see packet 2 for encl

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December 21, 1984

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MEMORANDUM FOR: Robert E. Browning, Director
Division of Waste Management

FROM: Paul T. Prestholt, Sr. OR-NNWSI

Subject: NNWSI Site Report for Weeks of Dec. 3, 10, and 17, 1984

I. The DOE NNWSI Project/NRC Quality Assurance Meeting was held in Las Vegas, Nevada on December 13-14, 1984. The meeting was a success from both the NNWSI and the NRC viewpoint.

The NRC gained a valuable insight into the strengths and weaknesses of the NNWSI project organization. The total commitment of the NNWSI project management was demonstrated along with some of the difficulties that this management is experiencing in implementing this commitment in all levels of the NNWSI organization. There is resistance to the formal QA program among some investigators in all of the participating organizations. However, I believe it is fair to say that the WMPO and SAIC staffs are working effectively within the NNWSI QA program.

The most immediate question the NNWSI have is whether or not the actual writing of the EA should or must be done under the formal QA program. It is understood that the data and conclusions presented in the SCP must come under appropriate QA.

A list of questions concerning QA matters was given to the NRC team the evening before the first day of the meeting. The NRC team discussed the questions with the DOE and promised to respond, in writing, in the near future.

I have scheduled a meeting with Dr. Vieth and Jim Blalock early in January to discuss the QA meeting and to get detailed NNWSI comments.

II. The Ninth Circuit Court of Appeals in San Francisco has denied the State of Nevada's request for an injunction against the DOE to stop issuance of the EA. However, the action to force DOE

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to grant the full $3.5 million to the State of Nevada is going forward. The State has asked the Court to speed up it's action so a decision should be coming soon.

III. Bob Loux, State of Nevada, has invited me to attend the DOE briefing to the State officials on the morning of January 8, and the State's discussions on the afternoon of the 8th. This briefing will be given in Carson City, Nevada.

IV. It is my understanding that Steve Frishman, State of Texas, was given a copy of the EA during the week of December 10.

V. The National Conference of State Legislatures held a seminar in Las Vegas on December 4 and 5. In attendance were members of the State Legislatures, legislative assistants, Governor's staff members, government officials, interested public, and the media. A package with an agenda, list of Official attendees, and other handouts of interest is enclosed.

An interesting point: Only the DOE mentioned NRC involvement in the waste disposal program, even though there were two NRC speakers.

VI. On December 12, I went to the NTS with DOE and State of Nevada personnel. The purpose of the trip was to introduce Mr. David Tillson to the Nevada Test Site. Mr. Tillson is a consultant, hired by the State, to review Chapter 2 of the EA. Some NRC staff will remember Mr. Tillson as a top, technical (geology) investigator for WPPSS at Hanford, Washington.

We visited the areas that had been considered for a repository before the NNWSI settled on Yucca Mountain. We visited the Yucca Mountain site, and the Calico Hills, Wahmonie, and Skull Mountain sites. Garry Dixon, USGS, lead the field trip and described the history of the investigations.

VII. The DOE-NVOO called a news conference at 11:00 AM, PST, December 19. Members of the local news media, DOE, and DOE contractor employees were present. The Washington D. C. news conference held by DOE Secretary Hodel and Ben Rusche was heard via telephone line. Statements were then made by Tom Clark, NVOO Manager; and Don Vieth, WMPO Manager. Questions were asked by members of the news media. The only item of interest that came out of the news conference held in Las Vegas, was the general ignorance of the Nuclear Waste Disposal Program displayed by members of the Media. In later television reports, Dr. Vieth's name was mispronounced, and the EPA was given credit for picking the sites.

The handout given at the news conference is enclosed. The

Executive Summaries of the nine EA's were given to participants.

I have received a copy of the EA for the NNWSI and have begun a review of the document.

See memo to REB fm Prestholt 12/21/84
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MEETING PARTICIPANT LIST

DATE: Dec 13, 1984
PLACE: Las Vegas, NV

PURPOSE: DOE/NRC Meeting - QA

CALLED BY:

NAME	TITLE	ORGANIZATION	LOCATION	PHONE	MAIL STOP
W.D. Altman	Chief, Policy & Prog.	Devel, IE	Bethesda	FTS 492-8496	EWS 305
Jim Kennedy	Chief, BWIP Section,	NMSS	Silver Spring	301 427-4177	623-SS
John T. Greeves	Section Chief	NRC	"	301-427-4734	623-SS
CARL JOHNSON	CHIEF-TECH. PROG.	STATE OF NEVADA	CARSON CITY NV	702 885-3744	
Jack Hess	Assoc. Proj. Dir.	DRI - State of Nevada	Las Vegas NV	702-798-8882	
CRAIG G. WALENGA	QA STAFF, POLICY & PROG. DEVEL.	NRC IE	BETHESDA	FTS 4924787	EWS 305
William M. Bland	Consultant	to NRC NM	Houston, TX 77058	(713)-333-4580	18575 [illegible]
Paul T. Prestholt	On-Site Rep	NRC	Las Vegas	FTS 598 6125	
Dean G. Bilhorn	Sys. Perf. Analyst/PM	NMSS	Silver Spring	FTS 427-4682	623-SS
M. J. Wise	Engineer	SAIC	McLean	703-827-4955	
M.A. GLORA	Licensing Eng.	SAIC	Las Vegas	575-1463	—
JOHN A. TEGTMEIER	PROJ. ENGR.	HOLMES&NARVER	LAS VEGAS	FTS 575-7763	605
J. R. Rollo	Deputy Asst. Director	USGS	Reston VA	FTS 928-6032	106
ED HELLEY	GEOLOGIST	USGS	MENLO PARK CA	FTS 467-2462	975
Elmer H. Baltz	Geologist	USGS	Denver	776-1273	913
D.D. PORTER	TECH. SUPPORT	SAIC-Golden	Denver	231-9094	
N. RICHARD GLOVER	GROUP LEADER	OQAS/PE-23	GERMANTOWN	FTS 233-5607	G-140
Gene Rush	Hydrologist	USGS	Denver	FTS 776-5307	916
Don A. York	Staff Member	Los Alamos	Los Alamos, NM	FTS 843-8458	G787
Tom MERSON	STAFF MEMBER	LOS ALAMOS	LOS ALAMOS, NM.	FTS 843-5726	G 787
Paul L. Aamodt	STAFF MEMBER	Los Alamos	Los Alamos, NM	FTS 843-7690	D462
Steve Francis	staff member	Los Alamos	Los Alamos, NM	FTS 843-5726	G787
Rosemary Vidale	Assoc. Grp. Ldr, INC-7	Los Alamos	Los Alamos, NM	FTS 843-0709	J514
Joe Tillerson	Supv.-Stability/Rock Mech	Sandia	Albuquerque, NM	FTS-844-5575	Div 6313
JACK A. CROSS	V.P. & GEN'L MGR	FENIX & SCISSON, INC	LAS VEGAS NEV	702-295-3627	
L.M. FORD	STAFF MEMBER	SANDIA	ALBUQUERQUE, NM	FTS-844-2176	Div 6313
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E.W. SHEPHERD	TASK LEADER	SNL	ALBUQUERQUE	FTS-844-0184	6310
D.T. OAKLEY	LOS ALAMOS TPO	LANL	Los Alamos	843-1310	F671
L.B. BALLOU	DEP. PROJ. MGR.	LLNL	LIVERMORE CA	FTS 532-4911	L206
M.J. REGENDA	DIRECTOR OF QA	FENIX & SCISSON	MERCURY, NV	702-295-6582	697

