



Boiler-Refractory Division: Industrial Boiler Cleaning, Refractory Repairs And Relines.

### Boiler Cleaning and Refractory Maintenance For Your Facility

When it comes to boiler maintenance are you proactive or reactive? By far the worst strategy is reactive boiler maintenance. This may be defined as repairs made only when there is a failure. There is no planning, no anticipation of repairs that may be required to prevent failure. It is only when equipment fails that the operators will evaluate the cause and then try to make the repairs. The costs associated with these repairs are typically high both in labor, and associated down time. By far this is the least desirable approach to boiler maintenance. A proactive maintenance program pays dividends in not only peak boiler performance but also in the overall safety of those working in the boiler plant. Anchor Insulation Company believes in this proactive approach, and many New England companies rely on them for yearly inspections that evaluate immediate and future needs. Annual inspections, boiler cleaning, refractory maintenance, refractory repairs and relines.

Since 1980 many facilities throughout New England have relied on Anchor Insulation Company for pipe, duct and tank insulation, boiler cleaning, refractory maintenance, refractory repairs and relines for both water tube and fire tube boilers. Boiler heat transfer surfaces must be kept clean to provide for safe and economical boiler operation. Excessive fireside deposits of soot, scale, and slag cause: reduced boiler efficiency, corrosion failure of tubes and parts, reduced heat transfer rates and boiler capacity, blocking of gas passages, high draft loss, excessive fan power consumption, and fire hazards. As slag accumulates during operation, it actually insulates the tube from the heat of the boiler. Soot has a very high insulation capacity, causing more fuel consumption to reach the same temperature and produce the same output as a clean boiler. For example, some estimate that just 1/50" of scale deposit can reduce boiler efficiency by 4%. When too much soot is deposited and the passages become plugged, hot water washing, air lancing, scraping, brushing vac-cleaning and machine cleaning are generally used to clean the boiler and maintain efficiency.

Refractory maintenance seems to be the one component of the boiler that gets the least attention. The refractory protects the steel shell from high heat. Maintaining the refractory components will prevent hot spots, provide proper heat transfer wear needed, protect from gas loss, and proper combustion. These components usually consist of the burner cone, target wall, baffles, doors and floors. We at Anchor Insulation believe that proper refractory maintenance and proactive repairs will bring value to your facility. Proper gaskets and seals will always be a factor for good operations. Although it is difficult to calculate, generally a one to four percent energy and gas savings are typical.

Remember refractory maintenance is boiler maintenance.

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