



AGREEMENT BETWEEN THE DEPARTMENT OF ENERGY'S OFFICE OF GEOLOGIC REPOSITORY DEPLOYMENT PROJECTS (BWIP, NNWSI, SRPO, CPO) AND THE NUCLEAR REGULATORY COMMISSION'S OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARD (NMSS) GUIDING INTERACTIONS DURING THE SITE INVESTIGATION AND CHARACTERIZATION PROGRAMS AND PRIOR TO THE SUBMITTAL OF AN APPLICATION FOR AUTHORIZATION TO CONSTRUCT A REPOSITORY

This agreement supplements, on a project-specific basis, the Procedural Agreement\* made between the Commission (NRC) and the Department (DOE) and supersedes all previous project-specific agreements. This supplementary agreement implements Section 6 of the DOE/NRC Procedural Agreement which requires that project-specific agreements, tailored to the specific project and reflecting differences in sites and project organizations, be negotiated to implement the principles established in the Procedural Agreement. Since this project level agreement is drawn to expand upon and implement the principles set forth in the Procedural Agreement, appendices detailing project-specific items as necessary are attached. These appendices will be updated/added/changed as required. Any procedures not included in this supplementary agreement will be governed by the general principles of the Procedural Agreement. Nothing in this agreement shall be construed either to limit the Procedural Agreement in any way or to confer rights on any party other than the parties to these agreements.

1. NRC Onsite Representatives

The specific duties and responsibilities of each NRC representative to the individual projects are to be discussed in the appendices. At such time as the NRC onsite representatives are stationed at each site, they will be provided with office space that is readily accessible by the public and near the DOE Project Offices and site activities (where Project Office and site activities are not convenient to one another, two separate offices will be provided). Where such office space can be provided in DOE facilities, the DOE will provide such space. Otherwise, the NRC will make the necessary arrangements.

2. Meetings

A. Technical Meetings

Schedules agreed on, pursuant to Section 2e of the Procedural Agreement, for future meetings covering approximately a three month period will be updated at least monthly and made available to interested parties. The process for informing interested parties of upcoming meetings will be provided by a DOE one-time Federal Register Notice. Public notification of the meetings

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\*"Procedural Agreement Between the U.S. Nuclear Regulatory Commission and the U.S. Department of Energy Identifying Guiding Principles for Interface During Site Investigation and Site Characterization" herein referred to as the Procedural Agreement (FR 48:38701).

will be provided by posting the schedule for future meetings in NRC and DOE Public Document Rooms (PDRs) and information offices as appropriate. A toll-free telephone service will be provided by the DOE-HQ to keep interested individuals informed of upcoming meetings. Members of the public and representatives of affected States and Indian tribes who attend meetings will do so as non-participating observers. Notification of affected States and Indian tribes will be performed by the DOE. The host agency has the responsibility for organizing, conducting, and chairing technical meetings.

Final agreement as to agenda and participants will normally be reached a minimum of 10 working days prior to the scheduled date for the meeting and posted in the PDRs. Deviations from the agreed to agenda are permitted upon mutual agreement with the NRC and the cognizant DOE Project Office. Nothing in this section shall be construed as establishing a minimum lead time for the scheduling of technical meetings; both agencies will strive in good faith to provide the indicated lead times.

B. Management Meetings

Periodic project management-level meetings will be held whenever necessary, but at least quarterly. Management-level is defined as the NRC Repository Projects Branch Chief or higher and a Project Manager for the DOE Project Offices or higher. The purpose of the management meetings between NRC and DOE management-level personnel is to discuss issues related to policy, budget, program scope, commitment of resources and program schedules. The host agency has the responsibility for organizing, conducting, and chairing management meetings.

C. Meeting Reports

A meeting report containing a summary of important observations and issues discussed at meetings will be jointly prepared by the DOE and NRC for the Technical and Management meetings discussed above, and signed or initialed by representatives of both agencies at the conclusion of each meeting. A standard format, shown in Appendix 6, will generally be used in the preparation of meeting reports. The DOE will issue meeting reports within two weeks after the meeting; they will also be provided to the affected States and Indian tribes, and appropriate PDRs.

3. Timely Release of Information

A. Report Inventory

Each agency will develop as soon as practicable and thereafter maintain and exchange a catalog of key reports, plans, procedures, and technical positions (products) in process. This catalog will include descriptions of product scope and purpose as well as the scheduled dates for completion of final products. The inventories will be updated and exchanged at least quarterly. This will allow each agency to request

products from each other and will help identify areas where input might be provided to influence priorities for release.

B. Points of Contact

Respective points of contact for the individual projects and the NRC are defined in the appendices. Either agency may change its points of contact unilaterally with notification to the other party. Other organizations within the NRC will work through these designated points of contact within the NRC's Division of Waste Management for interactions with the DOE's Geologic Repository Deployment Projects. Details of the interaction procedures will be determined by the individual project's requirements and defined in the appendices as appropriate.

