

Department of Energy

Nevada Operations Office

P. O. Box 14100

Las Vegas, NV 89114-4100



DEC 11 1985

Paul T. Prestholt
Nuclear Regulatory Commission
1050 East Flamingo
Suite 319
Las Vegas, NV 89119

FORMAL NOTIFICATION OF SANDIA NATIONAL LABORATORY (SNL) AND LOS ALAMOS NATIONAL LABORATORIES (LOS ALAMOS) OF CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) STATUS OF DIRECTOR OF WASTE MANAGEMENT PROJECT OFFICE (WMPO) NEVADA OPERATIONS OFFICE (NV)

Enclosed for your records, and to forward to the Nuclear Regulatory Commission-Nuclear Materials Safety and Safeguards-Waste Management Division (NRC-NMSS-WMD), are copies of the letters to SNL and Los Alamos announcing that the Director of WMPO has been designated as COTR for work that the Laboratory does in support of the NNWSI Project. You might suggest to the Quality Assurance staff in WMD that they could formally advise Department of Energy/Office of Civilian Radioactive Waste Management/Office of Geologic Repository that this structure is adequate to demonstrate that the Project Manager has adequate authority and management control over his contractors.

I am anxious to receive NRC's reaction to this approach to resolving their concerns.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:DLV-392

Enclosures:
As stated

cc w/encls:

W. J. Purcell, DOE/HQ (RW-20) FORSTL
Ralph Stein, DOE/HQ (RW-23) FORSTL
Charles Head, DOE/HQ (RW-43) FORSTL
V. J. Cassella, DOE/HQ (RW-22) FORSTL
J. S. Szymanski, WMPO, DOE/NV
W. R. Dixon, WMPO, DOE/NV
R. W. Taft, AMES, DOE/NV
James Blaylock, QAD, DOE/NV

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PDR WASTE
WM-11 PDR

Rec'd w/ memo to
From Westholt dtd. 12/17

For Publication

FILED

DEC -2 1985

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

CLERK, U.S. COURT OF APPEALS

STATE OF NEVADA, ex rel.,
ROBERT R. LOUX, DIRECTOR OF THE
NEVADA NUCLEAR WASTE PROJECT
OFFICE,

CA NO. 84-7846

Petitioner,

vs.

JOHN HERRINGTON,* Secretary of the
United States Department of Energy

OPINION

Respondent.

On Petition for Review under the
Original Jurisdiction of
the Court of Appeals

Argued and Submitted August 12, 1985 - San Francisco, California

Before: MERRILL and FARRIS, Circuit Judges, and JAMESON,**
District Judge.

FARRIS, Circuit Judge:

STATEMENT OF THE CASE:

Nevada seeks funding of technical studies designed to
evaluate whether its Yucca Mountain site should be used as a
nuclear waste repository. Nevada also seeks a judgment declaring
unlawful the Department of Energy's revised Internal General
Guidelines on Nuclear Waste Repository Program Grants. This case

*Secretary John Herrington is substituted for his predecessor
pursuant to Federal Rule of Appellate Procedure 43(c).

**The Honorable William J. Jameson, Senior United States District
Judge for the District of Montana, sitting by designation.

1 is a direct appeal from the Secretary of Energy's final decision
2 to deny funding for Nevada's FY 1985 expenditures on Yucca
3 Mountain studies. See 42 U.S.C. § 10139(1)(A).

4 The Nuclear Waste Policy Act of 1982 (NWPA), Pub. L. No. 97-
5 425, Jan. 7, 1983, 42 U.S.C. §§ 10101-10226, provides that state
6 activities related to the selection and construction of a high-
7 level nuclear waste repository will be funded out of the Nuclear
8 Waste Fund, which is derived from a levy on nuclear waste
9 generators and owners. A state first becomes eligible for funding
10 when it is notified by DOE that it contains a potential repository
11 site. See § 116(c)(1)(A), 42 U.S.C. § 10136(c)(1)(A). Nevada has
12 been so notified. The Act then requires the Secretary to nominate
13 at least five sites as suitable for "site characterization"--i.e.,
14 detailed research of the geologic conditions surrounding the site--
15 accompanied by an environmental assessment. See § 112, 42 U.S.C.
16 § 10132. After public hearings and state and Indian tribe input,
17 the Secretary must recommend three of these sites to the
18 President. § 112(b)(1)(B), 42 U.S.C. § 10132(b)(1)(B). The
19 President may approve or disapprove the recommendations within 60
20 days. § 112(c)(1), 42 U.S.C. § 10132(c)(1).

21 The Secretary has not yet nominated any sites, even though he
22 has taken the discretionary step of issuing nine draft
23 environmental assessments on potential sites in six states. These
24 drafts indicate that three sites are likely to be nominated to the
25 President later this year; Yucca Mountain in Nevada is listed as
26 the most likely site for approval.

On September 17, 1984, Nevada applied for a grant from the Fund for proposed hydrologic and geologic studies of the Yucca Mountain area. On December 13, DOE refused to fund these studies, amounting to a disputed sum between \$1.5 and \$2.2 million. DOE relied on the authority of its Internal General Guidelines, which seek to "minimize" primary data collection by states and limit state evaluation of any primary data already collected by DOE.

The next day, Nevada timely filed its petition for review to this court, see 42 U.S.C. § 10139(c), first seeking a preliminary injunction which we denied on December 19, and then asking for approval of its grant request and a declaration that the Guidelines are unlawful.¹

1. Standard of review.

In reviewing the Guidelines, we do not "simply impose [our] own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." Chevron, U.S.A., Inc. v. NRDC, Inc., 104 S. Ct. 2778, 2782 (1984); see General Electric Uranium Mgmt. Corp. v. United States Department of Energy, 764 F.2d 896, 898 (D.C. Cir. 1985) (reviewing Nuclear Waste Policy Act); State of Washington, Dept. of Ecology v. EPA, 752 F.2d 1465, 1469 (9th Cir. 1985). The "considerable weight" given an agency's interpretation of its own regulations is heightened when the agency is implementing, as here, a new

statute. See Udall v. Tallman, 380 U.S. 1, 18 (1965); NRDC, Inc. v. Train, 510 F.2d 692, 706 (D.C. Cir. 1975).

We must, however, reject administrative constructions of a statute that are inconsistent with the statutory mandate or that frustrate the policy that Congress sought to implement." United States v. Louisiana-Pacific Corp., 754 F.2d 1445, 1447 (9th Cir. 1985); see Bureau of Alcohol, Tobacco and Firearms v. Federal Labor Relations Authority, 464 U.S. 89, 97 (1983).

11. Is the state entitled to funding of its pre-site characterization activities?

Nevada seeks funding of all activities "relevant" to the purposes of the NWPA--so long as they do not "unreasonably interfere" with DOE's activities--during the period preceding the selection of Nevada for site characterization activities.

A. The purposes of the Act.

The findings and general purposes of the NWPA support funding of pre-site characterization activities. Cf. Complaint of McLinn, 744 F.2d 677, 683 (9th Cir. 1984) ("a liberal construction of the statute is indicated by its declaration of policy"). The statute declares that the costs of nuclear waste disposal "should be the responsibility of the generators and owners of such waste," 42 U.S.C. §§ 10131(a)(4), 10131(b)(4)--and at the same time, state and public participation in the planning of waste sites "is essential [to] promote public confidence," 42 U.S.C.

§ 10131(a)(6). Taken together, these dual purposes show that Congress intended the generator-fed Nuclear Waste Fund, not the state, to pay the costs of any state "participation"--such as

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1 evaluative testing--in the choice of sites. The independent
2 oversight and peer review which only the states are poised to
3 provide would immeasurably "promote public confidence" in general
4 and among Nevada residents in particular.

5 These studies would also promote the statutory purpose of
6 "provid[ing] a reasonable assurance that the public and the
7 environment will be adequately protected from the hazards posed by
8 high-level radioactive waste," 42 U.S.C. § 10131(b)(1). When the
9 statute repeatedly states that the protection and confidence of
10 the public are goals of the HWPA, *see id.*, 42 U.S.C.
11 § 10131(a)(1), (4), (7), we must conclude that Congress
12 contemplated funding independent state studies even if they are
13 instituted prior to formal site characterization.

14 As the Act recognizes, the dangers inherent in nuclear waste
15 disposal mandate a close, independent scrutiny of DOE's siting
16 decisions. Some of the nuclear isotopes involved will generate
17 intense radioactivity and heat for tens of thousands of years.
18 The site which is ultimately selected must therefore remain secure
19 for the indefinite future. cursory evaluation of potential sites
20 today can result in heightened danger and potentially prohibitive
21 control costs tomorrow.²

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23 B. The structure of the Act.

24 Funding is also supported by the principle that a "statute
25 should be construed so as to avoid making any word superfluous."
26 *E.g., United States v. Handy*, 761 F.2d 1279, 1280 (9th Cir. 1985);
Yamaguchi v. State Farm Automobile Insur. Co., 706 F.2d 940, 946

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(9th Cir. 1983). The statute's core funding provision, § 116(c)(1)(A), requires grants "to each State notified under subsection (a) for the purpose of participating in activities required by sections 116 and 117 or authorized by written agreement." (Emphasis added); see 42 U.S.C. § 10136(c)(1)(A). But other provisions already specifically require grants to states when the President has chosen a candidate site, § 116(c)(1)(B), when the Nuclear Regulatory Commission has authorized construction, § 116(c)(2)(A), and when the state and DOE have entered into a written cooperative agreement, § 117(c). 42 U.S.C. §§ 10136(c)(1)(B), 10136(c)(2)(A), 10137(c). To avoid treating section 116(c)(1)(A) as superfluity, it must be read as a catch-all provision that authorizes funding in other circumstances not already specifically "required by sections 116 or 117 or authorized by written agreement."

Section 116(c)(1)(A) thus provides a basis for funding Nevada's proposed studies, if those studies would be essential to an informed "statement of reasons explaining why [the state] disapproved the recommended repository site." § 116(b), 42 U.S.C. 10136(b)(2). That statement of reasons is "required by section 116." Hence, subject to certain limitations, the studies must be funded in compliance with § 116(c)(1)(A).³

DOE argues that Congress only intended to trigger federal funding after a state has entered the site characterization phase. To authorize funding prior to site characterization, DOE contends, "would clearly divert moneys from the Nuclear Waste Fund to

1 premature site characterization activities on sites which might
2 not become candidates at all."

3 This argument, perhaps valid in some circumstances, is
4 inapposite here. DOE's own press conferences and draft
5 environmental assessments list Yucca Mountain as the most likely
6 site for the repository, thus minimizing the danger that funding
7 for Nevada's studies will be "wasted." More important, DOE's
8 argument misses the point of the NWPA. Congress intended all the
9 costs of nuclear waste disposal to be "the responsibility of the
10 generators and owners of such waste." 42 U.S.C. §§ 10131(a)(4),
11 10131(b)(4). The statute thus provides funding for evaluating all
12 three of the sites nominated for site characterization--despite
13 the fact that only one of the three sites will ultimately become
14 the national repository. See 42 U.S.C. §§ 10132(c), 10134. By
15 the same token, when an informed "statement of reasons" for
16 disapproving a recommended site requires that studies be initiated
17 now, the costs of those studies must be borne by the Nuclear Waste
18 Fund--even though a state may never have to file such a statement
19 of reasons because the state is later eliminated from contention.
20 In the context of developing repositories for waste from nuclear
21 defense activities, Congress has authorized funding for state
22 studies as soon as they have been notified that they host a
23 potential site. See 42 U.S.C. § 10121(b). Because the statute
24 declares that the states' participation rights for defense waste
25 repositories are "identical to" those at issue here, *id.*, federal
26 funding was intended to be available under § 116(c)(1)(A) even
before site characterization has begun.

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1 Our interpretation of the statute is supported by the
2 legislative history of the Senate predecessor bill, which
3 indicates that states "should be entitled to the broadest possible
4 rights and opportunities to participate in the development of the
5 facilities The Committee expects this fundamental
6 principle to govern any interpretation, including judicial
7 interpretations" S. Rep. No. 282, 97th Cong., 1st Sess.
8 28 (1981). Furthermore, the fact that § 116(c)(1)(A) was added in
9 the final conference committee deliberations to a bill that
10 throughout several versions had provided only for post-site
11 characterization, see § 116(c)(1)(B), 42 U.S.C. § 10136(c)(1)(B),
12 indicates that § 116(c)(1)(A) was intended to fill the gap and
13 supply funding prior to site characterization, rather than merely
14 repeat the specific funding authority already set out by other
15 provisions. The amendment specifically excludes from federal
16 funding "any salary or travel expense that would ordinarily be
17 incurred by such State." § 116(c)(1)(A), 42 U.S.C.
18 § 10136(c)(1)(A). This language suggests by negative implication
19 that other state expenses required by sections 116 or 117--such as
20 testing expenditures--are to be funded by the Nuclear Waste Fund.

21 Of course, the state is not entitled to carte blanche access
22 to the Nuclear Waste Fund. The only pre-site characterization
23 activities that may receive funding are those essential to an
24 informed "statement of reasons" for disapproving a site under §
25 116(b). § 116(c)(1)(B) already authorizes funding for "any
26 monitoring, testing, or evaluation" after site characterization

has begun. If § 116 (c)(1)(A) is to have any independent effect, it must authorize only those studies which, to be available in time to contribute to the state's notice of disapproval, must be begun prior to site characterization. Therefore, pre-site characterization activities may only receive funding if their contribution to the state's notice of disapproval depends on their being initiated prior to site characterization.

Congress has limited funding under a consultation-cooperation agreement to only such "reasonable independent monitoring and testing" which "shall not unreasonably interfere with or delay onsite activities." See § 117(c)(8), 42 U.S.C. § 10137(c)(8). As Nevada concedes, this provision indicates that Congress only intended to fund "reasonable" state testing that would not "unreasonably interfere with or delay" DOE's activities. Therefore, any pre-site characterization activities conducted before a state has entered into a consultation-cooperation agreement must be "reasonable"-- scientifically justifiable and performed by demonstrably competent contractors -- and cannot unreasonably interfere with or delay DOE's own activities.

III. Review of the site characterization Guidelines.

Apart from the question whether the statute authorizes funding for pre-site characterization activities, both parties petition us to decide whether the Guidelines are consistent with the statutory scheme of funding available after a state has reached the site characterization stage. Before deciding this

issue, however, we must determine whether Nevada has standing and whether the issue is ripe for adjudication.

A. Standing.

Nevada arguably lacks standing to contest the Guidelines governing the site characterization phase because 1) Nevada has not yet entered the site characterization stage, and 2) the Secretary may never even recommend the Yucca Mountain site in Nevada for site characterization. On the other hand, DOE has already denied funding for Nevada's proposed FY 1985 studies, by first categorizing those studies as Phase III site characterization studies, and then applying the Phase III Guidelines to deny funding. Thus, Nevada has suffered "some actual or threatened injury" as a direct result of DOE's own application of the Phase III Guidelines. See Valley Forge Christian College v. Americans United for Separation of Church and State, Inc., 454 U.S. 464, 472 (1982). It would be disingenuous for DOE to argue that Nevada lacks standing to challenge the very guidelines that DOE has chosen to apply to Nevada.

Because Nevada has alleged "personal injury" that is "fairly traceable" to the challenged conduct and "likely to be redressed by the requested relief," see, e.g., Allen v. Wright, 104 S. Ct. 3313, 3325 (1984); Price v. State of Hawaii, 764 P.2d 623, 630 (9th Cir. 1985), the state has standing to challenge DOE's Phase III site characterization Guidelines.

B. Ripeness.

1 Similar reasoning indicates that Nevada's challenge is ripe
2 for adjudication. The "basic rationale" of the ripeness doctrine
3 is to prevent courts from "entangling themselves in abstract
4 disagreements over administrative policies, and also to protect
5 the agencies from judicial interference until an administrative
6 decision has been formalized and its effects felt in a concrete
7 way by the challenging parties." Pacific Gas & Electric Co. v.
8 State Energy Resources Conservation and Development Comm'n, 461
9 U.S. 190, 200 (1983) (quoting Abbott Laboratories v. Gardner, 387
10 U.S. 136, 148-49 (1967)). The question of ripeness turns on "the
11 fitness of the issues for judicial decision" and "the hardship to
12 the parties of withholding court consideration." 461 U.S. at 201
13 (quoting Abbott Laboratories, 387 U.S. at 149).

14 Consistent with the trend in favor of reviewing even policy
15 statements and informal positions, letters, or announcements, see
16 4 E. Davis, Administrative Law Treatise § 25.16 at 411 (2d ed.
17 1983), we will review the challenge to DOE's Guidelines. The
18 validity of the Phase III Guidelines is a purely legal issue
19 involving a reading of congressional intent rather than complex
20 factual questions. See Pacific Gas, 461 U.S. at 201; Abbott
21 Laboratories, 387 U.S. at 149. Second, the Guidelines bear
22 hallmarks of finality, an element of ripeness that the Supreme
23 Court has viewed in a "pragmatic way." Abbott Laboratories, 387
24 U.S. at 149. While not formally adopted by DOE under the
25 Administrative Procedure Act, the Guidelines were issued in both
26 draft and revised form to all relevant states and Indian tribes,
and in DOE's own words, "express the administrative construction

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of the NWPA that subsequently formed the basis for DOE's partial denial of Nevada's grant request." Compare with Administrative Procedure Act, 5 U.S.C. §§ 551(4), (13) (agency action includes "an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy") (cited in Abbott Laboratories, 387 U.S. at 149). Because the Guidelines by their own terms "are intended to assist field offices by establishing a single framework within which grants can be negotiated and awarded," (emphasis added), they can be viewed as "a definitive statement of the agency's position." See Air California v. United States Dept. of Transp., 654 F.2d 616, 620 (9th Cir. 1981).

Even if the Guidelines are viewed "as a statement only of [DOE's] intentions," they are eligible for review. See, e.g., Abbott Laboratories, 387 U.S. at 150, citing Columbia Broadcasting System v. United States, 316 U.S. 407, 418-19 (1942); K. Davis, supra, at § 25.15 (collecting cases). Their effect on the state's testing activities is "direct and immediate," see Air California, 654 F.2d at 621, discouraging the state from embarking on the lengthy and detailed independent site studies that would allow it to fully evaluate DOE's conclusions. The state must therefore choose now between "disadvantageous compliance and risking sanctions," K. Davis, supra, at § 25.13; see Abbott Laboratories, 387 U.S. at 152--to either restrict its testing to those forms which would be funded under the Guidelines even though its evaluation of DOE's studies would thereby be impaired, or perform such testing at its own expense. Resolution of the Guidelines now

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will foster, rather than impede, effective administration of the Fund by DOE, see State of Texas v. United States Department of Energy, 764 F.2d 278, 283 (5th Cir. 1985), since DOE's decision to fund the states' ongoing budget requests will necessarily be controlled by the challenged Guidelines.

