

DG/88/06/17

- 1 - JUN 21 1988

MEMORANDUM FOR: DHLWM staff

FROM: Robert E. Browning, Director
Division of High-Level Waste Management

SUBJECT: PERFORMANCE ASSESSMENT IN THE SITE CHARACTERIZATION
PROCESS

It is my intention to ensure that performance assessment plays a central role early on and throughout site characterization in order to ensure that the DOE's site characterization programs are properly focused on obtaining the data needed to demonstrate compliance with 10 CFR Part 60 and 40 CFR Part 191 performance criteria. In this regard, I want to draw your attention to two enclosures. The first is a concern ("Question 52") with the CDSCP raised by the Compliance Demonstration Section that questions the DOE's plans for integrating performance assessment into the site characterization program. The basis for this question clearly spells out my position on the need for this integration. The second enclosure is a copy of a letter from R. Cranwell of Sandia National Laboratories (SNL) to S. Coplan of the Compliance Demonstration Section. Until recently, Dr. Cranwell was the SNL program manager for several ongoing contracts that the NRC (both NMSS and RES) has with SNL in the area of performance assessment. In his letter, Dr. Cranwell provides five examples of how recent performance assessment activities have led to a redirection of site characterization programs at the WIPP site.

Each of you needs to conduct your work well-informed of the central role that performance assessment must play during site characterization. In addition, because the review of the statutory SCP will focus on performance allocation and performance assessment, I ask that you provide a high degree of technical support to the Compliance Demonstration Section in this regard.

Original Signed by
Robert E. Browning
Robert E. Browning, Director
Division of High-Level Waste Management

Enclosures:
As stated

cc: w/o encl: HThompson
RBernero
STreby
GARlotta

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Section 8.3.5 Performance Assessment Program

QUESTION 52

How will performance assessment be integrated into the site characterization program?

BASIS

- The NRC staff considers performance assessment as a process that should be done iteratively throughout site characterization to aid in understanding the regulatory value of data collected, to assist in focusing the site characterization program on key areas of uncertainty, and to refine models as data are collected.
- In addition to its use as a primary tool in evaluating compliance with the numerical criteria of 10 CFR Part 60, performance assessment should be used in directing site characterization activities, in identifying important processes and parameters, and in assisting in development of conceptual models.
- Performance assessment models must be based on a sound understanding of the physical, chemical, and biological phenomena involved, must reflect gains in knowledge resulting from site characterization programs, and must employ data that are as representative of actual in situ conditions as is practicable to obtain. Also, site characterization programs should be directly linked to the data needs of models and computer codes.
- The CDSCP does not address the issue of how performance assessment has been integrated into the site characterization program.

RECOMMENDATION

- Include one or more sections in Chapter 8 of the SCP that describe how performance assessment will be integrated into the site characterization program.

REVIEW GUIDES

4.2.2, 4.2.4