



**Monday, September 12 — continued**

**2:45 P.M.**

**BREAK (15 minutes)**

PROPOSED PROGRAM APPROACH TO GWTT: CONCEPTUAL PROBLEMS

**3:00 P.M.**

**Program overview of GWTT assessment**

[Erik Smistad](#), DOE

**3:15 P.M.**

**Interpretation of regulations and calculational philosophy**

- *Purpose and objectives*
- *Regulations and their implications (Parts 60 and 960)*
- *Philosophical approach*

[Lester Berkowitz](#)

Management and Operating Contractor (M&O) — TRW  
Environmental Safety Systems, Inc. (TRW)

**3:45 P.M.**

**Calculational approach**

- *Specific considerations (why a distribution)*
- *General approach (transport processes considered)*
- *Determination of the disturbed zone*
- *Calculation of unsaturated and saturated zone travel times*
- *Role of deterministic and stochastic models*
- *Determining the significance of groundwater travel times less than 1000 years*

[James Duguid](#)

M&O — INTERA

**4:45 P.M.**

**Implementation of approach - an illustration**

- *Conceptual implementation*
- *Use of process models*
- *Unsaturated zone example*
- *Discussion of site scale-model and data feeds*
- *Example of site scale-model results and their use*

[Ralston Barnard](#)

Sandia National Laboratories (SNL)

**5:25 P.M.**

**Discussion, questions, and comments**

Board, presenters, and audience

**5:55 P.M.**

**Recess until Tuesday**

**Tuesday, September 13, 1994**

**8:30 A.M.**

**Reconvene and session introduction**

Patrick Domenico, NWTRB

**8:35 A.M.**

**Alternative criteria to GWTT on the geologic subsystem**

- *Problems with current criterion*
- *Criteria for a new criterion*
- *Example of how a criterion could be set for Yucca mountain*

Paul Kaplan, SNL

**9:05 A.M.**

**Comments from the state of Nevada**

Carl Johnson

Nuclear Waste Projects Office

**9:35 A.M.**

**BREAK (15 minutes)**

**9:50 A.M.**

**Round-table discussion: GWTT related issues.**

- *Would an alternative criterion be preferable? What could it be based on?*
- *Do complex mathematical models with uncertain parameters serve a useful function in assessing the geologic subsystem performance? When do they, and when do they not?*
- *What is the significance of travel times less than 1,000 years on repository performance?*
- *Is there agreement on the definition of the disturbed zone? On which processes should be included in the computation?*
- *Lessons learned from past attempts at struggling with the GWTT criterion*

Board members, presenters, and audience

**STATUS OF SITE-CHARACTERIZATION WORK SUPPORTING  
PERFORMANCE ASSESSMENT (PA) AND GWTT**

**11:10 A.M.**

**Site-characterization approach and ties to  
performance assessment (PA) and GWTT**

- *PA paradox and its resolution*
- *Key data needs*

Dwight Hoxie  
U.S. Geological Survey (USGS)

**Tuesday, September 13 — continued**

**11:45 A.M.**

**LUNCH (1 hour and 15 minutes)**

**1:00 P.M.**

**Progress in unsaturated zone studies**

- *Summary of infiltration studies*
- *Simulation of Pagany Wash*
- *Isotopic evidence for shallow and deep fracture flow*
- *UZ16 Air-permeability testing*
- *Summary of gas isotope/gas circulation model*
- *Perched water studies*
- *Saturated-unsaturated zone interactions*

Edward Kwickless, USGS

**2:15 P.M.**

**Progress in saturated zone studies**

- *Recent progress on regional flow model*
- *Plans for site flow model*
- *New concepts on saturated zone flow system*
- *Plans for new saturated zone data collection*
- *Contributions to performance assessment and technical site suitability*

Richard Luckey, USGS

**3:00 P.M.**

**BREAK (15 minutes)**

**3:15 P.M.**

**Round-table discussion: Key gaps in hydrologic data for site characterization. What are they and will there be time to fill them?**

- *Key hydrologic tests/exploration in the ESF*
- *Characterizing the fast pathways: isotopic data, etc.*
- *Pneumatic pathways issue: where do we stand today?*
- *What do we need to know about the Calico Hills?*

Board members, presenters, and audience

**5:00 P.M.**

**General comments from the audience**

**5:15 P.M.**

**Closing remarks and adjournment**

Donald Langmuir, NWTRB