

Safe Work Instruction - Entering Pump Station Following a Carbon Dioxide Discharge

DO NOT use this plant* or complete task unless you have been inducted in its safe use and operation by an Authorised Experienced Operator

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process. Additional training may be required for high risk plant. Site and task may change required PPE.

PERSONAL PROTECTIVE EQUIPMENT



Half face mask respiratory protection must be worn



Foot protection must be worn

POTENTIAL HAZARDS AND RISKS

- i Manual Task Injury**
Manual task injury from incorrect manual handling techniques
- i Slip, Trips, Falls**
Slip, trip, fall due to uneven or slippery work surfaces
Slip, trip, fall due to steep working surfaces
- i Other**
Exposure to hazardous chemicals
Injury due to plant malfunction or misuse
Asphyxiation due to working in confined space

PRE-OPERATIONAL SAFETY CHECKS

- ✓ **WARNING:** This chemical is an asphyxiant and is considered a hazardous substance. Before carrying out the following procedure workers are to familiarise themselves with the relevant SDS and follow all safety precautions listed on the data sheet prior to any potential contact with the chemical
- ✓ **NOTE:** This procedure is designed as a precaution only. The supplier has confirmed that discharging a full carbon dioxide cylinder would only result in a 0.6% reduction in oxygen concentration in the REMS Recovery Pumping Station
- ✓ Any alarm condition will be detected via the SCADA systems, which will alert the On-Call Operator (after hours) or the REMS attendant (during normal work hours) to the problem. The Coordinator will then be contacted who will initiate the following procedure
- ✓ Two workers are to attend any such incident
- ✓ Complete site-specific risk assessment
- ✓ Complete the appropriate pre-operational plant checklist
- ✓ Ensure you are familiar with plant operations and controls
- ✓ Ensure that guards are fitted, secured and functional in accordance with manufacturers guidelines

OPERATING PROCEDURES

- ✓ Ensure to conduct a Gas Detector Sensitivity Test, which confirms the gas detector is in good working order (results should be recorded in the logbook).
- ✓ The gas detector should then be attached to the operator's belt before attempting to enter the pump station
- ✓ One hour should be allowed to pass prior to allowing the operator to enter the pump station. The second

worker is to act as an observer from adjacent to the entrance door

- ✓ The operator is to first open all doors to help ventilate the area before disabling the fire alarm siren & intruder alarm
- ✓ If at any time the gas detector alarm sounds (indicating a low oxygen level i.e. equivalent to less than 19.5%), the operator should immediately evacuate to fresh air
- ✓ Once the operator has established the atmosphere is safe the second person may enter the pump station. However, Carbon Dioxide is heavier than air and will tend to concentrate in low lying areas. Therefore prior to allowing entry to the pump well the operator should test the atmosphere by lowering the gas detector into the well via a rope
- ✓ All electrical cabinets need to be opened and allowed to ventilate for a short period prior to commencement of any work
- ✓ At the REMS Recovery Pumping Station –
 - Walk to the fire indicator panel and open the bottom door
 - Lift the flap on square yellow button and press (this will isolate the system), audible noise will commence
 - Get the attending electrician to isolate the system
- ✓ Before making adjustments bring plant to a complete standstill and isolate (use this when applicable)

ENDING OPERATIONS

- ✓ Once all work has been completed close all electrical cabinets, reset the intruder alarm and secure the doors
- ✓ Ensure plant is in good working order and stored in the appropriate location
- ✓ Notify contractor (CHUBB) that system has been activated

DO NOT

- ✘ Do not use if plant is faulty. Attach an Out of Service tag and report fault to your supervisor
- ✘ Do not use mobile phone while operating plant

*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.