



WM DOCKET CONTROL
CENTER

Department of Energy
Washington, D.C. 20585

'84 NOV 23 P3:07

NOV 16 1984

WM Record File
109

WM Project 1
Docket No. _____
PDR
LPDR _____

Ms. Catherine Russell
Nuclear Regulatory Commission
Division of Waste Management
Mail Stop 623-55
Washington, D.C. 20555

Distribution:

REB	JOB	CFR	RDM	B. Nuker, S6
MJB	HJM	DRM	WKerr	B. Trojanowski, R6 II
(Return to WM, 623-SS)			J Lambert	G. Scobee, C2
J. Lindsay	Scobee	Scobee		R6 II
R. Wright	K. Stachura			
J. Gorn	L. Peters			D. Kunitz, R6 II
S. Kennedy	S. Olney			R. Lickus, R6 II

Dear Ms. Russell:

I am pleased that you were able to attend the recent National OCRWM Meeting in Atlanta on October 3 and 4. We hope that you found the meeting to be a useful forum for sharing information and raising questions of concern.

The comments we received about the meeting were generally positive and will be very useful in planning subsequent meetings. With respect to frequency and location, the majority of respondents expressed a preference for quarterly meetings in either Washington, D.C., or a central location in the country. We have enclosed minutes of the meeting and a list of the agreements.

Those who indicated an interest in the transportation modeling workshop should have been contacted. The transportation issues papers will be sent to you shortly.

We have enclosed a list of participants for your information.

Again, we appreciate your participation.

Sincerely,

Roger W. Gale, Director
Office of Policy, Integration
and Outreach
Office of Civilian Radioactive
Waste Management

Enclosures

B501040109 841116
PDR WASTE
WM-1 PDR

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES

Yakima Indian Nation

Dean Tousley

Harmon, Weiss, & Jordan
2001 S Street, N.W.
Suite 430
Washington, D.C. 20009

Russell Jim

Senior Representative
Yakima Tribal Council
Yakima Indian Nation
P.O. Box 151
Toppenish, WA 98948

Washington

Don Provost

State of Washington
Office of High-level Nuclear Waste Management
Mail Stop PV11
Olympia, WA 98504

Louisiana

Jo Mabray

Louisiana Geological Survey
University Station Box G
Baton Rouge, LA 70893

Joe Holmes

Louisiana Geological Survey
2233 Silverside, Suite G
Baton Rouge, LA 70810

Hall Bohlinger

Department of Environmental Quality
P.O. Box 44066
Baton Rouge, LA 70804

Jim Friloux

Louisiana Geological Survey
University Station Box G
Baton Rouge, LA 70893

Ted McMullin

State Planning Office
P.O. Box 44426
Baton Rouge, LA 70804

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (cont.)

Mississippi

John W. Green

Mississippi Department of Energy
& Transportation
300 Watkins Building.
510 George Street
Jackson, MS 39202

Kelly Haggard

Mississippi Department of Energy and
Transportation
300 Watkins Building
510 George Street
Jackson, MS 39202

J. I. Palmer, Jr.

Mississippi Governor's Office
New Capitol Building.
Jackson, MS 39201

Edwin Lloyd Pittman

Attorney General
Office of the Attorney General
P.O. Box 220
Jackson, MS 39205

Mack Cameron

Special Assistant, Mississippi
Attorney General's Office
Box 220
Jackson, MS 39205

Nevada

Joe Strolin

Nevada Nuclear Waste Project Office
Office of the Governor
Capital Complex
Carson City, NV 89710

Dennis Bechtel

Clark County Department of Comprehensive
Planning
Clark County Bridger Building
225 Bridger Avenue, 7th Floor
Las Vegas, NV 89155

Texas

Steve Frishman

Nuclear Waste Programs Office
Office of the Governor
Box 12428
Austin, TX 78711

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (cont.)

Utah

Darryl Trotter

Bureau of Land Management
P.O. Box 970
Moab, UT 84532

Gerald Jacob

Utah High-Level Nuclear Waste Office
116 State Capitol Building
Salt Lake City, UT 84114

Lou P. Hare

Utah High-Level Nuclear Waste Office
116 State Capitol Building
Salt Lake City, UT 84114

Connecticut

Ralph S. Lewis

Natural Resources Center
Department of Environmental Protection
State Office Building.
165 Capitol Avenue
Hartford, CT 06106

Georgia

W. H. Mclemore

Room 400
19 Martin Luther King, Jr. Drive
Atlanta, GA 30334

Earl A. Shapiro

Department of Natural Resources
270 Washington Street S.W.
Atlanta, GA 30334

Maine

Walter A. Anderson

Maine Geological Survey
Department of Conservation
State House Station # 22
Augusta, ME 04333

Marc Loiselle

Maine Geological Survey
Department of Conservation
State House Station # 22
Augusta, ME 04333

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

Massachusetts

Joseph A. Sinnott

Massachusetts Department of Public Health
150 Tremont Street
Seventh Floor
Boston, MA 02111

Michigan

Lee Jager

Michigan Department of Public Health
3500 N. Logan Street
Lansing, MI 48909

Dennis P. Tierney

Michigan Department of Natural Resources
Stevens T. Mason Building
Lansing, MI 48906

New Hampshire

Arnie Wight

AMFM Panel
House of Representatives
State House, Room 408
Concord, NH 03301

Paul Bongiorno

State of New Hampshire
Office of State Planning
2 1/2 Beacon Street
Concord, NH 03301

New York

Jack Spath

New York State Energy Research
& Development Authority
2 Rockefeller Plaza
Albany, NY 12223

John Cianci

New York State Department of Environmental
Conservation
50 Wolf Road
Albany, NY 12233

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

North Carolina

Steve Conrud

State Geologist
Department of Natural Resources
and Community Development
P.O. Box 27687
Raleigh, NC 27611

Bill Flourney

North Carolina Department of Natural Resources
P.O. Box 27687
Raleigh, NC 27611

Rhode Island

Bruce Vild

Office of the Governor
100 Orange Street
Providence, RI 02903

Victor A. Bell

Department of Environmental Management
83 Park Street
Providence, RI 02903

South Carolina

Bill Newberry

Governor's Office
Division of Energy Policy
1205 Pendleton Street, Room 436
Columbia, SC 29201

Suzanne Rhodes

Governor's Office
Division of Energy Policy
1205 Pendleton, Suite 435
Columbia, SC 29201

Bill Marshall

Governor's Office
Division of Natural Resources
1205 Pendleton Street, Suite 437
Columbia, SC 29201

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

Vermont

Monty Fischer

State of Vermont
Office of State Geologist
State Office Building
Montpelier, VT 05602

Virginia

Barb Wrenn

910 Capitol Street
Box 3-AG
Richmond, VA 23208

Wisconsin

Jim Kleinhans

Executive Director
Radioactive Waste Review Board
110 East Main Street
Madison, WI 53702

Bob Halstead

P.O. Box 7868
Madison, WI 53707-7868

Federal Government

Bob Kasperek

National Park Service
Rocky Mountain Regional Office
P.O. Box 25287
Denver, CO 80225

Robert Johnson

U.S. Nuclear Regulatory Commission
Division of Waste Management
Mail Stop 623-SS
Washington, D.C. 20555

Catherine Russell

U.S. Nuclear Regulatory Commission
Division of Waste Management
Mail Stop 623-55
Washington, D.C. 20555

Tilak R. Verma

U.S. Nuclear Regulatory Commission
Columbus, OH 43201

Jerome Saltzman

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Darryl Lee

General Accounting Office
1112 Randolph Road
McLean, VA 22101

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

Interest Groups

Dave Berick	Environmental Policy Institute 218 D Street, S.E. Washington, D.C. 20003
Louis Coakley	Southern States Energy Board One Exchange Place, Suite 1230 2300 Peachford Road Atlanta, GA 30338
Ellen Livingston-Behan	Western Interstate Energy Board 3333 Quebec Street Denver, CO 30207
J. M. Jordan	National Conference of State Legislatures 1125 - 17th Street, Suite 1500 Denver, CO 80205
Ed Davis	Senior Vice President American Nuclear Energy Council 410 First Street, S.E. Washington, D.C. 20003
Jim Hall	Edison Electric Institute 1111 - 19th Street, NW Washington, D.C. 20036

