

Case Study

KMS Helps Keep Water Facility in Top Shape



Project Details

Location: Franklin, Massachusetts

Application: Technical Service and Support

Capacity: 1.2 MGD

Engineering: Franklin Public Works Department

Commissioned: 2008

Overview

Located in southeastern Massachusetts, the Town of Franklin is a fast-growing community with about 30,000 residents. Population is projected to eventually exceed 40,000, and the rapid population growth in the area has strained water resources. The town continues to seek new sources, but state policies limit water use and state permission is required for large water consumption.

These water limitations required Franklin to construct a new water treatment plant, which came online late 2005. The plant allows Franklin's municipal wells to pump much closer to their legal and physical capacities, which had been severely limited by high iron and manganese content.

The newly commissioned water treatment plant has a capacity of 1.2 million gallons per day and uses a two-stage, hollow fiber ultrafiltration (UF) system provided by Koch Membrane Systems (KMS). The facility is PLC-controlled with customized software that integrates with the Town's system and can be operated remotely.

"We went through the startup and warrantee periods fairly smoothly," said Alfred Boone, Franklin's water/sewer superintendent. "About a year ago, we saw the need to have technical support for the sophisticated control software and the human-machine interface (HMI) screen. Occasionally, the operator could not reset some element of the system, or perhaps there was a false diagnosis with the membranes. We needed immediate response, but were outside of the service period in our initial contract."

The Challenge

To find a responsive, cost-effective service and support program to keep the water treatment plant running at top performance.

The Solution

KMS offered the Town of Franklin the KMS ASSIST® Service & Maintenance Program.

The KMS ASSIST Service & Maintenance Program is a comprehensive service program designed to optimize membrane system performance. Promoting long term efficiency by regular site visits, keeping plant personnel trained, and

providing dedicated support are at the heart of the KMS ASSIST Service & Maintenance Program.

Municipalities and industries that have invested in one of KMS' many standard or customized membrane systems rely on the KMS ASSIST® Service & Maintenance Program to keep it running at optimal levels. KMS qualified personnel provide skilled support to help keep their membrane system running smoothly... now and in the future.

The KMS ASSIST model is working very well for the Town of Franklin, and KMS is moving toward using this model for similar water plants. KMS is in the process of establishing an advanced monitoring station at its facility in Wilmington to serve as the KMS ASSIST nerve center. Process and field service engineers can review customer system data in historical and real time, recognize trends, and pro-actively suggest solutions before they become significant problems.

The Program

Franklin's new drinking water filtration system was designed by KMS in 2005. The KMS ASSIST Service & Maintenance Program began in 2008, giving the town a customizable menu of support options that includes pretreatment, cleaning, remote monitoring, and a parts and maintenance program. The KMS ASSIST Service & Maintenance Program is a win-win proposition for the town, keeping costs down, providing quick access to necessary servicing, and proactive system maintenance advice.

To increase efficiency and keep the Franklin plant up and running under all circumstances, KMS installed a secure dial-in phone line that it uses to access the system, retrieve data, analyze process problems, and give the Town recommendations. When KMS technicians arrive at the site they are fully prepared to quickly resolve the problem.

According to Public Works Director Robert A. Cantoreggi, "We are extremely pleased with how the KMS ASSIST Service & Maintenance Program has worked for us. Keeping our plant operating means we don't have to incur additional costs and inconvenience by purchasing water from another town while our system is sitting idle. We've been getting on-site service within 24 hours of our call for the most part. Also, we have put into place purchasing mechanisms that get us our parts in a timely fashion."

The KMS ASSIST Service & Maintenance Program gave the Town of Franklin just what it needed to keep its water treatment plant running at top performance. The municipality is now able to provide high quality water to the thirsty inhabitants of this fast-growing Boston suburb.

Program Overview

KMS Assist Program value added benefits include the following:

Site Visits

- Review membrane operation.
- Inspect membrane condition and performance.
- Controller/ instrument optimization.

Remote Data Acquisition/Monitoring

- Real time observations.
- Improves system performance and reliability.
- Proactive response.
- Data is securely archived.

Telephone Support

- Rapid Response.
- Emergency support.
- Experienced personnel.
- Peace of mind.

Performance Enhancing Reports

- Benchmark and track membrane performance.
- Suggest cost reduction measures.
- Recommendations for system optimization.

Training

- Real world advice.
- Balance of classroom and hands-on training.
- Consistent operations.
- Better maintenance and methods to lengthen membrane life.



Koch Membrane Systems, Inc.

850 Main Street, Wilmington, MA 01887-3388
Main: 1-978-694-7000 • Fax: 1-978-657-5208
Toll Free: 1-888-677-5624

Visit Our Web Site for International Contacts:

www.kochmembrane.com

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