



CORRECTION!

SPECIAL EDITION - JULY 22, 2016

In the version of this Special Edition sent yesterday, STI-SPFA incorrectly attributed text to EPA that was, in fact, STI-SPFA's own text. See below for correction. STI-SPFA regrets the error.

EPA releases corrosion report

On July 20, the EPA released its report *Investigation of Corrosion-Influencing Factors in Underground Storage Tanks with Diesel Service* (EPA 510-R-16-001, July 2016). In addition to the report, EPA also developed a notice about corrosion risks in underground storage tanks (USTs) storing diesel fuel. Contributors to the research into this phenomenon include regulators, oil producers, equipment manufacturers, the automotive industry, tank owners and others--including STI-SPFA.

Key items in the EPA report

"This research focused on better understanding a type of rapid and severe corrosion of metal components in underground storage tanks (USTs) storing diesel fuel. Several changes to the national fuel supply and fuel storage practices have occurred since the mid-2000s. UST owners first began reporting this corrosion to UST industry servicing companies in 2007. To address the potential for corrosion problems, the U.S. Environmental Protection Agency's (EPA) Office of Underground Storage Tanks began working on this research in 2014.

"EPA conducted on-site inspections of 42 diverse, operating UST systems at 40 sites across the country. Of these UST systems, 24 had fiberglass tanks, and 18 had steel tanks. The major finding from our research is that moderate or severe corrosion on metal components in UST systems storing diesel fuel in the United States could be a very common occurrence. Observations suggest that corrosion may be commonly severe on metal surfaces in the upper vapor space of UST systems, an area that before 2007 was not known to be prone to corrosion."

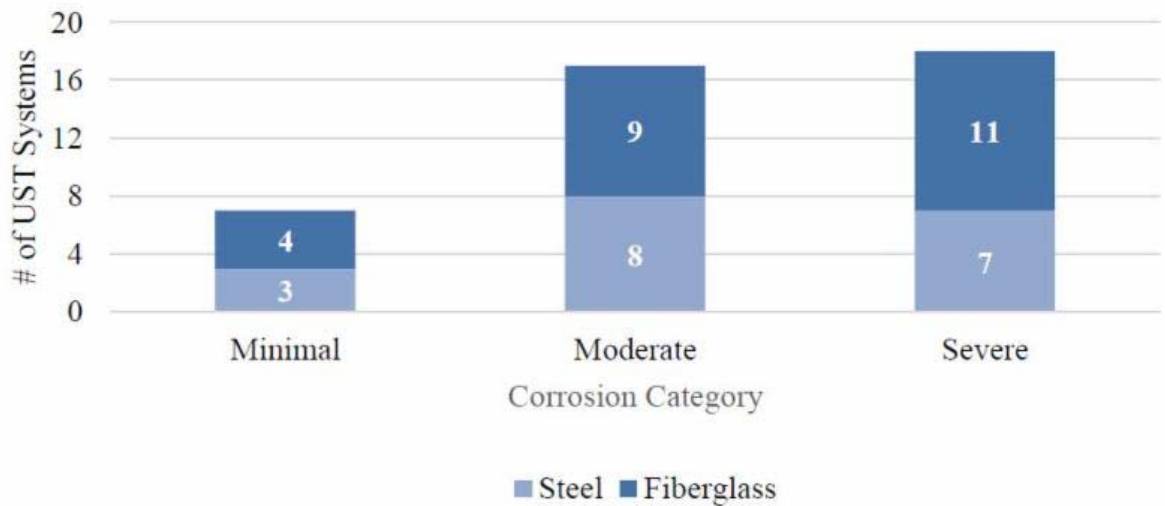


Figure 4. Forty-Two USTs By Corrosion Category And Material

The corrosion phenomenon appears to only be happening in underground storage tank systems, not in steel terminal tanks, refineries or pipelines.

"EPA cannot project the actual percentage of USTs storing diesel that are affected by corrosion nationwide. However, *this could be a widespread and potentially significant problem for owners of underground tanks storing diesel fuel.*" (Italics added.)

EPA (and STI-SPFA) recommend UST owners check for corrosion in their tank systems storing diesel fuel and if found, repair or replace equipment as necessary to ensure proper functionality. STI-SPFA recently communicated the importance of keeping water out of fuel storage tanks in [a brochure mailed to STI-labeled tank owners and operators](#).

The mystery remains

As to why this corrosion is occurring, the mystery has yet to be completely solved. The EPA report concludes that, "It does appear that microbiologically-induced corrosion (MIC) is likely occurring in USTs storing diesel. Taking action to limit the environmental conditions necessary for microbial growth is recommended by multiple industry groups and anecdotally appears to be successful in minimizing the chances of severe corrosion in USTs."

Links to EPA report and tank maintenance documents

- [Investigation of Corrosion-Influencing Factors in Underground Storage Tanks with Diesel Service](#) (EPA 510-R-16-001, July 2016)
- [Notice of Corrosion Risks in Underground Storage Tanks Storing Diesel Fuel](#) (EPA July 2016)
- [Questions and Answers About Corrosion in Underground Tanks Storing Diesel Fuel](#) (EPA July 2016)
- Coordinating Research Council (CRC)

- Report 672, [Preventive Maintenance Guide for Diesel Storage and Dispensing Systems](#)
- Report 667, [Diesel Fuel Storage and Handling Guide](#)
- Clean Diesel Fuel Alliance: [Guidance For Underground Storage Tank Management at ULSD Dispensing Facilities](#)
- Steel Tank Institute, [Recommended Practice for Storage Tank Maintenance R111 Revision March 2016](#)

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