

MANUFACTURING

Case Study – Off Shore Drilling Company Industry: Manufacturing

Problem: Drilling pipe sits for prolonged periods of time in marine conditions. While the pipe is generally covered, it is still subject to a great deal of salt water spray and is always damp with sea water. The salt water from the ocean causes corrosion quickly, damaging the pipe both on the interior diameter and the outside diameter.

Effect: If the corrosion becomes too severe, the strength of the pipe is compromised and must be recycled and replaced leading to unnecessary waste, downtime and of course costs. Where the pipe has not been too severely damaged, it must be cleaned of all red rust before going back into service leading to added labour, time and costs.

Recommendation: Using a solvent based product will not allow for the long term storage of these pipes as it will evaporate and leave the metal unprotected. A wax oil or other more solid barrier will not do because the pipes are bundled and stacked and with the constant rubbing the hard coating will be compromised leaving unprotected steel. It was recommended to use Krown KL-73 Corrosion Inhibitor. This product will not evaporate and has the ability to heal over itself if scraping is to occur. Additionally, having this solvent free product minimizes any environmental impact where solvent based products create environmental and health concerns.

Result: The pipe that was already in service and was rusting was taken to a blast shop and cleaned. From there the KL-73 was applied and the pipes were taken to be stored. The pipes have been in use and storage for the last 3 years and are in “perfect condition” according to the customer.

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(Case Study – Cont.) Off Shore Drilling Company Industry: Off Shore Drilling

Cost Saving: This customer has not yet provided a detailed cost savings analysis.

Here however are some of the costs being saved currently:

Replacement of corroded pipes @ \$60-\$80 per pipe
Labour for cleaning of corroded pipes still good enough for use
@ \$25-\$35/hour
Transport and disposal of scrapped pipes @ ?
Total cost savings: Currently unknown