MEETING PARTICIPANT LIST

DATE: Dec 13, 1984 PURPOSE: DOE/NRC Meeting - QA

PLACE: Las Vegas, NV

CALLED BY:

NAME	TITLE	ORGANIZATION	LOCATION	PHONE	MAIL STOP
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D. L. Vieth	Director	WMPO	Las Vegas	FTS 575-3662	505
M. E. Langston	QA Manager	OCRWM	HQ	FTS 252-1252	5A-051
E. W. Sulek	QA Manager	Weston	Rockville, MD	301-963-5216	—
Carl Newton	QA Manager	DOE-HQ OGR	Wash. D.C.	FTS 252-1248	RW-23
Bob Barker	Program Liaison	WMPO	Las Vegas	FTS 575-1585	506
Mike Valentine	Mat'l Engineer	WMPO	Las Vegas	FTS 575-1557 Com. 295-1557	505
V. F. Witherill	Branch Chief	WMPO	Las Vegas	FTS 575-1094	505
J. R. Willmon	QA Specialist	USGS	Denver	FTS 776-4924	418
W. W. Dudley	Tech. Prog. Off.	USGS	Denver	FTS 776-4921	418
P. L. Bussolini	Group Leader	USGS/LANL	Los Alamos	FTS 843-5400	G736
Stephen Metts	QA	SAIC/LV	Las Vegas	FTS 575-0856	517
Milton Kowalenski	QA	SAIC/LV	Las Vegas	FTS 575 0866	517
Ron Micheb	QA Engr	LANL	Los Alamos	FTS 843 5816	G755
Stan Klein	QA Mgr.	SAIC/LV	Las Vegas	295-0854	517
John R Rinaldi	QA Director	DOE	Las Vegas	FTS 595-1001	505
V. L. Angell	Chief, QA	H & N	NTS	295-7140	660
H. N. Planner	QA Rep	LANL	Los Alamos	FTS 843-1582	F665
J. A. (Bert) Beaton	QA Specialist	LANL	Los Alamos	FTS 843-1370	G 755
M. M. Azhikakath	Director	Reeco	Las Vegas.	FTS 295-6611	G-25
Gary J. Bracken	QA	BWIP-DOE	Richland	FTS 444-6579	SQA
Sam B. Singer	QA Engr.	SAIC/LV	Las Vegas	FTS 295-0800	517
Nancy Ventura	QA Engr.	DOE/NV	Las Vegas	FTS 575-1452	505
John L. Donnell	QA Specialist	SAIC/LV	Las Vegas, NV	FTS 295-0843	517
Mono A. Fox	Sr. Engr.	Reeco	Las Vegas	295-7106	625
A. K. Fowkes	Q.A. Mgr.	Reeco	Las Vegas	FTS 295-7106	625
Arend Meijer	Staff Member	LASL	Los Alamos	(505) 667-0765	J-519
Ralph W. Richards	Project Engineer	DOE/WMPO/NV	Las Vegas	FTS 575-1124	505
David Jorgenson	Reg. Compl.	SAIC	Las Vegas	FTS 575-1204	517
Michael Voegele	Reg. Comp.	SAIC	Las Vegas	FTS 575-1460	517

MEETING PARTICIPANT LIST

DATE: 12/13/84
PLACE: Las Vegas

PURPOSE: DOE/NRC QA Meeting

CALLED BY:

NAME	TITLE	ORGANIZATION	LOCATION	PHONE	MAIL STOP
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JOHN DRONKERS	Q.A.	LLNL	LIVERMORE	FTS 532-1414	L-204
Jean Younker	Senior Geologist	SAIC	L. Vegas	FTS 575-1461	

NAME	TITLE	ORG.	LOCATION	PHONE	MAIL S
UEL S CLANTON	GEOLOGIST	WMPO	LAS VEGAS	FTS 575-1584	505
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Szymanski Jerry S.	Geologist	WMPO	- " -	575-1503	
LARUE, JOE	LICENSING ENG.	SAIC	LAS VEGAS	FTS 575-1464	—
ECHOLS STAN	Attorney	DOE	Washington DC	252-6[illegible]	E.A-113
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Gerald L DePoorter	Geochem Project Manager	LANL	Los Alamos	FTS -843 1033	F671

AGENDA FOR NRC VISIT TO NNWSI PROJECT
TO REVIEW THE QA PROGRAM

December 13 - 14, 1984
Sahara Space Center, Las Vegas, NV

DAY 1 - December 13, 1984, Room 7

D. L. VIETH, DIRECTOR WMPO. . . . . .8:30 - 9:00

- o Opening Discussion and Introductions
- o Discuss Assessment of the Overall Status and Philosophy of QA on the NNWSI Project
- o Review Agenda