In sum, although Nevada has not yet entered the site characterization stage, it has already suffered a direct and immediate injury from DOE's application of its formal, final Guidelines. Furthermore, because DOE has indicated in both its draft environmental assessments and in public statements that Nevada's Yucca Mountain site is likely to top the list of sites recommended for site characterization in fall of 1985, a challenge to those Guidelines is ripe for review.

C. The Guidelines unduly restrict the state's statutory rights.

Nevada challenges two clauses in the Guidelines. These declare that "duplication of data collection efforts and associated activities should be minimized to the maximum extent practicable and avoided if at all possible," and that Nevada may "receive funding to run independent tests on DOE data, where the need for such independent testing can be justified." The first clause minimizes primary data collection by the state; the second clause requires DOE approval before a state may obtain funding for any tests--even though those tests are confined to primary data already collected by DOE.

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This interpretation of a state's statutory rights is unduly restrictive. Section 116(c)(1)(B)'s mandatory language provides that the Secretary "shall make grants to each state . . . to engage in any monitoring, testing, or evaluation activities with respect to site characterization." 42 U.S.C. § 10136(c)(1)(B) (emphasis added). As the legislative history indicates, these grants "extend[] to all activities undertaken under this subtitle," H.R. Rep. No. 785, 97th Cong., 2d Sess. 72 (1982); the House reports impose no limitation on the state's funding of the type adopted in the Guidelines. See H.R. Rep. No. 491, Pt. 1, 97th Cong., 2d Sess. 55 (1982), reprinted in 1982 U.S. Code Cong. & Ad. News 3821. See also § 117(c)(8), 42 U.S.C. § 10137(c)(8) (state may conduct "reasonable independent monitoring and testing of activities on the repository site" pursuant to a written agreement during the site characterization stage).

By "minimizing" independent collection of primary data, and then restricting state tests of primary data that DOE has collected, the Phase III Guidelines eviscerate the independent oversight role that Congress envisioned for the states. Permitting DOE to "guard the chicken coop" alone would violate the statutory finding that state participation and oversight of DOE is "essential in order to promote public confidence in the safety of disposal of [nuclear] waste." § 111(a)(6), 42 U.S.C. § 10131(a)(6).

The Secretary's construction of § 116(c)(1)(B) is inconsistent with the statutory mandate and a frustration of congressional policy. See Louisiana-Pacific Corp., 754 F.2d at

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1 1447. Consistent with its duties under a consultation-cooperation
2 agreement, see § 117(b) & (c)(8), 42 U.S.C. § 10137(b) & (c)(8),
3 DOE must fund relevant site characterization activities which are
4 reasonable, scientifically justifiable, and performed by
5 demonstrably competent contractors, and which would not
6 unreasonably interfere with or delay DOE's own activities.

7
8 **IV. Conclusion.**

9 The findings and general purposes of the statute support
10 funding of the state's pre-site characterization studies. In
11 addition, because such backup studies are essential to the
12 "statement of reasons" that must accompany the state's disapproval
13 of a site recommendation, see § 116(b), the studies are "required
14 by § 116" and therefore fundable under the catch-all provision of
15 § 116(c)(1)(A).

16 Because DOE's Guidelines seek to "minimize" independent
17 collection of primary data, and require DOE approval before any
18 federally-funded tests can be run on the primary data that DOE has
19 collected, they undermine the independent oversight role that
20 Congress envisioned for the states. Nevada is entitled to funding
21 of its relevant pre-site characterization activities subject to
22 the limitations defined herein. The sections of the Guidelines
23 which govern site characterization are unlawful.

24 REVERSED AND REMANDED.
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FOOTNOTES

¹ DOE does not argue that its denial of funding is not a "final decision" subject to review under 42 U.S.C. § 10139(a). This case involves a denial of funding with an immediate, direct impact on Nevada's activities, see infra sections III A and B, rather than the choice of a potential site which the Fifth Circuit has recently held to be unripe for judicial review. See State of Texas v. United States Department of Energy, 764 F.2d 278 (5th Cir. 1985).

² Nevada's studies can only contribute to the success of DOE's site evaluation program. If Nevada confirms DOE's conclusions, DOE will be better able to make its case before the Nuclear Regulatory Commission in future licensing proceedings under § 114(d) of the NHPA, 42 U.S.C. § 10134(d). If Nevada discovers significant flaws in DOE's findings, DOE could turn its attention to other sites and cut short the expenditure of money, time, and manpower for the evaluation of a site which would later turn out to be unsuitable. Cf. General Electric Uranium Mgmt. Corp. v. United States Dept. of Energy, 764 F.2d 896, 898 (D.C. Cir. 1985) (explicitly applying policy considerations to resolve statutory ambiguity in NHPA).

³ Congress recognized the importance of such studies in another context, where the statute authorizes funding of "reasonable independent monitoring and testing of activities on the repository site" when provided for by written agreement between the state and DOE. See § 117(c)(8).

Although the state relies heavily on sections 116(c)(1)(B) and 117(c)(1) and (8), which indicate that "monitoring, testing, or evaluation activities" are eligible for funding, these provisions by their express terms are only applicable once a state has been chosen for site characterization or has entered into a written agreement with DOE. Because Nevada has not entered the site characterization stage and has not sought to enter into an agreement with DOE, it cannot invoke these provisions to fund its pre-site characterization activities.

Fo: A.FRANKLIN (DOE1607)
Cc: D.DEVANE (DOE1608)
Cc: D.MILLER (DOE528)
From: J.SHERWOOD (DOE1604) Posted: Tue 3-Dec-85 9:02 EST
Sys 64 (45)

CC: MER
Amick
Vieth
PAO'S
Wm

Subject: DEPARTMENT OF ENERGY :department of energy rules
limiting a state s i * UPI NATIONAL Wire

From: NEWS Posted: Tue 3-Dec-85 5:06 Sys 97
To: J.SHERWOOD
Subject: DEPARTMENT OF ENERGY :department of energy rules
limiting a state s i * UPI NATIONAL Wire

State studies of proposed nuclear waste dump sites approved

By PAMELA A. MacLEAN

SAN FRANCISCO (UPI) — A federal appeals court has ruled that states can conduct their own studies of proposed nuclear waste dump sites and the government must pay for them.

The 9th U.S. Circuit Court of Appeals Monday threw out Department of Energy rules limiting a state's independent review of proposed sites. It said restrictions against such studies were illegal.

In ruling in a Nevada case, the court ordered the government to pay an estimated \$2.1 million to Nevada for underground hydrologic and geologic testing for a proposed Yucca Mountain site.

The ruling will help the states of Washington, Texas, Mississippi, Louisiana and Utah, which are also under consideration as potential sites for nuclear waste, Nevada Deputy Attorney General William Isaef said.

The Department of Energy argued that Nevada's proposed tests would duplicate studies it has already conducted.

The appeals court declared parts of the department guidelines illegal, saying they would "minimize independent collection of primary data" and "undermine the independent oversight role that Congress envisioned for the states."

The guidelines required department approval of tests before states could get money and that duplication of study be avoided.

The federal government is anxious to construct a dump to store the increasing amount of highly radioactive spent nuclear fuel rods and Defense Department waste from refining plutonium.

The first site is expected to provide storage space for 70,000 metric tons of spent fuel rods and 10,000 metric tons of plutonium refining waste, according to Joe Strolin, Chief Planner for Nevada's Agency for Nuclear Projects.

A total of nine sites are under consideration for the first dump. Justice Department attorney Martin Matzen said he could not comment until he had a chance to review the decision.

Funding for the state studies will come from the Nuclear Waste Fund.

The law establishing the Nuclear Repository Waste Program calls for the cost of nuclear waste disposal to be paid by the "generators and owners of such waste."

upl 12-03-85 05:05 aes

CC: Mr. Anick
Vick
PFO's
JH

Fo: A.FRANKLIN (DOE1607)
Cc: D.DEVANE (DOE1608)
Cc: D.MILLER (DOE528)
From: J.SHERWOOD (DOE1604) Posted: Tue 3-Dec-85 9:00 EST
Sys 64 (43)
Subject: ENERGY DEPARTMENT :energy department the court in san
francisco unani * UPI STATE Wire (UTAH)

From: NEWS Posted: Mon 2-Dec-85 20:26 EST Sys 97
To: J.SHERWOOD
Subject: ENERGY DEPARTMENT :energy department the court in san
francisco unani * UPI STATE Wire (UTAH)

Wash., Utah., Texas

CARSON CITY Nev., (UPI) — Nevada officials said Monday a ruling by the Ninth Circuit Court of Appeals was a clear victory for the states in the battle over siting of a high level nuclear dump by the U.S. Energy Department.

The court in San Francisco unanimously held the Energy Department must provide money for the states to do independent studies on the proposed radioactive burial grounds. It said Congress had intended the state have their own independent evaluation, rather than being limited to reviewing studies by the federal government.

Gov. Richard Bryan said, "Had Nevada lost this suit, there would have been nothing to stand in the way of DOE's ignoring important geologic and hydrologic data which does not fit with its predetermined conclusions about the site's suitability."

Yucca Mountain in Southern Nevada, Hanford in Washington and Deaf Smith in Texas are considered by the Energy Department to be prime locations for the repository to be located.

Bryan has been fighting any effort to choose Nevada.

Robert Loux, director of Nevada's nuclear waste office, said the decision will mean the Energy Department will have to give the state \$2.1 million it withheld. "I'm ecstatic," he said.

Loux said this was the first defeat for the Energy Department in this field.

Bryan said, "The fact that DOE tried to keep the state from participating in this important aspect of the site screening process makes one wonder what DOE has to fear with regard to adequacy and credibility of its own studies."

The court declared the guidelines of the Department of Energy to be invalid. It said Congress had envisioned the states, using this money, to conduct their own evaluations of the proposed locations in their areas.

Bryan said the court's decision is especially helpful given the growing evidence of the potential for earthquakes at Yucca Mountain.

"I am extremely gratified the court has recognized the critical importance Congress attached to the state's oversight role in the selection of sites for high-level nuclear waste disposal."

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U.S. DEPARTMENT OF ENERGY

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Nevada
Nuclear
Waste
SI Storage
Investigations
PROJECT
YUCCA
MOUNTAIN

TPO PRESENTATION/DISCUSSION
ON
SCP SCHEDULE

SUMMARY

- o LETTER FROM DOE/HQ REQUESTING SCHEDULE OPTIONS
 - OPTION 1: REALISTIC BUT OPTIMISTIC
 - OPTION 2: SIX MONTH SCHEDULE BEYOND MARCH
- o OPTION 1 SCHEDULE
 - CAVEATS
 - POSSIBLE METHODS FOR SHORTENING SCHEDULE
 - POTENTIAL PROBLEMS
- o OPTION 2 SCHEDULE
 - DELIVERABLES/RESTRICTIONS
 - CAVEATS
 - CONSEQUENCES
- o COMMITMENT OF NNWSI PERSONNEL TO COMPLETE THE SCP
- o OPEN DISCUSSION

4-DEC-85

Dec. 6, 1985
12:00 Noon

OPTION 1
SCP SCHEDULE

Chapter/ Section	Draft Input	Internal Distr.	Review Mtg.	CRP 1		HQ Review Distr. Mtg.		CRP 2	
2	done	done	done	done	done	done	done	started	12/21
8.6	done	done	done	started	1/3	1/6	1/15	1/20 -	2/21
4	done	done	done	started	1/3	1/6	1/16-17	1/20 -	2/21
7	done	done	done	started	2/21	2/24	3/6-7	3/10 -	5/2
5	1/17	2/3	2/14	2/17 -	3/28	3/31	4/14	4/21 -	6/6
8.1, 8.2	2/28	3/10	3/20-21	3/24 -	5/2	5/5	5/15-16	5/19 -	6/2
8.3.5	3/3	3/17	4/1-2	4/3 -	4/25				
6	done	done	done	started	5/23	5/26	6/5-6	6/9 -	7/11
8.4, 8.7	3/28	4/21	4/29-30	5/5 -	6/6	6/9	6/18	6/23 -	8/1
3	4/11	4/21	5/1-2	5/5 -	6/6	6/9	6/19-20	6/23 -	8/1
1	5/2	5/19	5/27-28	5/29 -	7/11	7/14	7/24-25	7/28 -	9/1
8.3.4	5/2	5/19	5/27-28	6/2 -	8/1				
8.3.2, 8.3.3	5/2	5/19	5/29-30	6/2 -	8/1				
8.3.1	6/2	6/16	6/24-27	6/30 -	8/8				
8.3, 8.5	8/11	8/25	9/1-5	9/8 -	10/17	10/2	10/29-31	11/3 -	12/1

Total Document Consolidation	12/15-12/19	(SAIC)
HQ/Internal Reviews	12/22-1/9/87	(HQ/NNWSI Project)
Comment Clarification & Consolidation	1/12-1/16	(HQ)
Comment Resolution	1/19-2/13	(SAIC)
Production	2/16-3/20	(SAIC)
HQ Approval	3/23-4/10	(HQ)
Camera Ready	4/13-5/15	(SAIC)
Final Reproduction	5/18-6/12	???
Delivery to NRC	June 15, 1987	

Distribution:

Michael Teubner	Donna Waltjen	Don Vieth	Bill Dudley
Dave Jorgenson	Bruce Foster	Max Blanchard	Al Stevens
Mike Voegelé	Agnes Olander	Jim Blaylock	Gerry DePoorter
Jean Younker	Mike Spaeth	Uel Clanton	Lynn Ballou
Lynn Hoffman	Mike Foley	Jerry Szymanski	Ron May
Mary Ellen Giampaoli	Bob LaRiviere	John Rotert	Ed McCann
Candace Biddison	John Donnell	Joe D'Lugosz	Tim Barbour

SCP SCHEDULE

CONDITIONS FOR OPTION 1

Annotated Outline

- o CONTENTS AND LEVEL OF DETAIL IN SCP AO AND PARTICULARLY 8.3 FIXED BY DOE/HQ AS OF JANUARY 1, 1986
- o CHAPTER 1, GEOLOGY, PUT ON FAST TRACK - REWRITE RESTRICTED TO SATISFYING SCP AO AND ISSUES HIERARCHY - MAY NOT PROVIDE COMPLETE DESCRIPTION OF SITE GEOLOGY
- o NNWSI PROJECT RESOURCES DIRECTED TOWARDS SECTION 8.3 - WORK ON DATA CHAPTERS TO CONTINUE IN PARALLEL - DRAFT COPIES OF 8.3 SUBSECTIONS (NOT JUST INDOs) TO BE PREPARED BY EARLY MARCH FOR FIRST PROJECT REVIEW - DRAFTS WILL CONTAIN I.N. LOGIC AND DESCRIPTIONS WITH MINIMUM OF LISTS/BRIEF DESCRIPTION OF INVESTIGATIONS AND TESTS
- o CDR TO BE A PROJECT-INTERNAL REPORT ONLY. CONCEPTUAL DESIGN REQUIRED BY ACT TO BE SATISFIED BY SCP CHAPTER 6.

SCP SCHEDULE

CONDITIONS FOR OPTION 1 (CONT)

- o PROJECT WORKSHOP (TPOs AND P.A.) ON PERFORMANCE ALLOCATION MID JANUARY TO APPROVE P.A. COMPLETED STEPS 1-3 IN LICENSING APPROACH
- o SECOND PROJECT WORKSHOP(S) TO IMPLEMENT PERFORMANCE ALLOCATION AND DETERMINE INITIAL DATA/TEST PRIORITIZATION - THIS EFFORT WILL PRODUCE AN INITIAL PRIORITIZATION FROZEN FOR SCP - EARLY FEBRUARY.
 - P.A. WILL SUPPLY STEPS 1-6 - P.I.s WILL SUPPLY SHOPPING LISTS OF TESTS AND PARAMETERS

SCP SCHEDULE

CONDITIONS FOR OPTION 1 (CONT)

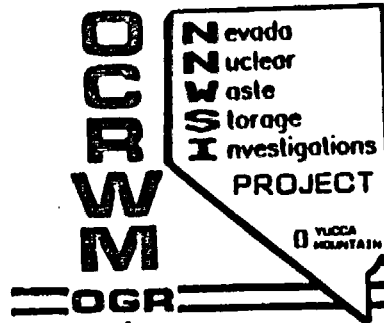
- o IF WE HAVE NRC WORKSHOPS TO ASSIST THE NRC WITH THEIR UNDERSTANDING OF THE SCP THEN THEY SHOULD BE SCHEDULED DURING PERIOD BETWEEN FIRST DRAFT INPUT AND INTERNAL REVIEW MEETING IF POSSIBLE - OTHERWISE PRIOR TO HQ REVIEW
 - PREPARATION LIMITED TO 1 WEEK, RESPONSES TO BE PROVIDED IN SCP WITHIN IRC AND CRP PERIODS
- o INDIVIDUALS RESPONSIBLE FOR PREPARATION OF WPAS AND WORK PACKAGES TO BE SEPARATE FROM THOSE INVOLVED IN SCP PREPARATION. INPUT TO WPAs SHOULD BE CONSISTENT/SAME AS INPUT TO 8.3
- o EA - IF CURRENT SCHEDULE HOLDS, NO IMPACT
 - IF COMMENTS NEED INCORPORATION, INVOLVEMENT FROM YOUNKER, SINNOCK, RAUP, WILSON, MONTAZAR, TIERNEY
 - LITIGATION - POTENTIAL IMPACTS TO VOEGELE, YOUNKER AND BINGHAM

SCP SCHEDULE

CONDITIONS FOR OPTION 1 (CONT)

- o SCP MUST REMAIN A LEVEL II DOCUMENT
- o NO NEW NRC REQUIREMENTS
- o SCP TO BE GIVEN TOP PRIORITY BEHIND EA
 - OTHER NNWSI PROJECT COMMITMENTS TO TAKE LOWER PRIORITY

U.S. DEPARTMENT OF ENERGY



SCP SCHEDULE

OPTION 1 POTENTIAL PROBLEMS

- o CAVEATS MAY BE NEGATED
- o STATE AND TRIBAL REVIEWS OF DRAFT CHAPTERS MAY REQUIRE COMMENT RESPONSES
- o NRC MAY SUGGEST A LEVEL OF DETAIL FOR SECTION 8.3 BEYOND THAT SUGGESTED BY DOE/HQ

