

Control of Work Processes

The following require additional safety protocols. The JSA and Permit process will be completed prior to conducting work

Lock Out/Tag Out (LOTO)

The potential sources of hazardous energy shall be identified before performing maintenance or inspection of equipment. Consideration of each of these sources shall be included in the Job Safety Analysis.

Sources of hazardous energy that must be considered include:

- **Electrical** - Energized circuits, electrical shock, and unexpected activation of equipment.
- **Mechanical** - Moving machinery components such as gears, levers, shafts, flywheels, fan blades, springs, elevators, etc.
- **Pressure** - Release of pressurized gas or liquid from tanks, piping, valves, sea chests, etc.
- **Hydraulic** - Release of pressurized hydraulic fluid or operation of remote control valves or other devices.
- **Thermal** - Heat contained in furnaces, piping, heat exchangers, etc
- **Chemical** - Component reactions
- **Stored** - Batteries, capacitors, tensioned springs, gravity systems

All Vendors Shall:

1. Comply with all applicable safety and environmental regulations, and Crowley safety, security and environmental requirements.
2. Ensure that all Contractor personnel are qualified, trained and equipped to perform the contracted services.
3. Ensure that all operations are conducted in a safe and pollution free manner.
4. Promptly correct and report to Crowley all unsafe conditions, suspected hazards or release of products that may be a safety or pollution concern.
5. Comply with all personal protective equipment (PPE) required by regulation, Crowley procedure, or as identified by a JSA, while working on Crowley equipment.
6. Be expected to utilize the STOP Work Authority program. Contractors are empowered to stop work when they see a potentially unsafe situation for themselves or for others.
7. Perform a risk assessment (JSA, JHA, etc.) prior to commencing work as required by procedure. The risk assessment will be reviewed by the Operations/Engineering representative for additional hazards or controls that are vessel specific.
8. Provide asbestos-free certification for components listed in IMO Resolution MEPC 197 (62), Appendix 5, Section 2.2.2.1
9. Restore work area to "as found" condition
10. Test repairs and verify repairs are satisfactory in presence of crew

Crowley Petroleum Services Vendor Safety



SAFETY FIRST!



Safety
It's Not Silent

RESPONSIBILITY

Operations and engineering personnel are responsible to ensure vendors, awarded a contract under the control and responsibility of Crowley Petroleum Services, understand and follow these safety requirements.

Smoking

Smoking is prohibited at all times on Crowley Petroleum Service Vessels.



NO EXCEPTIONS. Cigarette lighters and non-safety matches are prohibited on the vessel.

Signs

All contractors shall comply with all signs posted throughout the vessel.

Cell Phone Policy

Cell phone use is prohibited on exterior decks of the vessel, except where a marine chemist has issued a gas free certificate stating safe for cell phone use, for the barge and or tug.



Stop Work Authority

Vendors are expected to follow the Stop Unsafe Work Authority policy.

Vendors attending Crowley vessels have the authority and responsibility to stop work when they believe an imminent hazard exists:

- * Conditions are unsafe
- * A known violation of policy or protocol is recognized;
- * A potential hazard is identified or believed to exist.

The reason for stopping the work should be investigated by reviewing the Job Safety Analysis (JSA) or Personal Safety Check (PSC). When the concerns are resolved and agreed upon, work may continue. If there is any question about continuing the work, immediately contact a supervisor.

Minimum Personal Protective Equipment (PPE) Requirements

Head Protection

A non-conductive hard hat that meets ANSI requirements shall be worn at all times while performing work on Crowley vessels.



Foot Protection

Foot wear meeting the ANSI or equivalent standard shall be worn while on the vessel.



Eye/Face Protection

Eye protection shall be worn at all times while on the weather decks of the vessel, in machinery spaces, in areas where requirement is posted, or where required by a JSA. A face shield and goggles or safety glasses will be used during grinding and chipping activities.



Hearing Protection

Hearing protection devices that meet the standards of OSHA 1910.95 shall be worn in all posted high noise areas and all known or suspected areas with noise levels of 85 dBA or higher.



Protective Clothing

Coveralls or pants and long sleeve shirt shall be worn while on the vessel.



Hand Protection

Appropriate protective gloves shall be worn where there is risk of exposure to high temperatures, sharp edges, chemi-cals or any other conditions or materials which may cause injury to the hands.



Fall Protection

Fall protection shall be used when fall hazard of **six feet** or more exists. Where portable ladders are used, a second person shall be available to steady the base of the ladder

and assist as required.

Respiratory Protection Equipment

Personal respiratory protection equipment shall be selected, inspected, maintained and used in accordance with the Respiratory Protection Standard.



Personal Flotation Devices

Personnel shall wear a Coast Guard approved Type III or Type V PFD when:



- Working within 6' of an unguarded edge
- Accessing a vessel via a ladder (where there is no hand-rail)
- Riding or working in a small open boat
- Transiting between tug and barge

Hot Work

Hot Work is any work involving sources of ignition of temperatures sufficiently high to cause the ignition of a flammable gas mixture. This includes any work requiring the use of welding burning or soldering/brazing equipment, blow torches, power driven tools, portable electrical equipment which is not intrinsically safe or contained within an approved explosion-proof housing, and internal combustion engines.

When the vessel is **operational**, the Master or Vessel Based Competent Person (designated in the Hot Work Permit/Procedure as Responsible Officer) must approve the Hot Work Permit before hot work can begin. A marine chemist certificate will be issued as required by procedure.

When the vessel is at a shipyard the vessel is in a **non-operational** status, the hot work permitting process is the responsibility of the shipyard.