

SAFETY ALERT

DATE: September 2022

Worker swims to shore after pontoon pump and boat sink

This safety alert provides safety advice for the NSW mining industry.

Issue

A maintenance contractor had to swim to shore without a floatation device, when a pontoon pump overturned and sank, dragging his boat underwater with it.

The contractor was working at Ravensworth coal handling processing plant (CHPP) in the NSW Hunter Valley when tasked with servicing a pump on a pontoon on 17 August 2022.

Circumstances

The worker used a boat to access the pontoon. The pontoon and pump configuration had a dry weight of about 15.7 tonnes and a wet weight (fuel/water in pump line) of about 17 tonnes. The pontoon had a cube container filled with water on one side as a ballast control.

While doing the service, the worker identified that a pulley on the primer pump (vacuum) was faulty. He had taken off his floatation device to carry out his work, as it was not required by the mine operator.

The primer pump was removed while draining the water line and put into the boat.

The subsequent change in the centre of gravity of the whole unit caused the pontoon to overbalance and overturn.

Within minutes, the worker noticed the pontoon tilt and jumped in the water to swim 30 m to the bank. As he swam, the pontoon overturned, dragging the boat under the water with it. The worker was not injured.

Investigation

Initial investigations by the mine operator identified:

1. the site standard for working on or near water was not complied with
2. the work authorisation for pump maintenance did not identify any additional controls associated with a body of water
3. no operational risk assessment was in place that identified the floatation characteristics of the pontoon and pump.

The investigation was continuing at the time of publication.

Figure 1 Pontoon on the dam after the incident



Figure 2 Pontoon on the dam before the incident



Recommendations

Mine operators should:

- verify awareness of the roles and responsibilities for maintaining compliance to their site's standards for working on or near water.
- review the use of work authorisation standards.
- review safe work systems for this type of task considering:
 - the requirement for wearing flotation devices on pontoons
 - the requirement for a spotter while undertaking maintenance activities on water
 - emergency response capability around water
 - and the suitability of boats for transporting workers, and equipment.
- consider building a jetty for long-term access to pumps on dams.

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