MEMO 3/14 CHERY

MAR 16 1988

NOTE FOR: Ronald L. Ballard, Chief
Technical Review Branch
Division of High-Level Waste Management

FROM: Donald L. Chery, Jr., Section Leader
Hydrology Section
Division of High-Level Waste Management

SUBJECT: CONCERNS ABOUT COMPLIANCE DEMONSTRATION SECTION (OB)
YUCCA MOUNTAIN CDSCP OBJECTION-PPB/OBJ/1

As the Draft Objection (CDSCP/Yucca/PPB/OBJ/1) is presently stated, I can not support it, nor can it be supported by the Hydrology Section.

The initial draft of this Objection was discussed with S. Coplan by several Technical Review Branch section leaders during the marathon technical section review and coordination of draft point papers on 2/22/88. At that time, it was noted that the comment did not have the bases for an objection and that substantial revision would be necessary to make it a supportable comment. (See attached copy of the Hydrology SL mark-up and notes on that draft)

The Compliance Demonstration Section did rewrite the point paper to a great extent and distributed it to Section Leaders Friday 3/4/88. (no general distribution was made to the NNWSI team members). I reviewed this Draft Point Paper over the weekend and discussed its lack of supporting bases for an objection in the HLTR Branch Chief/Section Leader meeting Monday morning 3/7/88 (see attached copy of my mark up draft point paper).

In an effort to justify this comment as an objection, the Compliance Demonstration section has attempted to construe that a sequence of " investigations" would have one investigation compromising another based on a nebulous supposition. In an attempt to support this argument, one of the bases states, "For example, the performance allocations (and thus the testing programs) for Issues 1.1-1.6 are based on a groundwater flow model that is neither the only nor the most conservative conceptual model that is supported by existing site data."

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PDR WASTE
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102.8
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There are no CDSCP technical comments referenced supporting this "objection" nor is there any other reference supporting the comment. Also, the reference in the second basis to "groundwater flow model" was not discussed with the Hydrology Section, Section Leader or any Hydrology Section team member. The Hydrology Section has not made such a finding for this "level of effort review" and presently does not have such a concern.

Donald L. Chery, Jr., Section Leader
Hydrology Section
Division of High-Level Waste Management

cc: B.J. Youndblood
HLTR SL's
J. Linehan
S. Coplan
K.Stablein
Hydrology Section

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OFFICIAL CONCURRENCE AND DISTRIBUTION RECORD

NOTE FOR: Ronald L. Ballard, Chief
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Division of High-Level Waste Management

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SUBJECT: CONCERNS ABOUT COMPLIANCE DEMONSTRATION SECTION (OB)
YUCCA MOUNTAIN CDSCP OBJECTION-PPB/OBJ/1

DATE:

DISTRIBUTION

HLWM/SF	NMSS RF	RBrowning, HLWM
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RBallard, HLTR	DChery, HLTR	

CONCURRENCES

ORGANIZATION/CONCUREE	INITIALS	DATE CONCURRED
HLTR/DChery/jm	DLC	88/03/16
HLTR/NColeman	NC	88/03/16
HLTR/WFord	WF	88/03/16
HLTR/JPohle	JP	88/03/16
HLTR/FRoss	FR	88/03/16

3/3/88

CDSCP/YUCCA/PPB/OBJ/1

Rec'd from S. Coplan 3/4/88 1-

DLC discussed in BC/SL Mtg 3/7/88 – could not support as an objection.

Chapter 8 Site Characterization Program

2 OBJECTION

The CDSCP does not address the investigations that would be needed to characterize the site with respect to the full range of alternative conceptual models that are consistent with the existing data. Thus, all the investigations that are significant to the characterization of the site are not considered. Consequently, in sequencing investigations, the CDSCP cannot adequately consider whether conducting one investigation would physically preclude conducting another investigation needed to obtain information for licensing.

Is there an internal contradiction in this statement.

BASIS (Bases don't support an objection)

- In the CDSCP, the conceptual models relied on for performance allocation are also the basis for identifying site characterization investigations.
- These conceptual models may well change during site characterization. This is because alternative conceptual models are supported by existing data. For example, the performance allocations (and thus the testing programs) for Issues 1.1-1.6 are based on a groundwater flow model that is neither the only nor the most conservative conceptual model that is supported by existing site data. Additional information may require adoption of a different conceptual model.

Ref ?

Did they not attempt to do this?

To avoid compromising the site characterization program, priorities for investigations must be established in consideration of whether conducting tests will preclude conducting other tests that are important to licensing. This requires that all potentially significant investigations be identified and considered when testing priorities are established.

- [redacted] be conducted that would preclude conducting another test needed to obtain information necessary for licensing, [redacted] and irreversible effects on the site characterization program.

RECOMMENDATIONS

- A full range of alternative conceptual models suggested by available preliminary evidence should be identified.
- Investigations and information needs should take into account alternative conceptual models. These alternative conceptual models should be fully considered in planning the sequence of investigations and tests.
- Based on the full array of the needed investigations, it should be determined which test(s) would preclude doing other tests that are important to the site characterization program. Such test(s) should be sequenced appropriately with other tests.
- High priority should be accorded investigations having the greatest potential for resolving issues associated with features, events, or processes that could lead to the site being considered unlicensable, or to substantial change in the site characterization program, insofar as

conducting such investigations does not physically preclude conducting other necessary investigations.

REFERENCES

None.

REVIEW GUIDES

4.2.2, 4.2.3, 4.2.4.5

CDSCP/YUCCA/PPB/OBJ/1

SL's discussed with S. Coplan[1] - 2/22/88

CD Section

Chapter 8 Site Characterization Program

OBJECTION

The CDSCP does not explicitly identify the investigations that would be needed to characterize the site with respect to the alternative conceptual models that are consistent with the existing data. Consequently, in sequencing investigations, it does not adequately consider whether one investigation would physically preclude conducting another investigation that may be needed to obtain information necessary for licensing.

BASIS

- Performance allocation as carried out in the CD SCP is not necessarily based either on the most conservative conceptual models or on validated conceptual models. For example, the performance allocations for issues 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6 are based on an unvalidated flow model while other more conservative conceptual models (such as the Szymanski model) remain viable. Thus, the conceptual models on which performance allocation is based may well change before the license application is submitted.

1.0 Priorities for investigations need to be established on the potential of tests to preclude other tests that are important to licensing as well as on the basis of importance to resolving an issue.

2.0 Should a test be conducted that would preclude conducting another test to obtain information necessary for licensing, there could be significant and irreversible effects on characterization.

- A specific example which lends support to this concern is that there is no indication that investigations in the erosion program will be completed before surface changes are made to sink shafts and boreholes. (See Section 8.3.1.6)

RECOMMENDATIONS

- All of the alternative conceptual models suggested by available preliminary evidence should be identified.

- Investigations associated with alternative conceptual models, as well as investigations required to meet the identified information needs should be fully considered in planning the sequence of investigations and tests.

- Based on the full array of the needed investigations, it should be determined which test(s) would preclude doing other tests that are important to the site-characterization program. Such test(s) should be sequenced appropriately with other tests. Priority should be placed on investigations having the most significant potential for resolving issues associated with disqualifying conditions as long as the investigations don't interfere with other necessary investigations.

REVIEW GUIDES

4.2.2, 4.2.3, 4.2.4.5

basis for objection?

technically sound reasonably conservative

A range

Ref

Comprehensive site description investigation