OPENING DISCUSSION AND INTRODUCTIONS BY NRC . . . . . .9:00 - 9:30

- o Discuss Purpose of Visit
- o Review NRC QA Philosophy
- o Introduce NRC and NRC Contractor Participants

BREAK . . . . . .9:30 - 9:40

NRC QUALITY ASSURANCE REVIEW PLAN . . . . . .9:40 - 12:00

- o Review Key Requirements in the Review Plan
- o Note DOE Comments on the Draft which were Not Included and the NRC Rationale for Not Including
- o Entertain Questions from DOE

LUNCH . . . . . 12:00 - 1:00

D. L. VIETH, DIRECTOR, WMPO . . . . . 1:00 - 1:30

- o NNWSI Project Organization
- o NNWSI Project Participants and Their Role in the Project
- o Introduce DOE and DOE Contractor Participants

JAMES BLAYLOCK, PROJECT QUALITY MANAGER . . . . . 1:30 - 3:00

- o QA Organization of the NNWSI Project
- o Hierarchy of QA Requirements
- o Structure of NNWSI Project QA Plans and Procedures
- o NNWSI - Quality Assurance Plan
- o NNWSI - SOPs

BREAK . . . . . 3:00 - 3:15

M. P. Kunich, Assistant Director, WMPO . . . . . 3:15 - 4:30

- o WMPO QA Program Plan
- o WMPO QMPs

DAY 2 - December 14, 1984, Room 11

W. W. DUDLEY, USGS. . . . . 8:30 - 9:00

- o Broad Overview of USGS Technical Program
- o Explanation of USGS Organization
- o Separation of QA Management Function from QA Implementation
- o Proposed Levels of Quality Control for USGS Activities

P. L. BUSSOLINI, LANL . . . . . 9:00 - 9:30

- o Organization, Status, and Content of USGS QA Program
- o Explanation of the QAPP
- o Explanation of Administrative Procedures

J. R. WILLMON, USGS . . . . . 9:30 - 10:15

- o Organization, Status, and General Content of Unit Task Procedures and Detailed Technical Procedures

BREAK . . . . . 10:15 - 10:30

J. R. WILLMON, USGS . . . . . 10:30 - 12:00

- o Discuss How Detailed Technical Procedures Address QA Requirements

LUNCH . . . . . 12:00 - 1:00

EXIT MEETING. . . . . 1:00 - 4:00

- o NRC and DOE to Discuss Results of Meeting and Prepare Meeting Minutes.

DOE/RW-0008

FACT SHEET

Office of Civilian Radioactive
Waste Management
U. S. Department of Energy
Washington, D. C. 20585

IMPLEMENTATION OF THE NUCLEAR WASTE POLICY ACT OF 1982

BACKGROUND

The safe disposal of spent nuclear fuel and high-level radioactive waste is a matter of national concern. Since the first U.S civilian nuclear reactor began generating electricity in 1957, electric utilities have accumulated over 10,000 metric tons of spent nuclear fuel. There are now 85 licensed, commercial reactors in the U.S. Based on current projections of nuclear generating capacity, by the turn of the century, there will be an estimated 50,000 metric tons of spent nuclear fuel.

The spent nuclear fuel rods are being stored in deep pools of water inside the power plants. The water cools the fuel rods and serves as an effective shield to protect workers at the reactor sites from the radiation. The level of radiation begins declining immediately; and within 10 years, it decays some 90 percent. Nevertheless, some fission products remain highly radioactive for many years, and, therefore, require long-term and permanent isolation from the public and the environment. Storage of the spent nuclear fuel at the reactors is a temporary measure.

The passage of the Nuclear Waste Policy Act of 1982 (NWPA) was a major milestone in the Nation's management of nuclear waste. This Act, which was signed into law by the President January 7, 1983, established a national policy for the safe storage and disposal of spent nuclear fuel and high-level waste. In brief, the Act requires the Department of Energy to provide for the development of deep, geologic repositories for the disposal of spent nuclear fuel and high-level waste; to submit a proposal to Congress to develop monitored retrievable storage facilities as an available option to geologic repositories; and to establish a program of research, development and demonstration regarding the disposal of spent nuclear fuel and high-level waste.

The NWPA established a schedule and step-by-step process by which the President, the Congress, the States, affected Indian tribes, the U.S. Department of Energy (DOE) and other Federal agencies must collaborate in the siting, design, construction and operation of geologic repositories for disposal of high-level radioactive waste generated by civilian nuclear reactors. This law has provided a mandate and, more important, a set of rules--including unprecedented collaboration among the Federal Government, the States and the public--for proceeding with the identification and selection of sites for a repository as well as for Federal interim storage facilities in the event they are needed.

To implement the NWPA and to carry out the associated programs and projects, the NWPA established, within DOE, the Office of Civilian Radioactive Waste Management with the Director of the office directly responsible to the Secretary. In the spring of 1984, Ben C. Rusche was nominated by the President and confirmed by the United States Senate as Director of the office.

STATUS

o Mission Plan

DOE has prepared a draft Mission Plan describing the information needs of the program being conducted by DOE to fulfill the requirements of the NWPA. As required by the NWPA, DOE submitted the draft Mission Plan to the States, the affected Indian tribes, the NRC and other Federal agencies for their comments and made it available for public inspection. More than 3,000 comments have been received and are currently being evaluated. When finalized, the Mission Plan will present an estimate of what DOE sees needs to be done now to be in a position to begin accepting waste for disposal in 1998. It will describe program objectives, strategies, programs and projects as well as key features of the repository program.

o Repository Siting Guidelines

Guidelines have been developed by DOE for recommending sites for a repository. These guidelines establish the performance requirements for a geologic repository system, define the technical and environmental qualifications that candidate sites must meet, and specify how DOE will carry out its site selection process. They were developed through consultation with other Federal agencies and with Governors; as a result of testimony given at public hearings; and after reviewing written comments submitted by interested parties.

