

SAFETY ALERT

Shared Learning's

INCIDENT TITLE:

Waitaki Dam Hoist Failure

TIME AND DATE OF INCIDENT:

Friday 12th June 2015 at 1730 hours

INCIDENT DETAIL :

A contractor was using the hoist in the WTK Dam Pump Shaft to lift out demolition material. Over the previous week, while using the hoist, the hoist stopped a number of times. They lowered the load and then raised it again without incident. They believed that the chain was getting stuck.

On Friday afternoon, when the load was approximately 1m from the top of the shaft, the hoist stopped again. They lowered the load slightly and when they raised the load again, the hoist failed and released the chain. The load fell down the shaft.

As the load descended, it hit the middle ladder landing in the shaft and bounced slightly. The Contractor grabbed the slacked chain and manually lifted the load to the top of the shaft.

INITIAL RESPONSE AND INVESTIGATION OUTCOMES :

The hoist and the suspended ladder system (which took the impact) were taken out of service.

The contractor had a discussion around the risk of stopping the falling load, and thinking before reacting in this situation.

Enquiries were made regarding the certification and maintenance of the hoist, which transpired that it had neither. On further investigation it was found that as the hoist is on rail, then it should have been classified as a crane and is subject to certification. A number of similar lifting systems are present at other hydro sites, and an instruction was issued to the Hydro Site Managers to identify and tag out similar lifting systems.

LEARNINGS AND RECOMMENDATIONS FROM THIS INCIDENT:

- All safety procedures including marked drop zones had been identified and were followed and as a result no one was injured in this incident.
- The contractor's instinct was to grab the slacked chain. This put this individual at risk, and it is recommended that people don't try and stop falling objects.
- Project Managers, Engineers and Site Team should question the current certification of equipment, especially if the equipment is going to be used in a different manner or the use is following an extended period of not being operated.
- Identification and certification of similar lifting systems across all sites is currently being undertaken.
- As the falling load hit the middle ladder landing, it was not known what damage was done to this suspended structure. The ladders were taken out of service until it could be inspected by an appropriate qualified Engineer.
- Site Managers should identify if they have any Demag DK2-250V1/1 hoist (or similar). These should be fully inspected, with a focus on ensuring that the plastic chain guide is secure and not showing signs of wear.

PHOTO:



The Corporate Safety and Health Team are currently working on systems to support the above learnings. If interested in viewing the full investigation report for this incident, it can be found in:

Safety Manager reference number 477215

If any questions please contact Caroline Rea – Project Manager – 021 902 827



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