

## Safe Work Instruction - Replacing and Cleaning the CO<sub>2</sub> Spargers at Bamerang

**DO NOT use this plant\* 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



Eye protection must be worn



Foot protection must be worn



Hearing protection must be worn



Protective body clothing must be worn



Hand protection must be worn



P2 face mask must be worn when airborne dust or fumes are created

### POTENTIAL HAZARDS AND RISKS

#### Slip, Trips, Falls

- Slip, trip, fall due to uneven or slippery work surfaces
- Slip, trip, fall due to steep working surfaces

#### Other

- Exposure to atmospheric contamination
- Exposure to contaminated air

#### Manual Task Injury

- Manual task injury from incorrect manual handling techniques

### PRE-OPERATIONAL SAFETY CHECKS

**WARNING: Carbon dioxide is a hazardous substance as it is an asphyxiate as well as a dangerous goods. 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**

- ✓ 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
- ✓ Refer to Energy Isolation Procedure P29
- ✓ Complete Confined Space Risk Assessment Checklist, refer to Confined Space Procedure and obtain Confined Space Permit

### OPERATING PROCEDURES

- ✓ Keep clear of moving plant parts
- ✓ Operate plant to the conditions of the work area
- ✓ Select the plant control switch, located on the plant MCP to off
- ✓ Lock out and tag plant
- ✓ Select the CO<sub>2</sub> plant control switch, located on the CO<sub>2</sub> plant control panel, to 'off'
- ✓ Lock out cabinet and tag
- ✓ The CO<sub>2</sub> sparger pit is a confined space (Category C), therefore all entries into the pit must be carried out in accordance with Confined Space Procedure
- ✓ Unlock and open the pit lids and extend the pit ladder extensions

- ✓ Enter the pit and close off the main CO<sub>2</sub> valve
- ✓ Unbolt the sparger flange and disconnect the pipe union. Remove the sparger and pipe work assembly from the main
- ✓ Unscrew the fouled spargers and replace with clean serviceable spargers

### ENDING OPERATIONS

- ✓ Reinstall the spargers and pipe work assemblies, ensuring that all unions and flange bolts are sufficiently tight
- ✓ Re-open the main CO<sub>2</sub> valve
- ✓ Select both the CO<sub>2</sub> control switch and the plant control switch back to Auto
- ✓ Run CO<sub>2</sub> plant in conjunction with the WTP to ensure that there are no CO<sub>2</sub> or water leaks from the sparger assemblies

### DO NOT

- ✗ Do not use if plant is faulty. Attach a DO NOT OPERATE tag and report fault to your supervisor
- ✗ Do not leave plant running unattended
- ✗ Do not wear loose jewellery
- ✗ Do not use mobile phone while operating plant

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