

**NYE COUNTY WORKSHOP ON
ALTERNATIVE REPOSITORY
DESIGN**

**NUCLEAR WASTE TECHNICAL REVIEW BOARD
BEATTY, NEVADA
JUNE 29, 1999**

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WORKSHOP OBJECTIVES

- **DEVELOP UNDERSTANDING OF A NATURALLY VENTILATED REPOSITORY DESIGN**
- **COMPARE WITH DOE VA BASE CASE DESIGN AND CURRENT ALTERNATIVES BEING CONSIDERED**
- **EXPLORE ENGINEERING AND GEOTECHNICAL CONSTRAINTS ON LONG-TERM NATURAL VENTILATION**

OBJECTIVES (CONT'D)

- **IDENTIFY DESIGN OR OPERATIONAL ALTERNATIVES TO AVOID IN ORDER NOT TO PRECLUDE LONG-TERM NATURAL VENTILATION**
- **IDENTIFY AND DISCUSS ADDITIONAL DATA AND ANALYSIS NEEDS**
- **DISCUSS RANGE OF APPROPRIATE STUDIES AND TESTS WHICH SHOULD BE CONDUCTED TO COLLECT NECESSARY DATA**

**WORKSHOP HELD IN LAS VEGAS
DECEMBER 1 & 2, 1998**

**REPORT COMPLETED AND
TRANSMITTED TO PARTICIPANTS IN
EARLY MARCH. IS NOW AVAILABLE
ON NYE WEBSITE.
(WWW.NYECOUNTY.COM)**

**DOE COOPERATED WITH NYE IN
ORGANIZING AND SCHEDULING
WORKSHOP, AGENDA, OBTAINING
PANEL MEMBERS AND PRESENTERS,
AND ENCOURAGED ATTENDANCE.**

**WORKSHOP WAS WELL ATTENDED BY
PROJECT PARTICIPANTS AND
PROMINENT, NON-PROGRAM
SCIENTISTS AND ENGINEERS.**

SEVERAL TOPICS WERE DISCUSSED:

- **DOE DESIGN ALTERNATIVES**
- **HYDROLOGIC IMPACTS OF A
NATURALLY VENTILATED
REPOSITORY**
- **GEOCHEMICAL IMPACTS OF A
NATURALLY VENTILATED
REPOSITORY**
- **THE M & O VENTILATED
REPOSITORY ANALYSIS**

**WORKSHOP FOCUSED ON TWO
PRINCIPAL VENTILATED REPOSITORY
DESIGNS:**

- **“MONTAZER MODEL” OF A
NATURALLY VENTILATED
REPOSITORY, AND**
- **THE “DANKO MODEL” OF POST-
CLOSURE COOLING AND
VENTILATION IN A LOOP REFERRED
TO AS THE “BOWTIE”
CONFIGURATION.**
- **WORK ON BOTH IS STILL ONGOING,
AND CONCLUIONS ARE THUS
NECESSARILY PRELIMINARY.**

CONCLUSIONS AND RECOMMENDATIONS

**WORK SHOULD CONTINUE ON BOTH
BASIC APPROACHES TO REPOSITORY
VENTILATION.**

SHOULD INCLUDE, AT A MINIMUM:

- **CONTINUED MONITORING DURING
CONSTRUCTION**
- **LARGE-SCALE NATURAL
VENTILATION EXPERIMENTS**
- **COMPREHENSIVE SIMULATIONS OF
HEAT AND MOISTURE REMOVAL**
- **APPROPRIATE TESTING TO
VALIDATE MODELS USED**