



**Service/Product Provider**

***F. E. Moran Mechanical Services, Inc.***

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Business: HVACR Contractor

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**Industrial Partner**

***PepsiCo, Inc.***

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Business: Beverage Manufacturing

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**F. E. Moran Mechanical Services installs low-leak dampers, saving over \$9,000 in annual utility costs for PepsiCo**

**Project Scope**

In 2010, F.E. Moran implemented a retro-commissioning project at a 225,000 square foot PepsiCo facility. A number of high impact recommendations were identified and implemented.

**Project Summary**

A leaking OA damper was identified in a 38,000 cfm air handling system, causing unnecessary steam and fan usage during the facility's unoccupied hours. To overcome the leak, the facility ran the system and opened the steam valve 100%. When the space temperature was satisfied, the air handling system would be disabled, but the heating valve would remain at 100%. Installation of replacement dampers allowed the system to be disabled and the steam valves to be closed during unoccupied hours, daily, and during weekends.

- **Energy Savings**  
Reduced fan energy by 26,636 kWh, cooling energy by 6,567 kWh, and steam by 11,885 therms
- **Investment**  
\$4,968 for the replacement damper, installation, and commissioning
- **Financial Return**  
6 months simple return on investment
- **Other Benefits**  
The damper motor was the same age as the damper and leaked control air. Replacing the actuator with the damper also reduced compressed air consumption.

**Monitoring & Verifying Energy Savings**

Energy savings were calculated as cost avoided due to reduced fan energy, cooling energy, and steam energy, normalized for hours of operation. Weather normalization was not applied, but would increase calculated savings notably if considered.

**Distinguishing Value**

F.E. Moran performed this improvement measure as an end of year, non-budgeted project. Their immediate action upon problem identification enabled the project to be completed successfully within a short time frame, and with high quality, delivering immediate savings for PepsiCo.