

North America

Operator captures \$8 million in production value with the improvement of cooling tower efficiency

A comprehensive cooling tower inspection yields critical repairs, enhances performance

CHALLENGE

- Urgent inspection needed due to damaged cooling tower components
- Reduced production caused by temperature and pressure issues

SOLUTION

- Inspection of cooling tower to return to optimum mechanical efficiency
- Operator replaced broken nozzles and missing components

RESULT

- Within two days, repaired and/or replaced 457 broken nozzles, missing torque tube covers, and sections of corrugated exterior paneling
- Supply water temperature reduced by 5°F
- Production increased by 80 tons/day
- Operator gained approximately \$8 million in production value from mid-May through August



Challenge

An ammonia manufacturing facility faced challenges due to elevated cooling water supply temperatures and pressure fluctuations after a freeze damaged nozzles in the cooling tower. With an urgent need to address these issues and increased demand on the horizon, the operator turned to Halliburton for assistance. Production rates would remain hampered until the cooling tower problems were resolved, and the impending summer months required maximum production rates to meet demand.

Solution

Halliburton leveraged their expertise to deliver mechanical, operational, and chemical solutions and thoroughly inspected the cooling tower. They identified 457 broken or missing nozzles and discovered that torque tube covers and sections of corrugated exterior paneling were absent. These missing components affected air circulation. The operator ordered replacement nozzles, covered the torque tubes, and replaced the corrugated panels.



Result

The recommended repairs led to a 5°F reduction in supply water temperature. As a result, production rates increased by 80 tons per day. The operator benefited from approximately \$8 million in additional production. This was notable because of the rate increase during the hottest summer months from mid-May to August.

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