From:

Haerer, Ryan

To:

Don Onwiler

Cc:

JBuendel@agr.wa.gov; Mahesh.Albuguerque@state.co.us; Gerber, Linda; Barolo, Mark

Subject:

Form 15 Proposal support

Date:

Thursday, September 24, 2015 10:28:56 AM

Don,

US EPA's Office of Underground Storage Tanks (OUST) is tasked with preventing and cleaning up releases from underground storage tank (UST) systems nationwide. As part of that ongoing effort we are currently engaged in a research project to understand the extent and possible causes of severe corrosion incidents reported in USTs storing ultra-low sulfur diesel (ULSD).

I support the proposal submitted by Mahesh Albuquerque of CO's Division on Oil and Public Safety to amend paragraphs 4.1 and 4.2 addressing water levels in fuel tanks. EPA's research effort is still pending peer-review, but preliminary observations in our study of a population of 42 UST systems in 10 clusters across the country showed that moderate or severe corrosion was observed in 35 of the 42 UST systems, occurring on various metal components. EPA believes that the corrosion could pose a risk to the integrity or functionality of components in UST systems intended to prevent releases of fuel to the environment.

From previous industry research efforts and our ongoing study it appears that microbiologically-influenced corrosion by acid-producing species that can thrive near the fuel-water interface is likely playing a role in the corrosion of internal metal components. We identified gasoline in all 42 of the USTS and ethanol in 38 of the USTs; ethanol can be preferentially degraded by bacteria that can contribute to a corrosive environment within the UST. According to the current language in the handbook, gasoline-ethanol blends should be managed to allow no more than ¼ inch water in the bottom of fuel storage tanks. We agree that managing the water bottom in an UST storing ULSD to minimize the presence of water is essential to minimize risks posed by microbial growth. For the reasons listed in this paragraph we support the recommendation to limit the allowable water phase to ¼ inch in all Retail Engine Fuel Storage Tanks, including ULSD, in order to simply the handbook and limit the potential for corrosion affecting the functionality and integrity of metal components in USTs storing ULSD.

Please let me know if you have any questions, and thanks for considering the amendment. I am happy to provide more information as needed as we get closer to finalizing the report. I look forward to working with you.

Best regards, Ryan

Ryan Haerer
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