

This project won a highly competitive C&I energy efficiency grant from the Maryland Energy Administration.

Situation

Goal: Improve airflow management to reduce operating costs and upgrade facilities.

Before: USP had Constant Air Volume (CAV) fume hoods and snorkel exhausts in 19 laboratories scattered over 2 buildings.

After: The upgraded VAV systems remain very safe, utility costs are reduced, and the infrastructure is more manageable.

Project Scope


TEL served as the prime design/ build contractor. This project converted all lab airflow systems from CAV to Variable Air Volume (VAV).

The 32-fume hood retrofit upgraded systems with TEL AFA 1000/E VAV Controllers. The systems are equipped with audio and visual alarms which direct users to close combination sashes left open more than 5 minutes.

The AFA 1000/E modulates a fast-acting



Plenums impeded maintenance (before photo). The TEL solution created redundancy and increased access by combining plenums.

US Pharmacopeia 

Client Industry: Pharmaceutical

Client Location: Rockville, MD

Project Type: Fume Hood, Vents, & Lab Retrofits

Project Cost: \$871,000

Total Project Incentives: \$522,015

Annual Energy Savings: \$187,542
1,081,429 kWh/KW
60,277 Therms

actuator retrofit to an existing Venturi Valve, or new mono-blade damper, to contain and control face velocity to 100 fpm.

TEL Room Pressure Controllers modulate the supply air to maintain negative air pressure.

Siemens integrated TEL controls into the existing BMS through a BACNet interface. This provides data point visibility through the Siemens front-end. The system includes a “night setback” protocol to reduce ACH rates when unoccupied.

“TEL delivered the energy benefits they promised while improving the building infrastructure. They did a great job.”
Darryl Terry, Facility Manager, USP

TEL provides laboratory solutions that deliver a safer workplace environment, increased energy efficiency, and improved operational performance.

TEL is a world leading manufacturer of laboratory airflow controls and monitors. In North American, TEL also provides engineered turn-key retrofits, retro-commissioning, and other products for new and existing laboratories. For more information, please visit www.tel-americas.com, or call us at 920.267.6111.