9441.1986(62)

AUG 19 1986

Mr. William R. Blackburn
Counsel
Travenol Laboratories Inc.
Deerfield, Illinois 60015

Dear Mr. Blackburn:

This letter is in response to your letters dated July 19, and August 26, 1985, and your August 28, 1985, telephone conversation with Alfred W. Lindsey, then the Deputy Director of the Waste Management and Economics Division, and additional conversations with members of my staff. Your questions concerned the treatment of characteristic hazardous waste in pipelines that lead to a privately-owned wastewater treatment plant.

In a letter dated July 27, 1981, Mr. Lindsey responded to related inquiries made by Mr. Ronald E. Meissen of your company. This response included a copy of a seven-page regulatory clarification statement on the definition of "Totally Enclosed Treatment Facility." A copy of this statement is enclosed for reference.

In your letter dated July 19, 1985, you stated that "...if these characteristic hazardous wastes are poured to the sewer from a laboratory, such disposal would be permissible so long as the one-percent rule of 40 CFR 261.3(a)(2)(iv)(E) is met." This is an inaccurate interpretation of the rule. The rule does not refer to the permissibility of disposal but rather to whether the wastewater containing listed wastes is a hazardous waste or not. The provision does not apply where characteristic wastes are involved, even if the waste is from a laboratory. Mixtures containing only characteristic and nonhazardous wastes are hazardous only if the mixture exhibits the characteristic according to §261.3(b)(3). In sum, 40 CFR 261.3(a)(2)(iv)(E) is not relevant to the issue you raise. At this time, there is no on-going effort to create a de minimis mixture rule for characteristic hazardous waste.

From your description of the process, small parts are dipped into 50% alcohol/50% water mixture in small trays. This is a batch operation that occasionally requires the operators to carry the trays with spent dip solution to the drain. About 12 gallons per day of the waste are poured down the drain that

leads to an industrial wastewater treatment plant that handles 1.8 million gallons a day. You have stated that your biological treatment plant biodegrades the alcohol prior to discharge.

The following are specific responses to the questions in your letters:

Issues from the July 19, 1985 letter

(A) Does the dilution of noncorrosive, unlisted, characteristic hazardous waste to a nonhazardous condition constitute hazardous waste treatment if the dilution occurs in a sewer line leading to an industrial wastewater treatment plant after the waste is poured to the drain from a container?

Treatment is defined in §260.10 as "...designed to change the physical, chemical, or biological character or composition of any hazardous waste...to render such waste nonhazardous, or less hazardous; safer to transport, store, or dispose of...." Pouring the 50% water/50% alcohol ignitable waste down the drain renders the waste nonhazardous by the time it reaches the treatment plant. In this case, pipes are designed and used to convey, not treat, wastes to the biological treatment plant that degrades the alcohol. Thus, the dilution is incidental to the transport of the waste to the wastewater treatment plant where treatment takes place. Therefore, in this case the dilution is not treatment; and, if properly handled, this practice can be environmentally more acceptable than storing drums of the ignitable waste for off_side treatment or recycling.

(B) If the answer to (A) is "yes" (dilution is treatment), does the sewer line in which the waste is treated serve as (1) a "wastewater treatment unit;" (2) a "totally enclosed treatment facility;" or (3) any other type of exempt hazardous waste treatment facility?

Since dilution is not considered to be treatment when the characteristic waste is diluted while being conveyed to acceptable treatment, these questions are not applicable. Furthermore, once the waste stream is so diluted as to be rendered nonhazardous, treatment of the nonhazardous waste stream that occurs in the wastewater treatment plant is not subject to RCRA regulations.

(C) If the answer to (A) is "yes" (diluting characteristic waste in a sewer line is treatment), and there is no exemption for the treatment in (B), what provisions of 40 CFR 264 and 265 govern the pipeline treatment?

The question is not applicable for the reasons explained above.

(D) If the waste is diluted in the sink prior to discharge down the drain, is the sink a "wastewater treatment unit?"

If hazardous waste is diluted in the sink, it is hazardous waste treatment, since the dilution is intentional, rather than merely incidental to conveyance to the treatment plant. Intentional dilution of waste prior to discharge to decrease its incompatibility, ignitability, reactivity, etc., in the pipelines constitutes treatment.

Since your 50% water/50% alcohol waste is not a wastewater by our guidance of a few percent contaminants (see the February 2, 1982, notice, 47 FR 4707), the sink is not a wastewater treatment unit.

Issues from the August 26, 1985, letter

(A) If corrosive hazardous waste from water deionization units travels through an open channel within the building to the sewer leading to an industrial wastewater treatment plant, does the neutralization of that waste in the sewer mean that the sewer is: (1) a totally enclosed treatment facility; (2) an elementary neutralization unit; or (3) a wastewater treatment unit? (4) Does the answer change if the channel is enclosed?

