



Sanofi Pasteur Central Utility Plant Saves Energy And Emissions

Nine years ago, sanofi pasteur embarked on a plan to save energy, reduce emissions and lower maintenance costs by centralizing its steam and chilled water production, while preparing for company growth in Swiftwater, Pa. Through two phases of a competitive RFP process, H.T. Lyons was awarded the design-build contract for a 9000-ton chiller plant and 133,000 pounds per hour steam boiler plant. H.T. Lyons and sanofi pasteur engineers worked together to select the equipment for optimum performance, efficiency and use of best-available boiler technology to minimize emissions. An energy management system and variable frequency drives were installed to optimize staging of equipment as the load varies.

Sanofi pasteur's Allen Foust said, "We knew this would save us money during our rapid growth phase, and we were excited about receiving the Pennsylvania Diamond Award for Engineering Excellence."

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H.T. Lyons provided engineering and construction services for these energy-efficient variable speed chillers at Sanofi Pasteur. Each phase was completed in less than 12 months from design start to final commissioning, according to Craig Kauffman, Manager of Major Project Development.

Energy Services Takes Off

Building owners or managers know their annual energy costs, but how do they compare against similar type buildings? H.T. Lyons is able to "benchmark" a building's energy use using the Department of Energy Portfolio Manager program that rates on a scale of 1 to 100. For example, a building with a 75 rating (which qualifies for Energy Star™) means the building is more efficient than 75 percent of similar buildings. Floor area, hours of use, equipment size, HVAC system, occupants, computers, and lighting are included in the analysis. PPL Plaza and Dun & Bradstreet, two H.T. Lyons design-build projects, both meet the Energy Star rating.

An energy efficiency improvement project can save costs while correcting comfort issues. H.T. Lyons' in-house engineering group completed over 700,000 square feet of building energy studies in 2009. These included commercial, educational, governmental, and high-rise residential facilities in Pennsylvania, New Jersey, and New York. The cost for a study depends on size and complexity and is typically relative to the annual energy costs. A Level 2 study analyzes energy use and provides recommendations for improvements that will pay back in less than five years. H.T. Lyons is active in green building and a sustainable approach to design and construction. In fact, H.T. Lyons has built over \$50 million in LEED projects since 2002.

For more information, please visit our Web site at www.htlyons.com, or contact Marla Mazzocco in the Allentown office. Ask if rebates through Pennsylvania Act 129 will help with an energy retrofit project. In New Jersey, H.T. Lyons is a "Direct Install" and "Pay for Performance" partner in the state's Clean Energy Program.

Bethlehem Medical Arts Building Pays Back

In the spring of 2008, would you have invested \$100,000 to achieve a 50 percent return on investment? Due to poor energy performance, the owners of the Bethlehem Medical Arts Building did just that to improve their facility's energy efficiency and lower operating costs.

H.T. Lyons implemented energy saving measures throughout the facility, including equipment control upgrades, correcting building ventilation, recommissioning of VAV boxes, and redesign of inefficient building systems. One year after the project's completion, the savings on the utility bills was an astounding \$50,591. That's a great return in any economy!

Sanofi Pasteur

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H.T. Lyons' current staff on site includes plant operators and service technicians who maintain and ensure the equipment is running at its peak efficiency. With 24/7/365 operation, the boiler plant is 87 percent efficient and the chiller plant operates using under 0.6 kW per ton — a measure of electricity consumption to cooling output — and a 40% efficiency improvement compared to standard air-cooled HVAC equipment. Sanofi Pasteur saves 9 million kilowatt-hours and emissions are reduced by nearly 7,000 tons each year. H.T. Lyons' plant operators have been able to maintain 99.998 percent up time since November 1, 2003. During that time, the site has doubled its space and load on the plant.

Tom Schenke, Deputy Director of Project Engineering for Sanofi Pasteur, stated, "This plant has been a success from day one due in large part to the teamwork among the engineering, maintenance and operations groups at Sanofi Pasteur and H.T. Lyons. The high efficiencies and successful operating record are remarkable considering the constant change in load conditions."

Bethlehem Medical Arts Energy Costs:

