

HAZARD ALERT

No. 100

ISSUED: 11 March 2011

OPERATION AND ENTERING OF WINE TANKS

SUMMARY OF INCIDENT

Recently, a worker was temporarily asphyxiated when attempting to retrieve an item of plant from a wine storage tank.

BACKGROUND

- The incident occurred when a wine storage tank was being emptied. A worker opened the bottom tank door to inspect the wine level when the tank was near empty. As the worker opened the door, a circlip securing the door to the hinging mechanism dislodged, causing the door to fall into the tank.
- Another worker attempted to retrieve the door by leaning into the tank and in the process was overcome by the carbon dioxide escaping from the tank.
- Wine tanks are often filled with inert gases such as carbon dioxide as an oxygen barrier to prevent oxidation of the wine. Even though the gas is inert, in high concentration, it will cause asphyxiation.



This image shows a typical low level access to a wine tank.

CONTRIBUTING FACTORS

- Wine tanks often contain large quantities of inert gases (which dilute or displace oxygen).
- Wine tanks are classified as confined spaces and therefore must not be entered without following a confined space entry procedure.
- Occasionally loose components can be found inside the tank which may require a person to enter the tank to retrieve them.
- Training may not be adequate or appropriate.
- Appropriate information may be lacking.

ACTION REQUIRED

- Hazard identification, risk assessment and risk control measures must be developed and implemented for the operation and entering of wine tanks. In particular, all confined spaces must be identified.
- A safe work procedure must be developed for tasks associated with accessing or working on the wine tanks.
- Workers who are required to work on the wine tanks must be provided with the appropriate information, training and instructions on the hazards associated with the operation of wine tanks.
- Wine tanks and other storage tanks are classified as a confined space. A person must not enter a confined space without undergoing confined space training, and the worker must comply with the safe work procedure. Refer to *Occupational Health, Safety and Welfare Regulations 2010* and *Australian Standard AS 2865 on Confined Spaces*.
- Where possible, minimise the number of plant components inside the tank. In addition, tasks requiring entrance into wine tanks should be minimised therefore reducing the potential exposure to the gasses within.

FURTHER INFORMATION

For further information please contact

SafeWork SA: GPO Box 465, ADELAIDE SA 5001

Country offices: Berri, Mount Gambier, Port Lincoln, Port Pirie and Whyalla

Help Centre: Library and Bookshop - 100 Waymouth Street, Adelaide

Telephone: 1300 365 255

www.safework.sa.gov.au

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