant compartments of vehicles) are:

- Hard Hats must be worn at all times. Hard Hats must meet the ANSI Type I standard
  - Class G hard hats will be used by workers not entering the limited approach boundary of Exposed energized electrical conductors or circuit parts
  - Class E (Electrical) hard hats will be used by workers entering the limited approach boundary of exposed energized electrical conductors or circuit parts
  - Use only hard hat liners or balaclavas that are Flame Resistant
  - Inspect the hard hat shell at each use and replace when dents, cracks, nicks, gouges, or any damage due to impact, penetration, abrasions, rough treatment, or wear that might reduce the degree of protection are found; or when thermoplastic degradation is found
  - Check elasticity within the hard hat shell at each use and replace when elasticity is not exhibited or cracks appear due to brittleness. Using both hands, compress the shell inward from the sides about one inch and release (avoid dropping the shell). The shell should quickly return to its original shape

- Replace all hard hats at least four years from the date of manufacture, regardless of physical appearance
- Inspect the hard hat suspension at each use and replace when cracks, frayed or cut crown straps, torn headbands, or damaged, torn, or pliable size adjustment slots are found
- Replace the entire hard hat suspension system every 12 months
- Wear the appropriate helmet when operating off-road vehicles such as snowmobiles and All-Terrain Vehicles (ATVs)
- Wear Safety glasses at all times meeting the requirement of:
  - ANSI Z87.1 or
  - ANSI Z87.1+ (high impact)
  - Incorporate a prescription into safety glasses that meet these requirements, including side shields
  - In lieu of side shields, wear eye protection that can be worn over prescription lenses (goggles, face-shields, etc...) without disturbing the proper position of the prescription lenses
  - Safety glasses will be worn when goggles or face shields are removed during welding and flame cutting
- Hearing Protection with a minimum Noise Reduction Rating (NPR) of 30 must be worn in areas designated as “hearing protection required”, unless site specific data indicates a lower PR is acceptable. Wear ear muffs, in addition to ear plugs, in areas designated as “double hearing protection required”.
  - All areas with hazardous noise levels may not be labeled as hearing protection required, but may be time and task dependent. If ambient noise levels are above normal conversation volume, hearing protection must be worn in the area or for the duration of the high noise task.
- Safety toed boots (steel or composite reinforced) must be worn at all times and:
  - Must meet ASTM F2413 standards
  - No metal protrudes from footwear
  - Must have treaded soles and a defined heel
  - Safety boots must be worn, athletic shoes are not permitted

- Non-ankle supported safety shoes and athletic shoes are not permitted
- Must have toe, heel, and sole puncture protection
- Must have spark resistant soles
- Heels must resist liquid penetration
- Non-sparking ice creepers may be worn
- Must be constructed of a material that prevents the rapid passage of liquids
- Rubber steel toed boots meeting the ASTM F2413 standard may be used
- Safety Footwear which prohibits the rapid passage of liquids is prohibited
- Wear a high visibility vest as the outer garment with a minimum ANSI Class 3 HRC-1
  - When working within 100 feet of a roadway where traffic speeds are greater than 50 mph
  - When working within 100 feet of a roadway where traffic speeds are less than 50 mph and where visibility is impaired due to vegetation or weather conditions
  - When working any greenfield construction projects where visibility is impaired due to vegetation or weather conditions
  - When working as a spotter for heavy equipment on brownfield project sites where visibility is impaired due to vegetation or weather conditions (additional local site/procedures or requirements must be considered)
- Wear a high visibility vest as the outer garment, with a minimum ANSI Class 2 HRC-1
  - When working on any greenfield construction project when weather conditions are clear and visibility is not inhibited
  - When working near heavy equipment on brownfield project sites when weather conditions are clear and visibility is not inhibited (additional local site/procedures or requirements must be considered)
  - When working within 100 feet of a roadway where traffic speeds are less than 50 mph when weather conditions are clear and visibility is not limited

**EXCEPTION:** High visibility outer garments are not required to be FRC-rated if working on a Greenfield construction project more than 500 feet from an active facility, including ROWs, prior to the introduction of hydrocarbons

No job shall start until the proper PPE has been identified and provided to workers. Each individual is responsible for the proper care of this equipment.