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

DOE Headquarters staff

Ellison S. Burton

Acting Director
Siting Division
Office of Geologic Repositories
Office of Civilian Radioactive Waste
Management
U.S. Department of Energy
Forrestal Building
RW-25, Room 7F-034
Washington, D.C. 20585

Barry Gale

Director
Consultation & Cooperation Team
Office of Geologic Repositories
Office of Civilian Radioactive Waste
Management
U.S. Department of Energy
Forrestal Building
RW-25, Room 7F-034
Washington, D.C. 20585

Roger W. Gale

Director
Office of Policy, Integration and
Outreach
Office of Civilian Radioactive Waste
Management
U.S. Department of Energy
Forrestal Building
RW-40, Room 7F-059
Washington, D.C. 20585

Tom Isaacs

Director, Policy Division
Office of Policy, Integration and Outreach
Office of Civilian Radioactive Waste
Management
U.S. Department of Energy
Forrestal Building
RW-42, 7F-059
Washington, D.C. 20585

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

DOE Headquarters Staff

D. B. Leclaire

U.S. Department of Energy
Washington, D.C. 20545

Robert Mussler

Deputy Assistant General Counsel
for Environment
U.S. Department of Energy
Forrestal Building
C-34, Room 6D-033
Washington, D.C. 20585

Susan Kuznick

Office of the General Counsel
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

William Brennan

Intergovernmental Affairs
Office of Civilian Radioactive Waste
Management
U.S. Department of Energy
Forrestal Building
CP-60, Room 8G-048
Washington, D.C. 20585

DOE Project Office Staff

Ted Taylor

DOE Salt Repository Project Office
505 King Avenue
Columbus, OH 43201

Paul Kearns

U.S. Department of Energy
Chicago Operations Office
9800 S. Cass Avenue
Argonne, IL 60439

Steven Silbergleid

U.S. Department of Energy
Chicago Operations Office
9800 S. Cass Avenue
Argonne, IL 60439

Richard Baker

U.S. Department of Energy
Chicago Operations Office
9800 S. Cass Avenue
Argonne, IL 60439

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

DOE Project Office Staff

Mitchell P. Kunich

U.S. Department of Energy
2753 South Highland Drive
Las Vegas, NV 89109

Dave Squires

U.S. Department of Energy
P.O. Box 550
Richland, WA 99352

DOE AND FIRST REPOSITORY STATES
AND INDIAN TRIBES MEETING

ATTENDEES (Cont.)

Others

Merle Lefkoff	30 1/2 Shepard Street Cambridge, MA 02138
B. G. Kitchen	Savannah River Lab Dupont Aiken, SC 29808
John Gervers	LATIN Energy Consultants 436 Luisa Lane Santa Fe, NM 87501
Bruno Loran	Parsons - Redpath 3040 Riverside Drive Suite 224 Columbus, OH 43221
Francis S. Kendorski	Terraform Engineers, Inc. 39 1/2 W. Jefferson Avenue, Suite 2 Naperville, IL 60540
F. Steinbrenner	Law Engineering 2749 Dalk Road Marietta, GA 30067
Gilbert Butler	Law Engineering 2749 Dalk Road Marietta, GA 30067
Richard Winter	Energy & Environmental Systems Division Argonne National Laboratory 9700 S. Cass Avenue Argonne, IL 60439
Fred D. Baldwin	WESTON 2301 Research Boulevard., Third Floor Rockville, MD 20585
Gibby Halloran	WESTON 2301 Research Boulevard., Third Floor Rockville, MD 20585
Michele Saranovich	WESTON 2301 Research Boulevard., Third Floor Rockville, MD 20585
Lisa Stevenson	WESTON 2301 Research Boulevard., Third Floor Rockville, MD 20585

NATIONAL MEETING FOR AFFECTED STATES AND INDIAN TRIBES

**Atlanta, Georgia
October 3-4, 1984**

AGREEMENTS

- The Department of Energy (DOE or Department) will issue the MRS report to Congress in draft and will seek State review and comment.
- The final Section 8 report (defense waste recommendation report) will include footnotes.
- David Leclaire, Director, Defense Waste and By-Products Management, will provide specific reference documents for the Section 8 report upon request.
- DOE will consider including other Federal agencies as part of the audience for Environmental Assessment (EA) interaction activities.
- DOE will consider the request to deliver reference documents in advance of the EAs to all first repository States and affected tribes. In any event, reference documents will be "reasonably available," even if States are not sent their own complete collections of reference documents.
- The Office of Policy, Integration, and Outreach will provide an explanation of DOE's decision to issue the Comment Response Document and the final Mission Plan simultaneously.

NATIONAL MEETING FOR AFFECTED STATES AND INDIAN TRIBES

**ATLANTA, GEORGIA
OCTOBER 3-4, 1984**

WEDNESDAY, OCTOBER 3

INTRODUCTORY REMARKS: ROGER GALE, DIRECTOR, OFFICE OF POLICY, INTEGRATION AND OUTREACH, OCRWM

- This national meeting had its origin in a request by the salt States for an update and discussion concerning defense waste, liability, the Mission Plan, and the Environmental Assessments. OCRWM broadened the meeting to include all first and second repository States and other interested parties.
- OCRWM expects all senior staff to be on board by late October. Roger Hilley will serve as Director of the Office of Storage and Transportation Systems. Bill Purcell will be the new Director of the Office of Geologic Repositories. In addition, Chris Kielich will be brought on as the Director of the Outreach Division, Office of Policy, Integration and Outreach. Other permanent positions at the divisional level will be filled as soon as possible.
- OCRWM's move from Germantown, MD to the Forrestal Building in D.C. should be complete by November 1. This should enhance the coordination of those activities within OCRWM that were difficult when offices were 30 miles apart.
- OCRWM will send a bulletin to the States at least once a month. This bulletin will include a schedule of upcoming events and meetings.
- OCRWM will issue six discussion papers by the end of November that deal with transportation issues. Three of the topics will be pre-notification issues, overweight shipments, and liability concerns.
- Final siting guidelines will be issued before the draft Environmental Assessments and thus before the end of the year.

THURSDAY, OCTOBER 4

THE MISSION PLAN AND ITS STATUS: TOM ISAACS, DIRECTOR, POLICY DIVISION, OFFICE OF POLICY, INTEGRATION AND OUTREACH, OCRWM

Process of Public Review--Comment Organization and Response

- DOE submitted a "working draft" of the first part of the Mission Plan to interested groups in December 1983. DOE considered all comments received on this "working draft," revised the first part of the Plan, completed the remainder, and issued the formal draft Mission Plan on May 9, 1984. In deference to those requesting a longer review time, DOE extended the comment period to two months, ending on July 9, 1984.

- DOE will take all comments received into consideration. Through the end of August, DOE had received sets of comments from 100 organizations and individuals. Additional comments are still being received. DOE has divided these sets of comments into 2500 individual comments and 30 topical categories.
- Sets of comments are available at 24 DOE facilities around the country. DOE has provided complete sets of all comments (700 pages each) to everyone who submitted comments.
- Appropriate DOE personnel are currently preparing responses. DOE will publish a comment response document. This response document will accompany the final Mission Plan. The Mission Plan schedule has slipped some because the Environmental Assessments have first priority and both tasks require many of the same technical people. DOE, however, does expect to release the final Mission Plan in early 1985.

Some Major Comments and Anticipated Mission Plan Revisions

- C & C Process: The most frequent comment has been that DOE needs to provide more opportunities for State involvement in decision-making and in document review. DOE agrees and will thus (1) address this concern in the revised Mission Plan and (2) hold more meetings with the States.
- Schedule: DOE will continue to look at the repository and waste disposal system schedules. DOE will seek increased opportunities for State involvement. The States should be aware, however, that the Department has a responsibility to move the program forward. The Department is also obligated to accept waste by 1998; however, the rate of waste acceptance has not been determined.
- Second Exploratory Shaft: The revised Mission Plan will include plans for a second exploratory shaft. This second shaft, however, will be sized for safety only.
- Strong Centralized Management Needed: Mr. Rusche's recent addition of the Office of Policy, his appointment of several other top management personnel, and his hiring of a full time Quality Assurance staff member express the commitment of DOE to adequately staff the waste program, despite hiring freezes in other DOE programs.
- Second Repository: The revised Mission Plan will contain greater detail on the second repository and will integrate the second repository schedule with the overall waste program schedules.
- Socioeconomic and Institutional Concerns: The Department agrees that the program will fail if it attempts to depend solely on the best technical decisions, without attention to socioeconomic and institutional concerns. The revised Mission Plan will contain a greatly expanded discussion of socioeconomic and institutional issues. The Department will also seek to increase the opportunities for involvement by affected parties by holding more frequent meetings, issuing an update bulletin at least once a month, and taking other steps to involve interested parties.

