

## Challenge

### Background

- A 3,600 MW coal-fired power plant operated 6 units cooled by Fin Fan Heat Exchangers
- Each unit has 6 fans driven by a motor/gearbox assembly
- The plant struggled with constant gear oil leakage on the large auxiliary gear boxes for the cooling fans. The power plant was using an RTV silicone-based sealant as a gasket, which did not seal well and resulted in significant oil loss in addition to posing a fire hazard. There were also high downtime costs due to failed bearings
- Total loss was over: **\$1,245,000**

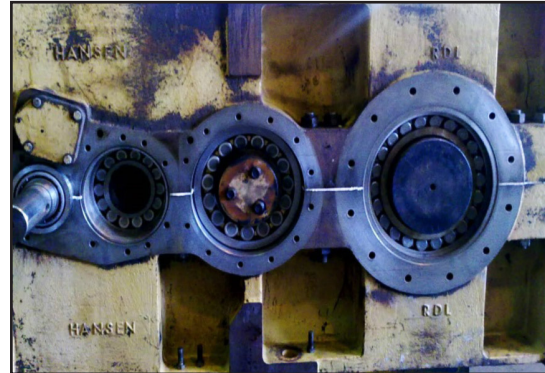


*Oil leaking, causing sparking and fire hazards, and environmental contamination.*

## Solution

### Product

- **Chesterton 860™ Moldable Polymer Gasket (MPG)** was used to seal the gear box casings. The unique 2-component, non-adhesive technology made a complete cure, even through thick sections and across wide flanges. **Chesterton 860 MPG** was preferred due to low odor, ease of use, and clean up
- Repair of the gear box sealed with RTV Silicone required 12 hours to disassemble, 3 days to repair, and 1 day to replace



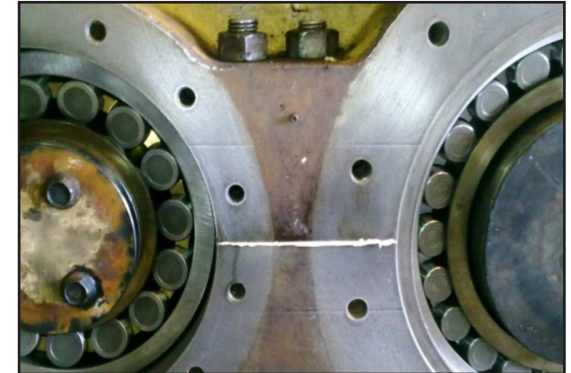
*Chesterton 860 MPG cures to form a perfect "form In place" gasket.*

## Results

### Cost savings

- 95% reduction in oil loss per year, saving \$45,000 for the 6 gearboxes
- Reduced labor, downtime and production (\$80,000/hour) to remove and replace the gearbox
- Saving in bearings per year - \$60,000 (7 bearings)

\$=USD



*Precise sealing keeps gear oil in and contamination out.*