DOE held five public hearings around the country, received more than 3,000 comments from States and the public, held 29 individual or collective meetings with States, and consulted extensively with other Federal agencies. The NRC conducted an extensive review of the Guidelines, held a public hearing and received additional comments from States and other interested parties. As a result of this review and numerous discussions between NRC and DOE, the NRC concurred in final guidelines on June 22, 1984, in a unanimous vote of 5 to 0.

o Repositories

When the NWPA became law in January 1983, DOE had under study, nine sites for consideration for the first repository. In February 1983, and as required by the NWPA, DOE formally identified the nine sites as being potentially acceptable sites for the first repository. At that time, the Governors and

legislatures of these States, as well as affected Indian tribes, were notified. The nine potentially acceptable sites are in six States: one site in Nevada in a geologic medium called tuff, which is compacted volcanic ash; one site in Washington in basalt, which is a very fine-grained rock that is formed by the solidification of lava; two sites in Texas in bedded salt; two sites in Utah in bedded salt; one site in Louisiana in a salt dome; and two sites in Mississippi in salt domes.

There are currently three Indian tribes which have been determined by the Secretary of the Interior to be affected Indian tribes--the Yakimas, the Umatillas and the Nez Perce. These three Indian tribes are near the potential site located in Washington State. The NWPA defines "affected Indian tribe" as any Indian tribe within whose reservation boundaries a site is proposed to be located or whose federally-defined possessory or usage rights to other lands outside the reservation's boundaries arising out of treaties may be substantially and adversely affected by locating such a facility.

Based on the repository siting guidelines, draft environmental assessments have been prepared on the nine potentially acceptable sites. These drafts will be available to States, Indian tribes, Federal agencies and other interested parties for comment and public hearings will be held. After review of oral and written comments, environmental assessments will be finalized. Based on environmental assessments, five or more of the nine sites will be nominated as suitable for detailed site investigation and analysis--called site characterization. From among the nominated sites, three sites will be recommended to the President for site characterization. It is expected that the recommendation of sites for site characterization will occur in mid-1985.

Upon approval by the President, detailed site characterization studies can begin. Site characterization will include construction of deep exploratory shafts to the underground rock being considered for a repository. Detailed information will be gathered and analyzed on physical, chemical, geologic, hydrologic, environmental and biological aspects of the sites being characterized. Inclusive socioeconomic studies will also be conducted.

On the basis of site characterization and an Environmental Impact Statement, DOE will recommend to the President one of those sites for construction of the first repository. Current plans are to make this recommendation in 1990 rather than 1987 as called for in the NWPA. The additional time is required to obtain necessary permits to begin characterization, and to collect sufficient data.

If the President approves the site for the repository, the site recommendation will be submitted to Congress. Upon the submission by the President to the Congress of a recommendation of a site for a repository, the Governor or legislature of the State in

which such site is located or affected Indian tribe may disapprove--veto--the site designation and submit to Congress within 60 days of the President's recommendation a notice of disapproval. Such notice of disapproval shall be accompanied by a statement of reasons explaining why the Governor, legislature or Indian tribe disapproves. If no notice of disapproval is received by Congress, the designation of the site for development of a repository will become effective 60 days after the President recommends the site to Congress. If a notice of disapproval is received, such disapproval will stand unless within 90 days after receipt of a notice of disapproval both Houses of Congress override the disapproval.

Once the site selection becomes effective, DOE will submit to the NRC an application for authorization to construct the repository. The NRC has three years to review the application.

While the NWPA does not authorize the actual construction of a second repository, it does require DOE to carry out the siting and development activities essential to preparation for such a repository. The activities in the siting process for the second repository, generally follow 5 years behind the first repository siting.

As part of DOE's efforts toward siting a second repository, DOE has been conducting studies of existing literature on crystalline rock in 17 States to determine if their States contain potentially acceptable sites for a second repository. These States are Connecticut, Georgia, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia and Wisconsin. DOE has conducted no field studies in these States and will not do so until completion of literature surveys. Potentially acceptable sites for the second repository are planned to be identified in 1986.

Throughout the site selection process, DOE must adhere to relevant environmental standards set by the Environmental Protection Agency and regulatory requirements set by the NRC.

o Monitored Retrievable Storage

Monitored retrievable storage (MRS) is the non-permanent, long-term storage of radioactive waste in facilities that permit continuous monitoring, ready retrieval and periodic maintenance to assure containment of the radioactive materials. In accordance with the NWPA, DOE is developing a monitored retrievable storage (MRS) option and will proceed with this option on a parallel track with the repository program up to and through the licensing of a repository. If eventual construction were authorized by the Congress, MRS could provide storage capacity prior to availability of a geologic repository.

DOE prepared and submitted in June 1983, a report to Congress which concluded that the MRS proposal can be prepared using

currently mature engineering and design practices without additional research and development.

The NWPA requires DOE to complete on or before June 1, 1985, a detailed proposal for construction of one or more MRS facilities. The proposal is to include at least five designs based on alternative site/concept combinations for at least three sites. The sealed storage cask (SSC) and open field drywell concepts are being developed. The SSC concept has been selected by DOE as the preferred concept to be developed in detail. This decision was made as a result of a comprehensive selection process to ensure that DOE design the concepts most suitable for the potential MRS applications. The selection process and selection were reviewed by a committee of senior DOE management and a number of independent reviewers representing the nuclear industry, utilities, the scientific community, State organizations and Congressional staff.

The selected concepts have inherent safety features and are considered among the safest concepts considered. In the development of the MRS proposal, prime consideration will be given to safety and flexibility of the design concepts. The proposal itself is to include a program for the siting, development, construction and operation of facilities to be licensed by NRC; a funding plan so that the costs shall be borne by waste generators and owners; and a plan for integrating MRS with other storage and disposal methods. The proposal and plans for possible deployment of an MRS, if authorized by Congress, would provide greater assurance of Government acceptance of spent fuel and high-level waste beginning no later than January 31, 1998, should there be any significant delays in the geologic repository.

o Interim Storage

The NWPA clearly states that utilities have the primary responsibility for the interim storage of spent fuel. For utilities which are unable to provide adequate at-reactor storage capacity for their spent fuel, DOE is authorized to provide interim storage for up to 1900 metric tons of spent fuel. The NRC will determine eligibility of utilities for federal interim storage; and DOE has developed a standard contract and fee schedule for Federal interim storage. Current spent fuel inventory and storage projections indicate little, if any immediate demand for Federal interim storage.

