

SAVE CRITICAL PARTS *continued*



BEFORE Sandblasted tube sheet and tube ends show why big condenser leaked brackish water into steam



AFTER Instead of replacing 17,800 tubes, 1/16-in. neoprene covers tube sheet; inside tube 6 in. from ends

Condenser Tubes and Tube Sheet Are Rescued From an Untimely and Needless Death

Thirteen years of tough service have eroded injection ends of these tubes to less than 0.010-in. wall thickness in some places. Leakage in condenser was excessive. In 42 hours, ends of 17,800 tubes were coated with a special neo-

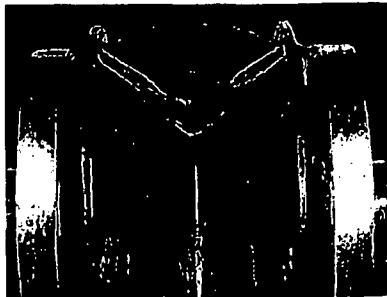
prene. That reestablished original tube-wall thickness to six inches back from tube ends where they were eroded. Tube sheet got 1/16-in. coating also.

At same time, tube-sheet gasket, between tube sheet and waterbox, was

sealed. Coated job has been in service and there is absolutely no leakage now. So coating has solved two very expensive problems. This condenser will give many years of life with same old tubes and tube sheets, saving costly outage.



BEFORE Cavitation eroded this 24-in. raw-cooling-water pump impeller after only 9 months' normal service



AFTER Some impeller rubberized with 0.035 in. film after cavitated areas were filled to reestablish contour

Pump Impeller Saved From Early Grave

This 24-in. impeller of raw-water-cooling supply pump is badly cavitated after only nine months' service. All vanes are eroded in same way. After sandblasting and priming, depressions were filled and leveled off to re-establish

lish contour of each vane. Doing this job right makes difference between failure or success of coating job.

Then impeller was coated with 0.035-in. film of neoprene and cured in drying room. Repaired pump has been running

since June 1949, and there is no indication of cavitation.

Film thickness is so well-controlled that impeller is balanced the same as before. Each layer is a different shade to make sure of covering entire area.



BEFORE Copper plate replaces 7 in. of receded tongue in this circulating pump before coating with neoprene



AFTER Here 0.090 in. neoprene covers eroded, built-up parts. Job cost \$1000. New pump's cost: \$30,000

So Is This Old Worn-Out Centrifugal Pump, Saving Owner a Fat \$29,000 Bill

This large circulating pump is badly eroded from long use. Cut of tongue has receded 7 in. As shown in left photo, it was first repaired with copper plate, held with countersunk screws.

Sealing ring seats were also badly

eroded, so new ones were installed. Photo shows them covered with tape to save being covered with neoprene.

With stage set for coating, 0.090 in. of No. 1460 neoprene covers eroded and built-up parts. Because of unusually

tough service, neoprene in this pump is reinforced with glass cloth.

Total cost of salvage job was only \$1000. New pump would cost \$30,000. Chances are coating will hold up many years, doing work of another new pump.

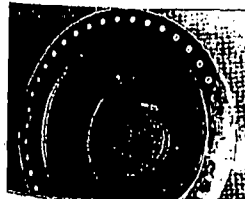
Other Repairs for Power-Services Equipment



COOLING-TOWER fan blade weighs 200 lb; 18-ft diam; balance must be perfect



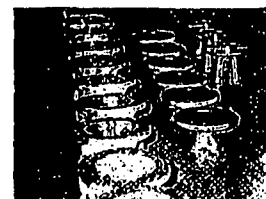
TRAVELING SCREEN and frame being inspected by Bill Seshier after coating with neoprene. Bare steel lasted one year, expected life of this coated job is 10 years



HEAT-EXCHANGER head has strainer plate; a 0.035-in. film prevents corrosion



LARGE BLOWER'S inside is coated so it works in 12% of sulfuric acid fumes



STEEL VALVES are 24 in. diameter, and will last long with inside surfaces coated