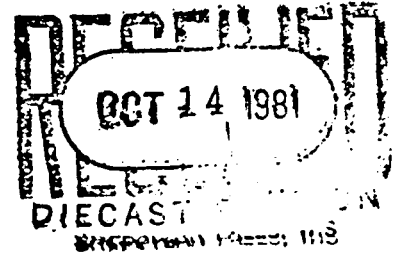


Donohue

October 12, 1981



U.S. Environmental Protection Agency
Waste Management Branch
230 South Dearborn Street
Chicago, IL 60604

Attn: Mr. David Kee, Director
Air and Hazardous Materials Division

Re: Tecumseh Products Company - PCB Landfill
Meeting with EPA Staff
Donohue Project No. 4909.005

Dear Mr. Kee:

In your letter to Kenneth F. Miller of the Diecast Division, Tecumseh Products Co., Inc., dated August 18, 1981, you listed eleven comments to the application for approval to dispose of PCB contaminated material in the Sheboygan Falls landfill. In a letter from Donohue & Associates, Inc., to you, dated August 27, 1981, we responded to those comments. A copy of the letter is attached. On October 2, 1981, we met with Richard Karl and James Brossman of your office to review our response to the comments. During the meeting, we reached agreement concerning all the comments. This letter is the record of our discussion, which we submit to permit you to rule that our application is complete.

The following is an item-by-item discussion of the comments treated in our discussion of the letter of August 27, 1981:

1. Proof of site ownership has been submitted. Mr. Karl indicates that the item is now complete.
2. We requested a waiver from the liquid limits and plasticity index requirement, as listed in Annex II of 40 CFR, Part 761.41(b). As indicated in our letter of August 27, 1981, we believe a permeability of 1×10^{-7} centimeters per second can be achieved even with the waiver granted. Mr. Karl felt that a waiver could be granted; however, he requested the following information be provided:
 - a. Data from compaction tests of the five-foot clay liner.
 - b. Data from hydraulic permeability tests of three Shelby tube samples of the five-foot clay liner.
 - c. Professional engineer certification of the compaction tests.

A minimum of nine compaction tests for each six-inch layer will be performed as measured by the modified proctor test (ASTM D1557). A written record of the tests will be made and certified by the professional engineer. These records will be sent to the Region V EPA.

Donohue & Associates, Inc.
4738 North 40th Street
Sheboygan, Wisconsin 53081
Engineers & Architects
414-458-8711

Donohue

After the entire five-foot clay liner has been installed, three Shelby tube samples will be taken at random through the liner. Permeabilities of the samples will be run in the laboratory and the results of these tests will be sent to the Region V EPA. Three holes resulting from the Shelby tube sampling will be backfilled with a cement/bentonite slurry.

3. We requested a waiver from the requirement that the landfill liner system must be located at least 50 feet from the historical high water table. Mr. Karl indicated that the request was reasonable based on experience at other landfills. However, he requested specific information concerning the monitoring of the groundwater that is collected by the groundwater diversion system.

The groundwater in the diversion system will collect in the manhole shown on the drawings. Water in the manhole will be sampled quarterly and analyzed for PCB, chloride, soluble COD, conductivity, pH, and total chlorinated hydrocarbons.

4. Our response to this item in our letter of August 27 was satisfactory to Mr. Karl and no further discussion is required.
5. Mr. Karl indicated that the water sampling program does not address the analysis for chlorinated organics in the groundwater and surface water. We will add total chlorinated organics to the list of parameters to be analyzed. We will analyze three samples of the soil to be landfilled for chlorinated organics and monitor the groundwater on a quarterly basis for one year. We do not expect to find chlorinated organics other than PCB's, because none were used in the process. If we do find high levels, however, we will analyze for specific chlorinated organics. If, as we suspect, values are insignificant, we will petition the EPA to reduce the frequency of monitoring for chlorinated hydrocarbons.
6. Mr. Karl asked for further clarification concerning the construction of the existing groundwater monitoring wells and the construction of proposed groundwater monitoring wells. A drawing of a typical groundwater monitoring well detail that was used at the site is attached to this letter. The drawing is taken from the document, "Feasibility Study for Development of a Chemical Waste Landfill-PCB Disposal," dated September 10, 1980. Ten feet of well screen is located below the encountered groundwater table. All existing wells were backfilled with bentonite pellets rather than Portland cement, as suggested in 40 CFR Part 761.41. We believe that the construction shown in the attached figure is as good or better than the method suggested in the regulations, and we request a waiver from the requirement to use Portland cement. We feel our method effectively prevents percolation of surface water into the well bore.

All wells were cased with PVC pipe. We have observed no contamination of the water from the PVC pipe to date.

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For sampling the private well water supplies, we will modify our procedure to be certain that all water softeners and other treatment systems are bypassed during the period of sampling and that the faucets are allowed to run at least 15 minutes before a sample is taken. All analysis will be conducted in accordance with 40 CFR, Part 761.41(b)iii.

- 7, 8, 9, and 10. Mr. Karl indicated that all these items are satisfactory and need not be addressed further.
11. We requested a waiver from the requirement that the site be surrounded by a six-foot woven mesh fence, wall, or similar device. Mr. Karl felt that the EPA would not rule favorably on our request for a waiver on this point. We, therefore, amend our plans to show a six-foot woven mesh fence surrounding the landfill.

We trust that this letter addresses all your remaining questions concerning our permit application and that the application can now be deemed complete. If you have any further questions, please do not hesitate to contact us.

Very truly yours,

DONOHUE & ASSOCIATES, INC.



Michael L. Crosser
Project Manager

MLC/lb

attach: Letter to David Kee, August 27, 1981
Groundwater Monitoring Well Detail Drawing

cc: L. D. Bakke, w/attach.
K. Miller, w/attach.
A. W. Williams, w/attach.