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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 31 1991

MEMORANDUM

SUBJECT: Response to Request for TC Rule Hazardous Waste Determination

FROM: Sylvia K. Lowrance, Director
Office of Solid waste

TO: Stephanie Wallace
Region 8, Montana Office

This memorandum responds to your February 8, 1991 memorandum in which you requested guidance on five questions related to pulp and paper mill operations under the Toxicity Characteristic Rule. The scenario was described as follows: a pulp and paper mill generates wastewater in its bleach plant which, at the point of departure from the unit (for our purposes, assumed to be the plant outlet), fails the TC for chloroform. This wastewater is diluted with other wastestreams prior to entering a clarifier. At this point the diluted waste no longer exhibits a characteristic. The non-TC-hazardous wastewater then passes through a series of surface impoundments for aeration and settling prior to discharge to a surface water under a NPDES permit. The surface impoundments are designed to infiltrate greater than 50% of the flow to groundwater. The following are answers to your questions.

Q: To determine whether the facility is managing a TC waste, is the appropriate sampling point at the outlet from the bleach plant (prior to the point where it mixes with any other wastestreams)?

A: Yes. The appropriate point to determine whether a material is a solid waste, and if so, a hazardous waste, is at the point of generation or prior to commingling (mixing) with other wastestreams.

Q: If the waste is TC hazardous at this point (that is, at the outlet from the bleach plant, prior to the point where it mixes with any other wastestreams), but not when it enters the first surface impoundment, would the surface impoundments be regulated? Why or why not?

A: The answer to this question is no, unless TC waste is generated in the impoundment. Whether a TC waste is

generated depends on both the influent and physicochemical activity within the surface impoundment. For example, if a non-TC hazardous influent is pumped into an impoundment which contains other non-hazardous wastes, a hazardous waste could result even if constituent levels in the influent are below TC regulatory levels (for example, from concentration of the various hazardous constituents). Another example is where solids settling out of the non-hazardous influent result in the generation of a hazardous sludge, again from concentration of the trace hazardous constituents. In each case, the impoundment would become subject to all applicable subtitle C requirements (see September 27, 1990, 55 FR 39410). Furthermore, each surface impoundment in a series of impoundments is treated separately for regulatory purposes.

Q. Does the land ban allowance for dilution of toxic characteristic wastes subject to a NPDES permit (providing the treatment standard is not a method), allow mixing of the bleach plant effluent with other dilute wastestreams before treatment? (This is not an issue yet, but will be of concern when treatment standards for TC wastes are established. The preamble to the 3rd (Third Third) rule indicates that EPA can apply LDRs at the point of generation rather than at the point of disposal).

A: Yes. As discussed in the Third Third final rule (June 1, 1990, 55 FR 22665), dilution is considered to be an acceptable method of treatment for most non-toxic characteristic wastes. For toxic characteristic wastes, including TC wastes previously regulated under the EP, dilution is not acceptable. However, there are two exceptions to this. The one that applies here is for characteristic wastes treated for purposes of CWA compliance (such as for NPDES permitting requirements), provided there is no specified method as the treatment standard. Dilution of TC organics will be evaluated during development of treatment standards.

Q: If it is determined that the surface impoundments are regulated, would they be exempt from the minimum technology requirements of RCRA 3004(o)(1)(A) based on the exemption in 3005(j)(1)(3) for units which contain treated wastewater at facilities subject to a CWA 402 [NPDES] permit?

A: Yes. Surface impoundments that meet the conditions of RCRA (HSWA) § 3005(j)(3) are exempt from the minimum technological requirements of RCRA (HSWA) § 3004(o)(1)(A). Section 3005(j)(3) applies to units containing treated waste water during the secondary or subsequent phases of an aggressive biological treatment facility (as opposed to any treatment facility).

Q: Is the definition of "aggressive biological treatment" in this case the same as that laid out in the recent petroleum refinery listings?

A: No. The petroleum listing definition of "aggressive biological treatment" applies specifically and only to petroleum refinery waste surface impoundments (see 55 FR 46354, November 2, 1990). A general discussion of the term can be found in footnotes 7, 8, and 9 on p. 46357 - 58.

I hope we have answered your questions. Additional information is attached should you need to reference it. If you have further questions, please call Steve Cochran of my staff at FTS 382-4769.

cc Regional Waste Management Division Directors
Regional RCRA Branch Chiefs

ADDITIONAL INFORMATION ON HAZARDOUS WASTE DETERMINATION

In a discussion on sampling points, the preamble of the TC final rule (March 29, 1990, 55 FR 11830) reads as follows: "The current rule requires that determination of whether a waste is hazardous be made at the point of generation (i.e., when the waste becomes a solid waste). (A waste must be a solid waste before it can classified as hazardous waste under RCRA). EPA believes that determination of the regulatory status of a waste at the point of generation continues to be appropriate, especially since the Agency is not developing a separate mismanagement scenario or set of regulatory levels for wastewaters."

EPA developed a TC clarification notice which includes examples of regulated surface impoundments managing newly identified TC wastes (September 27, 1990, 55 FR 39409). The following language on page 39410 may be applicable to the first surface impoundment you describe in question 2: "A (third) example is where a TC waste is generated within the unit from non-hazardous wastewater on or after the TC effective date. This could occur where the hazardous constituents in the wastewater become concentrated, or if a new TC sludge is formed by settling. In these examples, once the TC waste is generated and stored or disposed of in the unit, the unit is subject to subtitle C." The additional surface impoundments would be regulated in the following manner: if the first surface impoundment generated a TC hazardous sludge or wastewater, and the hazardous effluent was received in subsequent surface impoundments, then the subsequent surface impoundments would also be subject to subtitle C requirements (see 55 FR 11830, and 55 FR 39410).

The dilution prohibition exception is codified in 40 CFR 268.3(b) and reads as follows: "Dilution of wastes that are hazardous only because they exhibit a characteristic in a treatment system which treats wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of Clean Water Act (CWA) or which treats wastes for purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of this section unless a method has been specified as the treatment standard in Section 268.42."

In order to qualify for the WWTU exemption, the device must meet three criteria: 1) be part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; 2) receive, and treat or store influent wastewaters or wastewater treatment sludges which meet the definition of a hazardous waste in 40

CFR 261.3; and 3) meet the definition of tank or tank system (see "wastewater treatment unit," 40 CFR 260.10).

Assuming that the first two criteria are met, an evaluation needs to be made for the third condition. If the clarifier meets the 40 CFR 260.10 definition of tank, then a determination must be made on the conveyance structure (in your letter, you marginally referenced the "means of conveyance"). The 40 CFR 260.10 term "tank system" includes the tank and its associated ancillary equipment and containment system. In turn, "ancillary equipment" means: "any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site (see "ancillary equipment," 40 CFR 260.10).

The conveyance structure may or may not meet the definition of ancillary equipment depending on whether it is designed to distribute, meter, or control the hazardous waste flow between the generation point and a storage or treatment tank (which is designed to contain an accumulation of hazardous waste). For example, a conveyance structure which is simply a ditch constructed of dirt would not meet the definition. Determining whether a given conveyance structure meets the definition of ancillary equipment is necessarily a site specific judgement, dependent on the circumstances and facts at the facility in question. The state or regional authority reviews the facts in question to determine whether a specific conveyance structure meets the terms of the exemption.

Finally, if an exempt WWTU renders the wastewater non-hazardous, the storage of the wastewater in the surface impoundments would not be under RCRA Subtitle C regulation, unless conditions described in the answer to your second question occur (i.e., the surface impoundment generates a hazardous wastewater or sludge).