

PURDUE CALUMET - GYTE SCIENCE BUILDING

\$86,485 Annual Energy Savings

Purdue University initiated an energy reduction project in 2009 and selected Performance Services to design and implement significant improvements to the Gyte science labs, fume hoods, classrooms and lecture halls. The result is that the project will pay for itself in just four years.

RESULTS:

- Significant reduction in laboratory energy costs
- Greatly improved temperature and humidity control
- Enhanced Purdue's ability to maintain and operate the building

SCOPE OF WORK

LABORATORY FUME HOOD CONTROLS

Installed control sequences to reduce fume hood exhaust manifold fan power energy costs while maintaining the minimum required stack discharge velocity, proper space pressurizations, and minimum required air changes in the lab areas.

Converted existing fume hoods to variable volume control and modified sash sensor and hoods.

Reprogrammed the existing lab room supply air valves to VAV operation.

Added de-commission mode to fumehood controls.

HVAC MODIFICATIONS

Installed dedicated air handling units and variable frequency drives and DDC controls with demand ventilation control.

Installed chilled water control valves on existing air handling units to reduce chilled water pumping requirements while maintaining discharge air temperature.

INTERIOR LIGHTING RETROFIT

Optimized the existing controls on the variable speed building chilled water pumps to reduce pump energy costs.

Replaced inefficient ballasts and T12 lamps with electronic ballasts and T8 lamps.



GYTE SCIENCE BUILDING HAMMOND, INDIANA

CONTRACT:
\$367,422

GUARANTEED ENERGY SAVINGS
SIMPLE PAYBACK 4.1 YEARS

COMPLETION MONTH/YEAR:
DEC 2009

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ABOUT PERFORMANCE SERVICES

We are a design-build engineering and construction company specializing in creating optimal learning environments. By valuing relationships and workmanship over change orders and shortcuts, Performance Services strives to earn a 100% Customer Satisfaction rating.

