

MEMO

MARCH 3, 1991

*Danny + Terry*  
TO: ~~BRUCE SWANTON~~  
FROM: STEPHANIE STODDARD *ES*  
RE: GROUNDWATER MONITORING WAIVERS AT LANL

The 265 standard for ground-water monitoring waivers requires the O/O to demonstrate a low potential for migration of hazardous constituents from the unit into the uppermost aquifer. 265.90 (c) (1) outlines what information is required to make the demonstration, including that the waiver be certified by a qualified geologist. The 265 standard does not, however, require any approval by the Regional Administrator. The O/O is only required to keep the waiver on site (hence the term "self implementing").

However, the 264 standard does require that the Regional Administrator verify that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the unit plus thirty years. The O/O must base any predictions made on assumptions that maximize the rate of liquid migration. The no migration demonstration must also be certified by a qualified geologist or geotechnical engineer (264.90 (c) (4)).

Here is what I found regarding groundwater monitoring waivers in my review of the LANL files:

TA-16

Surface Impoundment and Area P Landfill: LANL submitted waivers based on 264 standards (no migration) 12/15/87 and 2/11/88, but I have not been able to locate them. This info is based on the groundwater monitoring checklist for the 1990 CEI. In the checklist comments Julie Wanslow said that EID was "presently reviewing the waivers and will decide whether they are appropriate or not". There is nothing else in the files to say that EID reviewed the waivers or agreed that the 264 standard was met.

TA-54

Area G and Area L: LANL submitted voluminous information regarding a 265 waiver for these areas. EID issued a Compliance Order to LANL (5/7/87) requiring the submittal of information required under 265.90 (c)(1), specifically:

Saturated hydraulic conductivity (or air permeability) of the tuff/joint matrix



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Moisture characteristic curve for undisturbed tuff

Unsaturated hydraulic conductivity and seepage velocity in the tuff/joint matrix

Infiltration and redistribution of natural infiltration into tuff [Resulting in: Neutron Moisture Measurements After Two Autumn Storms at TA-54 Area L and G]

Movement of hazardous constituents from disposal units into the surrounding tuff. [Resulting in: Core Analysis and Observation Well Data from Mesita Del Buey Waste Disposal Areas and Adjacent Canyons] .

Distribution and fate of perched water in side canyons. [Resulting in: Hydrologic Characteristics of the Alluvial Aquifers in Mortindad, Canada del Buey and Pajarito Canyon as well as quarterly reports of observation well data]

EID and EPA both agreed that "low potential" was demonstrated. See letters 11/5/85 and 3/18/86.

TA-35 TSL-85/125

LANL has submitted a waiver based on 265 standards (currently in library). It looks as though information gathered for the 1987 Compliance Order was used extensively to support this waiver request. There is nothing in the files to indicate EID review of this information.

cc Herb Glover