

## Safe Work Instruction - Gas Detector - Use & Maintenance

**DO NOT use this plant\* or complete this 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/work. Site and task may change required PPE.

### PERSONAL PROTECTIVE EQUIPMENT



Foot protection must be worn



High visibility clothing must worn



Half face mask respiratory protection must be worn

### POTENTIAL HAZARDS AND RISKS



#### Slip, Trips, Falls

Slip, trip, fall due to uneven or slippery work surfaces



#### Other

Exposure to atmospheric contamination  
Injury due to fall from heights



#### Explosion

Explosion of gases, vapours or liquids



#### Exposure to Dust/Fumes

Exposure to Toxic Fumes

### PRE-OPERATIONAL SAFETY CHECKS

- ✓ Complete site specific risk assessment
- ✓ Complete visual plant check before operation
- ✓ Ensure you are familiar with plant operations and controls
- ✓ Gas detector must be within the calibration period
- ✓ Gas detector must pass a response check
- ✓ Before use of the gas detector in or around a confined space, all readings must be zero except for the oxygen level (19.5 – 23.5%). **Set up & down arrows to allow gas detector to hold the highest reading.** If any abnormalities appear, have the gas detector serviced or repaired by an authorised technician before use.

### OPERATING PROCEDURES

- ✓ To switch on the gas detector – Press and hold red right hand button [ ] on the front of the unit until alarm sounds
- ✓ The gas detector will run through a self-test procedure with the display screen illuminated
- ✓ After the self-test, the currently measured gas concentration values are displayed
- ✓ Conduct a response check using a calibration gas mixture and record results in the Gas Detector Sensitivity Results book. Note: L.E.L must reach 56% (plus or minus 10%) in 45 seconds. If gas detector fails the response check, it must not be used and should be sent to the electricians for calibration as soon as possible
- ✓ Attach a lanyard/rope securely to the handle of the cover
- ✓ Perform all duties for entry into a confined space in conjunction with the use of the gas detector
- ✓ Lower gas detector on lanyard/rope into the confined space
- ✓ Whilst lowering the gas detector on a lanyard/rope, check spaces at top, middle and bottom levels because of stratification of gases and vapours
- ✓ Raise the gas detector and check and record readings at each level

- ✓ Lower the gas detector back into the confined space and continuously monitor while the confined space is occupied. All readings on the gas detector are done automatically via the inbuilt sensors
- ✓ During the normal use, the gas detector will beep and flash once approximately every 8 seconds
- ✓ When an alarm has been detected, the signal tone and red alarm light are constantly activated
- ✓ Raise the gas detector, check alarm recordings and take appropriate action

### ENDING OPERATIONS

- ✓ To turn off – Press the two red left hand buttons (up and down keys) simultaneously for more than 3 seconds
- ✓ The red alarm light illuminates, accompanied by a signal tone
- ✓ Release the two buttons and the gas detector will switch off

### DO NOT

- ✗ Do not use if plant is faulty. Attach an Out of Service tag and report fault to your supervisor
- ✗ Do not enter the confined space until safe readings are attained
- ✗ Do not use mobile phone while operating plant

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