C. Site-Specific Data

Both agencies agree to publish data separate from analyses to expedite early availability of data for analysis by both agencies.

To keep the NRC onsite representative informed regarding what data will be forthcoming and when, the DOE will notify the representative of the schedule of key planned field and laboratory testing covering as long a period as practicable. The representative will also be notified of changes to the test schedule.

The DOE will develop as soon as practicable and thereafter maintain a catalog of raw data. This catalog will include descriptions of the data, the time, place, and method of acquisition, and where it may be examined. This catalog will be updated and provided to the NRC at least semiannually. Upon NRC request and in a manner chosen by the DOE, the DOE will make raw data available to the NRC as soon as reasonably possible after a quality check: normally within 45 days after acquisition. Data gathered by other government agencies, such as the USGS, is excluded from these provisions. Because of the preliminary nature of these data, the NRC agrees to use discretion in its application. The NRC will not publish or place in their PDRs any raw data provided by the DOE or DOE-sponsored contractors or any analyses of such data until the raw data has been cleared by the DOE and published.

The NRC and NRC-sponsored contractors will also notify the DOE of their schedule of key planned field and laboratory testing and will establish, maintain, update, and provide to the DOE a catalog of raw data as described in the preceding paragraph. The DOE will treat such data in the same manner prescribed in the preceding paragraph.

4. **Site-Specific Samples**

Consistent with the appended procedures, the DOE will provide the NRC with site-specific samples.

5. **Terms of Agreement**

The terms of this agreement may be amended at any time by mutual consent, in writing, and specifically will be reevaluated at the time of the submittal of the SCP by each project to the NRC.

J. W. Bennett 1-26-84

J. William Bennett  
Acting Associate Director  
Office of Geologic Repository  
Deployment (DOE-HQ)

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Robert Browning  
Director  
Waste Management (NMSS/NRC)

Jeff O. Neff 1/26/84

Jeff O. Neff  
Manager  
Salt Repository Project Office

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Hubert Miller  
Chief  
Repository Projects Branch  
(NMSS/NRC)

O. Lee Olson

O. Lee Olson  
BWIP Manager  
DOE-RL

Donald L. Vieth 1/26/84

Donald L. Vieth  
NNWSI Manager  
DOE-NV

Sally A. Mann

Sally A. Mann  
CPO Manager  
DOE-CH

Appendix 1 - BWIP

1. Points of contact between NRC and DOE projects.

(a) Formal Communication

BWIP Project Manager to and from NRC BWIP Project Section Leader

DOE  
Project Office Manager  
U.S. Department of Energy  
Richland Operations Office  
BWI Project Office  
P.O. Box 550  
Richland, WA 99352

NRC  
Section Leader  
BWIP Project Section  
Division of Waste Management  
U.S. Nuclear Regulatory Commission  
7915 Eastern Avenue  
Silver Spring, MD 20910

(b) Technical Communications

<u>Area</u>	<u>NRC</u>	<u>BWIP Project Contractors</u>
Performance Assessment	TBD	R. T. Wilde
Repository Design	TBD	R. J. Gimera
Quality Assurance	TBD	M. S. Karol
Geology	TBD	S. M. Price
Geochemistry	TBD	P. F. Salter
Hydrogeology	TBD	G. S. Hunt
Waste Package	TBD	M. J. Smith
General	TBD	J. H. LaRue

2. NRC Onsite Representative Conditions

3. Other Project-Specific Features

APPENDIX 2 - SRPO

1. Points of contact between NRC and DOE projects.

(a) Formal Communications

Salt Repository Project Office (SRPO) Manager to and from NRC SRP  
Section Leader

DOE

NRC

Project Office Manager  
U.S. Department of Energy  
SRP Office  
505 King Avenue  
Columbus, OH 43201

Section Leader  
SRP Section  
U.S. Nuclear Regulatory Commission  
Division of Waste Management  
7915 Eastern Avenue  
Silver Spring, MD 20910

(b) Technical Communications:

NRC

SRP Contractors

TBD

As assigned by DOE Project Manager

2. NRC Onsite Representative Conditions

3. Other Project-Specific Features

APPENDIX 3 - NNWSI

1. Points of contact between NRC and DOE projects

(a) Formal Communications

DOE

Director, Waste Management Project Office  
DOE Nevada Operations Office  
P. O. Box 14100  
Las Vegas, NV 89114

NRC

Section Leader  
U.S. Nuclear Regulatory  
Commission  
Division of Waste  
Management  
7915 Eastern Avenue  
Silver Spring, MD 20910

(b) Technical Communications

<u>Area</u>	<u>NRC</u>	<u>NNWSI Contractor</u>
Quality Assurance	TBD	Michael Spaeth, SAI
Performance Assessment	TBD	Thomas Hunter, SNL
Waste Package	TBD	Larry Ramspott, LLNL
Repository	TBD	Thomas Hunter, SNL
Exploratory Shaft	TBD	Donald Oakley, LANL
Geology	TBD	William Dudley, USGS
Hydrology	TBD	William Dudley, USGS
Geochemistry	TBD	Donald Oakley, LANL