SCP SCHEDULE

WITH OPTION 1, THE SCHEDULE MAY BE SHORTENED BY

NO DETAILED TEST DESCRIPTIONS IN SECTION 8.3 - DESCRIPTIONS AT
INVESTIGATIONS LEVEL ONLY, LISTS OF TESTS PROVIDED

Dec. 2, 1985
12:00 noon

OPTION 2
SCP SCHEDULE

Chapter/ Section	Draft Input	Internal Review Distr.	Review Mtg.	CRP 1		HQ Review Distr. Mtg.		CRP 2	
2	done	done	done	done	done	done	done	started	12/20
8.6	done	done	done	started	1/3	1/6	1/15	1/20 -	2/28
4	done	done	done	started	1/3	1/6	1/16-17	1/20 -	2/28
7	done	done	done	started	2/21	2/24	3/6-7	3/10 -	5/2
6	done	done	done	9/9 -	3/28	3/31	4/17-18	4/21 -	6/13
5	1/17	2/3	2/14	2/17 -	3/28	3/31	4/14	4/21 -	6/6
8.4, 8.7	2/28	3/10	3/14	3/17 -	4/18	4/21	5/1-2	5/5 -	5/30
8.1, 8.2	2/28	3/10	3/20-21	3/24 -	5/2	5/5	5/15-16	5/19 -	6/20
3	3/21	3/24	4/1-2	4/7 -	5/2	5/5	6/13-14	5/19 -	6/13
1	3/21	3/24	4/3-4	4/7 -	5/2	5/5	5/15-16	5/19 -	6/13
8.3, 8.5	3/28	3/31	4/8-11	4/14 -	5/9	5/12	5/21-23	5/26 -	6/20

Total Document Consolidation	6/23-6/27	(SAIC)
HQ/Internal Reviews	6/30-7/18	(HQ/NNWSI Project)
Comment Clarification & Consolidation	7/21-7/25	(HQ)
Comment Resolution	7/28-8/15	(SAIC)
Production	8/18-9/12	(SAIC)
HQ Approval	9/15-10/3	(HQ)
Camera Ready	10/6-10/31	(SAIC)
Final Reproduction	11/3-11/28	???
Delivery to NRC	November 28, 1986	

SCP SCHEDULE

WITH OPTION 2 (NOVEMBER 1986) THE SCP WILL HAVE

- o CHAPTERS 2, 4, 5, 6, 7, AND SECTIONS 8.1, 8.2, 8.4, 8.6, 8.7
"SATISFACTORILY" COMPLETED
- o CHAPTERS 1 AND 3 COMPLETED AHEAD OF PRESENT SCHEDULE, WHICH MAY RESULT IN
 - INCOMPLETE GEOLOGY AND HYDROLOGY PRESENTATIONS
RECENT MATERIAL MAY NOT BE INCLUDED, OR IF INCLUDED MAY NOT BE BASED
ON PUBLISHED REFERENCES
 - INADEQUATE CORRESPONDENCE WITH AO (*Annotated outline*)
 - INCOMPLETE TIES TO PLANS AND OTHER SECTIONS
 - CHAPTER 1 IRC COMMENTS UNRESOLVED
- o SECTIONS 8.3 AND 8.5 NOT MEETING CURRENT HQ EXPECTATIONS:
 - NO DETAILED TEST DESCRIPTIONS; TESTS AND PARAMETERS WILL BE TABULATED
 - LIMITED PERFORMANCE ALLOCATION
 - LIMITED PRIORITIZATION OF DATA AND TESTS
 - ONLY INFORMATION NEED DESCRIPTIONS WILL BE COMPLETED, NOT STUDIES
(INVESTIGATION) DESCRIPTIONS

SCP SCHEDULE

FOR OPTION 2 (NOVEMBER 1986) THE SCP WILL HAVE (CONT)

- o LIMITED CROSS-REFERENCING BETWEEN CHAPTERS
- o POOR CORRELATION BETWEEN CHAPTER 6, 8.3.2, 8.3.3, AND CONCEPTUAL DESIGN REPORT
- o LIMITED INTERNAL CONSISTENCY (USE OF TECHNICAL TERMS, STYLE, FORMAT, ETC.)
- o LIMITED REFERENCE VERIFICATION
- o NO GLOSSARY OR ACRONYMS LIST

SCP SCHEDULE

CAVEATS FOR OPTION 2

- o SAME CAVEATS FOR OPTION 1
- o ESTP WILL BE ISSUED AS A SEPARATE, REFERENCEABLE, SUPPORT DOCUMENT
- o NO IMPACTS FROM EA OR FROM EA LITIGATION
- o NO IMPACTS FROM NRC WORKSHOPS
- o MAXIMUM PROJECT EFFORT ON CHAPTERS 1 AND 3, AND SECTION 8.3

SCP SCHEDULE

COMMITMENT OF PERSONNEL FROM LABS TO COMPLETE SCP

100% AVAILABILITY BETWEEN JANUARY 2 TO AUGUST 15 FOR LABS, USGS
NOVEMBER 28 FOR SAIC/WMPQ

<u>SNL</u>	<u>USGS</u>	<u>SAIC</u>	<u>LOS ALAMOS</u>	<u>LLNL</u>	<u>WMPQ</u>
BAUER	MONTAZAR	YOUNKER	DePOORTER	BALLOU	BLANCHARD
BINGHAM	WILSON	JORGENSEN	TRAVIS	OVERSBY	CLANTON
TIERNEY	ROBISON	TEUBNER	KERRISK	REVELLI	SZYMANSKI
SINNOCK	SCOTT	BIDDISON	VANIMAN		ROTERT
NIMICK	RAUP	VOEGELE	LEVY		D'LUGUSZ
SCULLY	WHITNEY	GIAMPAOLI	CROWE		
TILLERSON	FOX	GRANT	AAMODT		
NEAL	ROGERS	JONES			<u>OTHERS</u>
HAYDEN	BRADBURY	HOFFMAN			NORMAN
STEVENS	BENSON	BARBOUR			OWEN
	ELLIS	SUPPORT			
	SCHLIKER	SERVICES			
	ET AL.				



Department of Energy

Nevada Operations Office

P. O. Box 14100

Las Vegas, NV 89114-4100

DEC 09 1985

W. J. Purcell, Director, Office of Geologic Repositories, DOE/HQ (RW-20),
FORSTL

NNWSI PROJECT WEEKLY HIGHLIGHTS FOR WEEK ENDING DECEMBER 5, 1985

I. Issues Requiring Involvement of HQ or Other Projects

Issue	Status	First Report Date
A. New Issues:		
The NNWSI Project Plan delivered to R. J. Blaney on November 7 requires signature by W. J. Purcell.	Open	12/5/85
B. Previously Reported Issues:		
Regarding letter dated 9/5 to Hilley requesting consideration of continued use of E-MAD on a cost-shared basis, no reply has been received.	Open	9/26/85

II. Major Internal Concerns

None to report.

III. Significant Accomplishments (SA)/Information Items (II)

SA

The Ninth Circuit Court of Appeals has decided in favor of the State of Nevada in the lawsuit concerning use of grant funds to support State independent site investigations. The DOE/NV Chief Counsel is waiting to receive a copy of the decision.

The Manager of Albuquerque has officially sent a letter (dated November 29, 1985) to Sandia and Los Alamos announcing that the Director, WMPO/NV has been designated as the Contracting Officers' Technical Representative for the work funded in support of the NNWSI Project.

II

The Management Agreement between Nevada and SAN regarding Contracting Officers' Technical Representative status for the Livermore Laboratory is now in the final stages of negotiation. It is expected to be finalized in late December.

Tim Zvada has joined the WMPO Technology Development and Engineering Branch. He will be assigned to oversee the facilities at NTS that are utilized by the NNWSI Project which includes E-MAD, Climax, and G-Tunnel.

Jim Robson, currently employed by REECo in the Exploratory Shaft work, has accepted a position with the Technology Development and Engineering Branch. He is expected to be on board within four weeks. He will be responsible for Systems Engineering for the Repository.

IV. Upcoming Events1. Coordination Group Meetings

- o Thursday, December 12: Environmental Coordination Group Meeting.

2. HQ Meetings

- o Tuesday, December 10: ESF Generic Design Criteria Meeting, HQ.
- o Wednesday-Thursday, December 11-12: BDES Meeting, HQ.
- o Tuesday-Wednesday, December 17-18: SCP Schedule Meeting, HQ.

3. Internal Project and DOE/NV Meetings

- o Wednesday, December 11: IDS Meeting, Livermore, California.
- o Tuesday, December 17: DOE/NV Management Review, Las Vegas.
- o Wednesday-Thursday, December 18-19: Los Alamos National Laboratory Tour of NTS.
- o Tuesday, January 7: SOC Meeting, NTS.
- o Thursday-Friday, January 9-10: ESTP Committee Meeting, Las Vegas.
- o Thursday-Friday, January 16-17: PM-TPO Retreat, Oakland, California.


4. State and Public Interaction

- o Thursday, December 12: North Las Vegas Town Hall Meeting (Mitch Kunich to attend).
- o Wednesday, January 15: Pahrump Citizens' Tour of NTS.

5. NRC Interaction

None to report.

WMPO:DLV-388



Donald L. Vieth, Director
Waste Management Project Office

cc:

Allen Benson, DOE/HQ (RW-25), FORSTL
R. J. Blaney, DOE/HQ (RW-22), FORSTL
C. R. Cooley, DOE/HQ (RW-24), FORSTL
M. W. Frei, DOE/HQ (RW-23), FORSTL
V. J. Cassella, DOE/HQ (RW-22), FORSTL
Ralph Stein, DOE/HQ (RW-23), FORSTL (2)
E. S. Burton, DOE/HQ (RW-25), FORSTL
T. H. Isaacs, DOE/HQ (RW-22), FORSTL
J. O. Neff, DOE/SRPO, Columbus, OH
S. A. Mann, DOE/CRPO, Argonne, IL
O. L. Olson, DOE/RL, Richland, WA
T. O. Hunter, SNL, 6310, Albuquerque, NM
R. W. Lynch, SNL, 6300, Albuquerque, NM
W. W. Dudley, Jr., USGS, Denver, CO
L. D. Ramspott, LLNL, Livermore, CA
D. T. Oakley, Los Alamos, NM
J. B. Wright, W/WTSD, Mercury, NTS
M. E. Spaeth, SAIC, Las Vegas, NV
J. R. LaRiviere, SAIC, Las Vegas, NV
J. H. Fiore, SAIC, Las Vegas, NV
R. R. Loux, NWPO, Carson City, NV
C. H. Johnson, NWPO, Carson City, NV
P. T. Prestholt, NRC/Las Vegas, NV
David Siefken, Weston, Rockville, MD
Donald Schweitzer, BNL, Upton, NY
R. W. Taft, AMES, DOE/NV



Department of Energy

Nevada Operations Office

P. O. Box 14100

Las Vegas, NV 89114-4100

DEC 02 1985

W. J. Purcell, Director, Office of Geologic Repositories, DOE/HQ (RW-20),
FORSTL

NNWSI PROJECT WEEKLY HIGHLIGHTS FOR WEEK ENDING NOVEMBER 28, 1985

I. Issues Requiring Involvement of HQ or Other Projects

A. New Issues:

None to report.

B. Previously Reported Issues:

<u>Issue</u>	<u>Status</u>	<u>First Report Date</u>
Regarding letter dated 9/5 to Hilley requesting consideration of continued use of E-MAD on a cost-shared basis, no reply has been received.	Open	9/26/85

II. Major Internal Concerns

None to report.

III. Significant Accomplishments (SA)/Information Items (II)

SA

None to report

II

None to report

IV. Upcoming Events

1. Coordination Group Meetings

- o Wednesday-Thursday December 4-5: Waste Package Coordination Group, Richland.
- o Thursday, December 12: Environmental Coordination Group Meeting.

2. HQ Meetings

- o Monday-Tuesday, December 2-3: First Repository States Meeting.
- o Tuesday, December 3: Waste Package Strategy Meeting; Richland.
- o Tuesday, December 10: ESF Generic Design Criteria Meeting, HQ.
- o Tuesday-Wednesday, December 17-18: SCP Schedule Meeting, HQ.

3. Internal Project and DOE/NV Meetings

- o Wednesday-Friday, December 4-6: PM-TPO Meeting, Las Vegas.
- o Wednesday, December 11: IDS Meeting, Livermore, CA
- o Tuesday, December 17: DOE/NV Management Review, Las Vegas.
- o Wednesday, December 18: SOC Meeting, NTS.


4. State and Public Interaction

- o Monday-Tuesday, December 2-3: First Repository Status Meeting, Atlanta.
- o Tuesday, December 3 or Wednesday, December 4: North Las Vegas Town Hall meeting, North Las Vegas. (Tent.)

5. NRC Interaction

- o Wednesday-Thursday, December 4-5: Generic QA DOE/NRC Meeting.
- o Tuesday-Thursday, December 3-5: Seismic/Tectonics NRC Meeting, DC.

WMPO:DLV-357


Donald L. Vieth, Director
Waste Management Project Office

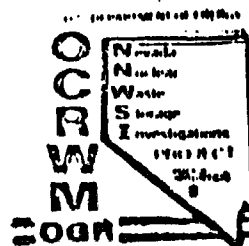
DEC 02 1985

W. J. Purcell

-3-

cc:

Allen Benson, DOE/HQ (RW-25), FORSTL
R. J. Blaney, DOE/HQ (RW-22), FORSTL
C. R. Cooley, DOE/HQ (RW-24), FORSTL
M. W. Frei, DOE/HQ (RW-23), FORSTL
V. J. Cassella, DOE/HQ (RW-22), FORSTL
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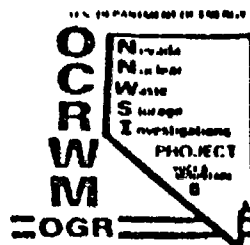


NNWSI TECHNICAL DATA BASE

WBS 1.2.1.3



- Tuff Data Base (1.2.1.3.1)
- Graphics Data Base (IGIS) (1.2.1.3.2)
- Reference Information Base (1.2.1.3.3)



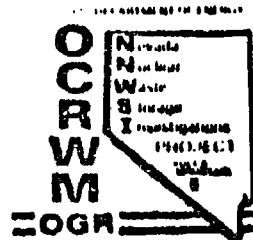
DEFINITION OF TERMS



“Raw Data”: stripchart recordings, millivolt outputs from load cells or LVDT's, etc. The data bases discussed here **CONTAIN NO RAW DATA.**

“Reduced Data”: the quantities really (yet indirectly) sought from a test, e.g., uniaxial compressive strength, saturated hydraulic conductivity, etc.

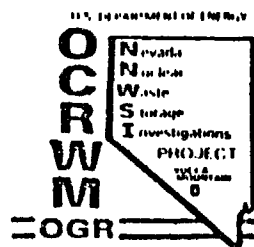
“Interpreted Data”: the outcome of analysis and synthesis of data, which is subsequently interpreted as being a representative value for the quantity; should also include interpretation of the relationship between the value and its location(s) at the site.



TUFF DATA BASE (TUFFDB)



- **A central location for all site-related information acquired by the NNWSI Project**
 - Experimental results
 - Observational results
- **Intended to be comprehensive, i.e., should contain all data**

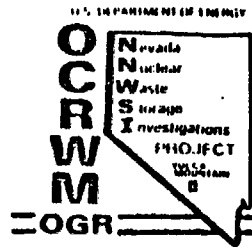


INTERACTIVE GRAPHICS INFORMATION SYSTEM



A GE CALMA, 3-D representation of:

- **Topography of Yucca Mtn. and environs**
- **Stratigraphic and structural surfaces**
- **Repository location and configuration**

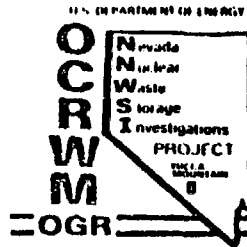


REFERENCE INFORMATION BASE



Performs two functions. Prior to license application:

- **Serves as a consistent source of interpreted technical data throughout the project**
- **Comprises best current picture of site/repository system**
- **Updated as understanding increases**



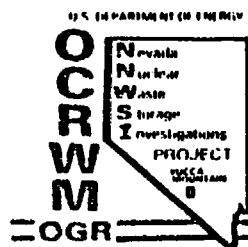
REFERENCE INFORMATION BASE (CONT'D)



At license application, the RIB will be "frozen". It will contain:

- **All interpreted technical data**
- **Final repository configuration**
- **All supporting analyses of system performance**

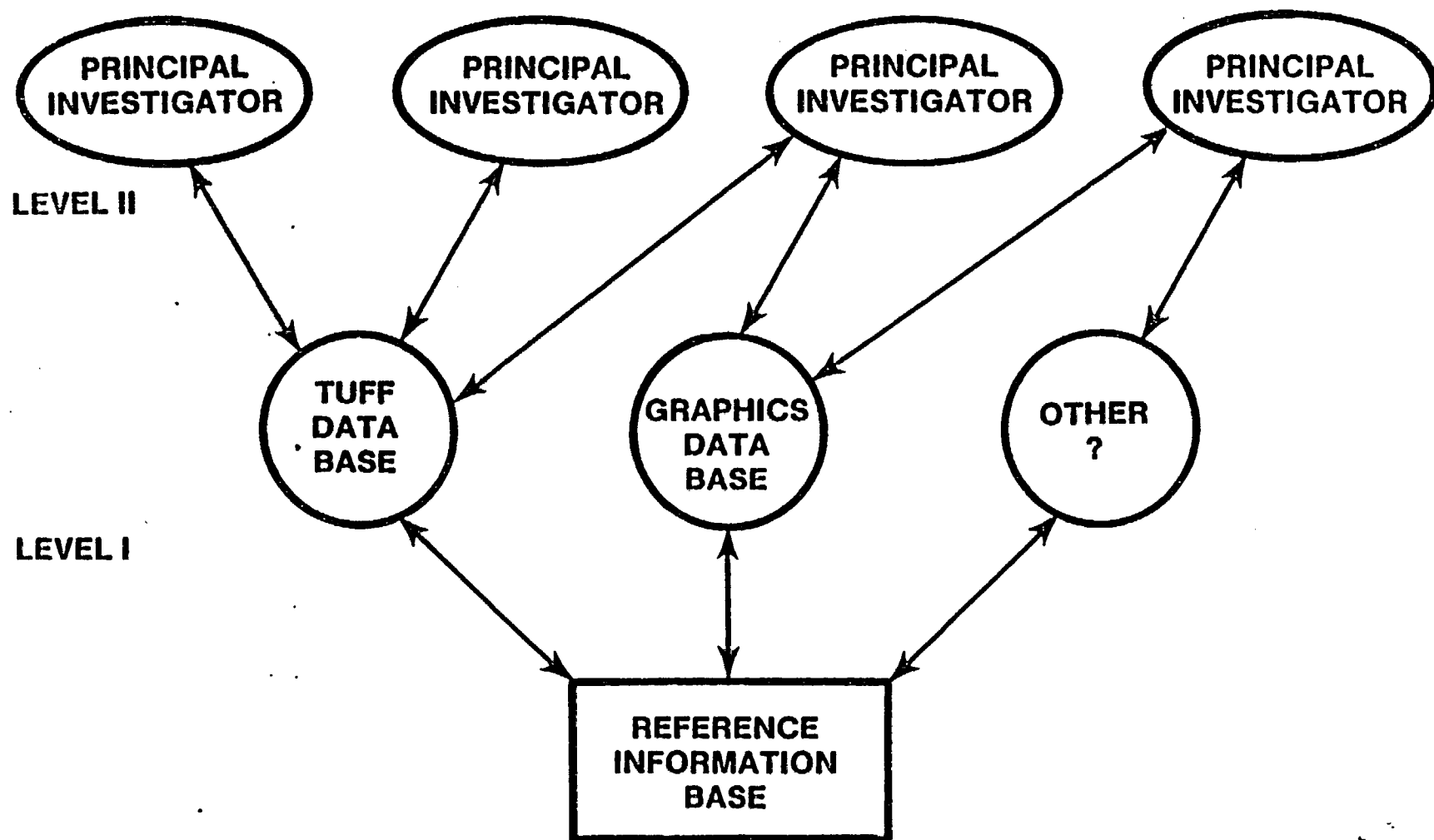
It will be, in effect, the technical basis for the licensing package.



