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CONTAINMENT AND DETECTION OF RELEASE FROM HAZARDOUS STORAGE
TANK SYSTEMS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
JUN -3 1988

Messrs. Daniel W. Conway and
Victor O. Marz, Jr.
Owen Ayres and Associates, Inc.
2445 Darwin Road
Madison, Wisconsin 53704

Dear Messrs. Conway and Marz:

This letter is in response to your letter of May 16, 1988, to me, requesting confirmation of several points that we discussed during our May 11 telephone conversation. The focus of our conversation was the 40 CFR 264.193 requirements for containment and detection of releases from hazardous waste storage tank systems.

In 40 CFR 264.193 (c)(3), a leak detection capability must be provided integral to a secondary containment system. As i mentioned in our conversation, daily visual monitoring may be an acceptable means of leak detection, where appropriate. For example, daily visual monitoring would be appropriate for most tanks that are elevated above ground-level such that the entire external surface area of the tank can be inspected. If the external bottom of the tank is not accessible for visual inspection, e.g., it is set directly on a foundation, the appropriateness of visual leak monitoring is dubious, pending an acceptable demonstration by the tank system owner/operator that a prompt and reliable means of leak detection is provided.

The system that you propose to use in which a tank is placed on a grooved concrete pedestal above the secondary containment system may provide an acceptable means of leak detection. You may want to consider sloping the grooves in the concrete pedestal to enhance the leak detection capabilities of the system further. Also, remember the concrete must be impermeable. The final determination as to the acceptability of your proposed design will be made by the appropriate EPA Regional or State authority.

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The other point for which confirmation was sought involves the required capacity of a secondary containment system. As 40 CFR 264.196(e)(1)(i) and (ii) provide, the secondary containment system must be designed/operated to contain 100% of the largest hazardous waste tank within its boundary. If the secondary containment system is exposed to precipitation, an additional capacity equal to the precipitation from a 25-year, 24-hour rainfall event must also be provided.

If you have any further questions on these or other issues regarding the standards for storage/treatment of hazardous waste in tank systems, please call me at (202) 382-7917.

Yours truly,

William J. Kline

cc: Bob April
Bob Dellinger
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RO 13195