2. NRC Onsite Representative Conditions

3. Other Project-Specific Features

APPENDIX 4 - CPO

1. Points of contact between NRC and DOE projects.

(a) Formal Communications

DOE

Project Manager  
Crystalline Rock Project Office  
DOE Chicago Operations Office  
9800 South Cass Avenue  
Argonne, IL 60439

NRC

Section Leader  
Crystalline Rock Project  
Section  
U.S. Nuclear Regulatory  
Commission  
Division of Waste  
Management  
7915 Eastern Avenue  
Silver Spring, MD 20910

(b) Technical Communications

TBD

2. NRC Onsite Representative Conditions

3. Other Project-Specific Features

Pending completion of area-phase field work, the CPO is to be exempt from the requirements of paragraphs 1 (NRC Onsite Representatives), 2A (Technical Meetings), 2B (Management Meetings), 3C (Site-Specific Data), and 4 (Site-Specific Samples). Until that time, it is not envisioned that CPO will have onsite representatives from the NRC, hold any project-specific meetings with the NRC, or furnish any rock samples to the NRC. CPO will, however, invite NRC representatives to plenary session meetings or workshops that it holds with the States involved in the Crystalline Rock Project. CPO will also provide draft copies of its area recommendation report, area characterization plan, and performance assessment plan to the NRC for their review and comment. Copies of these documents, and the screening methodology document, will also be provided to the NRC when they are finalized and issued.

Appendix 5

ADD IN PHOTOS & W THIS

ACQUISITION OF SITE-SPECIFIC SAMPLES  
DURING SITE INVESTIGATION AND SITE CHARACTERIZATION  
BY NRC CONTRACTORS

Nuclear Regulatory Commission (NRC) contractors need, in some instances, site-specific samples of rock, minerals, and ground water or brine from sites being studied by the Department of Energy (DOE) as potential geologic repositories for high-level radioactive waste. The NRC contractors need such samples to carry out selected independent site-specific investigations and relevant research supporting the NRC's licensing responsibilities. The DOE will support these projects with site-specific samples to the extent practicable.

In order to facilitate satisfying NRC requests for site-specific samples with a minimum of inconvenience to all parties, the following points are agreed to:

1. Each DOE field project office will identify their designee to the respective NRC Project Section Leader and, where available, the NRC resident representative, for all communication concerning the procurement of site-specific samples by NRC contractors.
2. Written requests to the DOE for site-specific samples for NRC contractors will originate from the NRC Project Section Leader and will be transmitted by letter to the DOE field project office manager for that site in sufficient time for the DOE to review the request and, if approved, to prepare the sample. A copy will be provided to the NRC resident representative when one is assigned for the site. The DOE field project office designee shall acknowledge receipt of all requests by letter.
3. The DOE retains the right to decline requests in cases where the NRC contractor has requested the same samples needed by the DOE to fulfill its site characterization responsibilities, when the requested samples are scarce or prohibitively expensive to collect, or when the request seriously impairs the DOE's schedule or program for site characterization. See also points 10 and 11 concerning management resolution of any problems on this point.
4. In order to assure that appropriate samples will be available prior to transmitting a written request, the NRC Project Section Leader, or contractor, should consult with the DOE field project office designee for the particular site as to sample availability. Inquiries on sample availability can be answered on the basis of current site inventory records. If samples are not available, the DOE will arrange for their acquisition providing such requests are within the DOE plans for site investigation and site characterization. See point 6 below.

5. All written requests for samples shall include pertinent information such as the name of the laboratory, the designated laboratory contact, the timeframes within which samples are needed and testing will be performed, the date the sample will be returned, the date the results will be published, and the type of report and expected distribution. An example of a sample request form is attached. To the extent practicable, the request should be accompanied by documents that explain the purpose of the tests such as the NRC statement of work for the project, a written description or specification for the testing procedure to be used, any special sample collection, preservation, handling, or transportation requirements, and expected methods for interpretation of results. This will help ensure that the samples provided by the DOE are appropriate for the tests planned by the NRC contractor. The NRC approved quality assurance program for the laboratory performing the investigation shall accompany all initial NRC requests for samples for that laboratory.
6. All requests for samples not already available, e.g. core from new boreholes, must sufficiently precede the NRC contractor's need so that samples can be collected within the DOE's site characterization program and at a reasonable convenience to DOE field project offices. The DOE will provide as much flexibility in scheduling sample collection and responding to requests as possible within current program schedules. Accordingly, for samples not already available or planned for under the DOE's plans, adequate advance notice will be needed to incorporate the request for new samples into the site characterization program for site investigation and site characterization. This advance notice must also allow for preparation and submittal to the State for an application for authorization, where required, to remove the sample from the State and for securing the necessary approval. As noted in paragraph 3 above, the DOE retains the right to decline any NRC request for samples.
7. The DOE field project office designee will provide a sample description document with the sample(s) to assist the NRC contractor in ascertaining the compatibility of the sample with the specific test. The document will provide pertinent information on the sample, such as sample designation, data collected, date collected, description of sample, person collecting sample, depth collected, stratigraphic unit sampled, sampling techniques and conditions, initial measurements of properties at the time of sample collection, results of any subsequent tests or measurements, any methods of preservation or special handling, and proposed method of shipment to the NRC contractor. The NRC must identify any special methods and conditions for shipping samples sufficiently early in the sample identification process.
8. The NRC contractor will return to the DOE facility that furnished the sample, through the NRC Project Section Leader, a sample description document with pertinent information such as