- Site Recommendation Methodology: The States will see the site recommendation methodology in the draft EAs, and therefore before the final Mission Plan. The Mission Plan will not contain this methodology. The Department views the Mission Plan as a broad overall program document meant to express the intentions of the Department. DOE does not see the Mission Plan as a contract and expects to revise the Mission Plan as the program changes.

Response to Questions

- Dave Berick, Environmental Policy Institute, expressed concern over DOE's sequencing of decisions and documents related to the waste acceptance schedule. Tom Isaacs responded that the Mission Plan would present what seemed to make sense as far as the waste acceptance schedule is concerned. If DOE gains additional information or understanding at a later date, however, DOE's plans (and thus the Mission Plan) will change.
- State representatives asked if they would be given an opportunity to review the Mission Plan and a draft Comment Response Document before DOE made the Mission Plan final and sent it to Congress. Tom Isaacs answered that the documents would not be issued in draft before going to Congress, but emphasized that DOE would consider all comments received on the present draft. He also stressed that the Mission Plan is a "living document" that will change as the program changes.
- Several States asked if OCRWM had a legal opinion stating that the Comment Response Document could be issued in final with the final Mission Plan. Tom Isaacs responded that DOE's Office of General Counsel had determined that it would be permissible to issue the two documents at the same time.
- Several States urged DOE to hold workshops with the States while DOE revises the Mission Plan. The States suggested that to forego another review by the States before final issuance would lead to greater confrontation.
- State representatives inquired about what constituted such a significant program change that a revision to the Mission Plan would be required. Tom Isaacs responded that it was premature to make judgments about the process of updating the Mission Plan. It may make sense to update the Mission Plan after six months. Alternatively, it may not be necessary for three years. Certainly, DOE will consider the States' views. Isaacs noted that the Mission plan is meant to broadly reflect the program, not to drive the program.
- State representatives asked about the status of the RPH facility. Roger Gale responded that decisions on the RPH facility depended on the definition given to the MRS. The Department has just begun to consider what an MRS means; therefore, there is no schedule to do anything with the RPH at present. Roger Gale further stated that the siting process for the RPH had not been decided, but that the facility would be a licensed facility and the Department would comply with all regulations.

- Tom Isaacs stated that the Mission Plan would not discuss the RPH because such facilities were not yet part of the program. If they became part of the program, the Mission Plan and other program documents would reflect this change.

DEFENSE WASTE RECOMMENDATION : DAVID LECLAIRE, DIRECTOR, DEFENSE WASTE & BY-PRODUCTS MANAGEMENT, DOE DEFENSE PROGRAMS

Background

- The NWPA presumes that defense waste will be disposed of in a commercial repository unless the President finds that a defense-only repository is necessary.
- The Act also requires an evaluation of the use of commercial waste disposal capacity for the disposal of defense high-level waste. This evaluation must consider cost efficiency, health and safety, regulation, transportation, public acceptability, and national security.
- DOE Defense Programs prepared this evaluation (Section 8 report). OCRWM, however, had responsibility for issuing the report. A close working relationship with OCRWM was maintained throughout the study's preparation.

Study's Approach and Baseline Assumptions

- The study was not designed as part of site selection. The approach involved conducting an analysis of two parallel options: augmenting the first commercial repository or constructing a defense-only repository.
- The study assumed 50 percent of the waste is reprocessed and 50 percent is spent fuel. The reference case has since changed, but this change to mostly spent fuel would not affect the study's results. If anything, the costs of augmenting a commercial repository would be less.
- The DOE Defense Programs used draft 3 of 40CFR191 for its regulatory evaluation. Changes made in draft 4 do not alter the outcome.
- Input data for the evaluation were obtained from OCRWM, DOE Defense Waste and By-Products Management, and DOE field offices.
- The cost analysis considered total cost, not who was paying for the disposal. The disposal of defense waste will be paid for by Defense Programs. The analysis included only the physical costs of the disposal.

Report Summary

- Cost efficiency favors the disposal of defense waste in a commercial repository. Health and safety, regulations, transportation, public acceptability, and national security considerations are comparable for both options.
- Neither option requires the release of classified defense information.

- Interim or lag storage capacity will be developed at each processing facility to permit continued defense nuclear material production and waste immobilization operations in the event of repository problems.
- Public acceptability considerations were the most difficult to analyze. Public acceptability is highly uncertain for both options, but did not appear to favor either option.
- Due to the clear cost advantage (approximately 1.5 billion dollars) to be gained by disposing of defense waste in a combined commercial and defense repository, the draft section 8 report recommends the selection of this option.

Response to Questions

- There will be no need for an MRS for defense waste because of the lag storage that will be available.
- The volume of commercial versus defense waste packages is similar, but the radioactivity disposed of varies. By 2021, defense waste would take up ten percent of the nominal repository.
- If DOE had to consider all the waste at Hanford, the volume of defense waste in the repository would probably not change significantly, but the time spent working at Hanford would have to be extended.
- David Leclaire stated that all present EPA requirements could be met. He added that EPA's Science Advisory Board had recommended relaxing some of these regulations. In addition, he stated that DOE's comments to EPA did not concern what should fall under the high level waste/transuranic waste standard and that the Hanford waste would fall under this standard regardless of the formal definition.
- David Leclaire also stated that DOE was beginning to look at the use of similar casks, compatible transportation, and the cost implications of these considerations, but that DOE had not made any final decisions.

LIABILITY AND THE PRICE-ANDERSON ACT: SUSAN KUZNICK, ATTORNEY, DOE GENERAL COUNSEL AND JEROME SALTZMAN, NRC

- DOE has determined that the Price-Anderson Act is the best way to address questions of nuclear third party liability.
- The U.S. Congress is likely to discuss Price-Anderson and liability issues next spring. DOE testimony of June 11, 1984, favored extending the "waiver of defenses" provision to nuclear waste management activities and adding an amendment to make liability coverage consistent for government contractors and commercial licensees.
- The Act sets a total limit of liability for activities covered by DOE indemnity agreements at \$500 million for any one nuclear accident and for activities covered by NRC indemnity agreement at \$560 million or the total amount of financial protection available which ever is greater (currently \$595 million).

Congress must also review claims that exceed the limit. In addition, the Price-Anderson Act permits DOE and NRC to incur obligations without regard to the Anti-deficiency Act.

Response to Questions

- Wisconsin expressed concern over relying on Congress for appropriations. Susan Kuznick stated that the Price-Anderson Act is unusual because it allows payment of funds without specific appropriation legislation. No appropriation would be required.
- Susan Kuznick reemphasized that the legislated limit is per incident and therefore is not dependent on the number of nuclear incidents.
- State governments as well as private contractors can be indemnified under the Act. For example, if a lawsuit were filed against a State alleging that negligent maintenance of roads and bridges caused a transportation accident and a release of radioactive material, the State would be covered as a "person indemnified." Only DOE and NRC do not qualify as indemnifiable "persons" under the Price-Anderson Act.
- The waiver of defenses provision (1) eliminates the need for the claimant to prove fault on the part of the defendant or to prove that the theory of strict liability should apply, (2) eliminates the defense of charitable or governmental immunity (not only would the claimant recover, but the State would be indemnified by DOE), and (3) provides a means for expeditiously handling emergency payment.
- DOE indemnity agreements would cover all transportation of radioactive waste and spent fuel to a repository. NRC agreements cover all transportation of waste from a reactor. If a claim could be covered by either DOE or NRC agreements, NRC insurance funds would be used first.
- Coverage is not dependent on who has title to the waste. The Price-Anderson Act covers any person indemnifiable.
- Jerome Saltzman stated that NRC recommendations to Congress on the Price-Anderson Act include raising the retrospective fees from five million to ten million per licensed reactor and requiring such fees annually as long as there are claims. Utilities support the first portion of this proposed change (raising the fees to \$10M) but not the second portion (an annual rather than an absolute limitation).
- Susan Kuznick stated that DOE has not taken a position on the NRC recommendations.
- Price-Anderson covers terrorist attacks in route to a repository, but there are gaps in coverage under certain circumstances, e.g. if the nuclear material is removed from the carrier of transportation and taken to a location not covered by Price-Anderson.