(1) No. An open sewer is not totally enclosed on all sides in accordance with Agency guidance.

The issue you raise is whether or not an open sewer in a building can be a totally enclosed treatment facility. Spills within the building can release hazardous constituents into the air or cause a release that leaves the confines of the building. Therefore, systems that can release hazardous constituents within buildings are not considered totally enclosed.

(2) Tanks are defined in §260.10 as: "a stationary device designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials...which provide structural support." According to the preamble of the proposed permit-by-rule in the November 17, 1980, Federal Register (45 FR 76078), the elementary neutralization unit "...is intended to include...tanks as well as devices such as flumes, gutters, throughs [sic] and pipes which are not commonly considered to be tanks, but which nevertheless meet the expansive definition of tank in §260.10." Although this preamble language was only included in the proposed permit-by-rule regulations, the Agency is applying this interpretation of tank to the exclusions in §§265.1(c)(10), 264.1(c)(6), and 270.1(c)(2)(v) as well.

From the information you provided, the sewer qualifies for the elementary neutralization unit exclusion. The in-line neutralization system adds caustic to wastes that are only hazardous on the basis of corrosivity, and it meets the definition of an elementary neutralization unit (as defined in §260.10) for the reasons described above. In this case, neutralization is treatment rather than dilution incidental to the transport of waste as described in the July 19, 1985 letter.

Although the open channel is upstream of the neutralization, the channel is not subject to RCRA regulation as a tank, because it is part of the neutralization system. Elementary neutralization units may consist of a series of tanks, just as wastewater treatments may involve a series of connected tanks.

(3) The sewer is possibly a wastewater treatment unit if it meets the three criteria outlined in 40 CFR §260.10. First, the waste is a wastewater for RCRA purposes (i.e., contains at most a few percent material other than water, 47 FR 4707). You said that the corrosive waste is 95% water and 5% total dissolved solids, so the corrosive waste appears to meet the Federal criteria of a wastewater for the RCRA wastewater treatment exclusion. Second, the facility is subject to control under Section 402 or 307(b) of the Clean Water Act. And third, the units meet the definition of tank is §260.10. For the purposes of the exclusion, the pipes are tank like for the same reason that pipes can be part of an elementary neutralization unit. Since Mississippi has jurisdiction over your facility, you must ask the State if your facility is eligible for a wastewater treatment exclusion.

(4) Enclosing the channel would possibly change the answer to (1), i.e., whether or not it is a totally enclosed treatment facility. However, enclosing the channel may not be sufficient to create a totally enclosed treatment facility unless you comply with the enclosed guidance and any additional guidelines from the Mississippi Department of Natural Resources.

(B) If the corrosive hazardous waste in (A) is piped directly from the deionization units to an enclosed tank where it is pretreated to bring the pH near, but not to, the non-hazardous range and then discharged via pipe to the sewer for final neutralization by dilution with wastewater, does the piping, tank, and sewer constitute a totally enclosed treatment facility?

Possibly. The Mississippi Department of Natural Resources would have to review the details of design and operation of the system to conclude that it does meet their criteria for totally enclosed treatment.

According to further discussions you had with my staff, the corrosive waste from the deionization units will for the short term be managed according to scenario "A" in your August 26, 1985, letter, which meets the EPA criteria for either elementary neutralization or wastewater treatment. (However, the facility is subject to State regulation.) For the purposes of determining the applicability of the small quantity generator exclusion of §261.5, our regulatory approach does not count waste until it is subject to regulation. The waste is not subject to regulation in the deionization unit in which it was generated according to §261.4(c) nor in the exempted neutralization process. Since there is no hazardous waste leaving the sewer, the corrosive waste from the deionization unit is not counted towards the waste exceeding 1,000 Kg a month. This policy is explicitly outlined in the §261.5(c) small quantity generator regulations promulgated March 24, 1986 (56 FR 10174).

The additional information you provided by telephone leaves serious questions about whether you can design a totally enclosed system and still meet your Food and Drug Administration requirements. However, scenario "B" still qualifies as an elementary neutralization unit and, as explained above, the corrosive waste does not count towards the small quantity generator limits, because the waste has not yet become subject to regulation. In other words, you do not have to be a totally enclosed treatment facility in order to qualify for small quantity generator status.

I appreciate your patience for the length of time it took EPA to address the policy issues raised by your request. Please address any questions on this response to Irene Borner of my staff at (202) 382-7917.

Sincerely,

Original Document signed

John P. Lehman
Director
Waste Management and
Economics Division

Enclosure

cc: James Scarbrough, Region IV
Jack McMillan, Mississippi DNR