sample designation, a description of the sample as received, preparation or treatment of the sample prior to testing, initial readings prior to testing, any modifications to testing procedure or apparatus, testing results, quality control checks; significant observations during testing; interpretation of test results, and disposition of sample(s) after testing. Samples will be returned to the DOE as soon as possible after use.

9. In implementing each of the above provisions, there should be a free exchange of information. For example, relevant portions of NRC or NRC contractor draft reports will be sent to the NRC Project Section Leader who will forward them to the DOE Project Office Manager and the DOE field project office designee. Telephone communications to coordinate activities and discuss sampling schedules and testing are encouraged between the NRC or NRC contractors and designated DOE representatives. Requests for actions requiring significant expenditure of man-hours must also be documented in writing.
10. The DOE will pay reasonable costs associated with sample collection, preservation, handling, and transportation. The DOE field project office designee will identify any extraordinary costs which may require resolution on a case-by-case basis between the NRC Project Section Leader and the DOE field project office. Issues not resolved at this level will be resolved at the next management meeting as specified by Section 2b of the Procedural Agreement of June 27, 1983.
11. The DOE field project office designee will identify any requests which cannot be met, including the basis for such conclusions, to the DOE field project office and NRC Project Section Leader for resolution on a case-by-case basis. Issues not resolved at this level will be resolved at the next management meeting as specified by Section 2b of the Procedural Agreement of June 27, 1983.

(EXAMPLE)

SAMPLE REQUEST FORM

(Please type or print)

Date of

Request \_\_\_\_\_

Requester: Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_

Is Requestor a DOE Project Subcontractor? Yes \_\_\_ No \_\_\_

If yes: Contract Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

If no: Funding Source \_\_\_\_\_

Contract Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

Samples Requested

Core Sample(s)

Well ID \_\_\_\_\_

Depth Interval Requested \_\_\_\_\_

Full Core \_\_\_ Half Core \_\_\_ Quarter Core \_\_\_ Other \_\_\_\_\_

Soil Sample(s)

Well ID \_\_\_\_\_

Sample Type: Shelby Tube \_\_\_ Drive \_\_\_ Pitcher \_\_\_ Bulk \_\_\_ Other \_\_\_\_\_

Depth Interval Requested \_\_\_\_\_

Quantity \_\_\_\_\_

Water Sample(s)

Well ID \_\_\_\_\_

Depth Interval Requested \_\_\_\_\_

Quantity \_\_\_\_\_

SAMPLE REQUEST FORM (CONTINUED)

Time Frame

Date Samples Needed \_\_\_\_\_

Time Required to Complete Testing/Analysis \_\_\_\_\_

Time Required to Publish Results \_\_\_\_\_

Format of Results \_\_\_\_\_

Objectives of Tests to be Performed \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Test Method \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Use/Need for Test Data/Information in NWTS Program \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Preparation, Packaging, Transportation Requested

Preparation Procedure \_\_\_\_\_

\_\_\_\_\_

Packaging Procedure \_\_\_\_\_

\_\_\_\_\_

Transportation Procedure \_\_\_\_\_

\_\_\_\_\_

Sample to be Shipped to:

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_

Comments: Also, please attach any additional materials, such as test plans,  
relevant to this sample request.

STANDARD FORMAT  
FOR MEETING REPORTS

DATE/LOCATION OF MEETING

ATTENDEES/ORGANIZATIONAL AFFILIATION

BACKGROUND/FACTS

1. What information was reviewed, exchanged, and discussed (Summary listing fashion)
2. What agenda of discussion was

OBSERVATIONS

1. NRC questions, suggestions, or comments on scope and direction of the DOE technical program. (Best attempt made to identify all important matters)
2. DOE observations

AGREEMENTS

OPEN ITEMS

1. Technical questions for further discussion
2. Specific responsibilities for information exchange and commitment on other business matters

DEC 12 1983

RW-24

DOE-USGS Coordination Meeting Minutes

D. Vieth, NV  
L. Olson, RL  
S. Mann, CH  
J. Neff, NPO  
R. Lowrey, AL

CK  
12/2

Attached for your information is a copy of the minutes of the DOE-USGS Coordination Meeting of November 7, 1983. We would be pleased to receive any comments you care to make.

