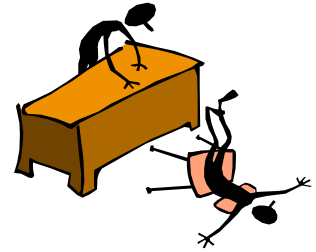


LESSONS TO LEARN BY



Storage Tank Leak

What happened?

A double-walled steel aboveground diesel tank was found to have fuel in the interstitial space (the area between the inner and outer tanks). This space has an interstitial monitor that alerted facility personnel to the problem.

What were the Causes and Contributing Factors?

Although this tank was only 10 years old, it had rusted from the inside due to the presence of water in the fuel. Photos of the tank show significant pitting. Fortunately, the tank was double-walled and there was no release to the environment.

Water can enter a tank in several ways. As oil is drawn from a tank, air is pulled in. This air contains moisture which will condense inside a cool tank. If the fill cap is left off, water may enter the tank through this opening. Water could leak into a buried tank if the fittings at the top of the tank are not attached properly or if the tank has a leak. Water may also be delivered with a "bad batch" of fuel. The water then combines with the sulfur in the fuel and corrodes the tank.

What Corrective Action was taken?

All of the fuel was pumped out of the tank and the tank was disposed.

How can incidents like this be prevented?

Facility personnel must test for water in tanks on a monthly basis. The procedure for doing this is:

- First apply water finding paste to the bottom of the dipping stick,
- Next, slowly lower the stick into the fuel through the fill pipe (it is important to let it down lightly on the bottom of the tank to prevent wear), and
- Then remove the stick. A changed color indicates the presence of water.

If you do find a small quantity of water the simplest way to remove it is to use water-only absorbent socks. If there is a large quantity of water present in the fuel (several inches or more), contact the fuel delivery company to have the tank pumped and the water removed through a filtering system.