

Holding Tanks and Confined Space Hazards

Working in and around holding tanks can be the source of common hazards within the winery production facility. Failing to take proper steps to ensure the safety of an employee when he/she enters a tank or grape press could result in death or permanent injury. Even when workers believe there is adequate ventilation, there can be unforeseen risks and tragedy can occur in seconds. Here are some pointers that could make the difference between life and death.

- Have a written, formalized confined space program if you or your employees place a body part into a holding tank.
- All managers and employees working in or around tanks should receive proper training on confined space hazards and methods to prevent accidents.
- Most wine holding or fermentation tanks are considered permit confined spaces due to the probability of residual SO₂, CO₂ or other chemical fumes and vapors. This requires a designated person, usually a manager, to document approval for entrance into the tank once the correct pre-entrance steps have been taken.
- The pre-entrance steps include the training of a team of employees. This team includes the person entering the tank, the observer, the rescuer and the permit person. The atmosphere in the tank needs to be tested with a calibrated oxygen (O₂) meter at a minimum. This meter should be put into the tank with a tool such as a broom stick. A meter should be attached to the person entering the tank and include a warning alarm when O₂ levels are unsafe. A calibrated carbon dioxide meter should also be utilized.
- The rescuer should be equipped with safety lines to pull the person to safety without having to enter the tank. The safety line should be attached to the person entering the tank. It is a good practice to alert the local fire department that confined space work will be taking place. Determine what the response time for the local fire department would be and what other emergency procedures should be in place.
- Open the tank side and top hatches to help ventilate the tank. If possible, force air into the tank from the side and pull it out from the top with fans.
- Steps can be made to avoid entering in the tank...Shoveling out pomace with longer-handled tools, or installing automatic cleaning systems are two ways to eliminate the hazard of entering tanks. Hire an outside contractor for repairs on tanks.
- Respiratory protection such as self-contained breathing apparatus (SCUBA) should be available in the event it is needed to ensure safe entrance into a tank.
- Affix a sign or sticker at the entrance to all confined spaces, warning of the hazard.

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