

**NUCLEAR WASTE TECHNICAL
REVIEW BOARD**

HYDROGEOLOGY

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✦ **HIGH CALIBER OF PROJECT PERSONNEL**

HYDROGEOLOGY

**✦ HYDROGEOLOGICAL PREDICTION
AT THE YUCCA MOUNTAIN WASTE
REPOSITORY SITE HAS A HIGH
DEGREE OF UNCERTAINTY**

ESSE

- ✧ **"CONFIDENCE IN THE MODELS IS LIMITED BY A LACK OF SITE SPECIFIC DATA ,..."**
- ✧ **"(MODELS) BASED ON MANY SIMPLIFYING ASSUMPTIONS THAT SHOULD BE VERIFIED USING SITE-SPECIFIC INFORMATION"**
- ✧ **"ANALYSES HAVE BEEN CONDUCTED HOWEVER WITH A LIMITED HYDROGEOLOGIC DATA SET USING MODELS THAT MAY NOT CORRECTLY APPROXIMATE DOMINANT CONDITIONS...."**

HYDROLOGY

- ✧ "WITHOUT ADEQUATE, SITE-SPECIFIC, FIELD DATA THAT COULD ESTABLISH REALISTIC BOUNDS ON IN-SITU PERMEABILITIES IN SATURATED AND UNSATURATED ZONES AT THE SCALE OF THE FACILITY, I WOULD BE SKEPTICAL ABOUT ANY HYDROLOGIC MODELS OF YUCCA MOUNTAIN"
K. V. HODGES
- ✧ "PREDICTIVE APPROXIMATIONS MUST BE GROUNDED IN APPROPRIATE, DEFENDABLE ASSUMPTIONS" "FIELD AND LABORATORY EVALUATIONS OF MODELLING ASSUMPTIONS SHOULD RECEIVE MORE ATTENTION."
D. K. KREAMER

FAVORABLE CONDITION 3 - GEOHYDROLOGY

- ✧ GEOHYDROLOGIC SYSTEM WILL EVENTUALLY BE ABLE TO BE READILY CHARACTERIZED AND MODELED WITH REASONABLE CERTAINTY**
- ✧ MAY OR MAY NOT BE REALIZED**

HYDROGEOLOGY

**✧ IT IS POSSIBLE THAT THE
GEOHYDROLOGY OF YUCCA
MOUNTAIN WILL NOT BE ABLE TO
BE CHARACTERIZED WITHOUT
SIGNIFICANT UNCERTAINTY**

HYDROGEOLOGY

**CURRENTLY NOT ENOUGH DEFENSIBLE
SITE-SPECIFIC INFORMATION TO
ACCEPT OR REJECT SITE**

- ✧ **SITE IS ACCEPTABLE FOR CONTINUED
CHARACTERIZATION**
- ✧ **PREMATURE TO STATE LIKELYHOOD OF
SUITABILITY**

RECOMMENDATIONS - POST CLOSURE

- ✦ **WASTE PACKAGES BE EASILY REMOVABLE**
- ✦ **WASTE PACKAGES AND ENGINEERED BARRIER BE INSPECTABLE**
- ✦ **WASTE PACKAGES AND ENGINEERED BARRIER BE ABLE TO BE MODIFIED AND / OR CORRECTED**