- Roger Gale stated that DOE would present one DOE position before Congress, but that the States may already have significant support for raising the liability limit. All agreed that the program should follow Congressional consideration of Price-Anderson next spring.

STATUS OF ENVIRONMENTAL ASSESSMENTS: ELLISON BURTON, DIRECTOR, SITING DIVISION, OFFICE OF GEOLOGIC REPOSITORIES, OCRWM

- The Environmental Assessments (EAs) are required under section 112(b). The EAs serve as the basis for the nomination of at least five sites and as the primary basis for the recommendation of three sites for site characterization.
- Headquarters has just finished the fifth review of the EAs--identifying areas requiring improvement, holding workshops with the Project Offices, and briefing Mr. Rusche.
- DOE will publish draft EAs before the end of 1984 on or about December 20. The comment period will last 90 days. DOE then expects to publish final EAs, formally nominate five sites, and recommend three sites during the summer of 1985.
- Ellison Burton outlined the seven-step decision process required under the NWPA and the Guidelines: (1) apply disqualifier analysis [EA Chapters two and six]; (2) group sites by Geohydrologic Setting (GHS) [EA Chapter two]; (3) select preferred sites within each GHS [Chapter two]; (4) evaluate suitability for repository development [EA Chapter six]; (5) evaluate suitability for site characterization [EA Chapter six]; (6) compare sites [EA Chapter seven]; and (7) order sites by preference [EA Chapter seven].
- DOE is also required to describe the decision process leading to nomination. Chapters one and two of the EAs provide this description.
- Ellison Burton noted that the disqualifier analysis could eliminate a GHS. If this happens, two of the five nominated sites may be from the same GHS.
- The comparison in chapter seven ranks the sites under each of the 19 technical guidelines.
- The ordering of sites by preference (a) ranks the sites by order of the significance of different groups of guidelines (post-closure and pre-closure), and (b) considers the diversity of geologic settings and rock types.
- Ellison Burton stressed that the ranking process is meant to provide insight into the decision-making by showing the strengths and weaknesses of sites.
- Ellison Burton also emphasized that DOE is including the proposed nominations and order of preference of sites in the draft EAs because the Department seeks comments from States, tribes, and other interested parties. Final decisions will consider all comments.

Response to Questions

- Nevada representatives commented that the decision process appeared to favor the Federal sites when it is possible that any salt site might be better. Burton answered that the guidelines required the selection of preferred sites within GHSs before the comparison of sites. The rationale behind this guideline requirement was to consider a diversity of rock so as to minimize common failures.
- The approaches to determine the order of preference and their results will not be disclosed before the draft EAs are published. The States, tribes, and other interested groups will have an opportunity to review the methodology and results during the 90-day comment period.
- The EAs contain a common transportation appendix giving generic cost and risk estimates. Individual EAs consider local transportation impacts from regional rail hubs and interstate highway interchanges to the repository site.
- The EAs also consider the implication of including defense high-level waste in the repository.
- The EAs use bounding scenarios and conservative assumptions. If upon EA review, the States feel that the bounding scenarios and assumptions are not conservative enough, then the State should provide the Department with comments to this effect.
- Texas indicated it may take longer than 90 days to review the EAs. Burton responded that DOE had provided earlier working papers to the States informally, extended the review period to 90 days, and planned EA interaction activities to ease the review of the document. The Department, however, also has a responsibility to implement the NWPA and move the program forward at a pace that does not distort too severely the statutory dates for site selection and repository operation.
- Planning for the distribution of all reference documents is not complete. Those materials not readily available will be available in DOE offices, and distributed to public libraries, waste information offices, etc. The Department does not plan at present to automatically mail reference documents to program participants, but the reference availability problem is still under consideration.

EA INTERACTION ACTIVITIES: BARRY GALE, SITING DIVISION, OFFICE OF GEOLOGIC REPOSITORIES, OCRWM

- The purpose of the EA interaction activities is to insure the participation of affected and interested parties by providing (1) orientation to the documents and the process and (2) opportunities for formal testimony on the content of the EAs.
- The EA interaction activities consist of EA briefings, hearings, and post-hearing activities.

- EA briefings. DOE will have notification briefings the day the EAs are issued and three to four hour briefings the first couple weeks of January. DOE will use these briefings to orient reviewers to the structure of the documents, the assumptions, definitions, availability of reference materials, hearing process, and availability of DOE contacts. Specific EA content will not be discussed. These briefings will be held at the nine sites, six State capitals, and in D.C. The audiences will include States, tribes, Congress, local officials, media, and the public.
- EA hearings. Hearings will be held 45 to 60 days after issuance of the draft EAs. The hearings will be the forum for receipt of formal comments on the content of the EAs. These hearings will include day and evening sessions and will last one to three days depending on the volume of comments. An independent moderator and a panel will conduct the hearings. A senior DOE official will preside. Hearings will be held at all nine sites and in the six capitals. All interested parties may comment.
- Post-hearing activities. The details of post-hearing activities are less certain. DOE will, however, prepare hearing transcripts, categorize comments, and revise the EAs.

Response to Questions

- The States expressed concern over the lack of interaction between DOE officials and hearing commentators. Barry Gale and Ellison Burton responded that the Siting Division shared the States concerns, but has been advised by the Office of General Counsel that DOE officials cannot interact at hearings except to make clarifications. DOE must not appear to deflect comments or to talk people out of comments. Once DOE formally receives all comments, the Department will begin to respond to each comment and will issue revised EAs and/or a Comment Response Document.
- Russell Jim suggested that DOE also hold hearings at the Yakima reservation.

CLOSING REMARKS

- Russell Jim offered some brief closing remarks on the history of the language concerning tribes in the NHPA and the opportunity afforded by the NHPA for Federal agencies and States to become familiar with Indian cultures and rights.

*Enclosure to 11/16/84
memo to Cheryl Glenn
from John Tropp*

COMMENTS ON DATA REVIEW

The basic document on how to conduct a data review appears to be fairly well thought out however there are two areas that might need a little more work.

The section on objectives (page 2) implies that a data review equals a QA audit, especially item 3. The data reviews that I have been on have not equalled a QA audit, and to be truthfully, one of the main areas of concern was that the DOE was worried that it would be a QA audit. There are arguments both ways, however I think the DOE will be much less receptive to data reviews if they do turn into QA audits. It is a question of trying to decide if a larger number of less formalized reviews is better then a few very formal reviews.

Item 3, page three may be viewed by the DOE as a violation of the site specific agreement. I know the ONWI and DOE Columbus personnel feel that all meetings need a set of signed off meeting notes. The concern that DOE appears to have is that the NRC will blind side them by coming in two weeks later with a set of material going right into the PDR which is highly critical of the DOE without DOE being aware that it was coming. There is so little trust between the NRC and DOE at present that operating without meeting notes also may serve to hinder having data reviews.

Both areas of concerns are programatic philosophical concerns and we can operate with or without meeting notes (provided DOE agrees) and we can operate with data reviews being extremely formalized QA audits, or on a less formal basis. Which ever decision is made at the present, however, will effect our work patterns for years to come and should be completely thought out before this thing becomes final.

*John Tropp
5 NOV 84*

:	:	:	:	:	:	:
-----	-----	-----	-----	-----	-----	-----
:	:	:	:	:	:	:
-----	-----	-----	-----	-----	-----	-----
:	:	:	:	:	:	:
84/11/02	:	:	:	:	:	:

DATA REVIEW

Background and Purpose

[REDACTED] to QA
 In addition to reviewing DOE's overall performance assessment and questioning relevance and completeness of data supplied in the license application, the licensing review process must [REDACTED] QA
 [REDACTED] original 10/14/84

Quality and reliability of data is largely determined by the specific data gathering methods and procedures employed. Therefore, data reviews will include, on an audit basis, review of data gathering methods and procedures, so the NRC staff can defend its independent recommendations to the licensing board.

Given the likelihood that data being collected now will be used by DOE in the license application (and all data will be subject to discovery), it is essential that consultation on data gathering methods and procedures begin now. Furthermore, key investigators involved in site investigations now may not be available at the time of licensing, underscoring the need to document how data were collected and reduced. It is also essential to establish the [REDACTED] data supporting near-term pre-licensing steps such as site screening decisions relating to Environmental Assessments. QA

with clear
many
203 -
of few
sources

With the volume of information and time required for DOE to document the results of site investigations in a form that can be widely disseminated, it is necessary that NRC visit the site or facility where the data resides to review data in a timely manner. Data reviews provide such access in accordance with Section 3.a of the 1983 NRC/DOE Procedural Agreement for Site Investigation and Site Characterization.

