



Boiler Upgrades Save Money & Energy: AstraZeneca - Newark

AstraZeneca is a global, integrated pharmaceutical company that discovers, develops, manufactures and markets prescription medicines. Headquartered in London, the company has 61,000 employees worldwide and operates four major manufacturing and R&D facilities in the United States. AstraZeneca's Newark, Delaware site is a 640,000 square foot pharmaceutical manufacturing facility that was established in 1971. An active partner in the U.S. EPA's ENERGY STAR program, AstraZeneca has earned ENERGY STAR certification for superior energy efficiency at both of its U.S. manufacturing sites and its U.S. headquarters building. The company also leverages ENERGY STAR tools & resources to help them achieve their goal of reducing greenhouse gas emissions 20% by 2015.

AstraZeneca's Newark facility uses natural gas boilers for space heating, domestic hot water, and process heating applications. To improve fuel efficiency and reduce greenhouse gas emissions, the Newark facility was interested in recovering the heat from their boiler's flue gas. After evaluating several options, the Newark facility selected a two-stage system, consisting of a direct contact and an indirect contact heat exchanger developed by Sofame. This system allows the Newark site to recover more heat from the flue gas than traditional heat exchangers or economizers. By utilizing the recovered heat to preheat water for various processes, including boiler make-up, the Newark facility has reduced boiler fuel consumption, energy costs, and greenhouse gas emissions.

Savings:

- ✓ 15% reduction in natural gas use.
- ✓ Lower fuel costs.
- ✓ Reduced annual CO₂ emissions by 1800 metric tons.
- ✓ Reduced NO_x emissions.

Additional Benefits:

- ✓ The CO₂ reduction at the site supports the corporate goal of a 20% reduction in greenhouse gas emissions.
- ✓ The estimated payback of this project is between 4 to 5 years and meets AstraZeneca's requirements for strategic climate and energy projects.
- ✓ Increased efficiency will help to ensure ENERGY STAR certification in the future.
- ✓ Continuously improving energy efficiency keeps the facility competitive.