Rings (wedding or finger rings, facial rings or posts), necklaces, earring hoops, and other loose jewelry, must not be worn when working in areas where they could catch on moving objects, sharp protrusions, or be exposed to electrical circuits

## **Pneumatic Testing Pipe**

When conducting an approved pneumatic pressure test of a given system, precautionary measures regarding PPE include the following:

- The minimum PPE requirements for tests less than 50% SMYS shall consist of hard hats, safety glasses, steel-toed shoes, and hearing protection for all individuals designated to enter the testing area to inspect for leaks.
- The minimum PPE requirements for tests exceeding 50% SMYS shall consist of Kevlar body armor, face shields, helmets, safety glasses, steel-toed shoes, and hearing protection for all individuals designated to enter the testing area to inspect for leaks.

## **Hand Protection**



Appropriate gloves (cloth, cut-resistant, leather or leather-palmed gloves) must be worn when hands are exposed to potential hazards

such as burns, cuts, punctures, or abrasions, when handling chemicals or hazardous materials where absorption is a concern (chemical resistant gloves), and when performing electrical work (certified gloves for electrical work).

Welding specific, flameproof, gauntlet gloves must be worn during all arc welding, gas welding, or gas cutting operations except when engaged in light work such as test-fitting pieces.

## **Respiratory Protection**



Contractors whose workers perform work that requires respiratory protection, must have a written Respiratory Protection Program that meets, at a minimum, the requirements of 29 CFR 1910.134.

Contractors must ensure that their workers are properly trained, medically cleared, fit-tested, and that the program is properly implemented and documented.

## **Environmental Practices**

### **Waste/Toxic Materials Management, Storage, Handling, Disposal, Clean-Up, And Pollution Prevention**

Safety Data Sheets (SDS – formerly known as Material Safety Data Sheets, MSDS) will be reviewed before hazardous or potentially hazardous substances are handled. Williams employees and Contractor employees are responsible for handling, storing, documenting, and disposing of waste in accordance with all applicable laws.

In addition, any waste stored on Williams' projects must be in compliance with applicable Company policies and requirements.

Contractors shall (and shall require their subcontractors to) maintain their immediate worksites free of harmful spills, emissions, releases, discharges, and other pollutants.

## Additional Site-Specific Safety Requirements



### Warning Signs/Barricades

Signs are for informing personnel of potential hazards and, therefore, must be obeyed.

Signs are not a substitute for education, training, or proper planning.

Signs should be installed in areas where hazards exist or have the potential to exist, such as areas that may have overhead obstructions, including utilities or areas where work is being performed overhead.

Other examples include confined space warning signs, falling hazards, signs that designate specific permit requirements for work areas, or signs designating PPE.

### Fire Prevention



Fire prevention is vital to safe operations and construction activities. Williams and Contractors are responsible for ensuring that a fire prevention plan is in use and that all efforts are made to reduce fire potential.

When working on equipment that contains flammable gas or liquids, a Hot Work Permit is required.

Williams employees and Contractor employees should be aware that typical ignition sources are welding arcs, cutting torches, electric power tools (such as drills, sanders, and grinders), dew point testers, and combustible engines (such as vehicles, pumps, bending machines, and lighters).

Pneumatic tools that chip, gouge, grind, or drill are also ignition sources that may require the use of Hot Work Permits. To prevent ignition, the heated surface created by pneumatic tools must be cooled with either cutting oil or water. This requirement must be stated on a non-welding Hot Work Permit.

If there is any doubt about whether or not a piece of equipment can ignite an air-natural gas mixture, contact Williams' Representative for guidance.

Personal electronic devices (phones, pagers, cameras, and computers) are also ignition sources, and a non-welding Hot Work Permit may be required in certain facilities and areas.

Good housekeeping practices are vital to ensuring potential fire hazards are minimized.

## **Confined Space Entry**



Contractors that provide services that require workers to enter a confined space are required to have a written confined space program

that meets, at a minimum, the requirements of OSHA Standard 29 CFR 1910.146 for confined spaces.

All qualified Contractors who are to perform confined space entry operations must:

- Obtain information regarding confined space hazards and entry operations from Williams when working within the boundaries of any Williams' work site.
- Provide equipment, such as personal protective equipment, fire extinguishers, testing equipment, communications equipment, alarm systems and rescue equipment, meeting compliance for this standard. All equipment must have documented inspection/certification records.

## **Fall Protection / Working in Elevated Areas**



When working at an elevation of six feet or more above grade, floor, or an approved work surface, such as platforms and scaffolds, or when working in an area where a fall potential of greater than six feet exists, Williams employees and Contractor employees must use a full-body harness with a proper means of attachment.