Original signed by

Carl R. Cooley, Acting Director  
Geosciences and Technology Division  
Office of Geologic Repository  
Deployment

Attachment

cc:  
J. Fiore  
M. Fref  
E. Burton  
R. Stefn  
W. Bennett  
C. Klingsberg

RW-24:CKlingsberg/cal:353-2431:12/2/83

Distribution  
Subject  
MRU (3)  
CRC rdr  
Ofc Chron  
CK rdr

CONCURRENCES		
RTG. SYMBOL	RH-24	
INITIALS/SIG.	C. Cooley	
DATE	12/2/83	
RTG. SYMBOL	RH-23	
INITIALS/SIG.	Stein	
DATE	12/8/83	
RTG. SYMBOL	RH-20	
INITIALS/SIG.	Bennett	
DATE	12/2/83	
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Minutes: DOE-USGS Coordination Meeting, November 7, 1983

Co-chairmen: C. Cooley, DOE  
J. Devine, USGS

Attendees: Attachment 1

Action Items: Attachment 2

#### MOU

USGS has made some changes in the last version of the Memorandum of Understanding. DOE will review these changes and make additional suggestions, if appropriate. Final MOU will be prepared for Morgan and Peck signatures.

#### Procedures for Future Meetings

USGS and DOE agreed to continue the existing procedures and arrangements for future meetings.

#### Financial Support

The BWIP budget does not include funding for USGS support activities. If additional support is needed from USGS, BWIP should fund.

#### DOE Organization and Schedules

Handouts described the recent reorganization of DOE Radioactive Waste Management. The Mission Plan (under development) will document the changes in the dates of the repository program.

#### Critique of USGS Letter to Rep. Ottinger

USGS did not expect a late review by T. Ballieu. Follow-up action needed, if any, will be determined by the DOE.

#### GAO Visit to USGS

The GAO visited Robertson for about two hours in September and asked questions about BWIP, Yucca Mountain, and whether the DOE was looking at other rock types. They were also interested in the annual report and the letter to Ottinger.

#### NRC Review of NNWSI Geology and Hydrology

NRC questioned whether hydrologic techniques for the saturated zone were applicable to the unsaturated zone.

Dudley was quoted as saying that a \$2M reduction in NNWSI budget would result in a reduction in the drilling program.

### BWIP Activities

The Hydrologic Task Force has been renamed the Hydrologic Working Group. The Group will meet separately with Yakima Indians and other State groups to brief them. USGS is taking a more active role in modeling and is running televiwer logs in two boreholes, before and after hydrofracting. A consensus is beginning to grow on ground water movement. The Cohasset flow has been suggested as the new repository reference horizon. DOE-HQS wants more information on the flow before a formal decision (perhaps two years off) can be made.

### Crystalline Rocks

USGS feasibility study limited to east of Mississippi has been completed and is under review. Identification of sites has not been made. Atlantic Coastal Plain is already part of the DOE CR Program but the Cincinnati Arch (which meets buried pluton criteria) would involve three new States, Ohio, Indiana, and Kentucky.

### Review Salt Sites

A date will be scheduled for a detailed discussion of USGS concerns about each of the salt sites.

### Sedimentary Rocks to be Studied

DOE is initiating a new study by ORNL to investigate the potential of sedimentary rocks other than salt as potential hosts for a radioactive waste repository. Examples include argillaceous rocks such as shale, limestone, chalk, sandstone and anhydrock. ORNL's first task is to complete the Gonzales and Johnson preliminary draft on shales.

### Minutes

All action items that resulted from the July 29, 1983, meeting have been completed. Minutes of the July 29 meeting were approved as written.

### Next Meeting Date

The next meeting of the DOE-USGS Coordination Committee will be on Monday, February 6, 1984, in Reston.

<u>Name</u>	<u>Organization</u>	<u>Telephone</u>
Gordon Bennett	USGS	FTS 928-5916
J. W. Bennett	DOE	233-4285
H. L. Bermanis	Weston	(301) 963-6821
Carl Cooley	DOE	233-2431
J. F. Devine	USGS	928-7491
George A. Dinwiddie	USGS	928-6976
Cyrus Klingsberg	DOE	233-3919
A. M. LaSala, Jr.	USGS	976-5916
J. R. Rollo	USGS	928-6421
Gene Roseboom	USGS	928-6411
Robert Schneider	USGS	928-6976
David Siefken	Weston	(301) 963-6828
Harry Smedes	Weston	(301) 963-6843
Peter Stevens	USGS	928-6976
N. J. Trask	USGS	928-6421
Craig Toussaint	Weston	(301) 963-6822
L. A. White	Weston	(301) 963-6816
Dan Youngberg	DOE	233-5428

DOE/USGS ACTION ITEMS  
PER NOVEMBER 7 MEETING

DOE:

1. Review November 7, USGS version of MOU and send suggested changes if any to Jim Rollo.
2. Cooley will discuss BWIP funding for USGS activities on his site visit to Hanford and tell USGS what effort on their part is desired.
3. Cooley will discuss with Jeff Neff whether there is a need for further action relative to Ballieul's letter that reviewed the USGS letter to Ottinger.
4. Provide copy of statement to Congress regarding "all media" approach when it is drafted.
5. Provide copy of Zircon article to Stevens.
6. Provide copy of DOE-GAO letter on NAS-NRC WISP report to USGS when issued.
7. Determine level of involvement to be requested of USGS for peer review of performance assessment for each project.
8. Determine level of involvement to be requested of USGS for review of future EA's.