Research and Development

As required by the NWPA, DOE will conduct a cooperative demonstration program to demonstrate at-reactor storage technologies. DOE is currently conducting a cooperative demonstration program with the Tennessee Valley Authority (TVA) to demonstrate fuel rod consolidation. Rod consolidation involves the dismantling of the fuel assembly and rearranging the spent fuel rods into a more compact array. This procedure

represents a cost-effective method for significantly increasing the capacity of some utility storage pools. A cooperative agreement is currently being negotiated with Northeast Utilities Company of Hartford, Connecticut, to demonstrate rod consolidation.

Dry storage systems also provide an alternative for additional spent fuel storage at nuclear power plants. Potential systems for dry storage include casks, drywells, silos or vaults. DOE has over 20 years experience with dry storage technologies. Drywell, silo and vault storage have been demonstrated at DOE facilities in Nevada. DOE entered into a cooperative agreement with TVA in 1982 to demonstrate licensed storage in two prototype storage casks.

In February 1984, DOE signed a contract with Nuclear Fuel Services, Inc., Rockville, Maryland, to demonstrate, under a cost-sharing arrangement, cask transportation and dry storage. And in March 1984, DOE entered into cooperative agreements with the Virginia Electric and Power Company (VEPCO), Richmond, Virginia, and the Carolina Power and Light Company (CP&L), Raleigh, North Carolina, to participate in a demonstration of dry storage of spent fuel in specially designed metal casks and concrete storage modules.

o Defense High-Level Waste

The NWPA requires the President to evaluate not later than two years after enactment of the Act the use of disposal capacity at the civilian repositories for disposal of high-level waste resulting from defense activities. The NWPA further states that after taking into account all these factors, unless the President finds that the development of a separate repository is required, the Secretary of Energy shall proceed with arrangements for using the "civilian" repositories for both. This evaluation is to take into consideration factors relating to cost efficiency, health and safety, regulation, transportation, public acceptability and national security.

A draft evaluation has been prepared by DOE and made available for public comment. Based on the draft evaluation, the only factor that results in a significant advantage for either option --disposing of commercial high-level waste and defense high-level waste in the same repositories or in separate repositories--is cost efficiency. Due to the clear cost advantage to be gained by disposing of defense wastes in a combined commercial and defense repository, DOE may recommend this option. However, such a recommendation will take into account comments received on the draft evaluation. The NWPA clearly states that costs resulting from permanent disposal of defense high-level waste shall be paid by the Federal Government.

Defense high-level waste is generated and currently stored at three DOE sites: the Savannah River Plant, the Idaho National Engineering Laboratory and the Hanford Reservation. The amount

of defense high-level waste anticipated for disposal is the equivalent to approximately 10,000 metric tons.

o Transportation of Spent Fuel and High-Level Waste

The capability to transport nuclear spent fuel and radioactive waste safely and economically is critical to implementation of the NWPA. This capability is contingent upon the availability of appropriate types and quantities of equipment and a stable regulatory and institutional environment. The NWPA places responsibility for the transportation on the Department, but also states that nothing in the NWPA shall be construed to affect Federal, State or local laws pertaining to the transportation of spent nuclear fuel or high-level waste. In addition, the NWPA directs that private industry be utilized to the fullest extent possible in performing the transportation functions.

To ensure timely compliance with these directives, the Department has initiated procedures to: (1) provide for the technical development of the transportation system including development of shipping casks appropriate for NWPA requirements; and, (2) establish the required institutional relationships with States, tribal and local governments and with the public.

Technical development of the transportation system is planned in four phases: (1) system definition; (2) engineering development and certification of the casks; (3) cask fleet procurement and carrier negotiations; and, (4) transportation operations. DOE plans to publish during 1985 a Transportation Business Plan, which will delineate activities within each of these phases. At this time, a preliminary options document is being developed for the purpose of obtaining private sector participation in the formulation of DOE's transportation business strategies.

DOE also plans to issue an Institutional Plan during 1985. This plan will serve as a guide in establishing communications with and encouraging participation by those institutions affected by the implementation of the transportation aspects of the NWPA.

o International Cooperation

In March 1983 and again in April 1984, DOE and NRC published in the Federal Register a Joint Notice announcing the policy of the United States to cooperate with and provide technical assistance to non-nuclear weapon states in the field of spent fuel storage and disposal. Egypt, Brazil, Korea, Mexico, Japan and the Netherlands are among those countries which have expressed interest in this offer. In addition, informal expressions of interest also have been expressed by other countries.

NUCLEAR WASTE FUND

The NWPA established the Nuclear Waste Fund to finance the waste disposal program. The main source of revenue for the Fund is a one mill (one-tenth of a cent) per kilowatt hour fee charged to

nuclear utilities for all electricity generated by civilian nuclear reactors beginning April 7, 1983.

Revenues collected by DOE through August 1984 total approximately $402 million. In addition to spent fuel generated since April 7, 1983, high-level radioactive waste and spent nuclear fuel generated prior to April 7, 1983, is subject to a fee equivalent to an average charge of one mill per kilowatt hour. Utilities have three options for paying this fee and must decide by June 1985 on the option they select. The estimated revenues from this "in-core" spent fuel is $2.3 billion and, if utilities choose a deferred payment option, this amount will increase as interest is applied.

The NWPA provides for annual review and adjustment of the fee for nuclear generated electricity to determine if the fee is sufficient to meet full-cost recovery, as mandated. The estimated total system life cycle cost of the program is approximately $20 billion in constant 1983 dollars. Based on current nuclear power generation projections, revenue flows will approximate $300 million to $400 million per year. It is DOE's objective to maintain the program at the one mill per kilowatt hour revenue level.

DISPOSAL CONTRACT

Following enactment of the NWPA, DOE developed a standard contract for use as the formal agreement between DOE and utilities to dispose of spent fuel or high-level waste beginning in 1998. The contract sets forth terms and conditions as well as financial procedures and a fee structure. As part of the contract, DOE is developing a waste acceptance schedule.

