

**CONFINED SPACE ENTRY**  
**EQUIP: #03-002**  
**EQUIP. NAME: DRYING TOWER**

**DATE:** \_\_\_\_\_

**TIME:** \_\_\_\_\_

**LOCATION:** South side of acid plant east end.

**PURPOSE OF ENTRY:** \_\_\_\_\_

**HAZARDS OF ENTRY:** 1. Toxic atmosphere - SO<sub>2</sub>; 2. Mechanical energy -See lock out procedures; 3. Combustibles; 4. Sulfuric acid - 93%; 5. O<sub>2</sub> content; 6. Combustibles, Carbon Monoxide, Mercury, and Nitrogen Dioxide.

**LOCK OUTS AND PROCEDURES:** Shutdown and lock out drying tower pump 03-003. Also lock out 02-009, intermediate tower pump, close and chain valve 3148. If working on inside or lower portion of tower pump acid to stripper. Then drain tower and close exit valve. Tank entry procedures must be followed and permit issued by supervisor before entering tower. When working on valves 3140, 3156 or 3148 the same lockout procedures exists. Check for Hg and NO<sub>2</sub> with gas detection tubes such as drager or sensidine tubes. Check air quality. Complete confined space and safe work permit.

**PERSONAL EQUIPMENT NEEDED:** Hard hat, Metatarsal Steel toe Safety Footwear, chemical goggles, acid suit, acid gloves and face shield. If entering you must wear rubber suite, hard hat, Metatarsal Steel toe Safety Footwear, acid suit, face shield, chemical goggles, proper powered air purifying respirator or fresh air depending on atmosphere, and proper fall protection.

**COMMUNICATION TYPE** Verbal **PRE ENTRY TRAINING BY** \_\_\_\_\_

**ATMOSPHERIC TESTING BY** \_\_\_\_\_

| TYPE            | PERMISSIBLE<br>LEVEL | TIME<br>READINGS | TIME<br>READINGS | TIME<br>READINGS | TIME<br>READINGS |
|-----------------|----------------------|------------------|------------------|------------------|------------------|
| OXYGEN          | 19.5 TO 23.5         | _____            | _____            | _____            | _____            |
| CARBON MONOXIDE | <35 PPM              | _____            | _____            | _____            | _____            |
| COMBUSTIBLES    | <10 LEL              | _____            | _____            | _____            | _____            |
| SO <sub>2</sub> | <2 PPM               | _____            | _____            | _____            | _____            |
| Hg              | .05 MG m3            | _____            | _____            | _____            | _____            |
| NO <sub>2</sub> | <3 PPM               | _____            | _____            | _____            | _____            |

**ENTRY TEAM MEMBERS**

**JOB COMPLETED: DATE:** \_\_\_\_\_ **TIME:** \_\_\_\_\_

**ENTRY TEAM MEMBERS SIGN OUT**

\_\_\_\_\_  
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\_\_\_\_\_

THIS SPACE HAS BEEN  
CLEARED OF ALL  
PERSONNEL AND  
EQUIPMENT.

**ENTRY ATTENDANT:** \_\_\_\_\_

**FOR EMERGENCY ASSISTANCE** -CALL SECURITY ON THE RADIO ON THE SECURITY CHANNEL.

**PERMIT EXPIRATION DATE:** \_\_\_\_\_ **TIME** \_\_\_\_\_.

'R' I VERIFY THAT THE ABOVE PROCEDURES HAVE BEEN COMPLETED, A CONFINED SPACE RESCUE PLAN IS ATTACHED AND THAT THIS SPACE IS SAFE TO ENTER.

**ENTRY SUPERVISOR** \_\_\_\_\_.

# Confined Space Rescue Plan

|   |   |
|---|---|
| <b>Equipment</b><br>No: #03002  | <b>Equipment</b><br>Name: <u>Drying Tower</u> |
| Date: _____   | Time: _____                                   |
| Location: _____   |   |
| <b>Methods of Communication:</b><br><b>Attendant to Rescue Personnel:- Audible Signal/ Radio / Visual Hand Signal</b>   |   |
| Methods of Rescue: O External (Retrieval) O Internal: _____ O Congested: _____<br>O Hauling System Required: _____ O Patient lowering system required/lowering area: _____<br>O Anchor overhead: _____<br>Anchorage: O Beam O Stairwell O Support Strut O Support Column O Other: _____<br>Pre-Rigging required? Yes / No   |   |
| <b>Rescue Equipment Requirements</b> (check a where applicable below and indicate quantity needed):<br>O Hauling Systems: _____ O Carabiners: _____ O Pulleys: _____ O Shock absorbers/lanyards: _____<br>O Anchor Straps: _____ O Webbing: _____ O Ascenders: _____ O Body Harnesses: _____<br>O Rigging Plates: _____ O Safety Lines: _____ O Main Lines: _____ O Wrist/Ankle Harnesses: _____<br>O Fire Extinguishers: _____ |   |
| <b>Medical Equipment Requirements</b> (check a where applicable below and indicate quantity needed):<br>O First Aid Kit: _____ O Packaging Device: _____  |   |
| <b>Description of Space</b> (include location of attendant):<br><br><br><br><br><br><br><br><br><br>  |   |
| <b>Diagram of Space</b> (Use Back of Page if needed):<br><b>Completed</b><br><br><br><br><br><br><br><br><br><br>   |   |