USGS:

1. Let DOE know what date(s) are available in December or January for USGS review of its concerns about the salt sites.
2. Let DOE know status of December 5 or 6, USGS-ONWI review of hydrology of each salt site.
3. Provide copy of Craig Bentley's report on Mississippi salt domes to Bennett.
4. Two copies (or as a minimum, a list) of USGS publications on sedimentary rocks other than salt.
5. Provide USGS organization chart.

FEB 1 1984

RW-24

Proposed Memorandum of Understanding with the USGS

W. Bennett, RW-20

Submitted is a draft of a proposed Memorandum of Understanding with the USGS. Previous drafts have been submitted to the USGS and their comments have been incorporated. Previous drafts have also been sent to our field offices and their comments have been included as well. The USGS has told us that they are willing to sign this version.

Our only suggested change at this time is to delete references to NWTS and substitute appropriate language for our repository program.

Your comments will be appreciated.

original signed by  
Carl R. Cooley

Carl R. Cooley, Acting Director  
Geosciences and Technology Division  
Office of Geologic Repository  
Deployment

Attachment

cc:

- R. Mussler, GC-30
- R. Stein, RW-21
- D. Seifken, Weston

RW-24:CKlingsberg/cal:353-3919:2/1/84

Distribution

Subject

MRU (3)

XXXXXXXX

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CRC rdr

CK rdr

Ofc Chron

Simon

CONCURRENCES		
RTG. SYMBOL	RW-24	
INITIALS/SIG.	Klingsber	
DATE	2/1/84	
RTG. SYMBOL	RW-24	
INITIALS/SIG.	Cooley	
DATE	2/1/84	
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DATE	2/1/84	
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23 Jan 84

SUBJECT: Memorandum of Understanding between Office of Geologic Repository Deployment, Department of Energy (DOE), and the U.S. Geological Survey (USGS), Department of the Interior, related to the National Waste Terminal Storage Program

I. Introduction

A. Background

Under the "Atomic Energy Act of 1954" and the "Nuclear Waste Policy Act of 1982," the DOE is responsible for disposal of high-level radioactive waste.

USGS technical expertise is a desired addition to the high-level repository siting program of DOE when such support can be used to advantage in the National Waste Terminal Storage (NWTS) Program.

B. Purpose

For the USGS to provide earth-science support to DOE in their program to develop and license (through the Nuclear Regulatory Commission) facilities for high-level radioactive waste storage and disposal as mandated by the "Nuclear Waste Policy Act of 1982." The USGS will carry out DOE-funded activities within the areas of expertise of the USGS, at a support level mutually agreed upon, and without any limitation on the activities of the USGS that support the NRC analysis for licensing the waste disposal facilities.

II. Management and Program Guidance

A. Policy Management Review

The Director of the Office of Geologic Repository Deployment, DOE, and the Assistant Director for Engineering Geology, USGS, or their designated representatives will meet periodically to review the accomplishments, status, and future activities in the nuclear waste repository siting program. A record of the meeting, content, and agreements will be prepared and cosigned.

B. Guidelines

1. Upon mutual agreement between DOE and USGS, the USGS shall:

(a) As requested, provide promptly to DOE geologic, hydrologic, seismologic, mineral resource investigations, and any other earth-science data and judgments within its scientific capability and available funds to support the programs of the Office of Geologic Repository Deployment, DOE.

(b) Furnish USGS earth-science data and analyses of the implications of the data as they apply to the suitability of sites for construction and operation of high-level nuclear-waste repositories and to addressing the Nuclear Regulatory Commission NRC earth-science requirements for licensing.

