

Petrol PLAZA

Tanknology's Brad Hoffman Delivers Keynote on Corrosion in Tanks

Brad Hoffman, Vice President of Engineering for Tanknology, was recently welcomed by NACE International, the worldwide corrosion authority, as a keynote speaker. Hoffman, speaking at the 2018 NACE Diesel Day, presented on corrosion in tanks, a growing problem in the United States.



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NACE Diesel Day is held annually to discuss corrosion issues faced by owners of diesel fueled vehicles, equipment, generators, heating oil and fuel storage tanks.

As part of his presentation, Hoffman cited a study released in 2016 which revealed that an estimated 83 percent of all diesel tanks in the United States had moderate to severe corrosion.

Tanknology, the world's largest provider of environmental compliance testing and inspection services, partnered with Battelle, a global research and development organization, to perform the fieldwork for the study, which the EPA termed the "largest field research of this issue to date."

Tanknology's fieldwork consisted of inspecting each of the 42, geographically-diverse tanks in the survey using their patented TankCam. The **TankCam** is a state-of-the-art remote video tool that allows tank owners to see inside a tank without manned entry. TankCam inspections can reveal any structural or lining problems such as cracking, blistering, delamination or corrosion. In 2018, Tanknology introduced a high definition (HD) version of the TankCam.

"During our fieldwork for this study, as well as subsequent studies performed for our clients, we have observed and documented what I consider to be unique, rapidly accelerated corrosion on the metal components of USTs storing diesel," said Hoffman.

Virtually all on-road diesel for sale today in the U.S. is Ultra Low Sulfur Diesel, or ULSD.

"We have seen the same problem in sumps and with ATG probes; corrosion build up in the riser pipe can make it impossible to remove the ATG floats," Hoffman continued. "This corrosion can, and in some cases did, compromise the functionality and structural integrity of the UST systems, leaving even the most responsible of UST owners unaware of the problem and potentially exposed to significant environmental impact."

The EPA study was unable to pinpoint a direct cause of the accelerated corrosion in tanks and sumps. Multiple factors are likely acting as confounding variables, including microorganisms and gasoline-ethanol blended fuels.

To combat the corrosion issue, Hoffman echoed the EPA recommendation of an internal video inspection of suspect tanks.

To further protect against corrosion, the TankCam can be coupled with other Tanknology services to ensure the health of a tank, Hoffman noted. Those services include the TankClean, a video-guided system which utilizes the TankCam video inspection camera. The TankCam is placed inside the UST through a riser and is remotely operated by a technician, providing documentation of the entire cleaning process.

In addition, Fuel Pure, Tanknology's fuel filtration service, can be used to eliminate contaminants, sediment and water (the breeding ground of corrosive microorganisms) from fuel by utilizing a graduated, four-stage filtering system.

STS Protec, a new offering from Tanknology, allows site owners to prevent environmental contamination and costly component replacement by reconditioning and repairing to near-new condition, sumps affected by corrosion.

"When it comes to corrosion in a UST, if you can see it during a visual inspection, it's most likely the tip of the iceberg," Hoffman concluded. "It almost surely exists elsewhere in the system. It's important to know about - and be addressed as quickly as possible."


Tanknology visual inspection technologies are currently offered in the US by Tanknology Inc., and offered internationally by [International Licensees](#) in Australia, the UK, Italy, Colombia, and Turkey.

For information about licensing Tanknology's TankCam™ or PetroScope® remote visual tank inspection technologies, contact the company's *International Division* at +1-512-380-7104.

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