

Wood Products

Temporary Steam Plant Keeps Mill Operating During Boiler Changeover

Louisiana Pacific Corporation operates a hardboard and multi-density fiberboard (MDF) mill in Oroville, California. The plant runs 24 hours per day producing a wide range of hardboard products. The imposition by local authorities of more stringent air quality regulations made it necessary for the company to reduce NOx emissions from their boilers.

Newly enacted air quality regulations required Louisiana Pacific to reduce the NOx emissions from the steam plant at its hardboard mill. The steam plant has two boilers, a 40,000 lb/hr unit and a near-new 90,000 lb/hr unit. Whatever changes were made to the boilers to meet the new regulations had to be completed with little or no interruption to ongoing production operations. It was anticipated that the peak steam load during the changeover period would not exceed 100,000 lbs/hr, somewhat less than the combined capacity of the two existing boilers.

Modifications were made to the facility piping to accommodate a temporary, low NOx, 70,000 lb/hr, trailer-mounted boiler. This system was used as a replacement for the 90,000 lb/hr unit. It was decided to retain the 90,000 lb/hr boiler and convert it from wood fired to natural gas fired to meet the low NOx requirements. Even though this boiler exceeded the mill's current steam requirements, this option was chosen over the purchase of a new smaller boiler because it was more cost effective and provided for future increases in demand, should they arise. Delivery of the trailer-mounted boiler was timed carefully to insure minimum impact on production operations. The 40,000 lb/hr boiler remained on line but was operated at 75 percent of capacity, so that NOx emissions were within allowable limits.

Following installation of the temporary boiler, the existing 90,000 lb/hr boiler was converted to burn natural gas. It was returned to service after the completion of the conversion program. Operation of the 40,000 lb/hr unit continued at 75 percent of capacity during the conversion.



Customer Profile

- Louisiana Pacific Corporation
- Oroville, CA
- Hardboard and multi-density fiberboard mill

Supplied Equipment

- 70,000 lb/hr low NOx trailer-mounted boiler

Installation of the temporary equipment was handled by Louisiana Pacific maintenance personnel. In addition to emphasizing minimum interference with production operations, the installation design was customized to minimize manpower and require a very limited amount of downtime to implement.

The modified boiler system met both the plant's steam demand and the more stringent NOx emission limits. All of the objectives for supporting production operations during the changeover of the primary boiler were successfully accomplished.