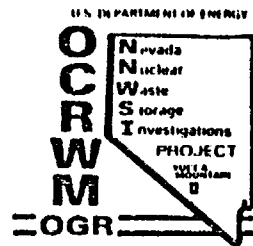
ORGANIZATION OF RIB



- **Currently structured to coincide with Issues Hierarchy**
- **Not yet finalized**



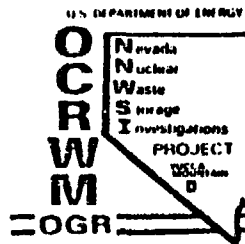
↔ Indicates interactions and responsibilities between data base staff and principal investigators



LEVEL II RESPONSIBILITIES OF PRINCIPAL INVESTIGATORS



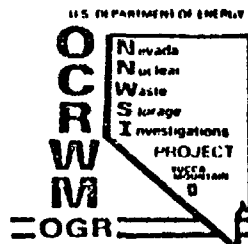
- **Negotiations regarding what data are needed**
- **Timely authorization of data**
- **Evaluation of quality of data**
- **Revisions of estimates of quality**
- **Correction of errors**



LEVEL II RESPONSIBILITIES OF DATA BASE STAFF:



- **Negotiations regarding what data are needed**
- **Organization of data**
- **Accurate transcription/representation of data**
- **Security of unpublished data**
- **Preservation of identification of "good" and "bad" data**



LEVEL I RESPONSIBILITIES



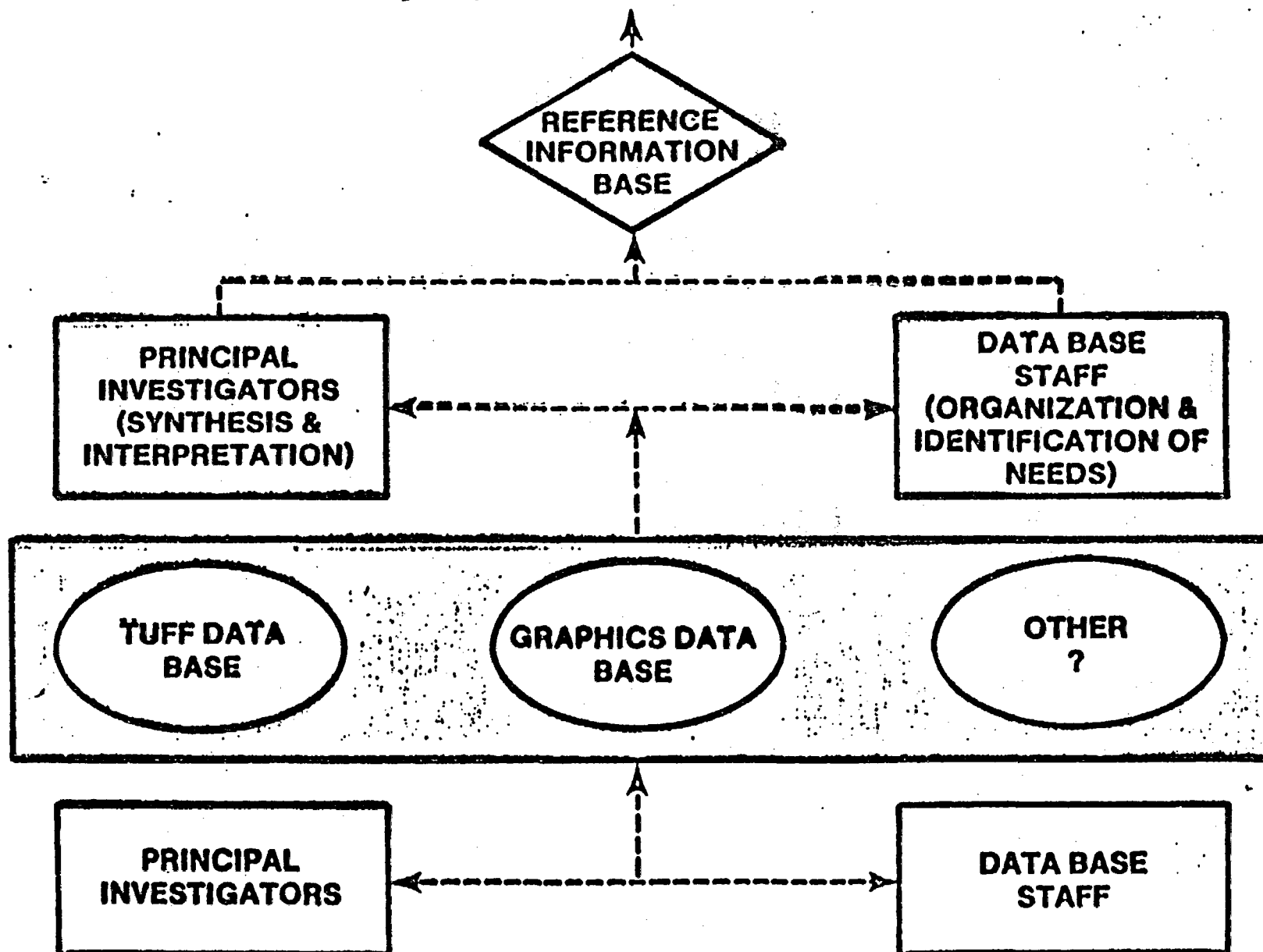
Principal Investigators:

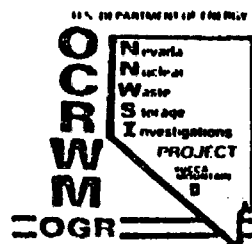
- Prompt interpretation of **data at hand**
- Transmission of interpretation to RIB

Data Base Staff:

- Accurate transcription of information
- Timely updates of RIB

TO PROJECT USE AND BASELINING

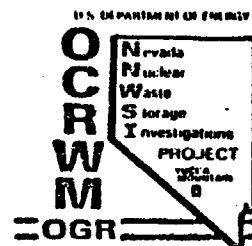




IMPACTS AND INTERFACES.



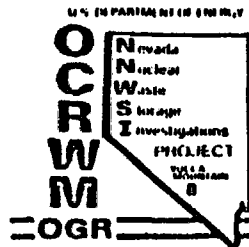
- **Requires explicit commitment of resources to expand TUFFDB, IGIS and RIB via interactions with data base staff**
- **Beyond resource needs, neither impedes nor impacts any current milestones**
- **May be a prerequisite, however, for other activities**



STATUS



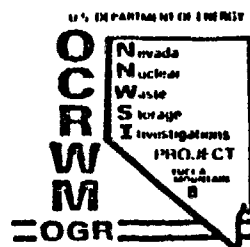
- **TUFFDB is operational**
 - Requires updating regularly
 - Needs expansion & modification of schema
- **IGIS is operational**
- **RIB is in preparation**
 - Draft outline complete
 - Draft of data soon to be published



STATUS (CONT'D)



For the first time, TUFFDB and IGIS have been used to obtain and manipulate information to be used in Project analyses, specifically, groundwater travel time calculations for the EA.



STATUS (CONT'D)

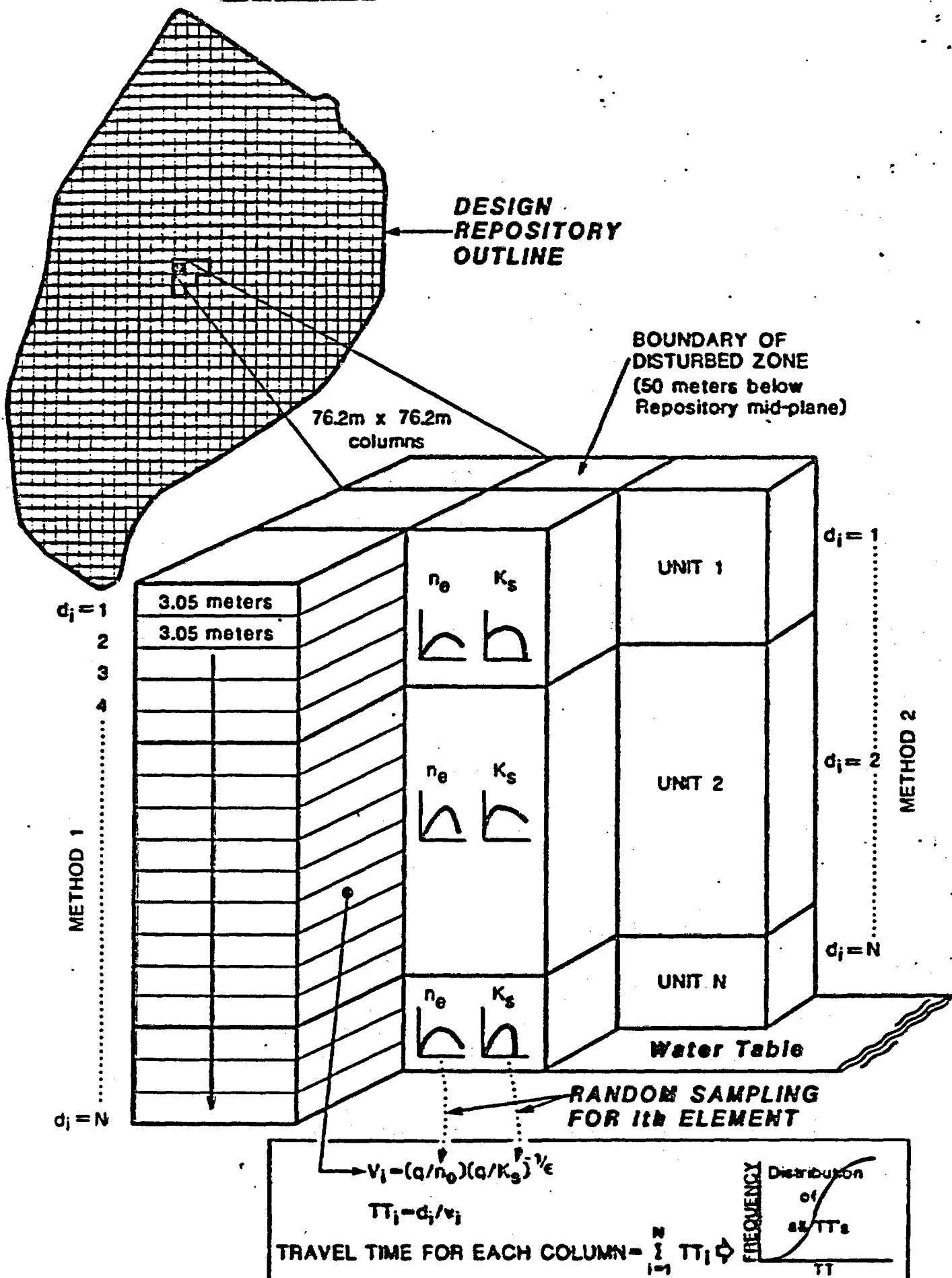


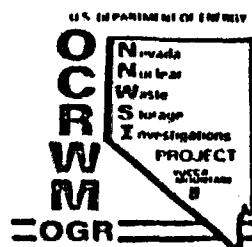
TUFFDB provided:

- **Matrix porosity data organized per functional unit**
- **Saturated hydraulic conductivities of functional units**

IGIS Contributed:

- **Unit thickness**
- **Contouring of results**



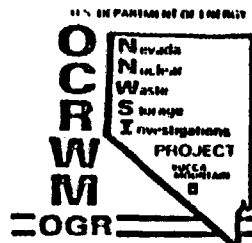


STATUS (CONT'D)



The RIB will become the primary vehicle for communication within The Project. It will be updated annually, but current data will be available upon request.

The annual RIB report will supercede the Quarterly Tuff Data Base and IGIS semi-annual reports.



PLANS



Tuff Data Base

- **Expand schema**
- **Improve and document controls and procedures**
- **Develop closer interactions with other participants**

Reference Information Base

- **Encourage interactions with other participants**
- **Increase content of the RIB**

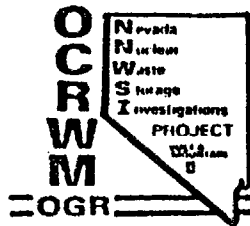


MANAGEMENT INFORMATION



Task	Responsible Staff	Personnel	QA Level	FY 86 \$
Tuff Data Base	D. H. Zeuch	M. J. Eatough B. J. Satter* D. D. Szklarz* E. P. Welch*	I	511
Graphics Data Base	-TBD-	C. Rautman D. L. South B. C. Whittet R. L. Williams	I	383
Reference Information Base	D. H. Zeuch	M. J. Eatough -TBD-	I	234

*Contract Personnel



FOUR YEAR PLAN



Tuff Data Base

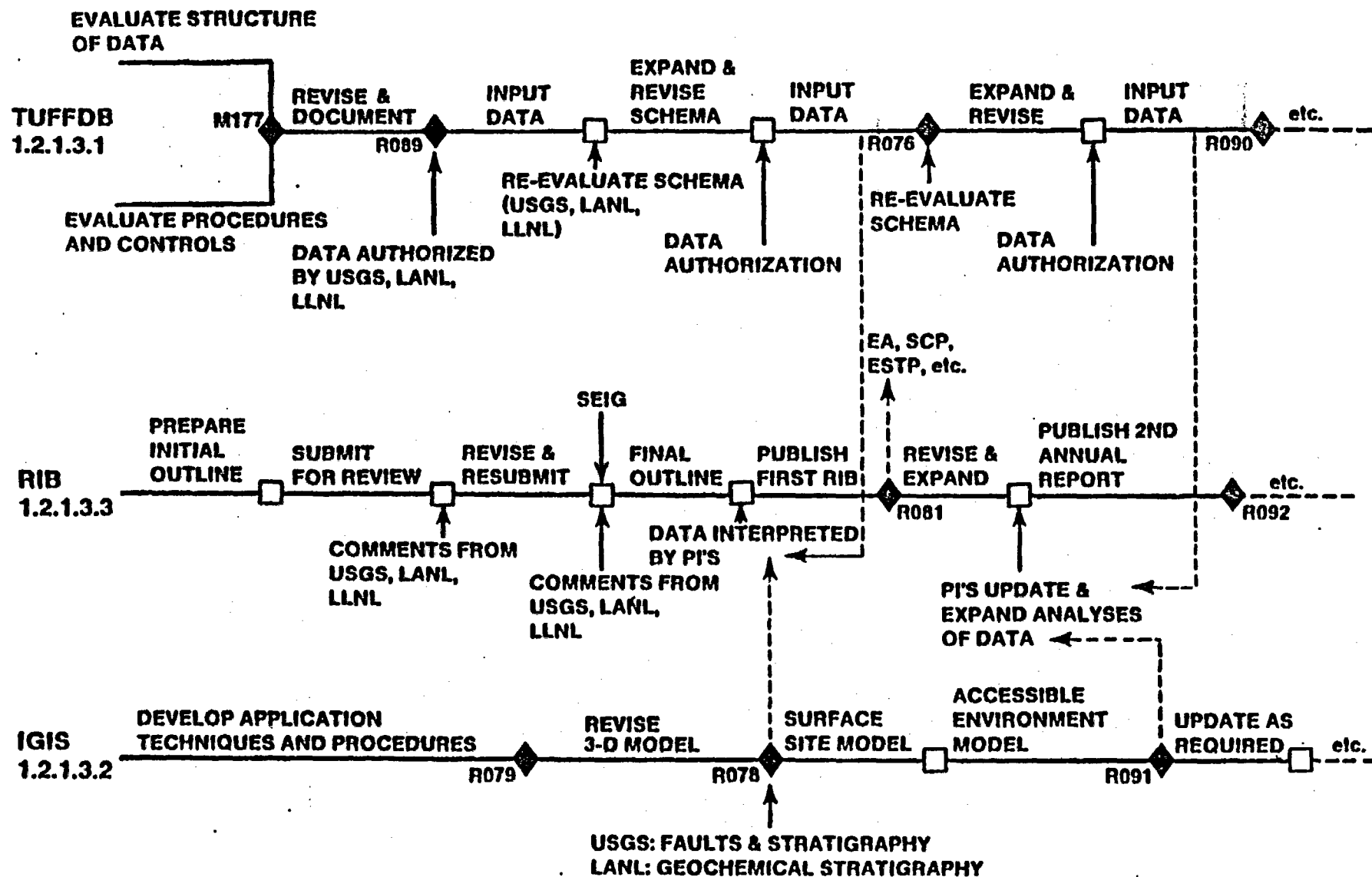
	FY85	FY86	FY87	FY88
FTE:	4.1	4.8	5.8	5.3
\$:	473	600	789	790

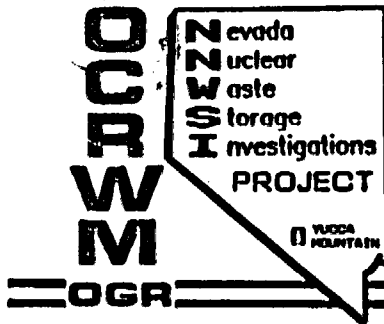
IGIS

	FY85	FY86	FY87	FY88
FTE:	1.6	1.5	1.5	1.8
\$:	245	277	306	306

RIB

Impact not yet evaluated





OUTLINE OF PRESENTATION

Performance Allocation

This presentation has three purposes, one for each section

I. Background Information

Purpose: to explain the concepts behind performance allocation

- Why are we doing it?
- What do the terms mean?

