

The Law of Unintended Consequences and Fuel Storage

We have all had a lot to deal with so far in 2020! The safety of our family and friends, falling oil prices, and lack of demand are stressful for many of us.

We genuinely hope you are safe, healthy, and that current events pass quickly so we can eventually return to normalcy. Though we cannot control everything, we can plan to help minimize and prevent known future issues.

THE NEW FUEL STORAGE PROBLEM:

One issue that is directly affecting our industry is increasing inventories, coupled with rapidly decreasing demand. The national “stay in place” policy has reduced fuel consumption significantly, and now many of us have fuel tanks that are not turning over as frequently.

Many airports are at capacity for jet fuel, and some terminals are not turning their tanks over, making it difficult for them to convert to summer grade fuel. When the economy picks up, and our downstream customers begin taking more frequent fuel deliveries, they may receive fuel that is many months older than planned.

To help plan for this, we must consider several factors. Where was the fuel stored and how long it was in storage? What were the conditions of the storage tank? Could the loss of storage stability lead to unintended filter plugging or engine issues?

The useful life of stored fuel depends on various factors such as the length of storage, temperature, exposure to air, and the presence of water bottoms. For commercial fleets and retail heating oil systems, local storage tank conditions are critical. For heating oil systems, the presence of a copper return line (for high volume fuel systems) can act as a catalyst for fuel degradation since the fuel may already have aged beyond the intent at manufacture.

Even though ULSD is known to be more stable than prior diesel fuels, time and tank conditions will stress its quality. The potential for unplanned downtime cries out for vigilant tank maintenance to ensure that we avoid future quality problems.

Most fuel treated at the refinery is not intended to be stored for a month because it usually is expected to be used within a short time.

It is common practice to account for longer storage duration in the following situations:

- 1) The final fill of the winter season when most retail heating oil tanks are topped off for the summer.
- 2) In cases where fuel is stored a longer period for emergency use, as in standby generators and power plants.

We all expect our fuel to perform when called upon. Currently, there is an increased risk of fuel degradation occurring during storage, which could lead to issues such as rough running engines, inefficient burner operation, filter plugging, or even a fuel system shutdown. Once the economy returns to normal, higher fuel throughputs could also cause filters to load up and plug sooner if proper plans are not in place.

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Proper treatment with a multi-functional additive significantly improves fuel characteristics to prevent storage degradation. To prepare fuel for storage, it is important to use a fuel stability additive that will inhibit degradation over time, disperse and remove water, inhibit microbial growth, and protect fuel system components from corrosion.

ET Products Pro Force 2740 contains advanced technology that will clean and protect fuel storage systems by offering the following benefits:

- It stabilizes fuel and disperses accumulated sludge that can form in the fuel system.
- If water is present or enters the system, it will be safely removed.
- Added corrosion inhibitors also protect metal tank surfaces.

These components should increase storage life enough to eliminate many of the problems mentioned.

If you have any questions, we are here to help.