
CHS

# Energy Minute

July 2014

## SPCC Changes Guidelines

The President has signed into law (June 10, 2014) H.R. 3080, the *Water Resources Reform and Development Act* (WRRDA) which affects the Spill Prevention Control and Countermeasure (SPCC) rule as it pertain to farms.

Breakdowns of the changes to EPA's SPCC rule for farms are included below:

| SPCC Under Previous Law | SPCC Changes Under WRRDA 2014 |
|---|---|
| **When determining total aggregated aboveground fuel storage capacity, producers are required to include any tank of 55 gallons or more.** | **When determining total aggregated aboveground fuel storage capacity, producers are required to include any tank above 1,000 gallons.** |
| Aggregated aboveground fuel storage capacity of less than 1,320 gallons exempt from SPCC requirements. | Aggregated aboveground fuel storage capacity of 6,000 gallons* or less are exempt from SPCC requirements. |
| **Tier I**: A farmer may self-certify their SPCC plan if they have an aggregated aboveground fuel storage capacity of 1,320-10,000 gallons and do not have an individual tank 5,000 gallons or larger. | **Tier I**: A farmer may self-certify their SPCC plan if they have an aggregated aboveground fuel storage capacity of 6,001-20,000 gallons and do not have an individual tank greater than 10,000 gallons. |
| **Tier II**: A farmer must have a Professional Engineer certify their SPCC plan if they have an aggregated aboveground fuel storage capacity greater than 10,000 gallons or have an individual tank 5,000 gallons or larger. | **Tier II**: A farmer must have a Professional Engineer certify their SPCC plan if they have an aggregated aboveground fuel storage capacity greater than 20,000 gallons or have an individual tank greater than 10,000 gallons. |
| | *EPA along with USDA are to conduct a study within 12 months and release a rule for public comment within 18 months to set a new fuel level exemption to be at no less than 2,500 gallons and no more than 6,000 gallons. |

Please note, the increased aggregated capacities are not effectively immediately (as noted by the asterisk in the table above). The legislation calls for a study to be conducted by the EPA and the USDA within one year of the bill becoming law to determine whether the 6,000 gallon aggregate aboveground storage exemption level is appropriate. Based on the results of that study, the exemption level may be lowered from 6,000 gallons, but cannot be lowered below 2,500 gallons, based on a significant risk of discharge into water. Once the study is complete, EPA and USDA have 18 months to write a rule to adjust the exemption level, and that will be subject to a public comment period.

In regards to what is effective immediately (as this gets confusing), the legislation increases the threshold levels for when a farmer will be required to hire a professional engineer (PE) to write a SPCC Plan –

- Individual tank with capacity of 10,000 gallons or more;
- Aggregate storage capacity of 20,000 gallons or more;
- spill history;
- Farmers with less than 20,000 aggregate can self-certify their SPCC Plan.

# What is Oxidation?

Cenex

Simply stated, oxidation is the destruction of molecules due to chemical reactions caused by exposure to oxygen at high temperatures. This process is no different from the reactions that causes your car or truck to rust over time. And, similar to other corrosive processes on/in related materials, the presence of metals accelerates the consequences of oxidation.

The acceleration of oxidation depends on several factors. In addition to the presence of metals, high temperatures play a critical role in increasing this rate exponentially. As the temperature increases, the rate of oxidation increases. The general rule of thumb is that the rate of oxidation doubles for every 18 degrees Fahrenheit rise in temperature (above 165 degrees Fahrenheit).

**What are the consequences?**

-Viscosity increases
-Acid levels increase (which attack surfaces, particularly copper-lead bearings)
-Deposits, sludge, and varnish form (which can lead to filter plugging and fouling)
-Corrosion
-Foaming
-Additive depletion

**How can you reduce the effects of oxidation?**

Oxidation inhibitors, part of the additive package, reduce and control oxidation. Other additives that control the temperature of the oil will also slow down the acceleration rate.

As synthetic oils are more oxidatively stable by nature, they are often required in high temperature applications to prevent the oxidation process.

So, while using higher quality base oils with complex additive package and controlling temperatures can help limit rate of oxidation, the oxidative process can still take hold and breakdown the oil molecules. To assess the state of the oil and measure the levels of oxidation, there are several indicators from an oil analysis that can be analyzed.

June was a pretty active month for the energy side, with diesel gaining a little over $.06 for the month, and gas losing about $.02. The big news event that put pressure on the energy market was the fighting in Iraq. Fighting in Iraq, seeming to be contained, the markets started to reacting with lower prices. In July keep an eye on the Iraq fighting along with a possible deal reached between Ukraine and Russia. Ukraine has finally started gaining ground back from the rebels in Eastern Ukraine.