As of June 30, 1983, and as specified in the NWPA, 70 contracts were signed with 56 different organizations, including 46 lead nuclear utilities covering 80 licensed nuclear plants, eight owners of industrial test reactors, and two nuclear fuel vendors. For those who become owners or generators of spent fuel or waste subsequent to June 30, 1983, disposal contracts must also be signed. Furthermore, the NWPA provides that the Nuclear Regulatory Commission (NRC) may require that a disposal contract be signed with DOE as a precondition to NRC's issuance or renewal of an operating license. Between June 30, 1983, and June 30, 1984, five additional operating licenses were issued and five additional disposal contracts have been signed.

o Public Information and Input

The NWPA places a heavy emphasis on DOE's interaction and sharing of information with affected and interested parties. Technical reports, draft documents, plans, fact sheets, brochures, press releases, etc., are issued or distributed to state contacts, public libraries, published in the Federal Register and made available otherwise for information, review or comment.

Public hearings and public meetings and exchanges are held to discuss plans and documents and DOE officials strive to make themselves available for a number of public events where they can discuss issues, solicit public input and answer questions.

For additional information concerning DOE's activities regarding implementation of the Nuclear Waste Policy Act of 1982, you may call Mrs. Ginger King on 202/252-2835 or write to:

U.S. Department of Energy
Office of Civilian Radioactive Waste Management
Outreach Division (RW-44)
1000 Independence Avenue, S.W.
Washington, D.C. 20585

October 1984

U.S. DEPARTMENT OF ENERGY
NEVADA OPERATIONS OFFICE
OFFICE OF PUBLIC AFFAIRS
POST OFFICE BOX 14100
LAS VEGAS, NEVADA 89114

DOE NEWS:

HOLD FOR RELEASE
11 A.M. (PST), December 19, 1984

U.S. DEPARTMENT OF ENERGY ANNOUNCES THREE PROPOSED SITES FOR POTENTIAL DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE

The U.S. Department of Energy (DOE) will release tomorrow, for public review and comment, Draft Environmental Assessments for nine sites in six states being considered as potential locations for the nation's first permanent repository for high-level radioactive waste.

DOE has recommended three of those sites as candidates for detailed investigation ("site characterization"). They are the:

-- Yucca Mountain Site, located about 100 miles northwest of Las Vegas on the southwestern boundary of DOE's 1,350 square-mile Nevada Test Site in Nye County.

-- Hanford Reference Repository Site, in southeastern Washington State.

-- Deaf Smith Site, in the Texas Panhandle.

Site characterization will include construction of exploratory shafts to depths of a proposed repository -- about 1,000 to 4,000 feet below ground -- so that hands-on scientific data collection and analysis can be done to determine if those sites meet the criteria for construction of a repository.

DOE's proposal to recommend the three locations for site characterization is preliminary and subject to public review and comment.

Nine sites were identified in February, 1983, as potentially acceptable locations for a mined geologic repository for spent nuclear fuel and high-level waste. From among those sites, DOE identified five in the Draft Environmental Assessments as being suitable for site characterization.

The five suitable locations are the Yucca Mountain, Hanford and Deaf Smith sites; the Davis Canyon Site in southeastern Utah; and the Richton Dome Site in southern Mississippi.

Other sites considered in the Draft Environmental Assessments are the Vacherie Dome Site, Louisiana; Cypress Creek Dome Site, Mississippi; Swisher County Site, Texas; and Lavender Canyon Site, Utah. Those four sites were not proposed for nomination.

All nine assessments will be available, beginning tomorrow, for a 90-day public comment period. During the 90-day comment period, public information briefings and public hearings on the

Draft Environmental Assessments will be held in each of the six states in which the nine potential sites are located.

DOE will conduct public briefings on the Yucca Mountain assessment January 22 in Las Vegas, January 23 in Beatty, and January 24 in Reno. The briefings are designed to familiarize Nevada residents with the document and to inform them how to make formal comments in subsequent public hearings.

Public hearings on the draft environmental assessment will be held February 25 in Amargosa Valley, February 26 in Las Vegas, and February 28 in Reno. Exact times and locations for the Nevada briefings and hearings will be announced in early January.

The environmental assessments, as well as the public hearings, are required by the Nuclear Waste Policy Act of 1982. The Act lays out a detailed process and timetable leading to operation of the first such repository beginning in 1998.

The Act also calls for DOE to narrow the list of potential repository sites to five, and then to recommend three of those for intensive hydrologic and geologic evaluation.

Based on the results of the four-to-five-year site characterizations, DOE again will evaluate each site and recommend one to the President for the first repository. The President then may recommend the site to Congress. That decision probably will not be made before 1990.

When the President recommends the site to Congress, the host state may issue a notice of disapproval that could be overridden only by a resolution of both Houses of the U.S. Congress. If the notice of disapproval were not overridden, the President would be required to submit another repository site recommendation to Congress within 12 months.

Copies of the Draft Environmental Assessments -- each of which is 1,000 to 1,500 pages long -- are available from the U.S. Department of Energy, Attention: EA, 1000 Independence Avenue, S.W., Washington, D.C. 20585. Requests also can be made through a toll-free telephone number: 1-800-858-1600.

Copies also will be available for review in the Public Reading Room at DOE's Nevada Operations Office, 2753 South Highland Drive, Las Vegas, and at these libraries and resource centers:

Clark County Library (Flamingo Branch), Las Vegas; Amargosa Valley Community Library; Nevada State Library, Carson City; University of Nevada Library, Reno; Washoe County Library, Reno; Nye County Law Library, Tonopah; Lincoln County Library, Pioche; University of Nevada Library, Las Vegas; Beatty Community Library, Beatty; and the Learning Resources Center, Northern Nevada Community College, Elko.

