

# Application Report

## Power Plant

A power company in Lake Charles, La. has two fluidized bed power generating boilers. These boilers burn coal for fuel and generate ash in the process. Stripper coolers on the down stream side cool the ash before it is removed from the system.

The stripper cooler is a chamber approximately 5' wide, 12' long, and 10' tall, with two brick baffle walls dividing the cooler into three chambers. Each baffle wall has an arched opening in the bottom of the wall, and air lances are used to move the ash from one chamber to the next for the cooling process. The ash blown with air lances is very abrasive, and was eats holes through the brick, requiring the Power Company to shut down and rebuild the walls fairly often.

The refractory contractor handling maintenance at the plant wanted a material to patch the brick instead of tearing out and rebuilding the walls. Thermbond Formula 12W was recommended for repairing the damaged brick due to its ability to bond to existing fired refractories in thin cross sections. The contractor installed several test panels of Formula Twelve-W as a trial to see if the material bonded as advertised and whether or not it could withstand the abrasion.

After several months of service the contractor and the power company reported that the Formula Twelve-W repairs held up quite well to the sever abrasion, and that the uncoated area showed abrasion wear spots around the perimeter of the Formula Twelve-W panels. The contractor has now completely coated the face of each baffle wall with Thermbond Twelve-W, and has started coating wear areas on the sidewalls with Formula Twelve-W.

While abrasion resistance and bonding strength were an advantage, so were the rapid setting and no thermal dry out requirements of Thermbond®. The Power Company is very satisfied with the results achieved with the Thermbond® Formula Twelve-W.