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40 CFR 260.10

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Subject: Clarification of the Definition of Aquifer in 40 CFR 260.10

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Summary:

There is confusion in the use of the terms aquifer and ground water in the regulations. As stated in the regulations, an aquifer, by definition, provides a significant yield of water. Until Subpart F regulatory amendments are promulgated, EPA cannot require owner/operators to place ground-water monitoring wells in saturated zones above aquifers to meet Part 264's point-of-compliance standards. The monitoring system requirements (§264.97) and the ground-water protection standard (§264.93) are limited to ground water in the aquifer. Where there is a clear environmental rationale for requiring the permittee to monitor the ground water above the aquifer, the Agency suggests using RCRA §3013. Finding ground-water contamination above the aquifer, however, does not indicate that the ground-water protection standard has been exceeded; imminent hazard or other provisions must be invoked.

Definition Of An Aquifer In Part 260.10

John H. Skinner, Director
Office of Solid Waste

Jim Scarborough

In your memo in May 1, 1984, you requested clarification of the definition of the word aquifer. There is confusion which results from the usage of the terms "aquifer" and "ground water" in the regulations. As you mentioned, the preamble indicates our awareness of the issue at the time the regulations were promulgated. This subject has been repeatedly raised by commenters and petitioners; and it is included in our list of items for regulatory amendment. We are now scheduled to propose such amendments in the Spring of 1985.

Meanwhile, we must abide by the current regulations which do not require placement of ground-water monitoring wells in saturated zones above aquifers. As you point out, §264.93 establishes the "point of compliance" as the entire vertical plane from the edge of the waste management area down to the upper surface of the aquifer; this would include, of course, ground water above the aquifer. Similarly, in §270.14 (c)(4), applicants must describe all ground-water contamination, not just contamination in the aquifer. However, the monitoring system requirements, (§264.97), and the ground water protection standard (§264.93), are limited to ground water in the aquifer.

Guidance for implementing the existing regulation is available in three manuals:

1. Permit Applicant's Guidance Manual (SW 84-004) page 9-17.
2. Draft Permit Guidance Manual for Hazardous Waste Land Treatment, Storage, and Disposal Facilities (Oct 83) pages 5-19 to 5-21.
3. Draft Permit Writers Manual for Ground Water Protection (Sep. 83) page 22

A copy of these references is attached. The issue will also been addressed in the first quarterly Permit and Policy Quarterly Report. In general, we advocate the conservative approach where there is discretion in defining what is a significant yield. As expressed in the preamble, we must provide protection for individual domestic wells especially when considering that such wells typically supply water for use without treatment.

I must caution you that guidance in the draft manuals (#2 and #3 above) has been taken from context and used in a misleading manner. It says "In summary, the Agency considers the hydrologic unit an aquifer if it provides a pathway for migration to any existing or potential point of use or discharge." The next edition of these draft manual will clarify that this must still be within the context of "significant yield."

With regard to the facilities you are currently reviewing, you may make use of the Part 270 requirement to require a description of the contamination of all ground water beneath the facility. However, with regard to the proposed monitoring systems, the regulations will only support the requirement for

monitoring the ground water in the aquifer. Where there is clear environmental rationale for requiring the permittee to monitor ground water above the aquifer, we suggest that you consider using the provisions of Section 3013 of the Act. You must keep in mind, however, that the ground-water protection standard for a facility, (§264.92) is only applied in the aquifer. Therefore, while we may require information concerning ground-water contamination above the aquifer, finding such contamination does not indicate that the ground-water protection standard has been exceeded; imminent hazard or other provisions must be invoked.