

# Safety and health alert

## 50/99 Confined space work

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### Incident

A cellar-hand was overcome by carbon dioxide after entering a 4,500 litre wine vat through a 380 mm opening at the top of the wine vat containing crushed grape skins and seeds. The juice of the crushed grapes had been drained off through the drainer at the bottom of the tank. The atmosphere was inert due to the presence of a large amount of carbon dioxide.

Carbon dioxide is added to the process as an antioxidant to displace oxygen during the winemaking process.

### Factors

- Lack of scientific monitoring equipment to test the internal atmosphere in the wine vats. (Non-scientific methods such as the sniff test are not satisfactory and expose workers to harmful gasses).
- The employee appeared to have a lack of appreciation of the risks associated with carbon dioxide, that is the rapidity of symptoms, the onset of euphoria, loss of muscle control and death within four (4) minutes.

### Recommendations

- Procedures and systems of work must be developed and implemented for all confined space entry. The system of work must include training and provision of satisfactory equipment for oxygen measurement and personnel rescue.
- The wine industry develop and implement a code of practice to ensure that there is a greater awareness, and following training, a greater understanding of hazards, risks and the management of these hazards and risks.
- Australian Standard 2865-1995 "Safe Working in a Confined Space" is to be used when determining the suitability of a confined space entry system.
- Consideration must be given to a regime of safety inspections and audits with a view to ensuring safety requirements are adequately adhered to and implemented.

### Further Information

Further information can be obtained from the WorkSafe internet site [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au), or by contacting customer service on 1300 307 877 or email: [safety@docep.wa.gov.au](mailto:safety@docep.wa.gov.au).

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