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- 1 -

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NOTE TO: File

FROM: Joseph J. Holonich, Sr. Project Manager
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management

SUBJECT: U. S. DEPARTMENT OF ENERGY (DOE) BRIEFING TO U. S. NUCLEAR
REGULATORY COMMISSION (NRC) STAFF ON UPCOMING ADVISORY
COMMITTEE ON NUCLEAR WASTE (ACNW) MEETING

The purpose of this note is to document a briefing to NRC staff on January 13, 1989 by Dr. Don Alexander (DOE) and Dr. Larry D. Rickertson (Weston/DOE) regarding DOE's planned presentation to the ACNW on January 23 and 24, 1989 covering the DOE's performance assessment program. Attending from the Nuclear Regulatory Commission (NRC) were: (1) R. E. Browning; (2) B. J. Youngblood; (3) Seth Coplan; and (4) Joe Holonich. At the briefing, Dr. Alexander discussed the general scope of the presentations listed in the agenda items given in Enclosure 1 to this note. The purpose of the briefing was to provide the NRC staff with a preview of the DOE presentation to the ACNW so that staff could consider this information in its ongoing activities related to performance assessment. The NRC staff encouraged the DOE representatives to schedule in depth technical interchanges which all parties, including the State of Nevada, could attend with appropriate technical experts.

ORIGINAL SIGNED BY

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Enclosures: As stated

cc: R. Loux, State of Nevada
M. Baughman, Lincoln County, NV
D. Bechtel, Clark County, NV
S. Bradhurst, Nye County, NV
R. Stein, DOE/HQ
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- 2 -

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On-Site Reps
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Detailed Agenda for
OCRWM Presentation to the ACNW
on Performance Assessments
24 January, 1989

Location: Room P-114, Phillips Building
7920 Norfolk Avenue
Bethesda, Maryland

Time: 8:00 a.m. - 5:00 p.m.

1. Introduction and Overview of Performance Assessments

Dr. Donald Alexander, Chief
Regulatory Compliance Branch
OCRWM

General program of performance assessments to address the regulations. Overview of the management and organization of the performance assessment program. The interface between performance assessment and the testing program. Current projects (FY 1989 performance assessment activities).

2. Preclosure Safety Assessments

David Michlewicz, Manager
Safety Assessment Section
Weston, OCRWM Technical Support Team

Regulatory requirements applicable to safety assessments. OCRWM's technical approach to the assessments. Current information needs.

3. Development of the Complementary Cumulative Distribution Function (CCDF)

Dr. Larry D. Rickertson, Manager
Issues Resolution Section
Weston, OCRWM Technical Support Team

Why a CCDF is to be used. Definition and derivation of the CCDF. OCRWM approach to the construction of the CCDF. Treatment of human interference in constructing the CCDF.

4. Selection of Scenarios
Dr. Felton W. Bingham, Supervisor
Repository Performance Assessment Division
Sandias National Laboratories

Introduction to what a scenario is and why scenarios are useful. Discussion of scenario selection already accomplished. Approvals of future scenario selections.

5. Total System Performance Assessment Model
Dr. Scott Sinnock, Supervisor
NNWSI Program Interface
Sandia National Laboratories

General methodology for the system model and the treatment of submodels. Applications already conducted. Work that still needs to be done.

6. Validation of Models
Dr. Abraham Van Luik
Staff Scientist
Pacific Northwest Laboratory

Licensing needs for model validation. General DOE approach to model validation. Specific plans and schedules for testing of conceptual models.

7. Engineered Barrier System Model
Dr. Michael J. Apted, Deputy Manager
Performance Assessment Scientific Support (PASS) Program
Pacific Northwest Laboratory

Regulations applicable to engineered barrier system performance. General methodology for performance analysis. Description of an engineered barrier system numerical model. Typical results.

8. Engineered Barrier System Submodels
Dr. William J. O'Connell
Technical Area Leader for Waste Package Performance Assessment
Lawrence Livermore National Laboratory

Role of submodels in engineered barrier system performance assessment. Container degradation modelling. Spent fuel modelling. Waste form alteration modelling. Waste package environment modelling.

9. **Example of Performance Allocation for the Waste Package Testing Program**

Dr. U-Sun Park
Senior Staff Systems Engineer
Science Applications International Corporation

Applicable regulatory requirements. System description and preliminary analysis. Technical strategy for licensing. Performance goals to guide testing.

10. **Difficulties in Performance Assessments for Licensing**

Dr. Donald H. Alexander, Chief
Regulatory Compliance Branch
OCRWM

Problems in the area of total system performance assessment. Problems in the area of engineered barrier system performance assessment. Problems in the area of ground-water travel time assessment. Problems in the area of repository and seal system design assessment. Problems in the area of model validation.