II. Technical framework for performance allocation

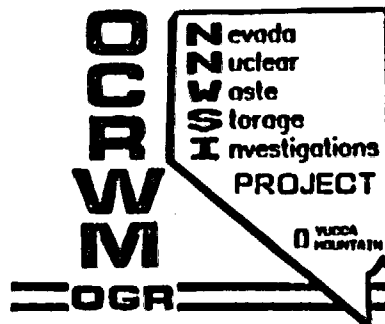
Purpose: to present the procedure we propose to follow

- What are we going to do?

III. Performance allocation in the SCP

Purpose: to explain how the performance allocation will fit into the SCP

- Where will the performance-allocation results be inserted?
- How will they be communicated?



I. WHY WE ARE DOING PERFORMANCE ALLOCATION

The NRC must decide whether the DOE testing will adequately support licensing. The NRC needs to know

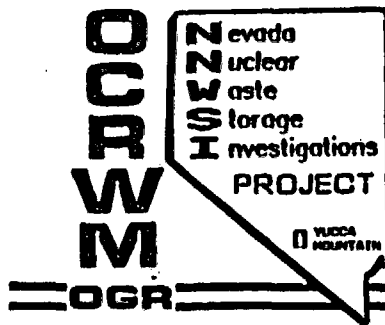
- What tests the DOE is planning
- How the DOE plans to use the test results in licensing

"Performance allocation" is a way to give the information.

The NRC and the DOE have agreed on the basic kinds of statements that must be made in performance allocation.

These statements are intended to

- Answer the NRC's questions
- Guide the DOE's testing



WHAT PERFORMANCE ALLOCATION IS

The performance allocation for a repository system will specify the following:

1. For each of the regulatory requirements
 - a. The barriers (i.e., subsystems and components) that we expect to rely on in licensing.
 - b. Any barriers we expect to use as secondary or redundant barriers.
 - c. A level of performance (a "goal") we expect for each barrier.
 - d. An "indication of confidence" we expect to achieve for the goal.
2. For each of the quantities to be measured in the testing program
 - a. A "performance goal."
 - b. An indication of the confidence we expect to achieve for the goal by means of testing.

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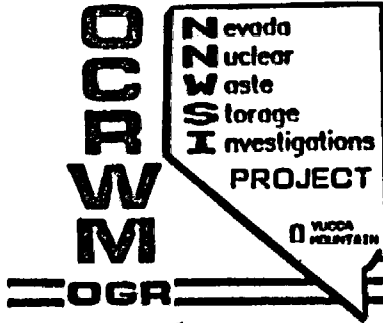
THREE THINGS CAUSE TROUBLE IN UNDERSTANDING PERFORMANCE ALLOCATION

"Goal"

"Indication of confidence"

Relationship to licensing strategy:
performance allocation is an important part of
licensing strategy, but it isn't the same thing

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"GOAL" ("PERFORMANCE GOAL")

- Goals for performance objectives will be set only for the "barriers" we expect to use in licensing
- Goals for testing, if met, will ensure that goals for performance objectives will be met
- We can change the goals without approval from anybody else
- Goals are not criteria that we must meet

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"INDICATION OF CONFIDENCE"

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- Expresses how well we think we need to meet a performance goal
- May be a statistically meaningful confidence level or confidence interval
- Probably will seldom be statistically rigorous
- May be set by expert judgement
- May be stated as "high," "medium," or "low" if the terms are explained

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THERE ARE DIFFERENCES BETWEEN LICENSING STRATEGY AND PERFORMANCE ALLOCATION

	Licensing strategy	Performance allocation
Purpose	To guide demonstration of compliance	To guide testing
Framework	Governed by <u>criteria</u> that <ul style="list-style-type: none"> • must be met • are fixed • are made by other agencies • require "reasonable assurance" 	Stated in terms of <u>goals</u> that <ul style="list-style-type: none"> • need not be met • can be changed • are made by DOE • are stated with an indication of expected confidence
Format	No established format	Format (goals and confidence) agreed to by NRC and DOE

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II. THE NNWSI FRAMEWORK FOR PERFORMANCE ALLOCATION HAS EIGHT STEPS

The first three steps are parts of licensing strategy:

- 1. Identify the regulatory requirements -- such as postclosure performance objectives**
- 2. Name the system elements**
- 3. Describe the license approach**

The next five steps are the actual performance allocation:

- 4. Define the performance measures**
- 5. Set goals and confidences on performance measures**
- 6. Describe parameter needs**
- 7. Refine tests**
- 8. Evaluate testse**

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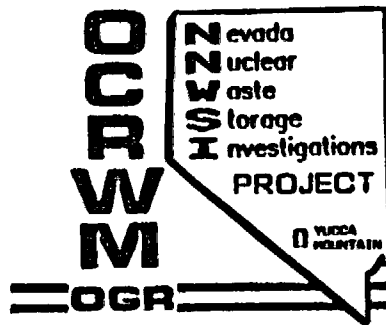
THE EIGHT STEPS IN PERFORMANCE ALLOCATION MAKE A MATRIX

PARTS OF LICENSING STRATEGY →

PERFORMANCE ALLOCATION

STEP 1.	STEP 2. →	STEP 3. →	STEP 4.	STEP 5.	STEP 6.	STEP 7.	STEP 8.
Regulations	System Elements	License Approach	Performance Measures	Performance Goals and Confidence	Parameter Needs	Test Definitions	Test Evaluation

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STEP 1: WE DEFINE THE REGULATIONS THAT ARE BEING ADDRESSED

For this presentation, we discuss

- Postclosure performance objectives
(Numerical criteria in 10 CFR 60)

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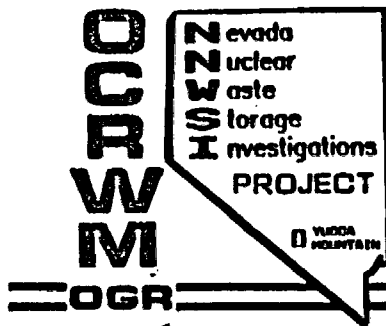
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STEP 1 IS THE FIRST COLUMN IN THE LICENSING-STRATEGY PART
OF THE FRAMEWORK

STEP 1	STEP 2	STEP 3
Regulations: Postclosure Performance Objectives	System elements	Licensing approach
<ol style="list-style-type: none"> 1. Containment time 2. Release rate from EBS 3. Groundwater travel time 4. Releases to accessible environment 		

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STEP 2: WE DEFINE THE SYSTEM ELEMENTS FOR EACH PERFORMANCE OBJECTIVE

- Name the subsystems and components that could contribute to meeting the performance objective
- Show where they are

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THE MGDS FOR POSTCLOSURE HAS MANY ELEMENTS

YUCCA MOUNTAIN MINED GEOLOGIC DISPOSAL SYSTEM

1.0 PRECLOSURE WASTE DISPOSAL

2.0 POSTCLOSURE WASTE DISPOSAL

2.1 NATURAL BARRIERS

2.2 ENGINEERED BARRIERS

2.3 INSTITUTIONAL BARRIERS

2.1.1 DISTURBED ZONE

- 2.1.1.1 REPOSITORY OVERBURDEN
- 2.1.1.2 UNSATURATED TOPOPAH SPRING
- 2.1.1.3 UNSATURATED CALICO HILLS-V
- 2.1.1.4 UNSATURATED CALICO HILLS-Z

2.1.2 FAR FIELD

- 2.1.2.1 REPOSITORY OVERBURDEN
- 2.1.2.2 UNSATURATED TOPOPAH SPRING
- 2.1.2.3 UNSATURATED CALICO HILLS-V
- 2.1.2.4 UNSATURATED CALICO HILLS-Z
- 2.1.2.5 UNSATURATED PROW PASS
- 2.1.2.6 UNSATURATED CRATER FLAT
- 2.1.2.7 UNSATURATED BULLFROG
- 2.1.2.8 SATURATED ZONE

2.2.1 WASTE PACKAGE

- 2.2.1.1 CONTAINER
- 2.2.1.2 WASTE FORM

2.2.2 REPOSITORY ENGINEERED BARRIERS

⋮

2.2.3 SHAFT AND BOREHOLE SEALS

⋮

⋮

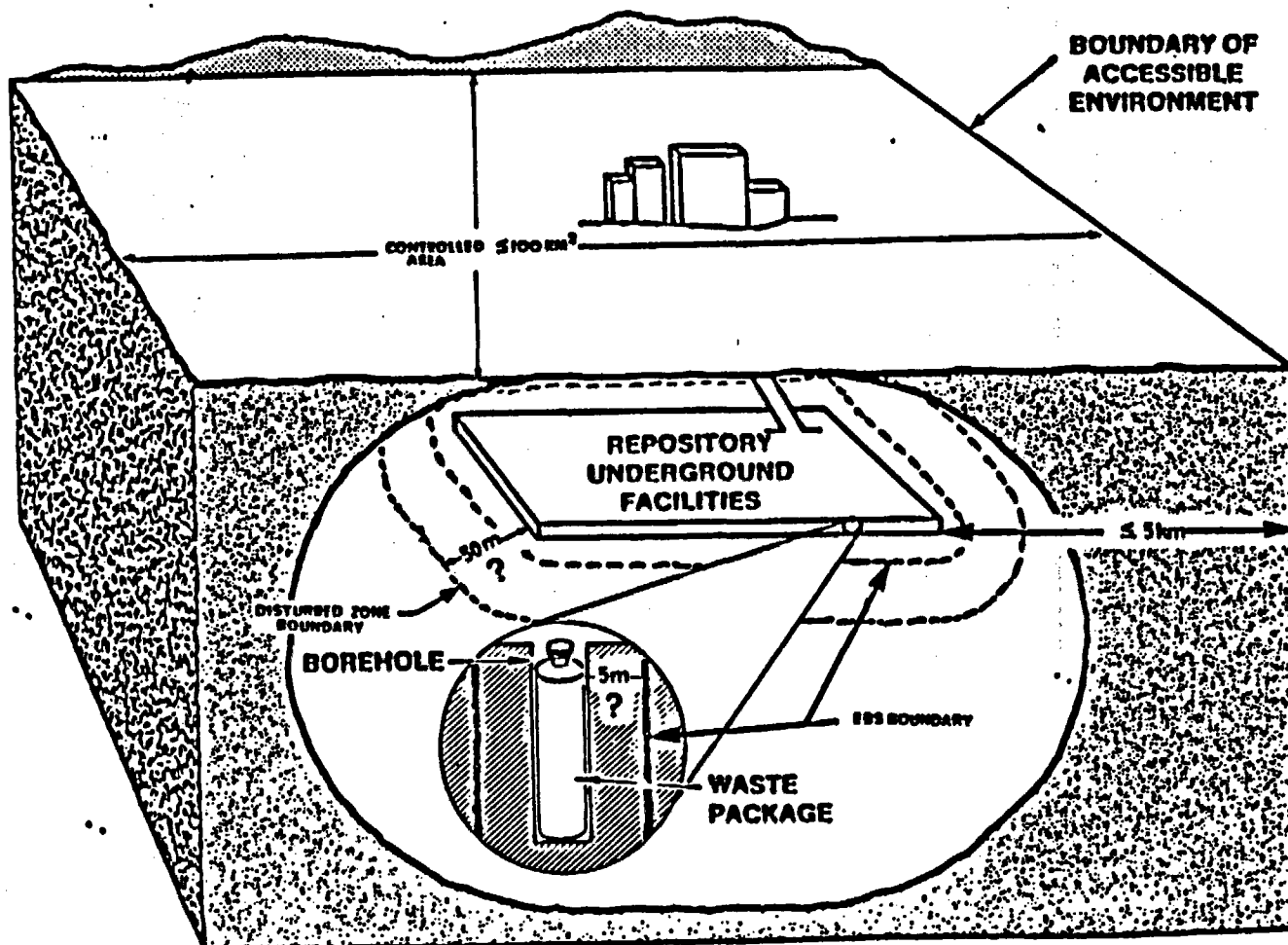
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SOME SYSTEM ELEMENTS ARE CONTAINED WITHIN OTHERS

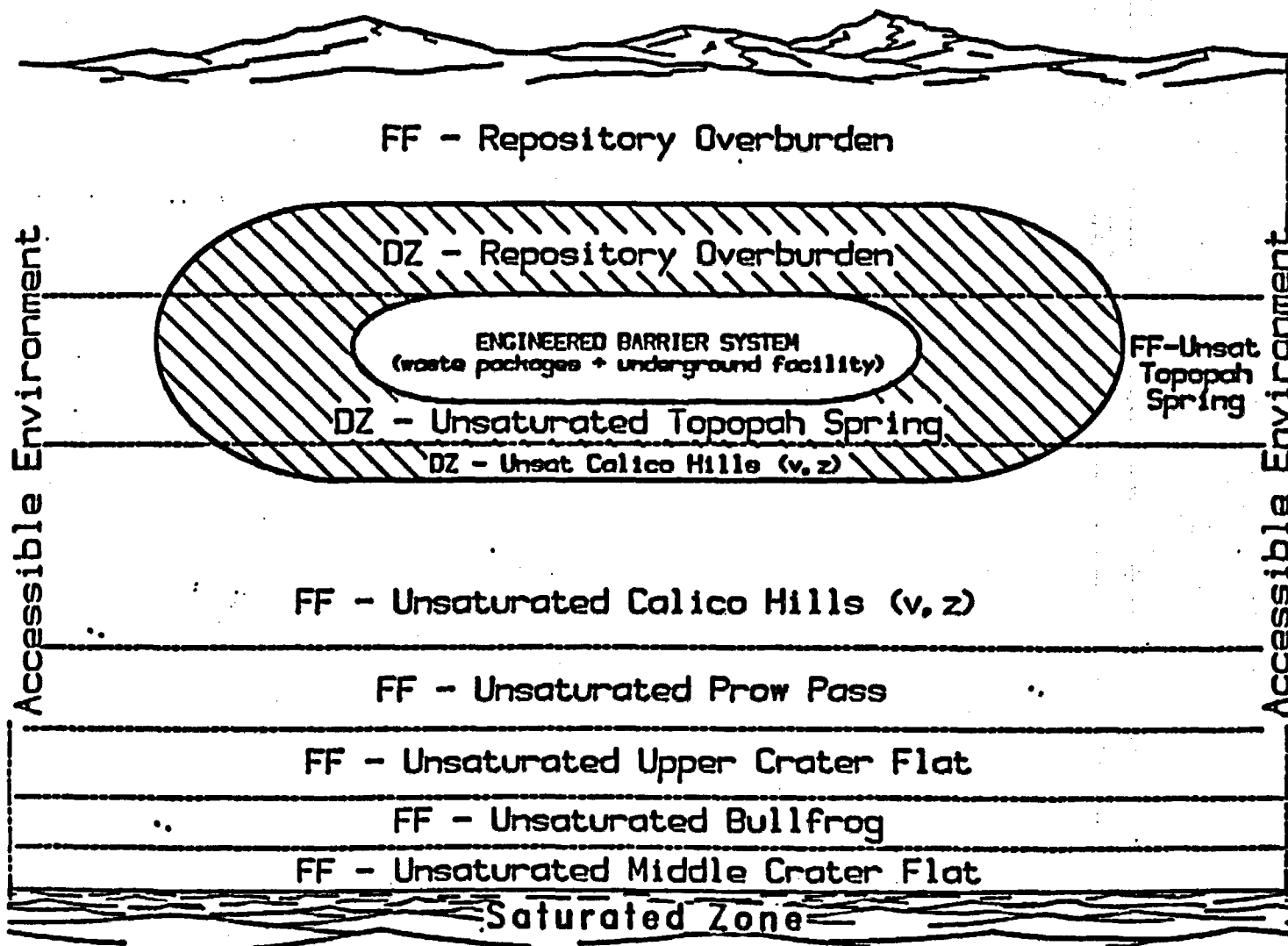


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SOME SYSTEM ELEMENTS OCCUR IN SERIES IN SPACE



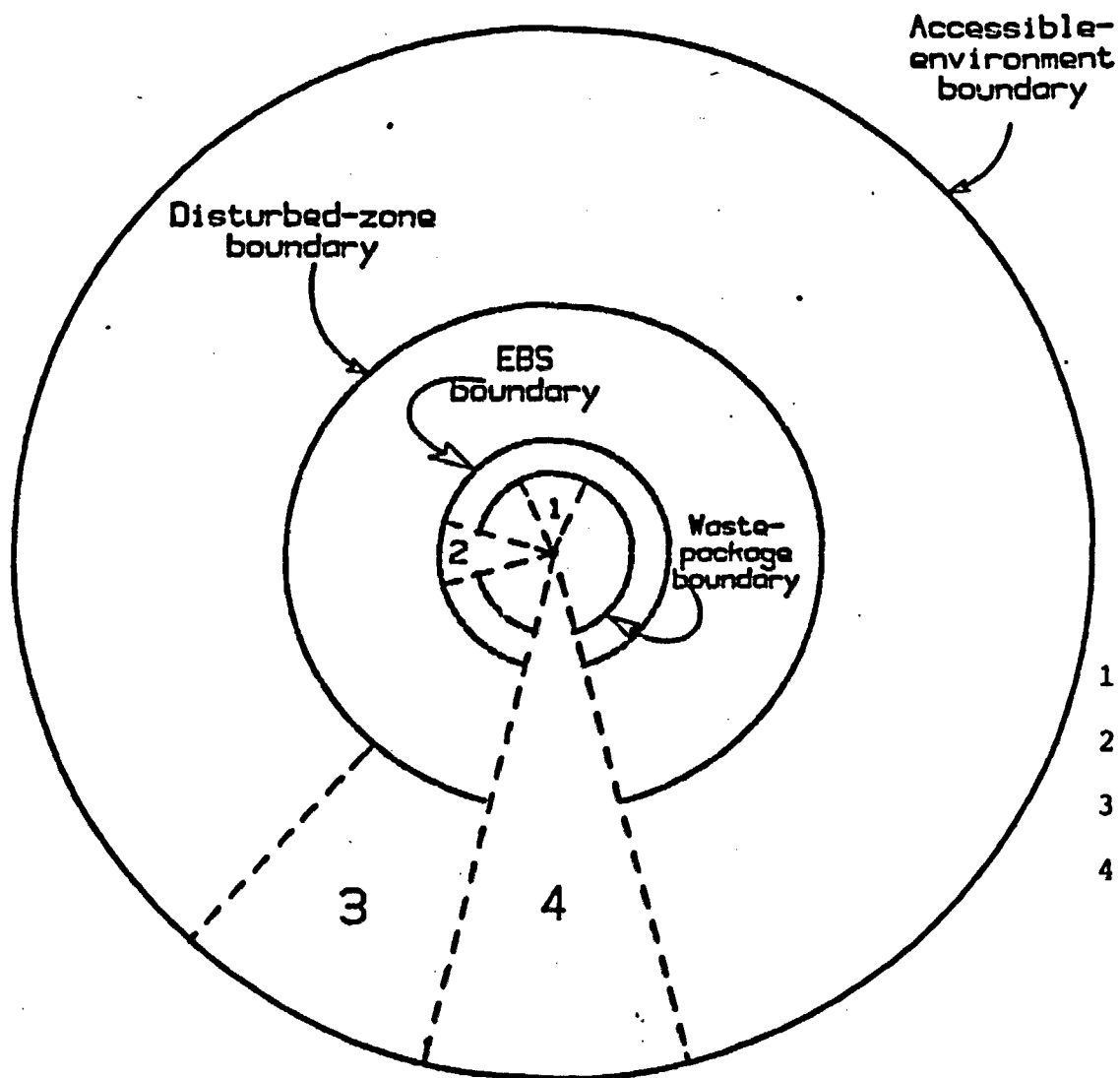
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THE SYSTEM ELEMENTS DIFFER ACCORDING TO PERFORMANE OBJECTIVE



