



Gulf of Mexico Confined Space Operations Safe Work Practice

**KnowledgePlanet
Awareness & Quiz**

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Confined Space Operations

Purpose & Objectives

- Intended to ensure safety of personnel and facilities and to prevent harm to the environment during Confined Space operations. In short, IFO!
- There is no substitute for the application of the [Tenets of Operation](#) and [Stop Work Authority](#).

Confined Space Operations

Scope

The Confined Space Safe Work Practice outlines the requirements for practices and procedures to be followed to protect employees and contractors from the hazards of entry into confined spaces.

Chevron personnel are not expected to work in confined spaces. Even so, they should have accurate knowledge about the hazards of confined spaces and the requirements for working in them.

Confined Space Operations

Whenever a Confined Space is to be entered, the OS must assign a Chevron On-Site Representative to provide oversight during the Entry. This person must be qualified to oversee work in the confined spaces either through training or experience.

The Chevron On-site Representative and the Platform Operator, if they are not the same person, must sign the Contractor's Entry Permit prior to any work to begin.

The Chevron On-site Representative must remain on location during the entire Confined Space Operation.

Confined Space Operations

Definitions

Confined Space

A space that:

- Is large enough and so configured that an employee can bodily enter and perform assigned work
- Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry)
- Is not designed for continuous employee occupancy

Confined Space Operations

Definitions

Permit-Required Confined Space

A *confined space* that has one or more of the following characteristics:

- Contains ***or has a 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
- Contains any other recognized serious safety or health hazard

Confined Space Operations

Definitions

Non-Permit Confined Space

A confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

Confined Space Operations

Opening a vessel for cleaning or Removing Sand (Non-Entry Cleaning)

When opening a vessel (confined space) for cleaning or removing sand. Policy requires that the vessel must always be prepared, isolated and tested, as if personnel are to enter the space. This includes:

- Obtaining approval for a plan for isolating, cleaning, and/or entering the vessel (confined space).
- Using the proper lockout/tagout procedures, isolate, lock, and block all potential sources of energy and contamination.
- Emptying, flushing, or purging the vessel (confined space) of liquids and gases that are flammable or toxic.
- Initially monitor and then continue to monitor the vessel (confined space) in accordance with procedures established for evaluating confined space conditions.

Confined Space

Roles & Responsibilities

Qualified Person

A person with the proper training and technical experience and who is capable of making rational judgments.

Attendant

A trained individual stationed outside of a permit space who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit-space program.

Authorized Entrant

An employee who is trained and authorized by the employer to enter a permit space.

Confined Space

Roles & Responsibilities

Entry Supervisor

The person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this program.

NOTE: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this program for each role he or she fills.

Rescue Personnel

Personnel trained and designated to rescue employees from permit spaces.

Confined Space

Roles & Responsibilities

Chevron Employee Responsibilities

Prepare the space for entry by doing the following:

1. Obtain approval for a plan for isolating, cleaning, and entering the confined space.
2. Using the proper lockout/tag out procedures, isolate, lock, and block all potential sources of energy and contamination.
3. Empty or drain the confined space of liquids and gases that are flammable or toxic.
4. Turn confined space over to Qualified Contractor to perform assigned work.

Confined Space Procedures

Precautions & Action Guidelines

When personnel plan to enter a permit-required confined space, the entry supervisor must follow the permit-required confined space program outlined below:

- Identify and evaluate the hazards of permit spaces before employees enter them.
- Prevent unauthorized entry by putting up DO NOT ENTER tags, placing barriers, posting an attendant, or by using any other effective means. Barricades such as yellow caution tape or orange mesh fencing may be used in addition to DO NOT ENTER tags.
- Protect entrants from external hazards such as vehicles by placing other barriers as necessary.
- Provide at least one attendant outside the permit space into which entry is authorized for the duration of entry operations.

Confined Space Procedures

- Prepare for entry by doing the following:
 - ▶ Obtain approval for a plan for isolating, cleaning, and entering the confined space.
 - ▶ Using the proper lockout/tag out procedures, isolate, lock, and block all potential sources of energy and contamination.
 - ▶ Empty, flush, or purge the confined space of liquids and gases that are flammable or toxic.
 - ▶ Initially monitor and then continue to monitor the confined space in accordance with the procedures established in Evaluating Permit-Space Conditions.
- Develop a *written* Rescue Plan

Confined Space Procedures

Non-Entry Vessel Cleanout

Non-Entry Vessel Cleanout shall be completed entirely from outside of the confines of the vessel or space. It shall be made clear, before work begins, that no personnel may break the plane of an opening into the space with any part of his/her body. Non-Entry shall be defined as the exact opposite of entry which is defined below.

entry - The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

When opening a vessel (confined space) for cleaning or removing sand. The newly adopted policy requires that the vessel must always be prepared, isolated and tested, as if personnel are to enter the space. This includes:

- Obtaining approval for a plan for isolating, cleaning, and/or entering the vessel (confined space).
- Using the proper lockout/tagout procedures, isolate, lock, and block all potential sources of energy and contamination.
- Emptying, flushing, or purging the vessel (confined space) of liquids and gases that are flammable or toxic.
- Initially monitor and then continue to monitor the vessel (confined space) in accordance with procedures established for evaluating confined space conditions.

