



west virginia department of environmental protection

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MEMORANDUM

TO: Underground Storage Tank (UST) Owners and/or Operators

FROM: WVDEP -Tanks Program

SUBJECT: EPA's Corrosion Study – *Investigation of Corrosion-Influencing Factors in USTs with Diesel Service*

DATE: July 25, 2016

EPA has recently published a report related to Corrosion in Diesel Tanks. A link to the report can be found at <https://www.epa.gov/ust/investigation-corrosion-influencing-factors-underground-storage-tanks-diesel-service>

A brief summary of the findings from the EPA research indicated the following:

- Corrosion on metal component in USTs storing diesel in the United States is common. Corrosion affects not only steel tanks but metal components in fiberglass tanks.
- Corrosion on the upper vapor space of the UST system is far more likely to occur than previously thought.
- Many owners are not likely aware of corrosion in their diesel USTs.
- Ethanol was present in many of diesel tanks, suggesting the cross contamination of diesel fuel is common.
- Particulate and water content in the fuel may be predictive factors for the metal corrosion.
- Microbiologically influenced corrosion (MIC) could be an underlying corrosion mechanism.

EPA has recommended the following approaches to help with limiting corrosion:

- Regularly monitor and remove any water present in the UST.
- Filter fuel for water and particulates before it is delivered into the UST or recirculate and filter water and particulates while it is stored.
- In-tank video inspections to visualize and document conditions within the tank and addressing corrosion issues at early stages.
- Use liquid corrosion inhibitor additives or other corrosion inhibitors.
- Use biocides or other fuel treatment to kill or disrupt existing microbial colonies to prevent future MIC.

WVDEP strongly encourages tank owners to:

- Regularly monitor and remove any water present in **all** of their USTs.
- Check filters for microbial growth and the presences of metals or particulates and take further action to assess the UST system for potential internal corrosion issues when microbial growth or metals/particulates are found in fuel filters.