



NSF International
Ann Arbor, Michigan

Case study

NSF helps protect the public by certifying products and writing standards for food, water, air and consumer goods. Their testing laboratories in Ann Arbor, Michigan test thousands of products each year. The testing labs require close environmental control to maintain the integrity of the testing process and to not introduce any variables into the results.



NSF International

- **Ann Arbor, MI**

Mee Fog Humidifier Installation

- Mee Fog High Pressure Humidification System For Four Air Handlers

Benefits:

- Reduced Energy Consumption
- Lower Maintenance Costs
- \$75,000 Savings Per Year

The Lab area and supporting office areas were humidified using (9) gas fired steam generators. The high energy costs and extensive maintenance required to keep the units operating was stressing the building maintenance team's resources.

When the decision was made to look at alternate methods of humidification, NSF called upon Mee Fog to assist them in designing a humidification system that would provide the humidity control they desired in an energy efficient manner.

The building has four air handlers, rated at 30,000 cfm each, with (2) units operating as 100% make-up air units for the lab exhausts and (2)

operating on economizer cycles for the office and support areas. The units are served by a single high pressure Mee Fog pump that provides 1000 psi water to the nozzle headers via staging solenoids.

The system is controlled by the Siemens building control system.

Each of the make-up units have a maximum load of approximately 1000 #/hr, while the general area units have loads of 300#/hr. The load is matched by using staging solenoids that bring on nozzle headers in various combinations. Excess moisture that is not absorbed into the air stream is collected on the cooling coil and drained away. The total electrical load for this system is 2.25 kW.

Annual energy savings compared to gas to steam humidifiers, is in excess of \$75,000, with a further reduction of \$18,000 in annual maintenance costs. NSF is presently adding 50,000 sq.ft. to their Ann Arbor facility and this will be humidified by a Mee Fog system as well

For Further Information, Contact:

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