UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Regulatory Status of Underground Diesel Exhaust Fluid Tanks

FROM: Carolyn Hoskinson, Director
Office of Underground Storage Tanks

TO: EPA UST/LUST Regional Program Managers
State UST Program Managers

This memorandum responds to questions from states on the regulatory status of underground storage tanks (USTs) containing diesel exhaust fluid (DEF). Specifically, states have asked whether EPA regulates USTs containing DEF under the federal UST regulations in 40 CFR Part 280. According to these regulations, an UST is regulated if it contains petroleum or hazardous substances; however, a number of UST systems are excluded from the Part 280 requirements. One of the exclusions applies to "[a]ny UST system that contains a *de minimis* concentration of regulated substances" (§280.10(b)(5)). The regulations do not specify a *de minimis* quantity, but do allow the implementing agency to determine *de minimis* concentrations on a case-by-case basis.

DEF is a 32.5 percent aqueous solution of urea used in Selective Catalytic Reduction (SCR) technology as one way to reduce nitrogen oxide emissions from heavy-duty diesel engines, as required by EPA's "2007 Heavy-Duty Highway Rule." Although aqueous urea is neither petroleum nor a hazardous substance, the DEF solution may contain a small amount of ammonia, which is a regulated substance. According to DEF manufacturers, any amount of ammonia present in DEF is considered to be a contaminant. To address this contamination concern, the industry has set a very strict limit on the maximum amount of ammonia allowed in solution. The international standard for DEF allows no more than 0.2 percent by weight of alkalinity, measured as ammonia, to be present in solution. Although 0.2 percent is the maximum allowed limit according to the international standard, manufacturers indicate that the actual amount of ammonia in solution should be much less than 0.2 percent, and ideally there should be no ammonia in solution. Since EPA expects that the presence of ammonia in a DEF UST will be minimal, it is EPA's view that DEF USTs meet the *de minimis* exclusion and thus are not regulated as hazardous substance USTs under the federal UST regulations.

In addition, EPA expects USTs storing DEF will be both compatible and secondarily contained. International standards for DEF set strict requirements for compatibility in order to avoid product contamination caused by materials in the storage tank system degrading into the DEF and also to prevent releases due to corrosion. Further, manufacturers recommend that underground DEF tank systems use secondary containment technologies with interstitial monitoring. EPA expects that owners and operators of DEF USTs will generally follow these industry, manufacturer, and international standards for the storage of DEF in USTs.

If in the future EPA finds that ammonia released from DEF USTs endangers human health and the environment, EPA may revisit the *de minimis* exclusion analysis contained in this memorandum. It is important to note that some states may choose to be more stringent than federal regulations and require DEF USTs to fully comply with state UST regulations.

If you have any questions about this interpretation, please contact Andrea Barbery at barbery.andrea@epa.gov or 703/603-7137.

cc: OUST Management
OUST Regional Liaisons
Kathy Nam, OGC