

## A Forest Products Company in the Northwest



Coen supplied two natural gas CO-FYR burners on a Zurn 90,000 PPH wood-waste stoker. As a cogeneration facility, the site must maintain reliable output for power production but experienced production losses due to poor quality and shortages in the wood fuel supply. The site previously considered adding conventional gas burners for back-up to wood waste fuel. When they discovered they could utilize the simpler CO-FYR technology to improve their boiler performance firing wet wood, they jumped at the opportunity. Today the system runs smoothly and they have converted a second boiler to Coen CO-FYR burners.

## A Municipal Power Plant in Ohio



Coen supplied two natural gas CO-FYR burners for operation on a coal fired B&W 165,000 PPH (17 MW) spreader stoker boiler. The CO-FYR burners operate at only 10% capacity, minimizing the fuel cost differential between natural gas and coal. The primary incentive for cofiring was to recover lost derate and improve general operation. The plant was having excess opacity excursions above 150,000 PPH compounded by variations in coal quality. The two burners were placed in opposite boiler sidewalls in the typical staggered arrangement. The conversion was a success and benefits include opacity control, a 1.5 MW derate recovery, tolerance of low spec coal, and an increase in boiler efficiency of 1 to 2%.

## A Manufacturing Plant in Ohio



Coen supplied two natural gas CO-FYR burners for operation on a coal fired Wickes 75,000 PPH chain grate stoker boiler. The boiler supplies 150 PSIG saturated steam to heat the complex and provide process load. Fluctuating outdoor temperatures and varying process steam demand caused large swings in load demand resulting in a smoky stack. The solution was to base load the coal feed rate and have the CO-FYR burners handle the load swings. Benefits of cofiring at this plant are reduced NOx and SO<sub>2</sub> emissions below the 100-tons/year threshold for Title V, back-up on gas, improved efficiency, and improved opacity under all conditions and the load following capability.