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NSW Roads and Maritime Services
Email: nhu.doan@rms.nsw.gov.au

Attention: Ms Nhu Doan

Dear Nhu

Re: Balls Head Coal Loader, Waverton – Removal of Steel Frames and Condition of Pump House

As requested, TLB attended the review of the site with you on 22 October 2014. Our advice regarding the potential removal of the steel wharf frames and condition of the pump house is as follows.

Pump House Structure:

The pump house structure appears to be in very poor condition. The corrugated cladding is corroding and has disintegrated in a number of places. The corrosion appears to be much more significant on the south side, and at the base of the structure. This is likely to be due to the longer wave fetch from the south, leading to larger waves and more splashing of the base of the structure.

While the cladding is in poor condition the timber framing may be in reasonable condition if it has been kept dry. However the loss of cladding has allowed the framing to become exposed and as such we consider this to be unlikely.

The pump house structure appears to be independent of the steel wharf frames therefore removing the steel frames would appear to have no impact on the pump house.

There appears to be a timber wharf pile inside the pump house located on the centreline of the wharf. The pile passes through the pump house roof and may or may not be supporting the roof. If the timber components of the wharf were removed the pile could be trimmed to be level with the pump house roof.

The pump house can no longer be easily accessed from either land or water due to the condition of the wharf. This currently prevents a detailed inspection of the pump house.

Removal of Steel Wharf Frames:

The steel wharf frames currently support the timber wharf structure. Removing the steel frames will require the removal of the timber components of the wharf.

The arrangement of the wharf structure indicates that it does not provide support to the seawall. As such the removal of the timber components and the steel frames is not expected to affect the seawall.

The steel wharf frame closest to the seawall is being used as a mooring point for the Cape Don vessel to the south. As a result of the location and mooring arrangement, only a wind from the north will apply loads to the wharf.

If the Cape Don and Baragoola vessels are both moved further south it may be possible to avoid tying the Cape Don vessel to the wharf. If the vessels cannot be moved we consider that there are 3 options:

a. Investigate changing the mooring line arrangement of the Cape Don. Our initial assessment indicates that this may not be possible;
b. Install a new independent mooring pile with bollard in a location close to the wharf bollard currently in use. A gantry would need to be constructed to access the bollard;
c. Stabilise the wharf frame the vessel is tied to by connecting two of the frames together with bracing, or by bracing the frame back to new footings constructed at the base of the seawall. An gantry spanning from the seawall would need to be provided to allow access to the bollard.

Steel Gangway to South:

The gangway to the south of the wharf runs parallel to the seawall and between the seawall and the mooring dolphins. It is supported by frames off the seawall and appears to have been disconnected from the wharf. Removing the wharf structure will not affect the gangway.

One of the gangway supports appears to have significant corrosion. The extent of corrosion may have affected the structural sufficiency of the gangway.

Yours faithfully

Russell Howell

Russell Howell
Senior Engineer