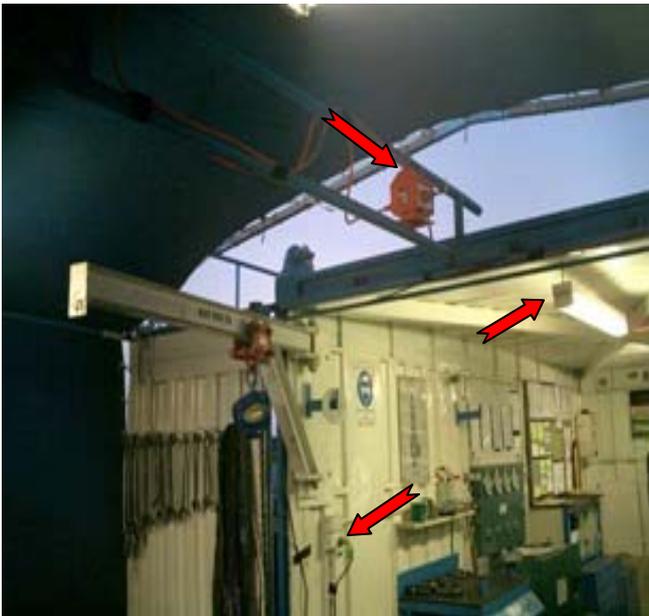


What happened?

A contractor's temporary workshop observed during a recent NOPSA inspection has highlighted the importance of correct use of permit to work system, appreciation of non-certified electrical equipment as potential sources of ignition and the need to check temporary equipment before shipping and on arrival at a facility.

A mobile Pressure Safety Valve (PSV) maintenance workshop was temporarily located in a laydown area above a well-bay, in a Zone II Hazardous Area, and near an operating gas lift compressor. The workshop had non-certified electrical light fittings, domestic type power outlets and a grinder with a non-certified motor.



Non-Ex electrical fittings are as indicated



Non-Ex electrical fittings and a grinder

A general work permit had been issued for the PSV maintenance work and included a requirement to use a portable gas detector, which was placed near the entrance to the container.

The issue of non-hazardous area rated equipment being used in and around the workshop was raised with the operator and the operator immediately disconnected all non-certified electrical equipment and fitted an ExN certified light fitting and two portable gas monitors. Use of the grinder in its current location was prohibited.

What went wrong?

Investigation found that although the operator had specified the use of equipment suitable for use in hazardous areas, the operator failed to ensure that the PSV workshop was suitable. It was put into service without an electrical inspection against the specification or an appropriate risk assessment.

There was a lack of appreciation for non-certified equipment to act as potential ignition sources, and their introduction together with other potential sources of ignition such as grinders, should necessitate more stringent risk mitigation and control measures normally stipulated under a Hot Work Permit.

During periods when the workshop was unoccupied or after shift working hours there was no mechanism in place to respond to a gas detection alarm.

Key Lessons:

- Temporary workshops and equipment should be checked before shipping to the facility, upon arrival, and then on a regular basis during project work, to ensure that equipment is as specified and remains suitable for its intended purpose.
- Any introduction of potential ignition sources into hazardous areas should require a Hot Work Permit and only be authorised after a thorough review of the hazards and risks through a Job Safety Analysis (JSA), or equivalent, has ensured control measures will reduce the risks to ALARP. The use of a general work permit in this case did not lead to appropriate controls being implemented.
- The lack of recognition of non-certified electrical equipment and grinders as potential sources of ignition in hazardous areas can lead to inadequate control measures and unacceptable risks.

Contact

For further information email alerts@nopsa.gov.au and quote Alert 16.