Contractors will be responsible for providing affected workers with fall protection equipment, and ensuring that Contractors' employees who must work at heights where safe platforms are not available, will use the equipment provided.

Contractor-owned equipment, such as ladders and scaffolding, must be maintained. Regardless of height, other situations that may require fall protection include, but are not limited to the following.

Working above potential hazards Contractors must wear a full-body harness with 100% tie-off when working in areas that have no handrails or that have an open hole, and are more than six feet above the ground floor, or deck level. The harness must have leg straps and a D-ring in the upper back between the shoulder blades. The harness must be properly attached to an appropriate anchor point.

Extra precautions shall be in place to prevent fall protection equipment from exposure to mechanical equipment, such as wearing fall protection equipment with dangling components that could become tangled in rotating equipment.

## Cranes and Rigging



Contractors are required to provide a copy of their site-specific Crane Safety Plan to the Williams Representative before beginning work if cranes will be used during the course of work on the project.

Only designated personnel, trained and qualified to perform specific duties, are permitted to operate a crane per OSHA 29 CFR 1910.179.

## Cranes and Weather

Generally, dynamic load charts are designed using 24-mph wind speeds. Each crane and load must be evaluated to ensure the manufacturer's recommendations are accounted for regarding safe operating requirements related to wind speed and load dynamics.

Some cranes or crane configurations may have lower wind speed requirements that must be considered. If the wind conditions exceed 24 mph, Contractors should consider consulting with the manufacturer for possible temporary de-rating of the crane's dynamic load capacity.

Crane operations must be stopped when wind speeds are at or above 35 mph (or lower wind speeds set by the manufacturer), or when lightning is in the vicinity.

Utilize "Stop Work Authority" when inclement weather exists.

## **Suspended Loads**



A safe distance shall be maintained when a load is suspended in the air.

Workers shall be instructed when not to stand or work under a suspended load

Workers shall be instructed not to go between the load and other objects where they may be trapped or crushed

Non-conducting tag lines long enough to prevent workers from working under the load shall be used to control a suspended load and shall be attached before a load is lift. Chains or steel cables are not acceptable.

If tag lines are impractical during final positioning of the load, caution shall be taken to ensure that no part of the person's body who is guiding the load is between the load and any stationary object, creating a pinch point situation

When lifting a load with a gin-pole truck, a snub line from the load to the truck may be used in lieu of a hand-held tag line. However, a flagman shall be used

## **Critical Lift**

When a Contractor is required to perform a critical lift, a Critical Lift Plan will be completed and submitted to the Williams Representative.

While working within the boundaries of a Williams' in-service facility, Contractors will meet the requirements supplied by the onsite Williams Representative.

### **A Critical Lift Plan is required when:**

- The load weight is 75% of the rated capacity of the crane relative to boom angle.
- The lift requires the use of more than one crane or derrick.
- The work will be performed when working within ten feet of power lines.
- The power lines must also be de-energized and grounded through coordination with the local power authority.
- The lift is a Blind, Complex, or Complicated lift.
- Any load, (personnel, equipment or material) is suspended or lifted over any existing or in-service equipment, piping, and/or structure.

### **Rigging**

Contractors shall ensure only trained and qualified persons are performing rigging.

All rigging slings shall be inspected prior to use following manufacturer's recommendations.

All damaged rigging must be properly disposed of to ensure it is not used during lifting operations.

## **Electrical Safety**



Electrical safety is the responsibility of all workers exposed to this type of work. All employees involved with electrical work activities must be trained and qualified to perform the work requirements.

### **General Electrical Safety**

Williams employees and Contractor employees will not touch electrical equipment while standing in water, on metal floors or ladders, on damp concrete, or on other well-grounded surfaces.

Williams employees and Contractor employees will not operate electrical equipment when their skin surfaces are damp or when they are wearing wet shoes or damp clothing.

Caution signs will be posted on electrical equipment for voltages 600 volts and below.

Danger signs will be posted on electrical equipment for voltages above 600 volts.

Williams Employees and Contractor employees will follow appropriate lockout and tagout procedures when working on any electrical equipment.