Objectives and Activities

A number of objectives and activities pertain to data reviews. Their individual importance may vary with the type of review, nature of data to be examined and current stage in the pre-licensing process. The following list identifies the key objectives and activities.

wrong word

Objectives

- o Become familiar with the type, amount and availability of site data.
- o Evaluate data reliability
 1. Technical adequacy: Are the types, amount and quality of data sufficient for intended use? Is the application of data consistent with limitations or assumptions imposed by collection methods?
 2. Are methods, procedures or techniques used to collect or reduce data technically sound?
 3. Is the documentation of methods and procedures sufficient to permit an independent evaluation of selected data by an outside technical peer?

applicable to data for use to which it will be out else = QA

This should be info purpose of Data Review - Supplement

QA

Follow up Activities

- o NRC staff briefing. ← to?
- o Provide guidance to DOE regarding data collection and test methods. when
- o Examine interpretations, findings, or conclusions based on the data.
- o Prepare for draft EA, SCP, or other document review.

Nature of Data Reviews

A data review is a focused examination (by NRC or NRC Contractor personnel) of selected data gathered and/or generated as part of site characterization and of the means used to gather and/or generate that information. The term "data" as used in "data review" includes observations made in the field or lab, as well as raw or processed data. Specific examples of such data include: core; hydrologic head; well logs; material properties, etc. Items that may be examined as part of such reviews include field or lab note books, equipment, procedures, experimental lab facilities, ongoing tests, analytical laboratory facilities, instrumentation and computer codes used to process or analyze data.

Data reviews are solely information gathering activities that focus on examination of data by technical specialists and involve no consultation with DOE/DOE contractors on interpretation, adequacy, or validity of data. Data

incomplete

what is this? (5)

measurements

How do these relate one to the other?

more form - if more be explicit

another word for catching

could be reviews yielded workshop - if so show

reviews can be conducted either on a stand alone basis or in conjunction with a technical meeting.

Data reviews are evolutionary in nature. Early reviews address the data base on a broad level to gain a familiarization with the type and amount of data available while subsequent reviews probe the data base in more detail. The effectiveness of the review hinges on the technical expertise of the NRC reviewers, selecting appropriate data to review, and accurately critiquing that data. An equally important component of a data review is the presence and cooperation of key DOE investigators in providing points of technical clarification.

Ground Rules for Data Reviews

Data reviews are fundamentally different than technical meetings. The major differences are embodied in the following ground rules which guide these interactions.

1. No discussion or consultation with DOE/DOE contractors. Questions may be asked about what they did or how they accomplished an analysis, measurement or survey, but we should avoid discussion or debate about validity of data, interpretations, methods, procedures or future test plans.
2. No agenda. Since there are no formal discussions or presentations during a data review, a schedule should replace the agenda (see enclosure 1 for an example of a well-developed schedule).
3. No summary meeting notes. In lieu of summary meeting notes, NRC will transmit a letter to DOE (approximately 2 weeks after the data review) providing a record of all information that will be submitted to the PDR. Normally, a letter report to DOE will follow, consolidating all comments of participating NRC staff and contractors. Consequently, no trip reports by NRC contractors or individual NRC staff members will be forwarded to DOE apart from the letter report.
4. Information gathered by NRC/NRC contractors (i.e., apart from personal notes) goes into PDR.

please explain which of info furnished consultative clause p. 2

add to D above:

- the more knowledge of available data, the more focused the reviews
- focused reviews are effective
- focusing results from knowledge of DOE

not clear thought in one !!

Work Plan to Prepare for, Conduct, and Follow up Data Reviews

<u>Activities</u>	<u>Lead/Support</u>	<u>Start</u>
1. Establish need for data review and coordinate with RP; check WM travel budget to ensure that adequate funds for the review exist.	FB/RP	8 wks before
2. Transmit letter to DOE requesting data review	RP	7 wks before
o propose review dates.		
o request data catalog, if applicable.		
NOTE: A data catalog is an index describing the type and amount of data available for review in a particular technical area. Receipt of catalog expected (3) weeks from date of above transmittal.		
o describe general type(s) of data NRC is interested in reviewing.		
3. Notify on-site licensing representative.	RP	7 wks before
4. Schedule and conduct in-house team meeting to develop inter-branch participation and strategy for data review.	RP/FB	4 wks before
o determine NRC data review participants.	RP/FB	
o develop schedule and consider logistics.	FB/RP	

Note: The schedule provides the organizational structure of the data review. It outlines the daily sequence of data review sessions and the NRC reviewers and leads responsible

Lead/Support Start

for each. The schedule should be completed early to clarify responsibilities and logistics before the review.

- o identify or develop data review checklist, FB if applicable.

Note: A data review checklist is a list of questions designed to record fundamental information about the data examined during the review process. It serves to establish the institutional memory for the data review. The particular checklist used may vary with technical area and nature of data reviewed (see enclosures 2a and 2b for example checklists).

- | | | | |
|----|--|----|--------------|
| 5. | Establish with DOE/DOE contractor time and place of data review. Discuss any special requirements of site visit (i.e., test demonstration, etc.); ask for any special materials needed in advance of the data review (maps, etc.). | RP | 4 wks before |
|----|--|----|--------------|

- | | | | |
|----|--|----|--------------|
| 6. | Identify and transmit specific data to be reviewed | FB | 3 wks before |
|----|--|----|--------------|
- o data we definitely want to see.
 - o data we may want to see.
 - o data we may wish to bring back in hard copy.

Note: The technical team selects the data to be reviewed based on knowledge gained from the staff's ongoing review of site investigations. Data reviews should focus

unrealistic - particular bullet 3

	<u>Lead/Support</u>	<u>Start</u>
on the most critical data associated with key issues.		
In preparing a list of data for review, the NRC staff and contractors should consult relevant background information including: technical reports, previous trip reports for data reviews and technical meetings, STP's, etc.		
7. Send DOE data review schedule, checklist, and list of NRC participants with any necessary security clearance information.	RP	3 wks before
8. Obtain Division Director's approval for travel		3 wks before
o prepare meeting notification.	RP	
o submit request for travel authorization with itinerary and make travel arrangements.	FB,RP	
9. Place conference call to DOE/DOE contractor	RP/FB	2 wks before
o confirm availability of data and investigators.		
o finalize logistics and schedule.		
o address questions or concerns.		
10. Schedule NRC/NRC contractor data review preparation meeting in Silver Spring or at site before data review. This meeting is <u>essential</u> to ensure that all team members fully understand and accept their responsibilities in accord with the ground rules and agreements under which the data review is being	FB/RP	1 wk - 1 day before

	<u>Lead/Support</u>	<u>Start</u>
conducted. This meeting should include a brief review of the following items.		
o nature and scope of data review.		
o ground rules.		
o logistics & schedule.		
o responsibilities.		
11. Conduct data review	RP/FB	
o DOE/DOE contractor introduction.	DOE	
o NRC introduction: summarize purpose and objective; describe NRC follow up activities; distribute data review package describing purpose and objective of review, NRC WM Division organizational chart (see enclosure 3), data review checklist, and data request sheet (see enclosure 4); introduce NRC technical team leader; review schedule with DOE/DOE contractor.	RP/FB	
o review selected data or information.	FB/RP	
<p>Note: There is little time for detailed analyses of data during the review process. Specific data that warrants in-depth analyses should be listed on the data request sheet. Such analyses may be completed at NRC headquarters where adequate time and resources are available.</p>		
o caucus each day to exchange information, collect checklists and data requests,	RP/FB	

Lead/Support Start

report progress, consider priorities, and plan for next day.

