

Fuel Oil Maintenance and Filtration Systems



Critical Fuel
Systems

A division of BFS Industries, LLC

Why worry about fuel maintenance?

Fuel oil is used much differently today than it was a decade ago. Historically fuel oil was used as a primary fuel with rapid turnover. Today, fuel oil is almost exclusively utilized as a stand-by energy source to be used only in emergencies.



Fuel oil has a short shelf life when left untreated and starts to degrade as soon as it is refined. The refining process leaves water entrained in the diesel fuel and new moisture enters through tank vents. Over time this water settles at the bottom of the storage tank.

At the fuel/water line in a storage tank, one could find more than two dozen different species of microbial life feeding on the fuel, producing more water and growing to form a filter-clogging mat. This contamination can take a generator or boiler down cold.



How does fuel oil maintenance work?

The first step in fuel oil maintenance is to remove the water and filter out the particulate from the fuel in the storage tanks.



A small cabinet-mounted fuel maintenance system



A large, skid-mounted system complete with chemical injection and a waste-holding tank

The next step is to prevent future microbial growth with a biocide treatment and maintain fuel quality by adding cetane boosters and stabilizers as necessary.

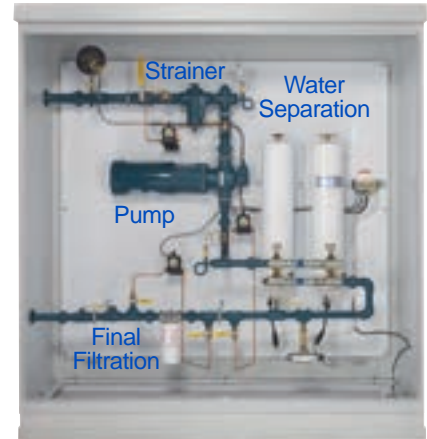
The final step is to test the fuel regularly to determine the effectiveness of the fuel maintenance program. The operator can then adjust the filtration and additive dosage schedules accordingly.



A Truly Modular Maintenance and Filtration System

Filtration Module

Filtration is the foundation of a fuel maintenance program. This is where water and particulate contamination is removed from the storage tank. The process utilizes multiple stages of filtration for particulate removal: a coalescing stage for water removal, a pump to circulate the fuel, and tank selection valves. These systems are available fully enclosed in a cabinet or mounted on a structural skid.



Waste Holding and Chemical Injection

Without this module, operators may be required to empty the small reservoir several times during the filtration run cycle. By choosing the waste holding option you can reduce these nuisance maintenance issues.

The chemical injection module provides a way to automate the treatment of your fuel oil. The system can automatically inject biocides, cetane boosters, and stabilizers into the fuel to dramatically extend its shelf life and improve the reliability of your generator or boiler system.

The waste holding and additive injection modules can be provided separately or mounted on a common skid.

Control Options

You have several options for controlling the maintenance and filtration system. The options include a dedicated controller, based on a microprocessor with a touch-screen operator interface. If this fuel maintenance system is part of the Critical Fuel Systems' Total Fuel Management System (TFM), you could simply interface with the TFM. Though rarely used or recommended, the third option is a simple manual operation.



Your Representative