-DOE-

News Media Contact: Chris West, 702-295-3521

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SUMMARY MEETING NOTES
DOE/NRC QUALITY ASSURANCE MEETING
NEVADA NUCLEAR WASTE STORAGE INVESTIGATION
LAS VEGAS, NEVADA
DECEMBER 13-14, 1984

ATTENDEES: Attachment 1

BACKGROUND

This meeting is the first of a series of visits to the NNWSI Site to review and discuss the DOE QA program for the site characterization phase and later phases. The primary purposes of the first visit were for the staff to become familiar with the details of the DOE QA program, and to identify questions concerning implementation and interpretation of NRC QA requirements. The ultimate goal of the site visits is to achieve early agreement between DOE and the NRC staffs on what consititutes an acceptable QA program for licensing.

The scope of review for the first visit was consistent with its overview nature. The DOE-USGS QA and project management organizations and programs to be utilized before, during, and after site characterization phase were presented. The DOE and NRC staffs discussed implementation of various QA program requirements as applicable to site characterization activities through discussion of technical procedures utilized by USGS. ~~J. Kennedy made a presentation on the NRC QA Review Plan and addressed subjects which are expected to be difficult to incorporate into the DOE program. In addition, W. Altman discussed IE's involvement in the high level waste repository program and NRC policy and program development activities for QA.~~

The agenda for the visit is presented in Attachment 2.

DEVELOPMENTS

1. Project Observations

NNWSI ~~Comments~~ - Attachment 3

NRC Comments - Attachment 4

Comments from State of Nevada - Attachment 5

OPEN ITEMS

Both NRC and DOE/NNWSI follow-up actions are contained in Attachment 6.
AGREEMENTS - ATTACHMENT 7
Attachment B - Presentation material.
This report was agreed to by DOE and NRC prior to adjournment.

DOE Donald L. Vieth Date 12/14/84

NRC Bruce E. Kennedy Date 12/14/84

Record note by NRC:
with respect to DOE Observation number 1, the NRC staff indicated during the meeting that information used to support a license application must fall under the Appendix B quality assurance program, as required by NWPA and 10CFR Part 60.

ATTACHMENT 2 - AGENDA

AGENDA FOR NRC VISIT TO NNWSI PROJECT TO REVIEW THE QA PROGRAM

December 13 - 14, 1984
Sahara Space Center, Las Vegas, NV

DAY 1 - December 13, 1984, Room 7

D. L. VIETH, DIRECTOR WMPO . . . . . 8:30 - ~~9:00~~ 9:15

- o Opening Discussion and Introductions
- o Discuss Assessment of the Overall Status and Philosophy of QA on the NNWSI Project
- o Review Agenda

OPENING DISCUSSION AND INTRODUCTIONS BY NRC . . . . . ~~9:00~~ 9:15 - 9:30

- o Discuss Purpose of Visit
- o Review NRC QA Philosophy
- o Introduce NRC and NRC Contractor Participants

BREAK . . . . . ~~9:30~~ 9:50 - ~~9:40~~ 10:10

NRC QUALITY ASSURANCE REVIEW PLAN . . . . . ~~9:40~~ 10:10 - ~~12:00~~ 12:30

J. Kennedy
D. Altman

- o Review Key Requirements in the Review Plan
- o Note DOE Comments on the Draft which were Not Included and the NRC Rationale for Not Including
- o Entertain Questions from DOE

LUNCH . . . . . ~~12:00~~ 12:30 - ~~1:00~~ 1:30

D. L. VIETH, DIRECTOR, WMPO . . . . . ~~1:00~~ 1:30 - ~~1:30~~ 2:00

- o NNWSI Project Organization
- o NNWSI Project Participants and Their Role in the Project
- o Introduce DOE and DOE Contractor Participants

JAMES BLAYLOCK, PROJECT QUALITY MANAGER . . . . . ~~1:30~~ 2:00 - ~~3:00~~ 4:00

- o QA Organization of the NNWSI Project
- o Hierarchy of QA Requirements
- o Structure of NNWSI Project QA Plans and Procedures
- o NNWSI - Quality Assurance Plan
- o NNWSI - SOPs

BREAK . . . . . ~~3:00~~ 3:30 - ~~3:15~~ 3:45

M. P. Kunich, Assistant Director, WMPO . . . . . ~~3:15~~ 4:00 - ~~4:30~~ 5:00

- o WMPO QA Program Plan
- o WMPO QMPs

DAY 2 - December 14, 1984, Room 11

W. W. DUDLEY, USGS. . . . . 8:30 - ~~9:00~~ 9:45

- o Broad Overview of USGS Technical Program
- o Explanation of USGS Organization
- o Separation of QA Management Function from QA Implementation
- o Proposed Levels of Quality Control for USGS Activities

P. L. BUSSOLINI, LANL . . . . . ~~9:00 - 9:30~~ 10:00

- o Organization, Status, and Content of USGS QA Program
- o Explanation of the QAPP
- o Explanation of Administrative Procedures

J. R. WILLMON, USGS . . . . . ~~9:30 - 10:15~~

- o Organization, Status, and General Content of Unit Task Procedures and Detailed Technical Procedures

BREAK . . . . . ~~10:15 - 10:30~~

J. R. WILLMON, USGS . . . . . ~~10:30 - 12:00~~ 12:15

- o Discuss How Detailed Technical Procedures Address QA Requirements

LUNCH . . . . . ~~12:00~~ 12:15 - 1:00

EXIT MEETING. . . . . 1:00 - 4:00

- o NRC and DOE to Discuss Results of Meeting and Prepare Meeting Minutes.

ATTACHMENT 3

Questions to the NRC

- NRC QA Direction to the DOE

  - Is the NRC's position that if the DOE meets the intent of Appendix A of the NRC QA Review Plan, dated June 1984, the criteria of 10 CFR 50, Appendix B will be satisfactorily implemented?

  or

  - Will the NRC recognize another document as being acceptable to follow to implement the criteria of 10 CFR 50, Appendix B (e.g., NQA-1 or 45.2)?

- What is the NRC's position regarding a graded QA approach? Will the NRC be involved with activities that are not radiologically related, e.g., other than important to waste isolation or important to safety as per 10 CFR 60?

- An important part of Site Characterization and the assessment of the natural barrier for waste isolation is the information gathered from the performance of experiments and research. Where the information obtained is not used directly as input to design performance assessment, or modeling, but is used to point a direction for further activities do the QA requirements of the review plan apply?

