



DAIRY FARM EFFLUENT PUMP HAZARDS

■ Incidents

Between 2009 and 2011, two deaths occurred during maintenance of pumps fixed to pontoons floating on dairy farm effluent ponds. A dairy farm worker drowned when the pontoon he was standing on capsized, trapping him underneath. Another worker was crushed to death when he became trapped while working on a floating effluent pontoon which became unstable.

■ Overview

Typically pontoons are not designed for a person to stand on while they are afloat. Manufacturers usually indicate that the pontoons should be either removed from the pond or securely tied to the side of the pond before servicing is attempted.

In some cases owners of pontoons have found such steps impracticable so have modified the pontoons to provide a 'walkway' access to the floating pontoon. People who undertake such modifications must ensure that the pontoon arrangement is designed and constructed to remain stable when the weight of the walkway structure and farm workers with equipment is added to the floating pontoon. Such design and modification should be undertaken by an appropriately qualified person. The manufacturer or supplier of the pontoon should be consulted before modification is attempted.

Effluent ponds present a range of hazards to farm workers. It is essential that the farmer has put in place controls to protect employees and others who may be in the vicinity of effluent ponds. It is particularly important that consideration has been given to the means of rescuing any person who falls into the effluent.

■ Maintenance

Working on a floating pontoon is a significant hazard, as there is a risk of capsize or partial capsize of the pontoon, and a risk of drowning should the worker fall into the effluent.

If at all possible, do not work on top of a floating effluent pontoon. Consider options such as:

- Removing the pontoon from the pond for service
- Securing the pontoon at the side of the pond
- Carrying out servicing when the pond level is low and capsize is therefore not possible
- Fit automatic greasing components to reduce the frequency at which access is required.

Pontoons should be fitted with a suitable lifting point so they may be lifted from the effluent pond. The lifting device must be of sufficient weight, power, and stability to safely lift the pontoon. The lift point should be designed so that a person does not need to access the pontoon to attach the pontoon to a lifting device.

In some cases it may be impractical for pontoons to be removed from the pond for general servicing of the pump and stirrer. Work should only be allowed on top of a floating pontoon when all other options have been assessed and are clearly impracticable.

If work is to be conducted from on top of a floating pontoon, it must be stable and unable to capsize and there should be safe access to it. Safe access would typically require a 1 metre high handrail comprising a top rail and mid-rail fitted to the perimeter of the working area of the platform to prevent a fall from the pontoon or access way.

Manufacturers, suppliers and people who carry out modifications to effluent pumping pontoons must ensure that pontoons are stable and safe to work from. They must ensure that farmers are provided clear information regarding the safety precautions and loading capacity for pontoons.

Farmers must ensure that they are fully aware of the safe loading limits and related safety precautions for accessing and maintaining pontoons in service on their property. If the pontoon is modified in any way the farmer must ascertain whether such modifications have impacted on the safe loading capacity and safe access requirements.

■ General Safety

The following steps should be considered to ensure the general safety of employees working on effluent pumping pontoons or in the close vicinity of effluent ponds:

- Fence the perimeter of the pond and display clear signage restricting entry
- Ensure that at least two staff are present during maintenance
- Ensure that life jackets or similar buoyancy devices are worn by staff working on top of floating pontoons
- Ensure that rescue lines and a life buoy are available in the immediate vicinity of the pond.

Note: This material has been prepared using the best information available to the Department of Labour at the time of publication. Information may change over time and it may be necessary for you to obtain an update. This material is also only intended to provide general advice and does not constitute legal advice. You should make your own judgement about action you may need to take to ensure you have complied with your workplace health and safety obligations under the law.