1 - Containment time

2 - Release rate from EBS

3 - Groundwater travel time

4 - Releases to accessible environment

* 10,000 year accessible environment

* 1,000 year groundwater protection

* 1,000 year individual protection

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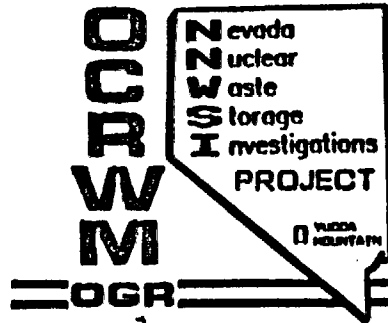
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STEP TWO: RESULTS IN A LIST OF THE APPLICABLE SYSTEM ELEMENTS

STEP 1 Regulations: Postclosure Performance Objectives	STEP2 System elements	STEP 3 License approach
1. Containment time	EBS • • •	
2. Release rates from EBS	EBS • • •	
3. Groundwater travel time	Nat. Barriers • • •	
4. Releases to accessible environment	EBS • • • Nat. Barriers • • • Inst. Barriers • • •	

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STEP 3: WE DEFINE THE LICENSE APPROACH FOR EACH
PERFORMANCE OBJECTIVE

The approach has two parts

- Part 1:

Specifies the subsystems and components that we expect to be relied on in licensing

- Part 2:

Specifies the functions that each subsystem and component is assumed to perform, and the processes that are involved

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STEP 3, PART 1: EXAMPLE OF SYSTEM ELEMENTS IN LICENSING APPROACH

(The subsystems and components chosen for the licensing approach are subsets of the system elements that could be relied on.)

Example: PERFORMANCE OBJECTIVE 4: Releases to the accessible environment

(Step 2)
System Elements That Could
be Relied On

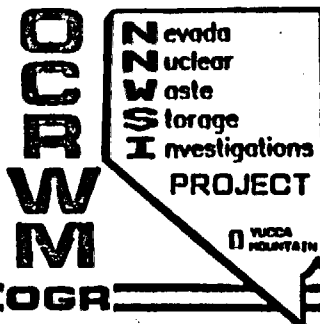
1. Engineered barriers
Waste package
Container
Waste Form
Repository engr. barriers
Backfill
Shaft and borehole seals

2. Natural barriers
Disturbed zone
Repository overburden
Unsaturated units
Far field
Repository overburden
Unsaturated units
Saturated zone

3. Institutional barriers

(Step 3, Part 1)
System Elements Chosen For
Licensing Approach

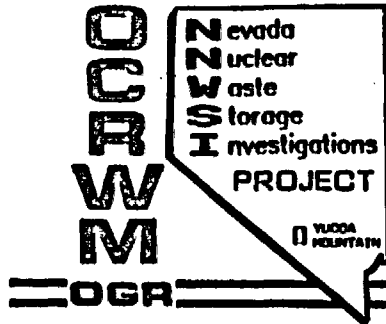
Yes
Yes
Yes
Yes
No
Yes
Yes
No
Yes
Yes
Yes
no
Yes



STEP 3, PART 2: A FUNCTION AND PROCESSES ARE ASSOCIATED WITH EACH
SYSTEM ELEMENT IN LICENSE APPROACH

Example: PERFORMANCE OBJECTIVE 4: Releases to the accessible environment

(Step 3, Part 1)	(Step 3, Part 2)	
<u>System Elements Chosen For Licensing Approach</u>	<u>Function</u>	<u>Processes</u>
1. Engineered Barriers Waste Package Container Waste Form Shaft and Borehole Seals	<ul style="list-style-type: none"> • contain • control releases • control water influx 	<ul style="list-style-type: none"> • corrosion • dissolution • groundwater flow
2. Natural Barriers Far Field Repository Overburden Unsaturated Units	<ul style="list-style-type: none"> • control water influx • limit release of volatiles • limit release of aqueous species 	<ul style="list-style-type: none"> • groundwater flow • isothermal vapor transport • groundwater flow and radionuclide retardation
3. Institutional Barriers	<ul style="list-style-type: none"> • prevent human intrusion 	N/A



STEP 3, PART 2: THE FUNCTION OF EACH SUBSYSTEM AND COMPONENT CAN VARY

Example 1: PERFORMANCE OBJECTIVE 3: Groundwater travel time

SUBSYSTEM: Unsaturated Calico Hills tuff

FUNCTION: Barrier to water movement toward accessible environment

PROCESSES: Groundwater flow

Example 2: PERFORMANCE OBJECTIVE 4: Releases to accessible environment

SUBSYSTEM: Unsaturated Calico Hills tuff

FUNCTION: Isolation of wastes from accessible environment

PROCESSES: Groundwater flow
Radionuclide retardation

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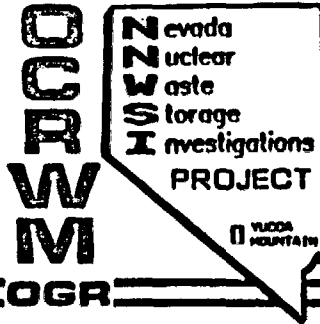
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**STEP 3 COMPLETES THE PARTS OF LICENSING STRATEGY
THAT ARE NEEDED NOW FOR PERFORMANCE ALLOCATION**

STEP 1	STEP 2	STEP 3
Performance Objective	System elements	License approach
1. Containment time	EBS • • •	• • •
2. Release rates from EBS	EBS • •	• • •
3. Ground-water travel time	Nat. barriers • •	• • •
4. Releases to accessible environment	EBS • • • Nat. barriers • • • Inst. barriers • • • •	• Ex.: Calico Hills-- isolate radionuclides from acc. environment •

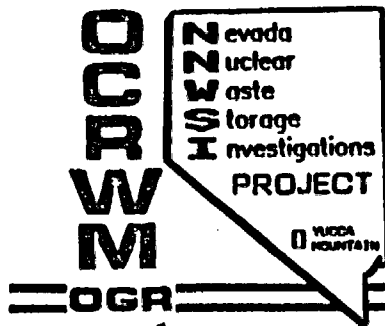
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STEP 4: WE DEFINE THE PERFORMANCE MEASURES FOR EACH SUBSYSTEM AND COMPONENT USED IN THE LICENSING APPROACH

Performance measures are

- Indicators of how a function is performed
- Physical quantities
 - Dependent variables
 - Measured properties



THE PERFORMANCE MEASURES FOR A SYSTEM ELEMENT MAY BE DIFFERENT
FOR DIFFERENT PERFORMANCE OBJECTIVES

Example 1. PERFORMANCE OBJECTIVE 3: Groundwater travel time

SUBSYSTEM: Unsaturated Calico Hills tuff

FUNCTION: Barrier to water movement toward accessible environment

PROCESSES: Groundwater flow

PERFORMANCE MEASURE: Groundwater travel time

Example 2. PERFORMANCE OBJECTIVE 4: Releases to accessible environment

SUBSYSTEM: Unsaturated Calico Hills tuff

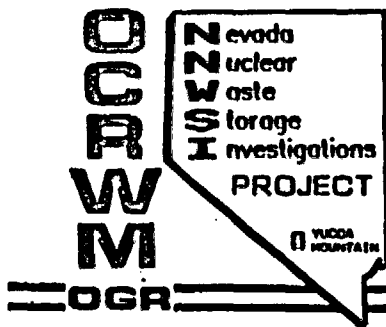
FUNCTION: Isolation of wastes from accessible environment

PROCESSES: Groundwater flow
Radionuclide retardation

PERFORMANCE MEASURE: $\xi(T) = \int_0^T A_B dt$

where A_B = radioactivity crossing the
lower boundary of unsaturated Calico
Hills tuff

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PERFORMANCE MEASURES ARE DEFINED FOR EVERY SYSTEM ELEMENT IN THE LICENSE APPROACH

PARTS OF LICENSING STRATEGY

PERFORMANCE ALLOCATION

STEP 1.	STEP 2.	STEP 3.	STEP 4.	STEP 5.	STEP 6.	STEP 7.	STEP 8.
Regulations: Postclosure Performance Objectives	System Elements	License Approach	Performance Measures	Performance Goals and Confidence	Parameter Needs	Test Definitions	Test Evaluation
1. Containment Time	⋮	⋮	⋮				
2. Release Rates	⋮	⋮	⋮				
3. Groundwater Travel Time	Unsaturated Units -- FF -- ⋮	Unsaturated Calico Hills -- FF -- ⋮	T ⋮				
4. Releases to Accessible Environment	Unsaturated Units -- FF -- ⋮	Unsaturated Calico Hills -- FF -- ⋮	⋮				

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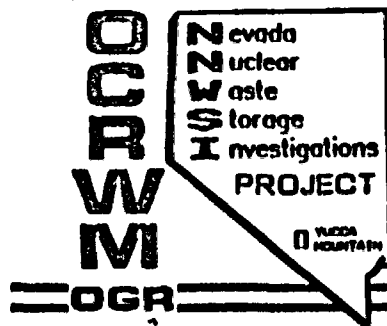
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**STEP 5: WE DEFINE PERFORMANCE GOALS AND
INDICATES DESIRED CONFIDENCE**

For each performance measure

- 1. Assign values**
- 2. State indication of confidence desired**
 - in quantitative terms, if possible
 - in qualitative terms otherwise
 - on the most defensible basis

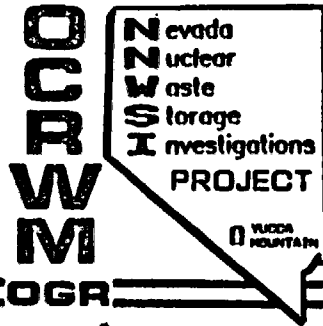
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CRITERIA FOR ASSIGNING PERFORMANCE GOALS

- Limited redundancy
- Supportive of "reasonable assurance" in licensing
- Simple
- Bounding
- Achievable confidence
- Provable in available time with available techniques

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THE PERFORMANCE GOAL CAN VARY DEPENDING ON THE DESIRED CONFIDENCE

Example: PERFORMANCE OBJECTIVE 3: Groundwater Travel time

SUBSYSTEM: Unsaturated Calico Hills tuff

PERFORMANCE MEASURE: Groundwater travel time

PERFORMANCE GOAL

Confidence

T > 1,000 years

VERY HIGH

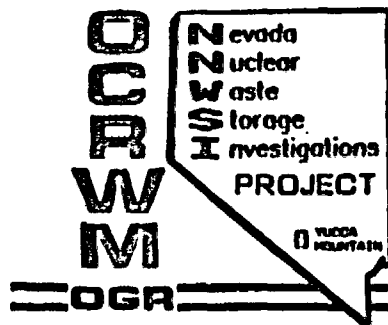
T > 10,000 years

HIGH

T > 15,000 years

MEDIUM

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THE INDICATION OF DESIRED CONFIDENCE IS NOT NECESSARILY STATISTICAL

It can be based on qualitative or quantitative analysis:

- Professional Judgement
- Bounding Analysis
- Statistical Analysis

Confidence Intervals

Confidence Levels

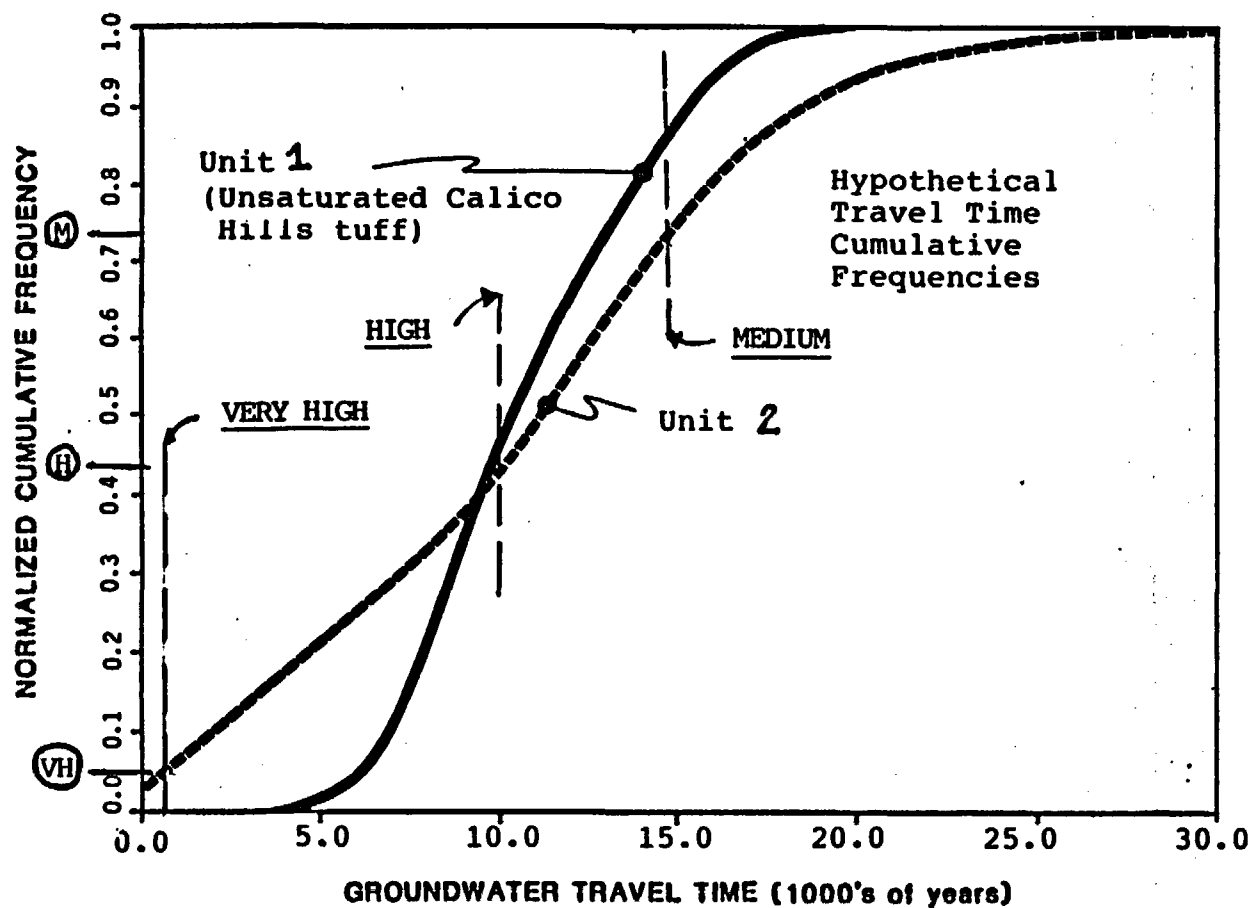
Statistical Parameters

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QUALITATIVE TERMS CAN BE QUANTITATIVELY DEFINED



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STEP SIX: WE TRANSLATE PERFORMANCE MEASURES INTO PHYSICAL PARAMETERS
NEEDED TO CALCULATE THE PERFORMANCE MEASURE

PERFORMANCE MEASURE = $f(P_1, P_2, \dots, P_3)$

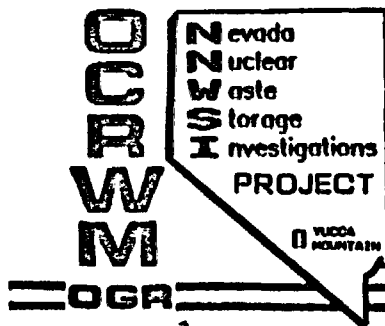
1. We must state:

- Physical parameters needed
- Ranges of values
- Desired Confidence

2. The ranges and desired confidences should be commensurate with the performance goals

3. The range of values and desired confidence may be based on:

- Professional Judgement
- Sensitivity analyses
- Statistical analyses



EACH PHYSICAL PARAMETER IS DESCRIBED IN TERMS OF

"HOW WELL DO WE NEED TO KNOW?"

Example: PERFORMANCE OBJECTIVE ³ ~~4: Releases to the accessible environment~~

SUBSYSTEM: Unsaturated Calico Hills tuff

FUNCTION: Barrier to water movement toward accessible environment

PERFORMANCE MEASURE: Groundwater travel time

PARAMETER NEEDED

RANGE OF VALUES

CONFIDENCE DESIRED

$\bar{K}_{sat,m}$

$0 < K_{sat,m} < \frac{1}{10^{-10}}$

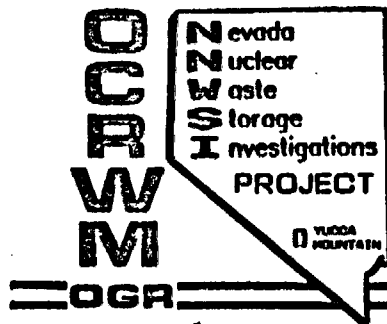
HIGH

\bar{N}_{eff}

Not Applicable

Variance is limited to...

