
	<b>GILES CHEMICAL ~ PREMIER MAGNESIA</b>		
	<b>Company Procedure</b>		
	Title: <b>Confined Space Entry Procedure</b>	Number: <b>S12-PR-200-008</b>	
	Owner: <b>Bryan Butler</b>	Revision: <b>03</b>	
	Effective Date: <b>05/29/2013</b>	Page: <b>1 of 4</b>	

## 1.0 Purpose

This procedure explains what the purpose of the Confined Space Entry Permit is, who the necessary participants are, what the different definitions are and finally what has to be done to obtain a entry permit and who has to sign it.

## 2.0 Scope

This procedure provides a means by which employees can be protected from the hazards associated with entry into permit required confined spaces and to develop guide lines by which employees shall enter such spaces.

The Reference is the North Carolina OSHA Standard for general industry; **29CFR 1910.146**.

## 3.0 Responsibility

All employees

## 4.0 Safety Considerations

Wear the appropriate PPE for the job; in most cases to clean the vessels rubber high boots and goggles are required.

Safety is a condition of employment. Employees are not authorized to work in an unsafe manner and are prohibited from harming the environment of the facility or community.

## 5.0 Materials/Equipment

PPE gear

## 6.0 Procedure



### Confined Space Definitions

Confined Space- a space that meets all three of the following conditions:

1. Large enough for a person to bodily enter and perform work.
2. Has only means of entry/egress that requires a person to enter by means other normal walking, such as crawling, squatting, climbing, bending, or use of devices.
3. It is not designed for people to continually occupy the space.

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#### Non-Permit Space-

a confined space that does not contain any actual or potential hazards capable of causing death or serious physical harm.

#### Permit required confined space- Permit space-

a confined space which has one or more of the following characteristics:

1. Contains or has the potential to contain hazardous atmosphere;
2. Contains a material which has the potential for engulfing an entrant;
3. Has an internal configuration that could trap or asphyxiate an entrant, such as inwardly converging walls or a floor that slopes downward and tapers to a small cross-section; and or
4. Contains any other recognized serious safety and/or health hazard.

**Persons involved; Attendant**, who is a trained person stationed outside the permit space that monitors the authorized entrant. **Entrant**, the trained individual who enters the Permit Space and the **Entry Supervisor**, the trained individual who is responsible who assures that conditions are right to enter the confined space, signs the Confined Space Permit, oversees the entire operation and terminates the entry and Permit.



Before a Confined Space Entry Permit can be signed the following conditions have to be met;

1. All electrically and mechanically driven equipment like agitators , pumps, valves have to be locked out, tagged and tried ( to make sure that nothing can start)
2. All material supply lines have to be locked, tagged and tried, like acid, MgO, water, brine, steam, etc.
3. The confined Space has to be properly ventilated to make sure that oxygen level is adequate. When the confined space has several opening besides the one entry egress no oxygen level measurement is necessary after ventilation.
4. The air temperature in the Confined space has to be ambient or no higher than 90 degrees Fahrenheit ( 29 degrees Celsius)
5. The liquid at the bottom of the confined space has to be tested for Ph, has to be higher than 6 lower than 9.
6. In case of the crystallizers air samples have to be taken to assure the proper air mixture for breathing. ( Oxygen concentration between 19.5-23.5 percent)

When all conditions from above are met and verified by the Entry Supervisor, the Confined Space entry form will be signed by the Entry Supervisor and one copy posted at the work site. The Confined Space Entry Form will be filled out in duplicate.

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Once the entry was performed and the job completed the entry form will be removed from the job site, however before the Permit is terminated the Entry Supervisor will verify that all lock outs are removed, the egress is buttoned up and the confined space is ready to resume operation. The final copy of the terminated Entry Permit will be filed with the Safety office. The Safety office will keep a separate file for the Confined Space Entry Permits.

The **Attendant** is required to stay on the job site (confined space) until all work is done or the Entrant is not in the confined space. The Attendant is constantly monitoring the well being of the Entrant and takes appropriate action based on need.

The Entry Supervisor has to monitor the Confined Space work as it progresses. Entry Supervisor must be a member of management. Lead Operator may be Entry Supervisor only when dryer chutes need to be cleaned after hours.

Confined Space which has to be entered on rare occasions (less than once in three years) will be identified with a "No Entry" sign and a special permit will be issued in case entry is required. When entering a "No Entry" space, the same procedure as above has to be followed.



All Contractors who have to work or enter Confined Space have to have proof that their employees are trained on Confined Space Entry and have to follow the Confined Space Entry Procedure.

## Confined Space Requiring Permit

- Digester #1 and #2
- Second Digesters #1 and #2
- Brine Storage Tank
- Brine Hold Tank
- Mother Liquor Tank
- PECO Tank
- Mud Tanks
- Crystallizer #1, #2, #3
- Boiler
- Dryer #1 (Asset Tag # 10107)  
*(Lead Operator may be "Entry Supervisor" for dryers)*
- Dryer #2 (Asset Tag # 10110)  
*(Lead Operator may be "Entry Supervisor" for dryers)*

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## Restricted Entry Confined Space (Needs special permit if entered)

- River Water Tank

### 7.0 Reference Documents-

*Confined Space Entry Permit (S12-PR-200-F008)*

### 8.0 Change Information

Document review- updated format using new template and numbering system.

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