Farming Bulletin

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Offal Pit Fatality - Confined Space Entry

A self-employed farmer collapsed and died after descending into an offal pit to retrieve a grubber. Subsequent tests by the Occupational Safety and Health Service (OSH) found that the atmosphere in the offal pit was severely deficient in oxygen.

Summary of Accident

The offal pit was drilled nearly five weeks before the accident, but remained unused for three weeks.

The day before, the farmer had dropped two lamb carcasses into the offal pit and, by accident, a grubber was also dropped into the pit.

The farmer and his adult son discussed how to retrieve the grubber. After considering a lasso method, they decided to use a ladder to descend into the pit. The ladder was lowered through the central opening and secured in place.

The farmer climbed down the ladder and recovered the grubber. He had climbed most of the way up, when he fell back down. The son realised the seriousness of the situation and called for help with a cellphone.

The volunteer fire brigade arrived and rescued the farmer from the pit. Ambulance officers and a doctor attempted to resuscitate him, but were unable to do so.

Further Tragedy Narrowly Averted

The volunteer firefighter who rescued the farmer from the pit had a narrow escape. He was lowered down on a rope and at about 2.5 metres down, he couldn't breathe and called out to be raised. Wearing a self-contained breathing apparatus set, he was then able to effect the rescue.

OSH Investigation

As part of their investigation, OSH health and safety inspectors carried out tests to establish the likely atmospheric conditions in the pit at the time of the accident.

The tests found that the oxygen concentration at the bottom of the pit was only 3%. This level of oxygen would not sustain life, with death occurring in a matter of minutes. The normal concentration of oxygen in the atmosphere is 21%.

Hazard Management

Both the farmer and his son were aware of the hazards of offal pits. They thought it would be safe to enter because the pit was relatively new.

Farmers need to identify the hazards associated with entering confined spaces such as offal pits, water tanks, septic tanks, grain silos, milk vats

and other similar enclosed spaces. The likelihood of an oxygen deficient or toxic atmosphere in such areas, may not be realised.

The steps required to identify, assess and control such hazards are summarised in the OSH-ACC pamphlet *Confined Spaces: Planning Entry and Working Safely in a Confined Space.* A folder of information entitled *Safe Working in a Confined Space* may be obtained from your nearest regional office of OSH.

Refer to the listing in the blue pages of the telephone directory for contact details. (Look under Occupational Safety and Health or Department of Labour.) Copies may be downloaded from the website (www.osh.dol.govt.nz).