

Will MTBE Fiasco Affect Petroleum Equipment?

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Cleaner air, dirty water dilemma

In November 1998, Carole Browner, Administrator of the US Environmental Protection Agency (EPA), appointed a Blue Ribbon Panel to investigate the air quality benefits and water quality concerns associated with oxygenates in gasoline. The Panel met six times in 1999 and released its findings and recommendations on July 27.

Impact of MTBE reduction

One oxygenate of particular concern to the Panel was Methyl Tertiary Butyl Ether (MTBE). MTBE has been found in a number of water supplies in different parts of the country. The Panel commented on a number of different issues—from treatment and remediation of soils to the motor vehicle fuel supply infrastructure, to public education, to maintaining air quality benefits and to enhancing current underground storage tank (UST) enforcement efforts. But the most significant recommendation by the Panel was to reduce the use of MTBE substantially as an oxygenated fuel additive.

What type of impact would such an action have on the installation of petroleum equipment? It might be a bit too soon to develop a final conclusion on this question. But, in addition to the proposed reduction of MTBE usage, the Blue Ribbon Panel made some other recommendations that might be indicative of coming changes. They included:

• A suggestion for Congress to "expand the universe of regulated tanks to include small aboveground fuel storage systems that are not currently regulated yet pose substantial risk to drinking water supplies."

• A suggestion to "expand programs to train and license UST system installers and maintenance personnel."

• Suggestions to "strengthen release-detection requirements to enhance early detection" and to "evaluate the field performance of current system design requirements and technology and, based on that evaluation, improve system requirements to minimize leaks/releases, particularly in vulnerable areas."

Where is it all coming from?

Recently, I sat on a panel whose purpose was to form and offer opinions of why MTBE is being discovered in so many groundwater sources, particularly in the northeast and California. Why is MTBE getting in the ground?

Theories in response to this question covered the gamut: from spills caused by motor vehicle users during dispensing operations to continued UST overfills; from simple maintenance activities around the dispenser or over the tank where sumps do not exist or are not water-tight to the permeability of plastics; from leaks in vapor-recovery systems to MTBE fallout from precipitation. Of course, there was also a major concern expressed on the adequacy of release-detection systems and equipment and operations. Just why aren't these spills being detected?

There seem to be some interesting parallels between what is happening today with MTBE compared to the activity with underground storage tank systems early in the 1980s. Hazardous liquids are being found in the drinking water supplies today, just as they were back then.

The greatest activity concerning MTBE at the state level has been in California and in the New England states. California has already announced plans to phase out MTBE during the next few years. I have been told that activity has already started in at least 12 other states for similar phase-out legislation.

Interesting enough, California and most of the New England states are the states that mandated secondary containment of UST systems. Secondary containment is mandatory for chemical systems installed underground according to EPA's UST rules, but petroleum systems can be single wall. Yet the problem with MTBE seems to be greater in areas with secondary containment already in place.

Leading questions

That begs me to ask a set of even bigger questions. If these are the states that already have evoked secondary containment on tanks and piping, could it be that the tanks and pipe are not the primary root of the problem? Would this problem be even more magnified if secondary containment was not in place already? How much greater would this problem be if we did not have any regulations in existence today? What impact will the fuel additives of tomorrow have on the motor vehicle fuel infrastructure?

In case you thought that life would become boring after the 1998 UST regulatory deadline, think again folks.

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