



SEBESTA
BLOMBERG

PROVIDING SUSTAINABLE TECHNICAL
AND BUSINESS SOLUTIONS

CASE STUDY

3M Company, Inc. - St. Paul, MN

FAST FACTS

- 3M's worldwide sales tops \$22.9 billion
- 3M employs more than 75,000 people worldwide
- 3M products are sold in nearly 200 countries
- 3M has approximately 145 plant locations worldwide

NORTHRIDGE PHARMACEUTICAL PLANT

Founded in 1902, 3M Company, Inc. is a multinational diversified technology company with a presence in over 60 countries. Sebesta Blomberg has provided engineering and mechanical, electrical and plumbing design services to 3M since they started business in 1994. Today, Sebesta Blomberg serves 3M as a major multi-disciplined engineering service provider.



Due to competition for dollars between process needs and the need to upgrade their utility systems, 3M asked Sebesta Blomberg to justify needed chilled water system improvements through energy cost reduction. The operational improvements were provided in a package with the cost saving that yielded a payback of less than 3 years.

In 2004, Sebesta Blomberg was retained for a chilled water system improvement project that would dramatically reduce energy costs for a 3M pharmaceutical plant in Northridge, California. The scope of the project was to identify changes in equipment configuration, control sequences and operational parameters to reduce energy consumption as well as upgrading the reliability and performance of the critical cooling system at 3M's Northridge pharmaceutical plant.

Sebesta Blomberg's services included the initial assessment of plant systems and sufficient preliminary design to provide economic justification for project funding. After funding, efforts included the preparation of design documents, procurement, system startup, commissioning and training. Project highlights included variable flow pumping, control valve modifications at the end users, enhanced instrumentation and revised control sequences. Additional metering was added in this project to complement the existing metering 3M had in place to trend critical utility functions, establish a baseline of energy usage and verify project results.

Upon completion in 2006, the project resulted in a 25% reduction of the plant's chilled water energy consumption, an estimated \$72,000 per year savings. The project also improved system reliability, reduced maintenance costs, expanded system automation and provided a more stable chilled water service to the pharmaceutical processing functions.

As a result of their long-term relationship and understanding of standards, procedures and personnel, Sebesta Blomberg continues to be a primary 3M engineering service provider. This relationship was featured in a joint 3M/Sebesta Blomberg Energy Star web cast that highlighted the Northridge project as a successful example of an engineered savings program.