- (c) Describe, qualify, and defend USGS analyses of the data regarding such issues as groundwater flow paths and times of travel, earthquake risk, rock stress, etc., and provide comparative assessments of these types of characteristics among sites where USGS has conducted investigations or is fully aware of the adequacy of the data and their analysis as done by others.
- (d) Directly support the Nevada Nuclear Waste Storage Investigations programs of the Nevada Operations Office (NV) consistent with Interagency Agreement DE-A108-78ET44802, as it may be modified from time to time, between DOE/NV and USGS. The USGS is responsible for conceiving, conducting, reporting on, and defending their interpretations of results of earth-science investigations on and near the Nevada Test Site. These investigations will cover areas and topics mutually agreed upon by the USGS and the NV.
- (e) Review earth-science data acquired by others as requested by DOE. Such reviews will address only the technical adequacy of the information and the conclusions drawn from the data.
- (f) Critique DOE documented earth-science data and analyses and defend those elements which, in their technical judgment, the USGS considers valid and applicable to site selection. In those areas where problems are defined, the USGS will work with DOE to achieve resolution of the issues.
- (g) Use and incorporate DOE acquired data in any USGS analysis, finding, or publication as long as it is relevant, appropriately referenced, and of acceptable quality.
- (h) Support fully its data, scientific investigations, and analysis at all NRC and other public hearings as required to assist DOE in the site licensing process. The USGS will not assume the role of "advocate" for any specific site; in the sense of supporting that site in comparison with other sites. This position is necessary because the question of overall suitability addresses much broader issues than earth-science alone.
- (i) Conduct an independently funded research and development program on earth-science technology applied to nuclear waste disposal and keep DOE informed of the progress of such research, as pertinent to the NWTSS Program.
- (j) When determined to be mutually beneficial the USGS will provide on-site personnel to work directly with DOE project offices on site related earth-science matters.

2. The Office of Geologic Repository Deployment, Office of Civilian Nuclear Waste Management, DOE, shall:
- (a) Be responsible for conducting the overall programmatic assessments of the suitability of a site for a repository and preparing the associated legally mandated documentation and holding public hearings to support the selection of sites.
  - (b) Be responsible for the conduct of progress to locate sites, design repositories, apply for a license, operate, and decommission deep geologic repositories.
  - (c) Keep USGS fully informed on the conduct of DOE programs as they affect earth-science programs in support of the NWTS Program.
  - (d) Make certain that USGS has prompt access to all current DOE or DOE-Contractor related earth science information collected in the NWTS Program.
  - (e) Consult with and involve the USGS in all major planning activities and decisions regarding earth-science investigations in the NWTS Program.

C. Program Funding

The details of the levels of support to be furnished one agency by the other with respect to funding will be developed annually as part of the budget activity.

III. Administration

A. Procurement Policy

Program and project activities undertaken by USGS for DOE or vice versa under the provisions of this Memorandum of Understanding shall be conducted in a manner consistent with the legal authority and policy of the department for whom the activities are undertaken and the regulations and procedures of their respective agencies.

B. Patents and Technical Data

It is the policy of DOE and the USGS to make the results of the research, development, or demonstration work available to the public. Since DOE has a specific statutory patent policy directing how this should be accomplished, DOE patent policy normally shall apply to Interagency Agreements executed between DOE and the USGS.

C. Public Information Coordination

Consistent with the Freedom of Information Act (5 U.S.C. 552), procedures for timely release of information to the public regarding projects and programs implemented under this Memorandum of Understanding will be by mutual agreement between DOE and the USGS representatives. As the lead Government Agency for the National Waste Terminal Storage Program, the DOE will maintain and coordinate interactions and correspondence with the States, Tribes, and other local governmental and public organizations. The USGS will release non-classified data and respond to questions regarding our scientific opinion upon request.

D. Amendment and Termination

This Memorandum of Understanding may be modified or amended by written agreement between DOE and the USGS and terminated by mutual agreement of DOE and the USGS or by either party upon 30-day written notice to the other.

E. Effective Date

This Memorandum of Understanding is effective when signed by both parties.

Michael J. Lawrence  
Acting Director  
Office of Civilian Radioactive  
Waste Management

Dallas Peck  
Director  
United States Geological  
Survey

WRITE MEMO TO  
BFEIN



Department of Energy  
Washington, D.C. 20585

Dr. Dallas L. Peck, Director  
U.S. Geological Survey  
Reston, Virginia 22092

Dear Dr. Peck:

Over the past year we have worked together to jointly prepare a Memorandum of Understanding (MOU) between the USGS and the Office of Civilian Radioactive Waste Management (DOE). The intent of the MOU is to clarify the role of USGS and DOE in implementing the Nuclear Waste Policy Act of 1982. We are pleased to submit two copies of the MOU for your signature. You may retain one copy and return the other copy to me.

We view the expert knowledge, opinions and support of USGS to be highly important for carrying out the Government's responsibility to identify geologic sites for mined repositories and for contributing data for the licensing process. In this regard, I want to thank you for the excellent support you have already provided and I look forward to our continuing cooperation under the MOU.

Sincerely,

Michael J. Lawrence  
Acting Director  
Office of Civilian Radioactive  
Waste Management

Enclosures

SUBJECT: Memorandum of Understanding between Office of Geologic Repository Deployment, Department of Energy (DOE), and the U.S. Geological Survey (USGS), Department of the Interior, related to the DOE Office of Civilian Radioactive Waste Management

I. Introduction

A. Background

Under the "Atomic Energy Act of 1954" and the "Nuclear Waste Policy Act of 1982," the DOE is responsible for disposal of high-level radioactive waste.