### **Electrical Fuse Safety**

Williams employees and Contractor employees:

- Will de-energize circuits by using lockout and tagout procedures before replacing fuses
- Will not bridge fuses or circumvent the normal operation of circuit breakers
- Will not replace blown fuses with fuses having a higher-amperage or lower-voltage rating. To maintain proper circuit protection, have only qualified personnel replace blown fuses. □ Will use a fuse puller to remove cartridge fuses

## Extension Cords



Williams employees and Contractor employees:

- Will inspect all extension cords prior to use
- Will remove damaged cords and properly discard them
- Will use extension cords in classified areas that are designed for explosion-proof service
- Will use extension cords only in temporary situations. Use proper construction methods to create permanent electrical connections.
- Will protect cords from contact with oil, hot surfaces, and chemicals
- Will not hang cords over nails or sharp edges. Will not place them where vehicles may run over them.
- Will always connect the non-explosion-proof connection first and disconnect it last when using adapter cords such as pigtails
- Will make and break all connections under zero energy state
- Will tape connections with electrical tape where two cords plug together
- Will not use cords where it may create a tripping hazard

## Lockout/Tagout (Hazardous Energy Control)



Williams employees and Contractor employees involved with work that requires isolation of energy sources shall have a written Lockout/Tagout Program.

Contractors must provide documentation ensuring that personnel who will be involved with the lockout/tagout process are properly trained in the specifics of their written equipment-specific lockout/tagout procedures.

All lockout/tagout activity must also conform and be consistent with Williams' lockout/tagout procedures. It is the responsibility of all Contractors to coordinate all lockout/tagout with the Williams Representative on site.

Contractors shall provide and have available their own lockout/tagout equipment including locks, chains, tags, and any other isolation devices that may be necessary during the lockout procedure.

Lockout/Tagout devices, including those installed by Williams or Contractors, are never to be bypassed, ignored, or otherwise defeated.

While working within the boundaries of an in-service system, Contractors will utilize the site-specific facility Lockout/Tagout Process, obtained from the local Williams' Representative.

## Compressed Gas Cylinders



Oxygen Cylinders are pressurized to 2,400 pounds-per-square-inch-gauge (psig) at 70 degrees F when full. Oxygen alone will not burn; however, it supports combustion.

Do not lubricate or allow oil or grease to contaminate oxygen connections to prevent spontaneous explosions and fires that may occur when oxygen contacts oil or grease under pressure.

- Separate Oxygen and hydrocarbons
- Do not use oxygen in place of compressed air
- Separate oxygen cylinders and fuel-gas cylinders
- Acetylene cylinders are to be stored upright to prevent the acetone from draining into the valves or fittings.

## **Incident Management**

### **Emergency Action Plans**



Contractors are required to have an EAP. Contractors' EAPs will align with the local Williams Emergency Response Plan when work is associated with a Williams' facility or within a facility boundary. Contractors should receive a local or facility EAP from Williams for the particular facility where work is being performed.

Contractors shall post an emergency telephone number list for medical services, Life Flight, police, sheriff, fire department, Williams Pipeline Control, etc., near readily accessible phones associated with each project, or ensure that supervision has access to the applicable emergency phone numbers.

### **Spill Response (Release) Plan**

Contractors must manage fluids used during the course of activities in a way that minimizes the occurrence of leaks and/or spills, in accordance with Contractors' spill prevention/response plans.

Contractors will ensure preventative measures are implemented and control measures are regularly inspected.

## Incident Notification and Investigation



Contractors must communicate to their employees the necessity of immediately reporting injuries, incidents, and unsafe acts or conditions to supervision. Contractors must report incidents immediately to the Williams Representative, as described below.

Failure to report an incident may result in the termination of the Contractor's contract with Williams. Contractors are required to verbally notify the designated Williams Inspector, Williams Safety Representative, Williams Project Manager, or other Authorized Williams Representatives immediately after any incident.

The initial report is required to be submitted to the assigned Williams Inspector and/or the Project Manager within 24 hours of the incident occurrence, and should include:

- The specific location of the incident
- Date and time of the incident
- The Contractor's name
- Description of the incident
- The project name or location
- Any supporting documents
- Photos, eyewitness accounts, other supporting documents, etc.
- The final incident report is required within five working days of the event:
- Incident/Root Cause Analysis findings
- Corrective measures that have been applied

This notification process is specifically intended to be used for notification of incidents that occur at all Williams' project locations. These notification guidelines are the minimum requirement and of a general nature and are not to be construed as absolute.

