

Step Change Safety Alert Template



Alert Title

TEMPSC support structure – loss of integrity

What leaked and where from? E.g.: "Lube oil leak from compressor system open vent"

Incident Date

9th April 2013

The date on which the incident occurred, not when this form was completed

Location Type

Fixed Installation

E.g. Floating/Fixed Production, Drill Rig, Vessel, etc.

Specific Equipment Involved

Support structure for TEMPSC winch housing

Give as much detail as possible about the equipment involved

Description of What Happened

During an operation to clean the lifeboat cantilever platform pad eyes and retaining pins, the inboard rectangular hollow section (RHS) beam, or 'box section', supporting the lifeboat winch was struck with a hammer causing a significant piece of corrosion to be displaced from the side of the RHS. Further close visual inspection revealed the beam was holed.

A further survey was carried out by a structural specialist to determine the extent of the corrosion and loss of wall thickness on the RHS beams. During this inspection, significant corrosion and total loss of wall thickness was discovered resulting in the loss of structural integrity.

The survey report stated that the RHS in question was not in a suitable condition for use. The material loss due to internal corrosion was found to be significant to the winch supporting RHS members. Due to the extreme severity of material loss there would be no alternative but to take the lifeboat out of service until remedial work was undertaken to the RHS.

Other RHS winch support beams inspected on the installation were also found to be in a similar condition with severe internal corrosion.

Upon further investigation it was found that potential corrosion issues had been previously identified in the area through surveys and reports however the flow of information was not robust enough to ensure its capture.



Be as detailed as possible. Give equipment history and approximate time(s) of actions/occurrences related to the incident

Cause of Incident

Internal corrosion not identified within RHS

Build from OIR/12 checklist

Incident Consequences

Structural failure, escape facilities out of service

Include the release itself and any subsequent emergency actions/dangerous occurrences

Lessons Learned

- *Greater understanding required of 'types' of structure (I beams or box section) and potential internal corrosion issues (such as water ingress in box section beams) of these types of structure – Box section beam is seen to be unusual in the construction of installations.*
- *General visual inspection methods were utilised in these areas. The Risk Based Inspection (RBI) program is to be reviewed to ensure risks from potential internal corrosion are understood with a view to enhancing to close visual inspection and non-destructive testing (NDT) techniques*
- *Ensure that any external survey report information is circulated to relevant colleagues and transferred to workpacks. In this instance, this could have been improved.*

Include a few bullet points clarifying what was learned from the incident

Recommendations/Actions

- *Conduct investigatory surveys on other installations in the field to identify all locations where RHS beams are installed and determine their inspection technique and frequency in the RBI program, this may include NDT to determine wall thickness and potential internal corrosion*
- *Ensure that specific survey information from commissioned reports and actions are registered and transferred to workpack scopes. Actions to be raised as work orders in MMS. Ensure that individuals associated with these actions are clear on their responsibilities in terms of information flow and capture.*
- *When considering installing replacement or new equipment on to ageing installations, to extend service life of associated facilities, it is vital that the existing structure forming or providing a foundation for the new installation shall be thoroughly inspected to confirm it is fit for purpose. This must be formally recorded in the Management of Change procedure.*

Include a few bullet points stating any recommendations/actions that will be made/taken as a result of the lessons learned

Contact Details (Optional)

If you would like your submission to be anonymous, leave this section blank