USGS technical expertise is a desired addition to the high-level repository siting program of DOE when such support can be used to advantage in the Office of Civilian Radioactive Waste Management (OCRWM) Program .

B. Purpose

For the USGS to provide earth-science support to DOE in their program to develop and license (through the Nuclear Regulatory Commission) facilities for high-level radioactive waste storage and disposal as mandated by the "Nuclear Waste Policy Act of 1982." The USGS will carry out DOE-funded activities within the areas of expertise of the USGS, at a mutually agreed upon support level. No limitation is implied on the activities of the USGS that support the NRC analysis for licensing the waste disposal facilities, or in conflict with the support provided to the Department.

II. Management and Program Guidance

A. Policy Management Review

The Director of the Office of Geologic Repository Deployment, DOE, and the Assistant Director for Engineering Geology, USGS, or their designated representatives will meet periodically to review the accomplishments, status, and future activities in the nuclear waste repository siting program. A record of the meeting, content, and agreements will be prepared and cosigned.

B. Guidelines

1. Upon mutual agreement between DOE and USGS, the USGS shall:

- a. As requested, provided promptly to DOE geologic, hydrologic, seismologic, mineral resource investigations, and any other earth-science data and judgments within its scientific capability and available funds to support the programs of the Office of Geologic Repository Deployment, DOE.

- b. Furnish USGS earth-science data and analyses of the implications of the data as they apply to the suitability of sites for construction and operation of high-level nuclear waste repositories and to addressing the Nuclear Regulatory Commission (NRC) earth-science requirements for licensing.
- c. Describe, qualify, and defend USGS analyses of the data regarding such issues as groundwater flow paths and times of travel, earthquake risk, rock stress, etc., and provide comparative assessments of these types of characteristics among sites where USGS has conducted investigations or is fully aware of the adequacy of the data and their analysis as done by others.
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- e. Review earth-science data acquired by others as requested by DOE. Such reviews will address only the technical adequacy and sufficiency of the information and the validity of the conclusions drawn from the data.
- f. Critique DOE documented earth-science data and analyses and defend those elements which, in their technical judgment, the USGS considers valid and applicable to site selection. In those areas where problems are defined, the USGS will work with DOE to achieve resolution of the issues.
- g. Use and incorporate DOE acquired data in any USGS analysis, finding, or publication as long as it is relevant, appropriately referenced, and of acceptable quality.
- h. Support fully USGS data, scientific investigations, and analyses at all NRC and other public hearings as required to assist DOE in the site licensing process. The USGS will not assume the role of "advocate" for any specific site in the sense of supporting that site in comparison with other sites; this position is necessary because the question of overall suitability addresses much broader issues than earth-science alone.

- i. Conduct an independently funded research and development program on earth-science technology applied to nuclear waste disposal and keep DOE informed of the progress of such research, as pertinent to the OCRWM Program.
  - j. When determined to be mutually beneficial the USGS will provide on-site personnel to work directly with DOE project offices on site related earth-science matters.
2. The Office of Geologic Repository Deployment, Office of Civilian Radioactive Waste Program, DOE, shall:
- a. Be responsible for conducting the overall programmatic assessments of the suitability of a site for a repository, preparing the associated legally mandated documentation, and holding public hearings to support the selection of sites.
  - b. Be responsible for the conduct of progress to locate sites, to design repositories, to apply for a license, to operate, and to decommission deep geologic repositories.
  - c. Keep USGS fully informed on the conduct of DOE programs as they affect earth-science programs in support of the OCRWM Program.
  - d. Make certain that USGS has prompt access to all current DOE or DOE-Contractor related earth-science information collected in the OCRWM Program.
  - e. Consult with the USGS in all major planning activities regarding earth-science investigations in the OCRWM Program.

C. Program Funding

The details of the levels of interagency funding support will be developed annually as part of the budget activity.

III. Administration

A. Procurement Policy

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C. Public Information Coordination

Consistent with the Freedom of Information Act (5 U.S.C. 552), procedures for timely release of information to the public regarding projects and programs implemented under this Memorandum of Understanding will be by mutual agreement between DOE and the USGS representatives. As the lead Government Agency for the Office of Civilian Radioactive Waste Program, the DOE will maintain and coordinate interactions and correspondence with the States, Tribes, and other local governmental and public organizations. The USGS will release non-classified data and respond to questions regarding their scientific opinion upon request, and concurrently notify the DOE of the release along with a copy of the material.

D. Amendment and Termination

This Memorandum of Understanding may be modified or amended by written agreement between DOE and the USGS and terminated by mutual agreement of DOE and the USGS or by either party upon 30-day written notice to the other.

E. Effective Date

This Memorandum of Understanding is effective when signed by both parties.

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Michael J. Lawrence  
Acting Director  
Office of Civilian Radioactive  
Waste Management  
U.S. Department of Energy

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Dr. Dallas L. Peck  
Director  
U.S. Geological Survey  
U.S. Department of the Interior