

9486.1988(01)

DRAINAGE WATER BENEATH LAND TREATMENT UNITS AT OIL REFINERIES

January 2, 1988

MEMORANDUM

SUBJECT: Headquarters's Clarification of the Regulatory Status  
of Drainage Water Beneath Land Treatment Units and  
Integration of the Region's Permitting Activities with  
the "No Migration" Petition Program

FROM: Marcia E. Williams, Director  
Office of Solid Waste

TO: Charles E. Findlay, Director  
Hazardous Waste Division-Region 10

This memorandum responds to your December 4, 1987, memorandum in which you raised several issues on permitting of land treatment units at oil refineries in Region 10.

Your first question was whether ground water which is seasonally drained from beneath land treatment units constitutes a hazardous waste. You concluded that the situation is roughly analogous to situations described in the 1985 policy memorandum clarifying application of the derived from and mixture rules to petroleum refinery wastewater treatment systems. Based on that 1985 policy, you concluded that the drainage water is not a hazardous waste by definition.

While we agree that ground water pumped from beneath a land treatment unit is not necessarily hazardous, we do not agree that ground water contaminated with hazardous waste leachate from a land treatment unit can be categorically deemed non-hazardous. The 1985 policy on wastewater treatment systems does not address releases to ground water. The regulatory status of contaminated ground water is addressed more directly in Marcia Williams' memorandum of November 13, 1986, which states that ground water contaminated with hazardous waste leachate must be managed as if it were a hazardous waste. This applies equally to land treatment units and other RCRA units.

You also questioned whether the drainage water, which is returned to an NPDES treatment system, must be addressed in a "no migration" petition. Under the "no migration" standard, there can be no migration from the unit. If the drainage water is to be excluded from the "no migration" petition, the petitioner must demonstrate that the drainage water is not being contaminated by hazardous constituents migrating from the land treatment unit.

However, for a leachate collection system that is considered part of the unit (e.g., it is above a liner), and where leachate is pumped directly to a wastewater treatment plant, the leachate would not be considered to be migrating from the unit. However, any ditches or pipes used to conduct leachate from a leachate collection system, or runoff from the unit must meet the "no migration" standard, since these conduits could be extensions of the unit.

With respect to your suggestion that a Part B land treatment demonstration can be used in lieu of a "no migration" petition covering subsurface transport, we do not believe that an approved Part B land treatment demonstration can replace a "no migration" petition. Although it is true that the subsurface transport demonstrations for the permit and the petition are very similar, the statutory standard that must be met for a "no migration" demonstration is more stringent. For example, "no migration" must be demonstrated for "as long as the waste remains hazardous," and not just for the permitted life of the facility. Thus, a "no migration" demonstration may have to meet a standard for a much longer time than the land treatment demonstration. In addition, "no migration" must be demonstrated for all media, including soil, surface water and air. We realize that much of the information contained in a Part B application is relevant to "no migration" demonstrations. Thus, we have been encouraging potential petitioners to attach a summary of all relevant Part B data and/or specific sections of the Part B application. We are planning to work very closely with both the Regions and the States when reviewing "no migration" petitions, since the permit writers can offer invaluable technical and historical information on the site.

In response to your suggestion that determination made under a RCRA Facility Investigation (RFI) can replace an evaluation of air emissions addressed in a "no migration" petition, we do not believe that such a determination can automatically substitute

for a "no migration" demonstration. The standard that must be met for no migration from the unit will likely be more stringent than the demonstration required under the RFI. We are continuing to evaluate the best way to handle the air pathway for "no migration" demonstrations, and propose to use health or environmentally-based exposure levels at the edge of the unit. For the air pathway we have not yet defined what this will be; but one option is that the edge of the unit be defined as the surface of the waste. In defining the "no migration" standard the Agency must determine how this standard relates to the section 3004(n) standards which will control air emissions from treatment, storage, and disposal facilities as "may be necessary to protect human health and the environment." Finally, RFI information may not be available at the time a "no migration" petition is submitted. When it is available, it will be considered. We are encouraging the use of all relevant site data in the "no migration" petition, including information collected for permitting or corrective action purposes.

In your memorandum you requested that authority to grant "no migration" petitions be delegated to the Regional Administrators. We are planning to propose an interpretation of the "no migration" language in the Federal Register for public comment. Because of the controversy surrounding the interpretation of the "no migration" statutory language, and the potential for changes in policy, we believe that Headquarters should evaluate the initial set of "no migration" petitions received. We will consider delegation to the regions after the program is developed and initial petitions have been evaluated to assess issues and established precedent. Therefore, you should advise facilities to submit petitions to the Administrator. It would also be advisable to send a copy of the petitions to the Assistance Branch of the Permits and State Programs Division, which will have the lead on reviewing the petitions. We will coordinate individual petition reviews on a case-by-case basis. The Agency expects to receive relatively few viable petitions. The petition approval process should not affect the November 1988 permitting deadline, since petition approval is not a prerequisite for Part B permit approval.

In addition, you asked Headquarters to have a staff person devoted primarily to covering land treatment issues for the Permit Assistance Team (PAT). We understand your concern regarding the need for technical expertise in this subject area.

Unfortunately, we do not have the resources to assign an individual to land treatment on a full-time basis. We will continue to use the technical staff available, and supplement with contractual support when necessary. If you need assistance or wish to discuss this, please contact Elizabeth Cotsworth on (FTS) 382-4206.

For further clarification on these issues, please contact Stephen Weil at (FTS) 382-4770.