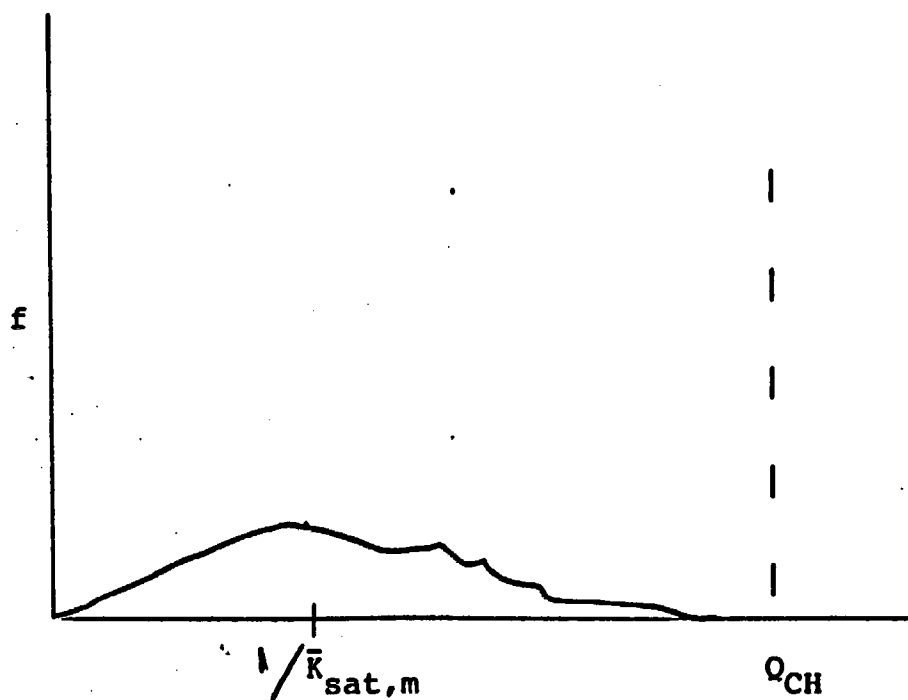
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THE PHYSICAL PARAMETERS MAY REQUIRE HIGH CONFIDENCE
BUT ONLY LOW PRECISION

In example below:

- Broad range results from low precision of measurements and from natural variation
- but HIGH confidence in meeting goal is achieved



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STEP SEVEN: DEFINE TESTS TO OBTAIN VALUES FOR PARAMETERS

TEST DEFINITIONS CONSIST OF:

- Relation between parameters needed and measured properties
- Sample location
- Number of measurements
- Scale of measurements
- Measurement precision and accuracy

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THE MEASURED PROPERTIES MUST BE RELATED TO THE PARAMETERS NEEDED

Example: PERFORMANCE OBJECTIVE 3: Groundwater travel time

SUBSYSTEM: Unsaturated Calico Hills tuff

FUNCTION: Barrier for water movement toward accessible environment

PERFORMANCE MEASURE: Groundwater flow

PARAMETER NEEDED: \bar{N}_{eff}

MEASURED PROPERTIES: Bulk porosity, residual saturation

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STEP EIGHT: EVALUATE TESTS

- Evaluate confidence achievable for the parameter
- Evaluate confidence achieved for the performance goal

THEN

- Accept test definitions and performance allocations as defined

OR

Reallocate performance goals and confidences if desired allocations and confidences are unattainable

OR

Modify, expand, or eliminate tests to give precision and accuracy consistent with the parameter needs

DOCRM

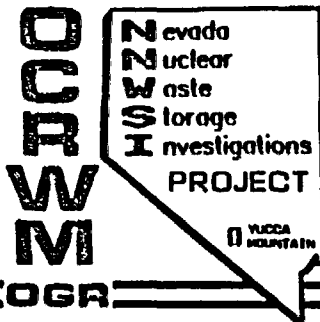
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OGR

PARTS OF LICENSING STRATEGY

[illegible]



WHERE IS PERFORMANCE ALLOCATION DISCUSSED IN SCP?

<u>STEPS FROM MATRIX</u>	<u>STEP NAME</u>	<u>IN SCP SECTION</u>	<u>DESCRIPTIVE COMMENTS</u>
STEP 0	DESCRIBE OVERALL STRATEGY	8.1	PROVIDE A BRIEF GENERIC DESCRIPTION OF THE OVERALL APPROACH TO PERFORMANCE ALLOCATION
STEP 1	PERFORMANCE OBJECTIVES	8.3.5.2.1.2 8.3.5.2.1.3 8.3.5.2.3 8.3.5.2.4	ISSUE 1.13 - CONTAINMENT TIME ISSUE 1.14 - RELEASE RATES FROM EBS ISSUE 1.15 - GROUNDWATER TRAVEL TIME ISSUE 1.16 - RELEASES TO ACCESS. ENVIR.
STEP 2	SYSTEM ELEMENTS	8.1	DESCRIBE NNWSI SYSTEMS HIERARCHY DESCRIBE RELATIONSHIP BETWEEN SYSTEMS HIERARCHY AND ISSUES HIERARCHY

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MOUNTAINWHERE IS PERFORMANCE ALLOCATION DISCUSSED IN SCP?

<u>STEPS FROM MATRIX</u>	<u>STEP NAME</u>	<u>IN SCP SECTION</u>	<u>DESCRIPTIVE COMMENTS</u>
STEP 3	LICENSING APPROACH	8.3.5.2	THE SPECIFIC APPROACH FOR MEETING EACH OF THE PERFORMANCE OBJECTIVES WILL BE DESCRIBED UNDER EACH RESPECTIVE ISSUE LISTED IN STEP 1
STEP 4-6	PERFORMANCE ALLOCATION DETAILS	SCP SECTIONS LISTED IN STEP 1	INFO NEED DESCRIPTIONS WILL DEFINE NEEDED PARAMETERS AND DESIRED INDICATIONS OF CONFIDENCE INFO NEED 1.xx.1 CONVEYS THESE NEEDS TO THE SITE CHARACTERIZATION INS (I.E., TO THE PIS)

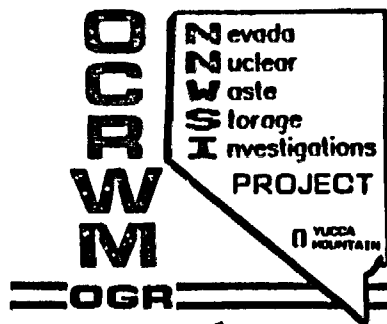
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MOUNTAINWHERE IS PERFORMANCE ALLOCATION DISCUSSED IN SCP?

<u>STEPS FROM MATRIX</u>	<u>STEP NAME</u>	<u>IN SCP SECTION</u>	<u>DESCRIPTIVE COMMENTS</u>
STEP 7	TEST DEFINITIONS	8.3.1	INFO NEED DESCRIPTIONS WILL DEFINE THE TESTS AND MEASURABLES REQUIRED TO PROVIDE VALUES OF PARAMETERS
STEP 8	TEST EVALUATIONS	WORKSHOP -	EVALUATE DATA AND CONFIDENCES ACHIEVABLE BY TESTS RE-ALLOCATE PERFORMANCE GOALS AND CONFIDENCES, IF NECESSARY AND/OR MODIFY OR ELIMINATE TESTS, AS APPROPRIATE
		8.3.1 & 8.3.5	-- INCORPORATE RESULTS OF WORKSHOP INTO SCP

WHERE IS PERFORMANCE ALLOCATION DISCUSSED IN SCP?

STEPS FROM MATRIX	STEP NAME	IN SCP SECTION	DESCRIPTIVE COMMENTS
STEP 0	DESCRIBE OVERALL STRATEGY	8.1	PROVIDE A BRIEF GENERIC DESCRIPTION OF THE OVERALL APPROACH TO PERFORMANCE ALLOCATION
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STEP 7	TEST DEFINITIONS	8.3.1	INFO NEED DESCRIPTIONS WILL DEFINE THE TESTS AND MEASURABLES REQUIRED TO PROVIDE VALUES OF PARAMETERS
STEP 8	TEST EVALUATIONS	WORKSHOP - 8.3.1 & 8.3.5	● EVALUATE DATA AND CONFIDENCES ACHIEVABLE BY TESTS ● RE-ALLOCATE PERFORMANCE GOALS AND CONFIDENCES, IF NECESSARY and/or ● MODIFY OR ELIMINATE TESTS, AS APPROPRIATE INCORPORATE RESULTS OF WORKSHOP INTO SCP

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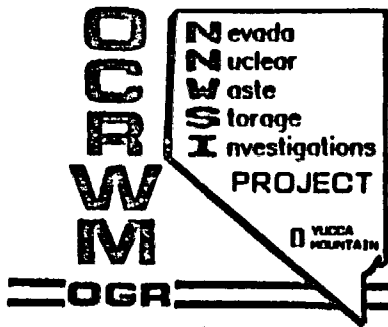


SETTING GOALS FOR DESIGN DATA NEEDS

SECTION 6.3 DOES THIS FOR DATA NEEDED FROM THE SITE

INs UNDER 8.3.2 WILL SERVE SAME FUNCTION AS IN 8.3.5 FOR
DEFINING GOALS AND CONVEYING THEM TO SITE CHARACTERIZATION
INFORMATION NEEDS

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ALSO NEEDED

METHOD FOR RANK-ORDERING THE DATA NEEDS FOR RESOLVING THE INs UNDER:

ISSUE 1.17 - FAVORABLE AND POTENTIALLY ADVERSE CONDITIONS

HIGHER LEVEL FINDINGS:

ISSUE 1.18 - POST-CLOSURE TECHNICAL GUIDELINES

ISSUE 2.8 - PRE-CLOSURE RADIOLOGICAL SAFETY

ISSUE 3.11 - PRE-CLOSURE ENVIRONMENTAL QUALITY
- PUBLIC HEALTH AND SAFETY

ISSUE 4.10 - EASE AND COST OF SITING, CONSTRUCTION, OPERATION
AND CLOSURE

EA STATUS

1. OCRWM Letter, Dec 4, 1985 - All changes are required.
2. Difficulties -
 - OGC & EP Comments generally outside OCRWM guidance and agreements with POB
 - e.g. OGC - comments available within 2 weeks, preliminary comments reiterate "need better conclusions"
 - EP - never agreed to OCRWM/PO agreement & consensus understanding of guidelines & interpretations
3. Summary of Comments - based on "early look", lacks any indepth understanding

EA

- Ch 3 - EP requesting information not available be added
- Ch 4 - All EAs lack uniform criteria to determine what environmental impacts are significant (EP - e.g. air quality, noise)
- Ch 5 - ^{Changes to} Shipping & receiving rates would change repository staffing profile; MPS & repository incompatibility
Transportation & Socioeconomic chgs not yet reviewed
- Ch 6 - Tectonics - peak "g" not reasonable (EP)
analysis need for PAC (EP)
Geohydrology - atm H₂O travel time not conservative (EP)
insufficient analysis to support influx (EP)
Environment - Federal laws & regulations missing (EP)

DEC 5, 1985
TPO Meeting

Natural Resources - human intrusion requires perf. assessment
Performance Assessment - use median not mean (ocewm)

CRA

- Transfer some responses to OCEWM
- Inconsistencies between EA/CEA

4. Categories of Comments:

- (1) Can incorporate comments by Dec 20 & produce camera ready EA/CEA by Jan 16
- (2) Can incorporate comments but not in existing schedule
- (3) Cannot incorporate due to:
 - a. conflicts with OCEWM ~~to~~ ^{guidance} ~~agreements~~
 - b. changes findings already agreed to
 - c. changes interpretation of guideline
 - d. argue with technical observation or interpretation

5. Options for Monday:

- Delay meeting to 12 or 13th -
need time to read comments, understand & scope magnitude of change
- Keep meeting on Dec 9th -
 - a. Purcell requires OCEWM, EP & OAC to be at NO all week & to cooperate to reach resolution
 - b. Agree to delay schedule & revise date for camera ready version. Clarify comments & resolve disagreements in Jan '86

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

November 21, 1985

TWS-ES-NP-11-85-27

Dr. Donald L. Vieth, Director
Waste Management Project Office
US Department of Energy
P.O. Box 14100
Las Vegas, NV 89114

SUBJECT: MEETING REPORT OF THE SEPTEMBER 26, 1985, LOS ALAMOS NATIONAL MEETING
WITH NRC AND NRC CONTRACTORS
REF:WMPO:USC-235

Dear Dr. Vieth:

Los Alamos management and technical personnel were surprised at the negative tone of the Meeting Report written by G. K. Jacobs about the Appendix 7 meeting held September 26, 1985, between NRC, NRC contractors, WMPO, State of Nevada, and Los Alamos. We do not think that it accurately represents the discussions that were held. We are aware of or already using all technical information mentioned in the discussions by the NRC and NRC contractors. Because of the broad scope of the Meeting Report, it is appropriate for us to respond to more than the one item requested in the letter from Uel Clanton.

At the end of the discussions, Los Alamos felt that all of the concerns related to the technical work expressed in the original letter report written by A. D. Kelmers (MR-287-5) had been adequately addressed or were covered by work currently in progress. G. L. DePoorter's meeting notes contain a statement by A. D. Kelmers to the effect "There is not big disagreement between the NRC and Los Alamos. Most of the NRC concerns are either being investigated or have been investigated." A brief response will be made here to each of the concerns expressed in the Meeting Report.

A procedural point needs to be made first. In his meeting report, G. J. Jacobs refers to the meeting as a "Data Review." We were under the impression that this meeting was being held under the provision of Appendix 7 of the DOE-NRC Site-Specific Procedural Agreement, which provides for an informal discussion of technical issues. At no point did we consider this to be a "Data Review." This point needs to be clarified if future meetings of this type are held.

ACTION

CC: VIETH
CC: Blanchard
CC: Clanton
CC: Szymanski

THAT WITH UEL &
THE PRESENT ON NRC
TO FOLLOW
- OBTAINING GET THIS INTO
PUBLIC RECORD, BEING
AT NRC.
- SEND TO DOE MANAGEMENT
FOR THIS ACTION

1. Lack of Sorption Information Compilation and Synthesis

NRC and NRC contractor personnel in attendance were not well prepared for the meeting; they were not familiar with LA-9328-MS (TUFF-IV). The comments on temperature effects and particle size effects on sorption, for which extensive data are in TUFF-IV, indicated that they had not adequately read this comprehensive compilation of experimental results. Several of the NRC and NRC contractor personnel at this meeting in Los Alamos had been informed of the importance of TUFF-IV and of its contents at the meeting held in January 1985 at the Core Library at NTS. Several copies of this report were sent to the NRC before the July 1984 Geochemistry Workshop at Los Alamos. The NNWSI Draft Environmental Assessment and TUFF-IV contain detailed compilations of the sorption data for Yucca Mountain. The data are presented for several different drill holes at many depths. Information is given on the mineralogic and petrologic nature of the samples used in sorption measurements. In addition, a good summary of the sorption information was presented at the Geochemistry Workshop held at Los Alamos in July of 1984. The information is thus available, but requires some effort to obtain all in one place. To simplify this, a report is in preparation that will summarize to date the sorption data using J-13 water.

Synthesis of sorption information is under way at Los Alamos. Existing sorption data focusing first on the elements Sr, Ba, Eu, Ce, and Cs are being evaluated using multivariate statistical methods to identify and characterize sorption behavior of these elements for the laboratory parameters used in the batch K_d measurements and to identify any important gaps in the data. As far as possible, models will be developed and used for sorption of the elements of interest and for the principal sorbent minerals in Yucca Mountain. Results to date were discussed with the NRC at this meeting.

2. NRC Concern 4: Unevaluated Batch Contact Methodology Test Protocol and Parameters

NRC and NRC contractor personnel were informed that the optimization of the methodology was described in a series of reports that were available to them. R. S. Rundberg explained in great detail the mechanism of sorption in the zeolites in Yucca Mountain Tuff and how, because of the small average grain size of tuff, crushed tuff is representative. Data on particle size effects that confirm this are included in TUFF-IV.

3. NRC Concern 5: Groundwater Instability During Experiments

Again, extensive discussions were held on this subject. In all cases, measurements in the CO_2 controlled atmosphere box gave either no significant change or an increase in the sorption ratio. Periodic checks are being performed and if trends in the other direction are seen, the reasons will be determined and the experimental plan changed accordingly.

We never implied that we are performing "casual checks." We are carefully examining the actinides, for example. Almost all our thorium data is under CO_2 -controlled conditions. Neptunium experiments are run under both CO_2 -controlled conditions and atmospheric conditions. Uranium and selenium have also been measured under CO_2 -controlled conditions. We have not extensively examined strontium, cesium, barium, etc., because all our data obtained to date indicate that the atmosphere results are conservative. The NRC report failed to acknowledge that our "assumption" was based on experimental data. It was not pulled out of a hat.

The microbiological parameters that could affect transport of radionuclides have been under investigation at Los Alamos for a couple of years. The microbiological program is currently being reevaluated in the context of effects of microbiological processes on the total system performance. Los Alamos is aware of the potential problem and is taking steps to evaluate the problem as stated above.

Both of the concerns expressed in Observation #5 fall into the category of "being important to be aware of, but may be second-order effects." The two phenomena (dissolved CO_2 in the groundwater, and microbial action) both seem to yield improved sorption ratios, though more confirmation of the long-term sorption behavior is required.

Studies of these phenomena are examples of how the cost and schedule for our sorption work would be increased if personnel vigorously tried to meet these NRC concerns. Our approach is to continue to resolve the importance of these two issues but not to overemphasize their importance as contributors to the overall geochemical performance of Yucca Mountain.

4. Assumptions 1 through 4 in Section III.

This Section implies that the Los Alamos sorption program is based on a set of "assumptions." The basis of the program is, in fact, experimental data, not "assumptions."

Assumption 1. Relevance of sorption in fracture flow scenario.

Barbara Carlos, Los Alamos, has carried out many analyses of Yucca Mountain fracture lining minerals. Her results indicate that the major minerals are clinoptilolite and mordenite. Thus if flow contacts the fracture-lining minerals, significant sorption may still occur.

