9483.1989(06)

OPERATED TO CONTAIN, DEFINITION

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

NOV 30 1989

Mr. Al Patton
Environmental Specialist
C-K Associates, Inc.
11200 Industriplex Boulevard
Suite 150
Baton Rouge, Louisiana 70809

Dear Mr. Patton:

Thank you for your letter of October 30, 1989, requesting EPA, interpretation of the phrase "operated to contain" as found in the 40 CFR 264.193 and 265.193 secondary containment requirements for hazardous waste tank systems. We appreciate your obvious work in developing the example assessment document that was enclosed with your letter. This document focuses on the concept of using auxiliary equipment or procedures, such as a sump and pump arrangement that operates on a continuous basis to remove accumulated liquids, as the means of achieving full secondary containment. You are seeking EPA concurrence that such a system fully meets the intent of the regulations.

As you are aware, the primary intent of the hazardous waste tank system standards is to prevent the migration of hazardous waste or accumulated liquid into the environment. Secondary containment is a critical component of a tank system management plan for achieving protection of the environment. As such, EPA places a strong emphasis on the need for properly designed, operated, and maintained secondary containment systems. At the same time, it is EPA's intent to be flexible and not needlessly limit the design and operation parameters of secondary containment systems. Conceivably there is no room for employing both design and operation controls so that complete containment (no releases into the environment) is achieved. However, any system that uses operation controls as a partial substitute for standard secondary containment (barriers) will be closely scrutinized to ensure that the level of environmental protection afforded by barriers is not compromised.

EPA believes that a secondary containment system that is designed to hold 100% of the volume of the largest hazardous waste tank within its boundary, as well as the volume of precipitation from a 25-year, 24-hour storm (is applicable), will provide the most reliable and fail-safe means of protecting the environment from hazardous waste spills, leaks, or accumulated liquids. In the example that you provided, the curbed area

(using a 12 inch high curb) around the 9700 gallon tank, although of sufficient capacity to adequately contain the full contents of the tank, would not be sufficient to likewise contain the volume of precipitation from the 25-year, 24-hour storm (in this case, twelve inches of precipitation). For this, situation, however, increasing the height of the curb to 18 inches would provide the volume of secondary containment needed. We recommend, wherever feasible, that the secondary containment be designed so that it is capable of holding the entire volume of precipitation expected from a 25-year, 24-hour storm, in addition to the volume of the largest tank within its boundaries. EPA believes that the risk or release to the environment is much less when a full barrier is used, as opposed to relying on a downsized barrier operated in conjunction with pumps. The chances of a mechanical device (pump) malfunctioning are significantly greater than with a passive measure, i.e., a barrier. Examples of failure that may be associated with pumps are loss of power and clogging. As such, the owner/operator would need to address protective measures, such as backup power availability and redundant pumps.

Although EPA has strong concerns about using operational controls, e.g., pumps, as a means of achieving complete secondary containment for hazardous waste tank systems, we believe that certain situations may warrant their use. In locations where, for example, space considerations restrict the area available for constructing an adequately sized secondary containment structure or make retrofitting infeasible, operational controls may be appropriate. Where operational controls are employed, EPA believes that the burden of demonstrating their adequacy is place upon the facility owner/operator. It is the responsibility of the facility owner/operator to demonstrate that the system being proposed as an alternative means of secondary containment does not increase the risk of a release of hazardous waste or hazardous constituents into the environment above that expected from a system using a passive secondary containment barrier. The acceptability of operational controls as part of a secondary containment system should be determined on a case by case basis, with the appropriate EPA Region/State authority making the decision regarding the adequacy and reliability of such a system; I do not believe that your proposed use of operational controls (rather than passive ones) is acceptable as a generic demonstration of compliance with the secondary containment standards.

If you have any further questions on this issue or regarding other requirements for the proper management of hazardous waste tank systems, please call Mr. Les Otte or Mr. Bill Kline of my staff at (202) 475-8860 or 475-9614, respectively.

Sincerely,

Original Document signed

Sylvia K. Lowrance, Director
Office of Solid Waste

cc: Chester Oszman
Bill Kline
Les Otte