



Case Study >> Western Farmers' Hugo Station

Sectionalized chemical injection ensures accurate dosing



Western Farmers Electric Cooperative's Hugo Station, a 475-megawatt coal-fired unit located in Hugo, Oklahoma, has been a satisfied customer since May 2003. The Hugo plant started using our Targeted In-Furnace Injection (TIFI) technology after suffering two major outages during the year due to slag which plugged up their boiler. The slag, also referred to as clinkers, would accumulate high in the boiler where individual pieces often grew to as big as 30 feet in length, 20 feet in height, and 3 feet in width. As Durlan Utley, Western Farmers' Engineering Superintendent, said, "When you are talking about a 130 foot drop, that is dangerous."

Western Farmers employed a number of methodologies to try to remove the slag. They used shotguns, dynamite, high pressure air and water, and would even go in with scaffolding to try to hammer it away. All of this work added incremental time and expense to an outage and further, could be damaging to the boiler tubes, sometimes requiring the tubes to be replaced. In addition, these outages were expensive as replacement power had to be purchased at market prices. Replacement power costs escalate sharply during the summer and winter months when power demand is higher, and they do not include the cost of the clean up, profit lost during the outage, and other secondary expenses associated with slag and loss of efficiency.

