

## Challenge

### Background

- Power plant was experiencing damage that resulted in loss of efficiency and productivity in a klinker grinder unit.
- Damage to the klinker was caused by water exposure, abrasive conditions, shock loading, and the lack of lubrication.
- The klinker presented constant leakage
- Typical unit rebuild costs due to bearing failures were \$23,600 annually per grinder unit.



Initial condition of klinker grinder.

## Solution

### Product

Complete grinder rebuild and upgrade using **Chesterton 1730 Mill Pack**, SpiralTrac type “P” stuffing box bushing, and **Chesterton style 5500 Live Load disk spring washers**. The bearing housings were also upgraded to labyrinth seal bearing protection and **Chesterton Lubri-Cup™** Automatic Lubricant Dispensers with **615 HTG #2** grease.

All fasteners were coated with **785 Parting Lubricant** throughout for ease of assembly and disassembly.



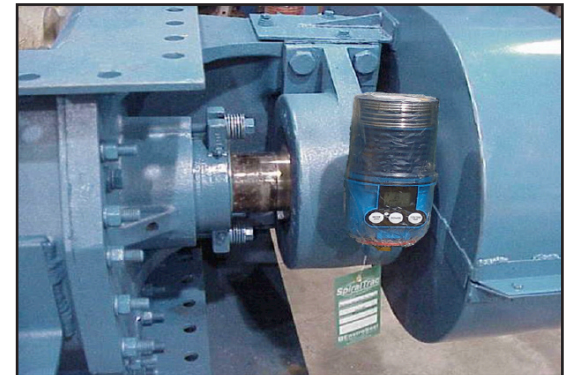
Klinker after Chesterton solutions were applied.

## Results

### Increased Efficiency

- After three months, the klinker grinder had minimal leakage, smooth operation, and no maintenance issues
- It is estimated that this upgrade will double the grinder’s service life and drastically reduce on-going routine maintenance costs.
- Based on parts and labor savings it is estimated this will save the plant over \$47,200 yearly, per grinder unit.

\$=USD



Closeup of Chesterton Lubri-Cup Automatic Lubricant Dispenser.