- o NRC/DOE/DOE contractor "Close-Out" session. RP/FB

Note: This session gives participants an opportunity to briefly summarize their impression of the data review. NRC may offer very limited preliminary feedback on what was seen, however, NRC's official comments will be transmitted as a follow up activity.

note that this follow-up activity is not 1 wk after

12. Follow up activities

- o brief project team on data review (i.e., open to all NRC staff). RP/FB

- o NRC transmits a letter to DOE listing information submitted to the PDR. This letter briefly summarizes the purpose of the review and includes: attendees list; data reviewed; copies of all data review checklists; data requested by NRC; and general time frame for any subsequent NRC comments. FB/RP

note

being done for time

- ? o procure requested data and documents. RP

- o prepare and forward NRC comments on data review. FB/RP

should be visible to you can't get a letter out of RP in 2 wks

Note: After having an opportunity to evaluate specific data requested, the NRC provides DOE with substantive comments. This package consists of a cover letter with enclosures of more detailed comments on results of any analyses performed on data requested. The following outline

not enough time

Lead/Support Start

describes the nature of this transmittal:

1. cover letter: highlights any matters of management interest in enclosures.
 2. enclosures: general and/or specific comments relating to significant observations, concerns, or deficiencies.
- o Use data for EA/SCA or other review

FB/RP

**NRC DESIGN/ROCK MECHANICS DATA REVIEW SCHEDULE
AT SANDIA NATIONAL LABORATORIES
(July 18-20, 1984)**

ENCLOSURE 1

July 18 Wednesday		July 19 Thursday		July 20 Friday		
1:00-3:00	3:00-5:30	8:00-11:30	12:30-5:30	8:30-10:00	10:00-11:30	
1:00 Introductory Remarks J. Szymanski and K. Stabilein	Rock Mechanics Testing, Lab tour & data [JT] [RP] [BO] (SB) (LM) (PD) (SB 2) (JC) Bldg. 849 Bldg. 823/1020	Mech. Prop. Data [RP] [BO] (SB) (LM) (TS) (JC) (SB 2) Bldg. 823/1020	Mech. Prop. Data [RP] [BO] (SB) (TS) (PP) (JC) (SB 2) Bldg. 823/1020	Rock Classification Data [BL] [FN] (SB) (MC) (EI) (SB 2) Bldg. 823/1020	NRC Reviewers/ Conference Session Bldg. 822/A	Data Review Wrap-up K. Stabilein and J. Szymanski
1:30 Synopsis - Data and Records Available T. O. Hunter and J. R. Tillerson						
2:30 Finalize Small Group Scheduling and Badging Bldg. 822/A	Core handling & Storage facility lab tour & thermal prop. data [FN] [BS] (MC) (NT) (PP) (LP) Bldg. 672/2 & 4A Bldg. 892/166MB Bldg. 823/4071A	Bulk Prop. Data Data, Thermal Prop. Data [FN] [BS] (EI) (NT) (PP) (LP) Bldg. 823/4424B	Thermal Prop. Data [FN] [BS] (LM) (EI) (NT) (LP) Bldg. 823/4071A	Seismic Data [IM] [LV] (LM) (TS) (PP) (LP) (JC) Bldg. 823/4071A	NRC Participants Only	
All NRC and NMSI and Participants	G-Tunnel Rock Characterization- Data (Insitu Stress Data, Borehole Modulus Data) [RZ] [BL] (JD) (TS) (EI) (JG) (KS) Bldg. 823/4255	Small Diameter Heater Test Data [RZ] [BS 2] (JD) (PD) (MC) (JG) (KS) Bldg. 823/4255	Heated Block Test Data [RZ] [BS 2] (JD) (MC) (PD) (JG) (KS) Bldg. 823/4255	(1) Sealing Test Data (8:30-9:30) (2) Overflow data from any other area (9:30-10:00) [JT] [JF] (JM) (NT) (PD) (JG) (KS) Bldg. 823/4255		Bldg. 822/A All NRC and NMSI Participants

NRC Participants:

Paul Prestholt (PP), Thomas Schmitt (TS), Ed Hollop (EI), Lindsey Mindell (LM), Mark Christianson (MC), Swapen Bhattacharya (SB), Susan Billhorn (SB 2), Jack Dacman (JD), Nailem Tanious (NT), Piyush Dutta (PD), John Grooves (JG), Larry Pittiglio (LP), King Stabilein (KS), John Cutler, (JC).

SNL Participants:

Joe Fernandez (JF), Tom Hunter (TH), Brenda Langkopf (BL), Hugh MacDougall (HM), Fran Nimick (FN), Bill Olsson (BO), Ron Price (RP), Barry Schwartz (BS), Joe Tillerson (JT), Luke Vortman (LV), Roger Zimmerman (RZ), Bill Shepherd (BS 2)

ALL UNCLEARED VISITORS MUST REPORT EACH DAY FOR BADGING AT BUILDING 822

is (with) the
a QA audit
form?

is it QA approved?

Reviewer _____
Date _____

GEOLOGY MAP DATA REVIEW CHECKLIST

1. What area does the map cover?
2. What type of map is it? What is the scale?
3. Who did the field work?
4. What is (are) prominent feature(s) shown to date?
5. Why was this mapping project undertaken and when was the map begun/completed?
6. What methods, procedures, or techniques were used to map this area?
7. When is the map to be published? In what publication series? If already published, when and in what document?

Reviewer _____
Date

GEOLOGY FIELD REVIEW CHECKLIST

1. Outcrop/stop identification.

2. Outcrop/stop description.

Additional: Note if known - Has this outcrop/stop been described in the literature? If so, when and by shown?

Draft Rock Mechanics Data Review Checklist
(Revision, August 6, 1984)

1. Name/type, identification number, and date of test.
 - 1a. What is the overall objective of the test?
 - 1b. What specific parameters are to be determined by the test?
 - 1c. What criteria were used for test site (or sample) selection?
 - 1d. How is the rock at the test site characterized?
 - 1e. How many of these tests have been performed?
 - 1f. How many tests are planned?
 - 1g. Comments.

ReviewerDate

2. Is the procedure documented and complete, and is it in written form?
- 2a. Is it a standard (ASTM) procedure? If yes, provide reference.
- 2b. If non-"standard", how was the procedure developed, reviewed, documented, and approved? For example, COE, USBM, USBR, USGS, NBS, or other (internal) processes.
- 2c. Have there been revisions and how and when were the revisions reviewed, documented, approved, and implemented?
- 2d. How are any deviations from the established procedures that occur during testing documented?
- 2e. Comments.

ReviewerDate

3. What instrumentation is used for the test?

3a. How were the reliabilities* of the instruments specified?

3b. Is there a calibration system and were calibrations systematically carried out according to approved procedure?

3c. Are the calibrations traceable to national or industrial standards?

3d. Comments.

* Reliability is defined as the probability of an instrument to perform a stated function under a stated environment for a stated time.

ReviewerDate

4. What are the data collection, reduction, and presentation techniques involved in collecting analyzing and interpreting the data? (emperical, analytical, numerical)

4a. How can the raw numerical data be retrieved?

4b. Are the data presented in a complete and clear format?
(Comment also on the utility of the presentation.)

4c. Are the data keyed to geological, environmental, and other experimental conditions?

4d. Comments.

ReviewerDate

5. What are the acceptance/rejection criteria for the test data?

5a. Were these criteria established prior to test development?

5b. How are the criteria implemented? (Data handling, review procedure, corrective action.)

- Data Handling

- Review Procedure

- Corrective Action

DIVISION OF WASTE MANAGEMENT

Director
Robert E. Browning
Deputy Director
Michael J. Bell

On-Site Licensing Representatives
BWIP (Cook)
NTS (Prestholt)
SALT (Verma)

REPOSITORY
PROJECTS
BRANCH
(HITler)

BWIP Projects
Section
(Kennedy)

NTS Project
Section
(Coplan)

SALT Project
Section
(Linehan)

Regulation &
Environmental
Section
(Boyle)

ENGINEERING
BRANCH
(Barrett)

Materials
Engineering
Section
(Johnson)

Mining,
Geoenvironmental
Facility Design
Section
(Greeves)

Rock Mechanics
Section
(Nataraja)

GEOTECHNICAL
BRANCH
(Knapp)

Hydrology
Section
(Pohle Acting)
Fliegel

Geology/
Geophysics
Section
(Justus)

Geochemistry
Section
(Starmer)

POLICY AND
PROGRAM CONTROL
BRANCH
(Bunting)

Policy
Section
(Surmeier)

Program Planning
Section
(Altomare)

Integration
Section
(Kearney)

Program Control
and Analysis
Section
(Mattson)

LOW-LEVEL & URANIUM
PROJECTS BRANCH
(Higginbotham)

Low-Level Projects
Section
(Jackson Acting)

Uranium Recovery
Projects Section
(Martin)

Note to: John Trapp
From: Mike Fiezel
Subject: Guidance for Data Review

I have reviewed the subject document and I have a major problem with it. The major ~~is~~ focus of the data review appears to be "quality assurance" in nature. Both the Background and Purpose and Objectives and Activities section focus on this. Given that the primary purpose of a Data Review is QA, it appears to me that we ~~are going~~ the guidance given in the subject document is counter to what we have been told about this subject.

