



CORROSION

VULCANIZING PRESSURE VESSELS

ILC ASSIGNMENT:

Identified the cause and extent of damage and confirmed the costs associated with the replacement of two vulcanizing pressure vessels used to vulcanize rubber hose materials.

ILC ANALYSIS:

- The insured's personnel discovered that corrosion had caused the breakage of stainless-steel steam injection/water cooling piping within one of the 2 vessels.
- Upon closer inspection by personnel, both vulcanizing pressure vessels were found to exhibit cracks in multiple locations.
- The insured used water to cool the vessels/product to expedite production.
- Tests performed on the cooling water revealed the presence of chloride contamination.

SUMMARY:

- It was concluded that the stainless steel, which generally does not corrode to the observed magnitude, composing the vulcanizing pressure vessels was adversely affected by the high concentrations of chloride in the cooling water.
- The corrosion and crack development within the vessels were consistent with the culmination of long-term conditions and inconsistent with a sudden and incidental event.
- ILC confirmed that continued use of the pressure vessels was a safety concern; repair of the pressure vessels was not prudent, and replacement of the pressure vessels was the only way to safely return them to production.
- ILC confirmed the costs of the Ø3' pressure vessel at \$468,797 and the Ø5' pressure vessel at \$681,500.

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(800) 497-4030 • contact@industrialloss.com • www.industrialloss.com