Confined Space Procedures

If the job scope changes and it is determined the vessel can not be cleaned while maintaining presence fully outside of the confined space, the job shall be stopped. Then the JSA shall be revised with appropriate changes being made to follow Chevron GOM **Confined Space Entry Procedures.**

Confined Space

Evaluating Permit-Space Conditions (to be completed by Qualified Persons)

- Conduct testing initially and continuously to determine if acceptable entry conditions exist. Calibrate testing equipment before use. Take initial tests just inside the opening using extendable probes as needed. In addition, to assure that the most severe conditions are measured, test at low spots in the space and areas away from openings where ventilation is restricted. Document all findings on the Confined Space Hazard Evaluation Worksheet.
- Continuously conduct air testing inside the space to ensure that the atmosphere is within established safe limits. If the space is left unattended and monitoring ceases, retest before permitting entry. Record all test results on the entry permit. If conditions inside the space change significantly, ALL operation should be stopped, entrants removed and the space should be ventilated. The space will be retested before allowing work to continue.
- When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors.

Confined Space

Closing Thought

Chevron personnel are not expected to work in confined spaces. Even so, they should have accurate knowledge about the hazards of confined spaces and the requirements for working in them.

The Chevron On-Site Representatives need to be able to evaluate the work performed by the contractors to ensure the safety of the contract workforce as well as the facility and Company employees. They must remain on location during the Entry Process.



Quiz Questions

Quiz Questions

During Confined Space operations, the employee assigned as the Attendant requires no specific training prior to performing the Attendant function.

True

False

** An Attendant must be properly trained to monitor the operation during confined space entry.

Quiz Questions

A written Rescue Plan is required and must be posted prior to Confined Space work commencing.

True

False

The Chevron On-Site Representative must ensure there is a written rescue plan posted at the job site before work begins.

Quiz Questions

Which of the following is not a characteristic of a confined space?

1. Is not designed for continuous employee occupancy.
2. Has limited or restricted means for entry or exit.
3. Has no means of ventilation.
4. Has limited or restricted means for entry or exit.

** A confined space is a confined space whether ventilated or not.

Quiz Questions

Which of the following is not required for members of a Rescue Team?

1. Be provided with and be properly trained to use personal protective equipment and rescue equipment.
2. Practice making Permit-space rescues at least once every 12 months.
3. Receive training required of Authorized Entrants.
4. Be trained in Basic First Aid & CPR
5. Receive training in proper radio etiquette.

Quiz Questions

What are the Chevron Employee's responsibilities when Confined Space Operations are being conducted on a Chevron Platform

1. Empty, or Drain the confined space.
2. Prepare the space for entry by using proper lockout/tag out, isolation, and blocking all potential sources of entry
3. Prevent any unauthorized entry.
4. Ensure the selected contractor is qualified and is following their Confined Space procedures.
5. All of the above

Quiz Questions

It's OK for a contract company to perform confined space work without anyone from Chevron reviewing the work.

True

False

** The Platform Operator must review the site before operations begin. A Chevron On-Site Representative must remain on-site for the duration.

Quiz Questions

Which of the following require a confined space to be treated as "Permit Required"?

1. Contains or has the potential to contain a hazardous atmosphere.
2. Contains a material that has the potential to engulf an entrant.
3. Contains any other recognized hazard.
4. Has an internal configuration such that an entrant could be trapped.
5. Any one or more of the above.

Quiz Questions

Joe and Fred are the Attendant and Authorized Entrant for a Confined Space operation. They take a lunch break which lasts just over 30 minutes. When they return, Joe says there is no need to re-monitor the space. Fred says it must be re-monitored before they can begin again. Who is Right?

Fred

Joe

** Spaces must be re-evaluated after any period of non-entry.

Quiz Questions

Each Confined Space job will require at a minimum which of the following trained employees?

1. A Chevron On-site Representative
2. An Attendant
3. An Entry Supervisor
4. An Authorized Entrant
5. All of the above

Quiz Questions

When cleaning or removing sand from a vessel without entering, which is the most important two steps?

1. An Authorized Entrant and A Rescue Person
2. A hole must be cut into the vessel
3. The space must be Isolated and the Atmosphere Monitored
4. An Entry Supervisor and an OS must be present

Quiz Questions

A person with the proper training and technical experience and who is capable of making rational judgments would be?

1. An Authorized Entrant
2. A Rescue Person
3. A Qualified Person
4. An Entry Supervisor

Quiz Questions

Anyone can be assigned the task of Chevron On-Site Representative.

True

False

**The Chevron On-site Representative must be qualified to oversee work in the confined spaces either through training or experience.

Quiz Questions

A JSA & Permit to Work may or may not be required to be completed prior to any work activities involving a vessel which has contained hydrocarbons.

True

False

A JSA & Permit to Work are required to be completed prior to conducting any activity involving a vessel which has contained hydrocarbons.

Quiz Questions

An MMS Departure / Waiver may be obtained to perform cleaning operations when personnel can clean the inside of a vessel while standing outside.

True

False

The MMS does NOT issue Departures / Wavers for Confined Space Operations

** When opening a vessel (confined space) for any reason (maintenance, repair, cleaning, etc). The policy requires that the vessel must always be prepared, isolated and tested, as if personnel are to enter the space. **