This document has NRC staff looking at data in order to assure quality and reliability. Other guidance, e.g., the lecture by an I&E branch chief on Oct. 31, emphasized ~~the role of~~ a systematic approach to QA, with most of the responsibility belonging to the applicant. ~~As I understand~~ My understanding of that presentation, is that NRC should be reviewing DOE's QA procedures rather than the data itself.

I suggest that before this document goes through another draft it be given to NRC QA experts (in I&E) for their review and comments.

NOTE FOR: H. Miller R. Wright R. Boyle
 L. Barrett P. Presholt T. Johnson
 J. Bunting R. Johnson R. Cook
 M. Knapp P. Justus T. Verma
 J. Linehan M. Nataraja M. Fliegel
 J. Kennedy J. Greeves J. Pohle
 J. Surmeier J. Starmer J. Trapp

FROM: *King Shablen for*
 S. M. Coplan

SUBJECT: GUIDANCE FOR DATA REVIEW

WMP is working to complete a guidance package on Data Reviews for DWM use. In this draft, we have attempted to address your initial comments on the August 21st preliminary outline. Any additional comments you may offer are appreciated and will be considered in finalizing this document.

Please return your comments or mark-up to Chad Glenn by Friday, November 16.

11/5/84
JOHN,
MY COMMENTS
POHLE
CC: M. FLIEGEL

DATA REVIEWBackground and Purpose

An important first question in conducting licensing assessments will relate to the quality and reliability of data used in support of the license application. In addition to reviewing DOE's overall performance assessment and questioning relevance and completeness of data supplied in the license application, the licensing review process must explicitly address the question of whether or not data are of adequate quality and reliability.

Quality and reliability of data is largely determined by the specific data gathering methods and procedures employed. Therefore, data reviews will include, on an audit basis, review of data gathering methods and procedures, so the NRC staff can defend its independent recommendations to the licensing board.

Given the likelihood that data being collected now will be used by DOE in the license application (and all data will be subject to discovery), it is essential that consultation on data gathering methods and procedures begin now. Furthermore, key investigators involved in site investigations now may not be available at the time of licensing, underscoring the need to document how data were collected and reduced. It is also essential to establish the reliability and quality of data supporting near term pre-licensing steps such as site screening decisions relating to Environmental Assessments. FOR DOE

With the volume of information and time required for DOE to document the results of site investigations in a form that can be widely disseminated, it is necessary that NRC visit the site or facility where the data resides to review data in a timely manner. Data reviews provide such access in accordance with Section 3.a of the 1983 NRC/DOE Procedural Agreement for Site Investigation and Site Characterization. FOR DOE

Objectives and Activities

A number of objectives and activities pertain to data reviews. Their individual importance may vary with the type of review, nature of data to be examined and current stage in the pre-licensing process. The following list identifies the key objectives and activities.

GIVEN THAT "REGIONAL" DATA CAN BE EXTRAPOLATED OR INTERPOLATED AND APPLIED TO "SITES" I'M NOT SURE WHAT ESTABLISHING THE QUALITY & RELIABILITY OF SUCH DATA MEANS. CLEARLY, DOE WILL REFER TO DATA COLLECTED OUTSIDE THE PROGRAM (DATA FROM OIL EXPLORATION WELLS NEAR SALT SITES). PRODUCING THE WRITTEN PROCEDURES FOLLOWED BY "OUTSIDERS" & PROVIDING ASSURANCE THAT THOSE PROCEDURES WERE FOLLOWED IS PROBABLY NOT FEASIBLE OR POSSIBLE. AS RHETORIC THIS SENTENCE SOUNDS FINE, BUT ITS IMPLICATIONS ARE COMPLEX.

INSERT

o BECOME FAMILIAR WITH METHODS, PROCEDURES OR TECHNIQUES USED TO COLLECT OR REDUCE DATA

Objectives

- o Become familiar with the type, amount and availability of site data.
- o Evaluate data reliability.

EITHER WE KNOW THIS IN ADVANCE OR HAVE A WORKSHOP PRIOR TO DATA REVIEW.

3

Technical adequacy: Are the types, amount and quality of data sufficient for intended use? Is the application of data consistent with limitations or assumptions imposed by collection methods?

LAST

THIS IS NOT A QUESTION OF DATA RELIABILITY. ISN'T THIS MORE OF A WORKSHOP OBJECTIVE? PUTS US IN REALM OF INTERPRETATION.

2

Are methods, procedures or techniques used to collect or reduce data technically sound?

1

Is the documentation of methods and procedures sufficient to permit an independent evaluation of selected data by an outside technical peer?

Follow up Activities

- o NRC staff briefing.
- o Provide guidance to DOE regarding data collection and test methods.
- o Examine interpretations, findings, or conclusions based on the data.
- o Prepare for draft EA, SCP, or other document review.

DATA DOESN'T SEEM TO INCLUDE MATERIALS IN WHICH WE CAN ACCOMPLISH THIS OBJECTIVE.

Nature of Data Reviews

A data review is a focused examination (by NRC or NRC Contractor personnel) of selected data gathered and/or generated as part of site characterization and of the means used to gather and/or generate that information. The term "data" as used in "data review" includes observations made in the field or lab, as well as raw or processed data. Specific examples of such data include: core; hydrologic head; well logs; material properties, etc. Items that may be examined as part of such reviews include field or lab note books, equipment, procedures, experimental lab facilities, ongoing tests, analytical laboratory facilities, instrumentation and computer codes used to process or analyze data.

Data reviews are solely information gathering activities that focus on INDEPENDENT examination of data by technical specialists and involve no consultation with DOE/DOE contractors on interpretation, adequacy, or validity of data. Data

reviews can be conducted either on a stand alone basis or in conjunction with a technical meeting.

Data reviews are evolutionary in nature. Early reviews address the data base on a broad level to gain a familiarization with the type and amount of data available while subsequent reviews probe the data base in more detail. The effectiveness of the review hinges on the technical expertise of the NRC reviewers in selecting appropriate data to review, and accurately critiquing that data. An equally important component of a data review is the presence and cooperation of key DOE investigators in providing points of technical clarification.

Ground Rules for Data Reviews

Data reviews are fundamentally different than technical meetings. The major differences are embodied in the following ground rules which guide these interactions.

1. No discussion or consultation with DOE/DOE contractors. Questions may be asked about what they did or how they accomplished an analysis, measurement or survey, but we should avoid discussion or debate about validity of data, interpretations, methods, procedures or future test plans.
2. No agenda. Since there are no formal discussions or presentations during a data review, a schedule should replace the agenda (see enclosure 1 for an example of a well-developed schedule).
3. No summary meeting notes. In lieu of summary meeting notes, NRC will transmit a letter to DOE (approximately 2 weeks after the data review) providing a record of all information that will be submitted to the PDR. Normally, a letter report to DOE will follow, consolidating all comments of participating NRC staff and contractors. Consequently, no trip reports by NRC contractors or individual NRC staff members will be forwarded to DOE apart from the letter report.

SEEMS PRETTY WELL FIXED ON P. 8 HEADING?
4. Information gathered by NRC/NRC contractors (i.e., apart from personal notes) goes into PDR.

O.K. //

Work Plan to Prepare for, Conduct, and Follow up Data Reviews

<u>Activities</u>	<u>Lead/Support</u>	<u>Start</u>
1. Establish need for data review and coordinate with RP; check WM travel budget to ensure that adequate funds for the review exist.	FB/RP	8 wks before
2. Transmit letter to DOE requesting data review	RP	7 wks before
o propose review dates.		
o request data catalog, if applicable.		
NOTE: A data catalog is an index describing the type and amount of data available for review in a particular technical area. Receipt of catalog expected (3) weeks from date of above transmittal.		
o describe general type(s) of data NRC is interested in reviewing.		
3. Notify on-site licensing representative.	RP	7 wks before
4. Schedule and conduct in-house team meeting to develop inter-branch participation and strategy for data review	RP/FB	4 wks before
o determine NRC data review participants.	RP/FB	
o develop schedule and consider logistics.	FB/RP	

Note: The schedule provides the organizational structure of the data review. It outlines the daily sequence of data review sessions and the NRC reviewers and leads responsible.

