

Safety Alert: Gas Monitoring Sensors

Number 22-1

1 BACKGROUND

The University of Newcastle is always looking to continuously improve its safety standards. In doing so, it has recently engaged Dangerous Goods (DG) consultants to carry out an audit of gases and gas infrastructure across most of the University's campuses. As a result, it was identified that the **centralised management of all fixed gas monitoring sensors** across the University for oversight of ongoing compliance and maintenance was appropriate.

As part of the audit and subsequent follow up work being completed there have been gas sensors identified which have not been previously included in IFS gas sensor maintenance/asset registers. These registers are currently being updated and work being completed to test and calibrate these sensors in line with recommended timeframes and to add the fixed sensors to the maximo maintenance schedule.

Historically, not all fixed gas sensors have been installed by IFS and some have been managed by individual groups/schools/researchers. IFS will now centrally manage all aspects of fixed gas sensors including installation to ensure a consistent, centralised management approach from installation to ongoing testing/calibration/maintenance/emergency response.

NOTE: The ongoing maintenance of portable gas monitors will remain the responsibility of the relevant area management.

2 ACTION REQUIRED

1. **Prior to use of new gas/gas infrastructure, complete a documented [Risk Assessment](#), liaising with the [Health & Safety team](#) where necessary, to eliminate or minimize the risk associated with gas use.**
 - a. See further information below in Section 3 regarding risk assessment and gas use.
 - b. Where required and confirmed by the risk assessment, a [Maximo](#) Minor Works Request should be submitted for the installation of any fixed gas sensor.
2. **Identify any out of date sensors and notify IFS**
 - a. As noted above, the audit has identified some gas monitoring sensors which were not previously managed by IFS and the IFS registers are being updated. However, if there are any gas sensors within your area which may not have been picked up through the audit (i.e. have no IFS sticker on them) and/or you believe require testing/calibration (i.e. no current dated calibration sticker) , please notify IFS.
3. **Ensure gas sensors are and remain unobstructed**
 - a. The gas audit identified some existing gas sensors were obstructed by other equipment which may reduce the effectiveness of the monitor. Over time equipment and other items can be placed in front of gas sensors reducing the effectiveness of the sensor. Areas should monitor and address this as part of local workplace inspections.

3 SUPPORTING INFORMATION

Gas Sensor Information

Across the University there are numerous types of gas sensors installed to monitor gas levels of varying types and amounts. These sensors are **one of** several risk management controls which should be utilised to reduce the risks associated with gas use.

Utilising the **Hierarchy of Controls**, the first approach to gas use should always be elimination where possible. Where elimination is not possible, consideration should be given to other controls such as:

- **Substitution:** For example, can a less dangerous gas be utilised or can a smaller amount (such as using a C sized cylinder rather than G size) be used. *Note: Coregas is typically onsite most days to help with regular replacement of gases.*
- **Isolation:** For example, isolating gases outside enclosed environments (such as laboratories), piping gas into buildings rather than storing gas cylinders within enclosed spaces, limiting the number of people who have access to environments where gases are used, or ensuring consideration is given to gas compatibility with other gases, chemicals, activities or designated areas (such as flammable gas hazardous areas).
- **Engineering:** For example, ensuring adequate ventilation is available where gases are used and appropriate gas monitoring sensors are installed and not obstructed to maximize efficiency of the sensor for gas detection.

If you have any further questions or concerns, please contact the H&S Team on 49218847 (x18847) healthandsafety@newcastle.edu.au or IFS 16500@newcastle.edu.au .