

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JULY 3, 1991

MEMORANDUM

SUBJECT: Draft Region VIII Policy on "Aggressive Biological Treatment"

FROM: Sylvia K. Lowrance, Director (OS-300)
Office of Solid Waste

TO: Robert L. Duprey, Director (8HWM)
Hazardous Waste Management Division

Thank you for your request for comments on your April 19, 1991 draft Region VIII policy on "Aggressive Biological Treatment." (ABT) We appreciate your concern that "Sham-ABT" units may be put on line as a result of the ABT exemption to the final F037 and F038 rule and would like to offer some of our perspectives on the ABT exemption:

- We realize that refineries will design new units to promote ABT. That is to be encouraged, since the Agency believes that ABT is a good technology for treating refinery wastewaters. However, the preamble to the rule makes it clear that ABT only applies to secondary and tertiary phases of the waste treatment operation and does not apply to inadequately retrofitted primary units (see 55 FR 46358).
- The criteria for ABT outlined in the rule are very specific. We believe that compliance with the criteria will generally provide the treatment necessary to receive an exemption from the F037 and F038 listings.
- During rule development the Agency attempted to define secondary treatment by using particular indicator parameters. Wide variations in waste streams constituents as well as potential "sham-pretreatment" concerns prevented the Agency from setting a single national minimum removal standard.

We also realize that the application of the ABT exemption at particular sites may present unique problems. For example, this may be the case at unusually configured units such as an impoundment which is extremely deep, and where adequate mixing by floating aerators may be difficult. For this reason it may be advisable to develop some additional guidance for implementing the ABT exemption. Any guidance that may be developed must be consistent with the scope of the regulations. With this in mind, we are offering the following point-by-point comments on your eight-point guidance:

- 1) We agree with this point although it is already clearly stated in the rule. (See 55 FR 46354)

Points 2) through 6) should be replaced by the following:

- 2) If the ABT unit receives or generates waste that exhibits the TC, the unit would become subject to all applicable Subtitle C requirements, unless exempted under the wastewater treatment unit (WWTU) provisions of RCRA (see 40 CFR 270.1 (c) (2) (V), 264.1(g)(6)/265.1(c)(10)).
- 3) Omit this point. The Listings Specific Definitions and Requirements (40 C.F.R. 261.31(b)) require each facility to maintain documents and data sufficient to demonstrate that the unit is an aggressive biological treatment unit as defined in the listing. The listing defines four units as ABT units including facilities employing high rate aeration in terms of retention time and performance for the mechanical aerator, not in terms of pollutant removal efficiency. There is, consequently, no authority for requiring a demonstration of removal efficiency.
- 4) If treated wastewater discharge from the ABT unit exhibits the TC, then the unit and the facility may be subject to all applicable RCRA hazardous waste requirements. To avoid discrepancies regarding the characteristics of the managed waste, it is suggested that information regarding waste determinations or testing be maintained on site. Please note that testing is not a requirement under the federal hazardous waste regulations.
- 5) The units must be continually operated to assure biological treatment of the process-generated wastewaters. Petroleum refinery secondary (emulsified) oil/water/solid separation sludge and floats generated in ABT units, as defined in 40 CFR 261.31(b)(2)(i), are not included in the F038 listing. However, sludges and floats generated in ABT units that are shut down beyond normal operational and maintenance time, may be subject to the F037 and F038 provisions.
- 6) The refinery must provide for management of sludge consistent with applicable solid and hazardous waste rules. 40 C.F.R. 262.11 provides that a person who generates a solid waste must determine if that waste is a hazardous waste. The refinery must evaluate its waste for toxicity under 40 CFR 261.11. The refinery may either test the waste using the TCLP test or may use other information regarding the characteristics of the removed sludge such as knowledge of the waste, the raw materials, and the processes used in its generation in determining whether or not the sludge is hazardous. In the event the refinery determines that the ABT unit generates a hazardous waste, storage and/or removal of the sludge would require management in compliance with the hazardous waste management system.

In addition, operating data that demonstrated sufficient biological activity, evidence that the mechanical aeration equipment is of an adequate size, and other engineering and design characteristics of the ABT unit can be evaluated in preventing "Sham-ABT."

- 7) Omit this point.

8) See 2.

Should you have questions regarding our comments on your draft guidance please contact Daryl Moore of my staff at FTS 475-8551.

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