Lead/Support Start

for each. The schedule should be completed early to clarify responsibilities and logistics before the review.

- o identify or develop data review checklist, FB if applicable.

Note: A data review checklist is a list of questions designed to record fundamental information about the data examined during the review process. It serves to establish the institutional memory for the data review. The particular checklist used may vary with technical area and nature of data reviewed (see enclosures 2a and 2b for example checklists).

- | | | |
|---|----|--------------|
| 5. Establish with DOE/DOE contractor time and place of data review. Discuss any special requirements of site visit (i.e., test demonstration, etc.); ask for any special materials needed in advance of the data review (maps, etc.). | RP | 4 wks before |
| 6. Identify and transmit specific data to be reviewed <i>By NRC to DOE</i> | FB | 3 wks before |
| o data we definitely want to see. | | |
| o data we may want to see. | | |
| o data we may wish to bring back in hard copy. | | |

Note: The technical team selects the data to be reviewed based on knowledge gained from the staff's ongoing review of site investigations. Data reviews should focus

**NO REFERENCE
TO DATA
CATALOG**

on the most critical data associated with key issues.

In preparing a list of data for review, the NRC staff and contractors should consult relevant background information including: technical reports, previous trip reports for data reviews and technical meetings, STP's, etc.

Lead/Support Start

- | | | | |
|-----|--|-------|---------------------|
| 7. | Send DOE data review schedule, checklist, and list of NRC participants with any necessary security clearance information. | RP | 3 wks before |
| 8. | Obtain Division Director's approval for travel | | 3 wks before |
| | o prepare meeting notification. | RP | |
| | o submit request for travel authorization with itinerary and make travel arrangements. | FB,RP | |
| 9. | Place conference call to DOE/DOE contractor | RP/FB | 2 wks before |
| | o confirm availability of data and investigators. | | |
| | o finalize logistics and schedule. | | |
| | o address questions or concerns. | | |
| 10. | Schedule NRC/NRC contractor data review preparation meeting in Silver Spring or at site before data review. This meeting is <u>essential</u> to ensure that all team members fully understand and accept their responsibilities in accord with the ground rules and agreements under which the data review is being | FB/RP | 1 wk - 1 day before |

	<u>Lead/Support</u>	<u>Start</u>
conducted. This meeting should include a brief review of the following items.		
o nature and scope of data review.		
o ground rules.		
o logistics & schedule.		
o responsibilities.		
11. Conduct data review	RP/FB	
o DOE/DOE contractor introduction.	DOE	
o NRC introduction: summarize purpose and objective; describe NRC follow up activities; distribute data review package describing purpose and objective of review, NRC WM Division organizational chart (see enclosure 3), data review checklist, and data request sheet (see enclosure 4); introduce NRC technical team leader; review schedule with DOE/DOE contractor.	RP/FB	
o review selected data or information.	FB/RP	
<p>Note: There is little time for detailed analyses of data during the review process. Specific data that warrants in-depth analyses should be listed on the data request sheet. Such analyses may be completed at NRC headquarters where adequate time and resources are available.</p>		
o caucus each day to exchange information, collect checklists and data requests,	RP/FB	

	<u>Lead/Support</u>	<u>Start</u>
report progress, consider priorities, and plan for next day.		
o NRC/DOE/DOE contractor "Close-Out" session.	RP/FB	
<p>Note: This session gives participants an opportunity to briefly summarize their impression of the data review. NRC may offer very limited preliminary feedback on what was seen, however, NRC's official comments will be transmitted as a follow up activity.</p>		
<p>" NORMALLY p.3 #3 "</p>		
12. Follow up activities		
o brief project team on data review (i.e., open to all NRC staff).	RP/FB	1 wk after
o NRC transmits a letter to DOE listing information submitted to the PDR. This letter briefly summarizes the purpose of the review and includes: attendees list; data reviewed; copies of all data review checklists; data requested by NRC; and general time frame for any subsequent NRC comments.	FB/RP	2 wks after
o procure requested data and documents.	RP	1 Mth after
o prepare and forward NRC comments on data review.	FB/RP	1-2 Mths after

" NORMALLY

Note: After having an opportunity to evaluate specific data requested, the NRC provides DOE with substantive comments. This package consists of a cover letter with enclosures of more detailed comments on results of ~~any analyses performed on data~~ requested. The following outline

ANALYSES NOT A CLEAR TERM ..

RELATING TO 516. OBSERVATIONS CONCERNS OR DEFICIENCIES. AS PER # 2 p. 9

Lead/Support Start

describes the nature of this transmittal:

1. cover letter: highlights any matters of management interest in enclosures.
2. enclosures: general and/or specific comments relating to significant observations, concerns, or deficiencies.

o Use data for EA/SCA or other review

FB/RP

Developing an EA or SCP is a long process. We could use some clarification as to what is "fair game". We may have opportunity to see data which was not available early enough to put in DOE document. Are we taking the position that any data we see can be used by NRC in review of such documents.

**NRC DESIGN/ROCK MECHANICS DATA REVIEW SCHEDULE
AT SANDIA NATIONAL LABORATORIES
(July 18-20, 1984)**

ENCLOSURE 1

July 18 Wednesday		July 19 Thursday		July 20 Friday				
1:00-3:00	3:00-5:30	8:00-11:30	12:30-5:30	8:30-10:00	10:00-11:30	11:30-12:00		
1:00 Introductory Remarks J. Szymanski and K. Stablein	Rock Mechanics Testing, Lab tour & data (JT) (RP) (BO) (SB) (IM) (PD)(SB 2) (JC) Bldg. 849 Bldg. 823/1020	Mech. Prop. Data (RP) (BO) (SB) (IM) (TS) (JC) (SB 2) Bldg. 823/1020	Mech. Prop. Data (RP) (BO) (SB) (TS) (PP) (JC) (SB 2) Bldg. 823/1020	Rock Classification Data (BL) (FN) (SB) (MC) (EI) (SB 2) Bldg. 823/1020	NRC Reviewers' Conference Session Bldg. 822/A	Data Review Wrap-up K. Stablein and J. Szymanski		
1:30 Synopsis - Data and Records Available T. O. Hunter and J. R. Tillerson	Core handling & Storage facility lab tour & thermal prop. data (FN) (BS) (MC) (NT) (PP) (LP) Bldg. 672/2 & 4A Bldg. 892/166MB Bldg. 823/4071A	Bulk Prop. Data Data, Thermal Prop. Data (FN) (BS) (EI) (NT) (PP) (LP) Bldg. 823/4424B	Thermal Prop. Data (FN) (BS) (IM) (EI) (NT) (LP) Bldg. 823/4071A	Seismic Data (IM) (LV) (IM) (TS) (PP) (LP) (JC) Bldg. 823/4071A			NRC Participants Only	Bldg. 822/A
2:30 Finalize Small Group Scheduling and Badging Bldg. 822/A		G-Tunnel Rock Characterization- Data (Insitu Stress Data, Borehole Modulus Data) (RZ) (BL) (JD) (TS) (EI) (JG) (KS) Bldg. 823/4255	Small Diameter Heater Test Data (RZ) (BS 2) (JD) (PD) (MC) (JG) (KS) Bldg. 823/4255	Heated Block Test Data (RZ) (BS 2) (JD) (MC) (PD) (JG) (KS) Bldg. 823/4255				
All NRC and NNWSI and Participants								

NRC Participants:

Paul Prestholt (PP), Thomas Schmitt (TS), Ed Hollop (EH), Lindsey Mardell (IM), Mark Christianson (MC), Swapan Bhattacharya (SB), Susan Billhorn (SB 2), Jaak Daeman (JD), Naleem Tanious (NT), Piyush Dutta (PD), John Greeves (JG), Larry Pittiglio (LP), King Stablein (KS), John Cutler, (JC).

SNL Participants:

Joe Fernandez (JP), Tom Hunter (TH), Brenda Langkopf (BL), Hugh MacDougall (HM), Fran Nimick (FN), Bill Olsson (BO), Ron Price (RP), Barry Schwartz (BS), Joe Tillerson (JT), Luke Vortman (LV), Roger Zimmerman (RZ), Bill Shepherd (BS 2)

ALL UNCLEARED VISITORS MUST REPORT EACH DAY FOR BADGING AT BUILDING 822