

Teetering dual-axis jetter improves safety, efficiency of boiler cleaning process



**MPW
ACHIEVED
100-PERCENT
CLEAN WITH
NO ENTRY,
NO SAFETY
INCIDENTS**

An energy-from-waste plant in the Midwest faced the challenge of hiring an industrial cleaning partner that could improve the safety and efficiency of boiler-cleaning processes during outages.

Previous contractors encountered malfunctions and failures with their pumps when attempting to clean the boiler. This caused delays that interrupted other scheduled outage services and ended up being costly to the customer.

The plant contacted MPW to develop a superior boiler-cleaning system.

SOLUTION

MPW performed a boiler wash with 2D heads at 20,000 psi and a flow rate averaging approximately 75 gpm.

MPW employees raised a cable over the boiler and set up an automated single lance that began cleaning within 12 hours of the beginning of the scheduled outage. This system is capable of cleaning boilers with little to no delay after the boiler reaches offline status because its automated capabilities allow work to start before complete cool down. Since it eliminates confined space entries and water jetting by hand in the boiler, this is the most important aspect of automated cleaning.

The use of 2D nozzles was also more effective. While previous contractors utilized 3D heads, MPW operations personnel pointed out that 2D nozzles are a better fit for this project because 3D heads sprayed in directions that were unnecessary inside this boiler. MPW's 2D nozzles provided a more consistent clean in some of the hard-to-reach areas of the boiler.

The Teetering Dual-Axis Boiler Cleaner provides a safe, efficient and precise method for cleaning boiler tube lanes found in both mud drum and steam drum type boilers. Incorporating the ability to quickly switch out cleaning heads, the tool achieves an overall surface clean with a controllable teetering head to clean lanes between water walls, removing problematic buildup. The tool is useful in any circumstance that requires a span of up to 40 feet and provides limited support-placement options.

MPW workers were also able to complete additional cleaning responsibilities beyond what was originally planned. For example, MPW used its high capacity vacuum trucks to clean a debris-filled trench in the basement of the facility.

RESULTS

The entire project, including the unscheduled cleaning, took eight days. During this time, MPW achieved a 100-percent clean with no entry into the boiler and encountered zero safety incidents on this project.

MPW used advanced equipment that is less likely to fail and kept a mechanic on-site throughout the project to eliminate

potential delays that might be caused by equipment failures.

The client was pleased with the results of the cleaning and impressed with the company's equipment, innovation and communication processes. Plant personnel commented that MPW was a "one-stop shop" for any type of cleaning service they might need.

COMMITMENT TO SAFETY

MPW recorded zero safety incidents during this project

