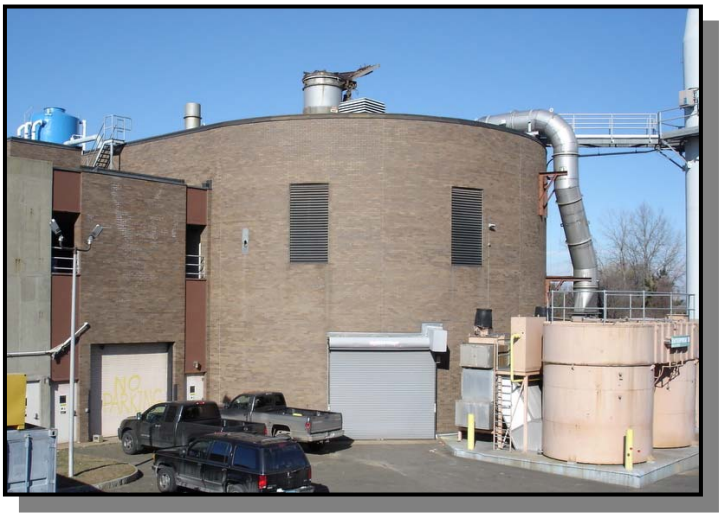
Biosolids Energy Project

750 kW Biosolids Energy Electrical Generation Unit
Greater New Haven Water Pollution Control Authority (GNHWPCA)
New Haven, CT



American Heat and Power developed a biosolids-to-energy project to produce electricity from the waste heat of the existing biosolids thermal processor at the New Haven Water Pollution Control Facility in New Haven, Connecticut. The energy recovery facility consists of a single waste heat recovery boiler recovering heat from the multiple-hearth furnace, providing high pressure steam to a turbine-driven electric generator.

AHP developed a computer-based model which maps the performance of multiple hearth furnaces, allowing accurate estimates of the energy performance of the upgraded furnaces. This model was used to predict the anticipated performance of the furnaces as they supplied heat energy via the exhaust stream to the new waste heat boilers over the next 20 years of the anticipated steam/electric plant life. Actual plant operating data provide by the furnace operator was placed into this detailed operating model to aid in the design and development of an optimal solution for the facility.

The New Haven Biosolids Energy Project will produce up to 750 kW of power from the exhaust of the biosolids furnace that was formerly wasted. 100% of the energy produced will be used to offset energy costs at the plant, thus saving the taxpayers millions of dollars over the life of the project, and reducing our dependence on fossil fuels.

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