



J.T. THORPE & SON, Inc.

Established 1906

ENGINEERS and CONTRACTORS

Calpine The Geysers, Middletown, CA – Cooling Tower Basin Concrete Rehabilitation Work & Combustion Chamber Reline – September 2008

Background

Over the past 2 to 3 years, JTT has been successfully completing refractory reline work and repairs for a Cooling Tower Circulating Pump Pit at a geothermal power plant.

We have been looking at this Cooling Tower Basin Sidewall / Endwall / Partition Wall / Floor concrete rehabilitation job for the last year or so. We decided on a different material rather than an acid-resistant concrete type. The failure of the concrete in this basin was over-exposure to cooling tower water (composition of water is sulfur, mercury, arsenic, ammonia to name a few) over a 20-25 year period, where the existing concrete was showing a fast rate of deterioration mechanically and chemically. Therefore, our repair plan / recommendation was not only to install a corrosion proof overlayment over the existing concrete, but also to re-establish the structural integrity of the basin sidewalls / endwalls and partition wall. Also, we have used this same repair methodology for sulfur pit repairs, heat exchanger pedestal repairs, salt water pier supports/ columns.