Assumption 2. Use of Crushed Samples

This appears to be a restatement of Concern 4 earlier in the report. A careful examination of the data in Los Alamos publications may help to convince the NRC of the validity of our approach. Experimental results on the effects of particle size on sorption are presented in Tables XXVIII and XXIX in TUFF-IV. Multivariate analyses of TUFF-IV data show no significant particle size effect in our crushed sample range of 75-500 m.

November 21, 1985

Assumption 3. Effect of Temperature on Sorption

The Los Alamos position on the effects of temperature is based on the experimental results presented in TUFF IV and other Los Alamos reports. See Tables XXVII, A-V and A-VI of TUFF-IV. Multivariate analyses of these data show a strong correlation of increasing sorption with increasing temperature. Data exist at both 70 and 85° C.

Assumption 4. Effect of CO₂ Partial Pressure

See Tables XXX and XXXI in TUFF IV and the earlier discussions.

Specific technical comments based on our data relative to assumptions 1 through 4 would be easier to respond to than the vague generalities in this Meeting Report.

In conclusion, all NRC concerns are being or have been investigated. Los Alamos personnel were available and open to answer all questions in a cooperative manner. We would suggest that at future meetings of this type there be no written reports, or, at the end of the meeting a joint position signed by both parties be prepared.

Contributions to and review of this letter by G. L. DePoorter, K. W. Thomas, B. M. Crowe, G. A. Cederberg, and J. A. Canepa, are acknowledged.

Sincerely,


Donald T. Oakley

DT0:GLD:mdh

cy: Scott Sinnock, SNL
T. O. Hunter, SNL
Uel Clanton, NVO
M. Giora, SAIC
M. Blanchard, WMPO
W. W. Dudley, Jr., USGS
L. D. Ramspott, LLNL
G. L. DePoorter, ES-NP
K. W. Thomas, INC-11, MS J514
B. M. Crowe, INC-7, MS J514
G. A. Cederberg, ESS-5, MS F665
J. A. Canepa, ES-NP, MS D462
E. A. Bryant, INC-7, MS J514
W. R. Daniels, INC-11, MS J514
C. F. Keller, ESS-5, MS F665
W. A. Morris, ESS-1, MS D462
D. T. Vaniman, ESS-1, MS J978
CRM-4 (2) MS A150
File

U N C L A S S I F I E D

OUTGOING FACSIMILE TRANSMITTAL

Los Alamos National Laboratory
Waste Management Program, MS F619
Los Alamos, NM 87545

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COMMERCIAL: (505) 667-9768

FROM:

D. T. Oakley

Los Alamos National Laboratory

TO:

Donald L. Vieth
WMPO/NV

575-1095

Max Blanchard

Phil Clanton

RE:

NUMBER OF PAGES, EXCLUDING COVER SHEET:

4

DATE:

11-22-85

THIS MESSAGE CONTAINS UNCLASSIFIED INFORMATION ONLY:

Markie

U N C L A S S I F I E D



Department of Energy

Nevada Operations Office

P. O. Box 14100

Las Vegas, NV 89114-4100

NOV 27 1985

W. J. Purcell, Director, Office of Geologic Repositories, DOE/HQ (RW-20),
FORSTL

NNWSI PROJECT WEEKLY HIGHLIGHTS FOR WEEK ENDING NOVEMBER 21, 1985

I. Issues Requiring Involvement of HQ or Other Projects

A. New Issues:

None to report.

B. Previously Reported Issues:

<u>Issue</u>	<u>Status</u>	<u>First Report Date</u>
Regarding letter dated 9/5 to Hilley requesting consideration of continued use of E-MAD on a cost-shared basis, no reply has been received.	Open	9/26/85

II. Major Internal Concerns

None to report.

III. Significant Accomplishments (SA)/Information Items (II)

SA

The NNWSI Project revised Environmental Assessment was delivered to HQ Monday morning, November 18.

II

On November 13 and 14, Dr. Dallas Peck, Director of the USGS, visited the Denver office to speak exclusively with the staff supporting the NNWSI Project. The purpose of the visit was to reinforce the commitment made by the USGS to properly support the DOE in evaluating Yucca Mountain and to hear the concerns of the staff regarding quality assurance requirements, regulatory interactions, professional recognition for work, resource requirements, and rewards. One significant fact noted by the older staff, was that they could not remember, in their tenure, when a Director came to the field to discuss solely the support for an outside agency's project.

A CBS network news crew visited Las Vegas for three days to produce a story on Yucca Mountain for the nightly news. They interviewed Hank Greenspun (Las Vegas Sun owner), Tom Clark, Don Vieth, and others in Las Vegas and Beatty, NV. The story has not been specifically scheduled; however, it is expected to air some time during the next month.

DOE/NV staff along with Carol Peabody visited the U.S. Bureau of Reclamation Office in Boulder City, NV on November 21 to hear a presentation of their approach to public involvement in their projects.

WMPO staff met with USGS staff to discuss the change in their organizational structure in order to support the needs of DOE/WMPO and the NNWSI Project.

A three and one-half hour forum was held at the ANS meeting in San Francisco. The discussions centered on the major issues for site characterization, and the participants included the DOE, DOE/HQ, the three project offices and representatives from the affected states of Texas, Louisiana, Utah, Washington, and Nevada. There were no representatives from Mississippi.

IV. Upcoming Events

1. Coordination Group Meetings

- o Tuesday-Wednesday, December 3-4: Waste Package Coordination Group, Richland.
- o Thursday, December 12: Environmental Coordination Group Meeting.

2. HQ Meetings

- o Monday-Tuesday, December 2-3: First Repository States Meeting.
- o Tuesday, December 10: ESF Generic Design Criteria Meeting, HQ.

3. Internal Project and DOE/NV Meetings

- o Wednesday-Friday, December 4-6: PM-TPO Meeting, Las Vegas.

4. State and Public Interaction

None to report.

NOV 27 1985

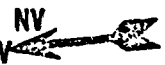
5. NRC Interaction

- o Wednesday-Thursday, December 4-5: Generic QA DOE/NRC Meeting.
- o Tuesday-Thursday, December 3-5: Seismic/Tectonics NRC Meeting, DC.

WMPO:DLV-338


Donald L. Vieth, Director
Waste Management Project Office

cc:

Allen Benson, DOE/HQ (RW-25), FORSTL
R. J. Blaney, DOE/HQ (RW-22), FORSTL
C. R. Cooley, DOE/HQ (RW-24), FORSTL
M. W. Frei, DOE/HQ (RW-23), FORSTL
V. J. Cassella, DOE/HQ (RW-22), FORSTL
Ralph Stein, DOE/HQ (RW-23), FORSTL (2)
E. S. Burton, DOE/HQ (RW-25), FORSTL
T. H. Isaacs, DOE/HQ (RW-22), FORSTL
J. O. Neff, DOE/SRPO, Columbus, OH
S. A. Mann, DOE/CRPO, Argonne, IL
O. L. Olson, DOE/RL, Richland, WA
T. O. Hunter, SNL, 6310, Albuquerque, NM
R. W. Lynch, SNL, 6300, Albuquerque, NM
W. W. Dudley, Jr., USGS, Denver, CO
L. D. Ramspott, LLNL, Livermore, CA
D. T. Oakley, Los Alamos, NM
J. B. Wright, W/WTSD, Mercury, NTS
M. E. Spaeth, SAIC, Las Vegas, NV
J. R. LaRiviere, SAIC, Las Vegas, NV
J. H. Fiore, SAIC, Las Vegas, NV
R. R. Loux, NWPO, Carson City, NV
C. H. Johnson, NWPO, Carson City, NV
P. T. Presthoit, NRC/Las Vegas, NV 
David Siefken, Weston, Rockville, MD
Donald Schweitzer, BNL, Upton, NY
R. W. Taft, AMES, DOE/NV



Science Applications International Corporation

L85-PMSD-JHF-048

November 27, 1985

TO: Distribution

SUBJECT: November 1985 PM-TP0 Meeting

Enclosed is an agenda for the November Project Manager-Technical Project Officers meeting which will be held on December 4-6 in Room 450 at SAIC, 101 Convention Center Drive (Valley Bank Center). Please note that this will be a three-day meeting. The agenda is subject to change. You will be notified if any significant changes are made that would affect presentors' appearances.

Mini-agendas will be posted during the meeting for some selected items as noted in the agenda.

SCIENCE APPLICATIONS
INTERNATIONAL CORPORATION

A handwritten signature in cursive script that reads "Joy H. Fiore".

Joy H. Fiore, Manager
Project Services Manager

JHF:dd

Enclosure:
Agenda

Valley Bank Center, 101 Convention Center Drive, Suite 407, Las Vegas, Nevada 89109, (702) 295-1204

Technical & Management Support Services Contractor Nevada Nuclear Waste Storage Investigations

Other SAIC Offices: Albuquerque, Chicago, Dayton, Denver, Huntsville, Los Angeles, Oak Ridge, Orlando, San Diego, San Francisco, Tucson and Washington, D.C.

Distribution
November 27, 1985
Page 2

Distribution w/encl.:

D. L. Vieth, WMPO, DOE/NV (2)
W. W. Dudley, Jr., USGS, Denver, CO
T. O. Hunter, SNL, 6310, Albq., NM
D. T. Oakley, LANL, Los Alamos, NM
L. D. Ramspott, LLNL, Livermore, CA
M. E. Spaeth, SAIC, Las Vegas, NV
J. B. Wright, W/WTSD, Mercury, NV
T. E. Goebel, F&S, Las Vegas, NV
Vince Gong, REEC, Mercury, NV
J. A. Tegtmeier, H&N, Mercury, NV
V. J. Cassella, DOE/HQ (RW-22), FORSTL
M. P. Kunich, WMPO, DOE/NV
M. B. Blanchard, WMPO, DOE/NV
W. R. Dixon, WMPO, DOE/NV
A. J. Roberts, RMD, DOE/NV
D. I. Irby, EEM, DOE/NV
James Blaylock, QAD, DOE/NV
C. H. Johnson, NWPO, Carson City, NV
P. T. Prestholt, NRC, Las Vegas, NV
M. D. Voegelé, SAIC, Las Vegas, NV
J. R. LaRiviere, SAIC, Las Vegas, NV
C. S. Jonson, SAIC, Las Vegas, NV
S. M. Jones, SAIC, Las Vegas, NV
F. R. Huckabee, DOE/NTSO
Project File 9.2.1.8.2

AGENDA

LOCATION: 101 Convention Center Dr., Room 450

PAGE: 1 of 4

~~Las Vegas, NV~~

NRWSI PROJECT MANAGER-TECHNICAL PROJECT OFFICER MEETING

DATE: December 4-6

TIME	WHAT	HOW	WHO	EXPECTED OUTCOME	REF MATERIAL & COMMENTS
Wednesday, December 4					
7:30-7:35	Introduction/Roles	Introduce new TPOs. Describe roles.	Joy/Don/TPOs		
7:35-7:45	Agenda/Outcomes	Review day's agenda and outcomes.	Joy	Agree.	
7:45-7:50	October Meeting Minutes	Corrections and/or approvals.	Joy/Don/TPOs	Approved minutes.	
7:50-12:00	Network Status Review (15 min. break at 9:45)	Review networks, identify problems, update. Start with 2.5 and 2.6.	Network Planners, Don/TPOs	Agree to updated versions.	
12:00-1:30	Lunch				
1:30-5:00	Continued Network Status Review		Network Planners, Don/TPOs		
Thursday, December 5					
7:30-7:40	Review Agenda		Joy		
7:40-11:30	SCP Schedule Planning	Mini agenda to come. Present proposed schedule options, discuss. Work out staff commitments to meet proposed schedule. Discuss who attends the Dec. 17-18 meeting at HQ.	Max, Dave, Mike	Agree to schedule options to present at December 17-18 HQ meeting. Agree to who will attend.	Alexander's November 22 letter.

AGENDA

LOCATION: 101 Convention Center Dr., Room 450

PAGE: 2 of 4

Las Vegas, NV

NNWSI PROJECT MANAGER-TECHNICAL PROJECT OFFICER MEETING

DATE: December 4-6

TIME	WHAT	HOW	WHO	EXPECTED OUTCOME	REF MATERIAL & COMMENTS
Thursday, December 5 (continued)					
11:30-1:00	Lunch				
1:00-1:30	Tuff DB and RIB (WBS 1.2.1.3)	Report on progress.	Tom/Dave Z.		
1:30-3:30	Performance allocation	Mini agenda to come.	Tom		
3:30-3:45	Break				
3:45-4:00	QA Status	Mini agenda to come.	Stan/Klein		
4:00-4:15	EA Status	Mini agenda to come.	Mary Lou		
4:15-5:00	Retreat Logistics	Present status, interview schedules, amend as necessary. Describe luncheon options, discuss.	Joy/Don/TPOs	Agree to the interview schedule. Agree on luncheons.	

AGENDA

LOCATION: 101 Convention Center Dr., Room 450

PAGE: 3 of 4

Las Vegas, NV

NNWSI PROJECT MANAGER-TECHNICAL PROJECT OFFICER MEETING

DATE: December 4-6

TIME	WHAT	HOW	WHO	EXPECTED OUTCOME	REF MATERIAL & COMMENTS
Friday, December 6					
8:00-8:10	Agenda/Outcomes	Review day's agenda and outcomes.	Joy	Agree.	
8:10-9:15	Performance Measurement	Status of costs, performance measurement.	Lynn S.	Understood status.	
9:15-9:30	Break				
9:30-11:00	CCB Meeting	Agenda from CCB Secretary	Chuck J.		CCB Agenda sent separately.
11:00-11:30	SEMP Update	Status of SEMP and SEIG.	Tom		
11:30-12:00	QA Problem with core	What is quality level of core? If it is designated quality level 3, can quality level 1 tests be conducted on core?	Larry	Determine action to resolve issue.	Larry's letter dated 11/26.
12:00-1:00	Lunch				
1:00-1:15	Weekly Reports	Revisit need for weeklies.	Larry	Agree to whether weekly reports are needed. Determine next steps.	

AGENDA

LOCATION: 101 Convention Center Dr., Room 450

PAGE: 4 of 4

~~Las Vegas, NV~~

NNWSI PROJECT MANAGER-TECHNICAL PROJECT OFFICER MEETING

DATE: December 4-6

TIME	WHAT	HOW	WHO	EXPECTED OUTCOME	REF MATERIAL & COMMENTS
Friday, December 6 (continued)					
1:15-1:45	Crowe letter re: Tuff DB	Revisit letter, discuss. Propose actions to resolve.	Bill, Tom, Don O.	Agree on action to resolve.	Letter sent to TPOs 11/26.
1:45-2:45	Open Items, FYIs	TBA			
2:45-2:55	Review Action Items	Review dates, responsible parties, content.	Joy/Don/TPOs	Agree to assignments, dates.	
2:55-3:00	January PM-TPO Meeting	Review January 28-30 agenda items.	Joy/Don/TPOS	Agree to tentative agenda items.	

2B LAS VEGAS SUN

Monday, December 16, 1985

Copper might not store nuke waste

By MARY MANNING
SUN Staff Writer

A Department of Energy proposal to contain high-level nuclear wastes for 300 to 1,000 years using copper casks has dimmed, a status report made to Congress said, but studies are continuing.

The Senate asked DOE to review the possibility of using copper or copper alloys to seal highly radioactive nuclear fuels and other wastes for up to 1,000 years in tuff — found at Yucca Mountain, 60 miles from Las Vegas — and basalt such as the proposed site at Hanford, Wash.

Congress hoped to bolster the sagging domestic copper industry as well as solve the thorny problem of burying high-level nuclear wastes away from man's environment for more than 1,000 years.

The nation's first high-level nuclear repository is expected to open in 1998 at one of the proposed sites in Nevada, Washington, Texas, Utah, Louisiana or Mississippi.

Copper may perform poorly in tuff because the heat of the wastes will produce acid steam, corroding the containers, the report said.

"The types of corrosion that may develop in the tuff repository are: uniform corrosion, pitting corrosion, crevice corrosion, intergranular corrosion, selective leaching and stress corrosion cracking," the status report said.

Water samples taken from the Test Site's J-13 well would be very acidic in the steamy, porous tuff environment, the study said. Tuff, formed from volcanic activity thousands of years ago, has pores like a sponge and cracks called fractures.

Current package designs will face temperatures from spent fuel wastes and surrounding rocks above 95 degrees Celsius, the report said, "for all of the containment period."

At the elevation of the proposed repository sites, that temperature is at the boiling point, which would quicken the corrosion of copper containers.



Department of Energy
Albuquerque Operations Office
P. O. Box 5400
Albuquerque, New Mexico 87115

NOV 29 1985

Dr. George C. Dacey
President
Sandia National Laboratories
P. O. Box 5800
Albuquerque, NM 87185

Dear Dr. Dacey:

Pursuant to the enclosed Management Agreement between the Department of Energy's Nevada Operations Office (NV) and Albuquerque Operations Office (AL) for Technical Support to the Office of Civilian Radioactive Waste Management and the Nevada Nuclear Waste Storage Investigations Project (NNWSI), Mr. Donald L. Vieth, Director, Waste Management Project Office, NV, is hereby designated as the Contracting Officer's Technical Representative for that work performed at Sandia National Laboratories which is funded from Nuclear Waste Fund for the NNWSI.

Mr. Dennis L. Krenz, Assistant Manager, Projects and Energy Programs, AL, will administer this Management Agreement for AL.

Sincerely,

R. G. Romatowski

R. G. Romatowski, Manager
Albuquerque Operations Office
Contracting Officer

Enclosure

cc w/o enclosure:
(See Page 2)

ACTION _____
CC: VIETH ✓
CC: KUTICK
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Department of Energy
Albuquerque Operations Office
P. O. Box 5400
Albuquerque, New Mexico 87115

NOV 29 1985

Mr. Robert N. Thorn
Acting Director
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

Dear Mr. Thorn:

Pursuant to the enclosed Management Agreement between the Department of Energy's Nevada Operations Office (NV) and Albuquerque Operations Office (AL) for Technical Support to the Office of Civilian Radioactive Waste Management and the Nevada Nuclear Waste Storage Investigations Project (NNWSI), Mr. Donald L. Vieth, Director, Waste Management Project Office, NV, is hereby designated as the Contracting Officer's Technical Representative for that work performed at Los Alamos National Laboratory which is funded from Nuclear Waste Fund for the NNWSI.

Mr. Dennis L. Krenz, Assistant Manager, Projects and Energy Programs, AL, will administer this management agreement for AL.

Sincerely,

R. G. Romatowski

R. G. Romatowski, Manager
Albuquerque Operations Office
Contracting Officer

Enclosure

cc w/o enclosure;
(See Page 2)

ACTION

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