- What is NRC's position regarding the use of information from recognized technical journals as input to design, experiment, or research activities? If used, must this information be verified, validated, or authenticated prior to use?

- What does NRC mean by conceptual (thought notion, abstract of ideas) as it relates to design control? (ref. 3.1 of NRC QA Review Plan) Conceptual is a basis thought notion or an abstract of ideas. It is the NNWSI position that the QA Controls implied by the NRC QA Review Plan will start with Title I design activities.

- Is it the NRC's intent that QA become involved in special process qualifications beyond the activities of surveillance and audit? (ref. 9.3 of NRC QA Review Plan)

- Is the NRC's position that the QA organization should actually perform all inspection activities? (ref. 10.2 of NRC QA Review Plan)

- What is the NRC's intent regarding further DOE/NRC interchanges, formal inspections/audits, or informal information exchanges? If the later, when will this change?

- What is the role of NRC I&E in the Waste Management Project?

- Section 2.3 of the NRC Standard Review Plan contains a quote from NRC Regulatory Guide 4.17 which states in part that "The QA methods should be presented in sufficient detail to allow NRC to make an independent evaluation of the precision, accuracy, reproducibility, analytic sensitivity, and limitation of data acquisition and analysis methods that were used during site exploration and will be used during site characteriization." In section 3.1, 2nd paragrah, of the NRC Standard Review Plan it states "A list of QA and technical procedures which implement the program description in the Site Characterization Plan should be identified and referenced in the SCP." It appears that the Standard Review Plan has established two different levels of detail for the same requirement. Is it NRC's intent that all the procedures used on the NNWSI Project be paraphrased in the QA Section of the SCP or will reference to the procedures satisfy the intent as implied by the NRC QA Review Plan?

Attachment 3 – NNWSI Project Observations

~~DOE OBSERVATIONS~~

1. It is DOE/WMPO's understanding based on comments presented in the meeting, that it is not necessary to prepare the SCP under 10 CFR 50 Appendix B quality assurance control. Rather, it is WMPO's understanding that modifications, revisions, and additions to the technical plans specified in the SCP should be controlled per 10 CFR 50 Appendix B.

2. It is DOE's understanding that deviations from the Quality Assurance Review Plan are acceptable, provided that justifications for any deviation from the plan are ~~made available~~ submitted for NRC review and approval.

3. In DOE's view, the QA workshop was helpful in establishing and developing lines of communication. Also, the meeting was a valuable step toward defining the appropriate emphasis of the QA program in the context of site characterization for purposes of repository licensing.

Attachment 4 - NRC Comments

- As noted in the opening comments, this meeting was intended to be and has been primarily fact finding in nature and limited in scope. In our discussions we identified a number of areas where additional follow-up and discussion between ~~DOE~~ NNWSI project staff and NRC staffs is needed. Examples noted ~~in~~ during this meeting included procurement control, software QA, non-conformance reporting, implementation of verification of calibration status, records management, and what level of detail in terms of prescriptiveness (eg. precision) is appropriate regarding specific technical procedures.

- ~~DOE staff must~~ NNWSI project staff recognizes they must develop a Q-List (that is those items and activities important to safety and important to waste isolation) for licensing. This list will have to be developed in the near future. NRC staff ~~is~~ NNWSI project staff recognizes that particularly interested in ~~and concerned with NNWSI's possible exclusion of~~ engineered barriers ~~from the list and thinks consultation with NNWSI staff is necessary to help assure that the approach developed is adequate for licensing.~~ discussing and how the Q list would be applied.

- DOE OCRWM should clarify the definitions of conceptual, Title I, Title II, and Title III designs as applicable for NNWSI site characterization and potential license application, and the schedules for completion of each.

- NRC is concerned about the use of DOE lead auditors from other than the Nevada Operations Office for ~~overseeing~~ auditing contractors participating in the NNWSI project. It is not clear that with this arrangement these auditing organizations can be sufficiently familiar with the waste management program and the licensing requirements for quality assurance to adequately perform this function. In the opinion of the team, this is not only a field office issue, but should also be addressed by ~~DOE Headquarters.~~ OCRWM.

- The USGS discussed a preliminary approach for grading of nuclear quality assurance requirements within the "Q" list. Four grades were defined in general terms. Because site characterization work is ongoing, or will be under way in the near future, there is a need for ~~DOE~~ OCRWM/NNWSI project to decide soon on ~~acceptable~~ proposed approaches for grading QA requirements within Level I. The staff recommends that a workshop involving only this subject be organized at the earliest possible time and that the technical and QA staffs of ~~DOE~~, ~~DOE~~ contractors, and NRC participate.

OCRWM/NNWSI ~~OCRWM/NNWSI~~ NNWSI

- NRC staff generally agrees with the definitions ~~NNWSI~~ USGS developed on research and non-research activities; however, DOE should be aware that any tests run under the research procedures ~~will~~ may have questionable value in the licensing process. ~~of the NNWSI~~
- Based on discussions during this meeting, ~~some follow up is needed by DOE Headquarters regarding consistency of QA for USGS work done at BWIP.~~ it was determined that USGS supporting this project has a structured approach to QA. This approach could be used by other parts of USGS supporting o

- The team welcomes strong policy statements and other signals from top management levels associated with the project, emphasizing the importance of QA to the success of the project and the neccessity for all project personnel to be a part of the QA program. Jim Devine's (USGS) policy statement in the USGS QA PP, and Don Vieth's presentations as part of this NRC/DOE meeting on QA are examples of this kind of quality-oriented leadership. NRC's reactor experience indicates that successful projects tend to be characterized by a quality attitude that starts at the top and extends down through all levels of management and staff. It was the NRC team's perception that the quality attitude starting at the top of this project, exemplified by the statements of Devine and Vieth, has not fully reached all project levels and participants. Indeed, it appears that some project ~~team staff~~ participants hold a view of QA as unneccessary, burdensome, and an imposition. This view of QA tended to characterize less successful reactor projects studied in the Ford Amendment Study. ~~Changing such attitudes will be a management challenge of significant proportion for this project.~~

One of the factors identified in the Ford Amendment Study as contributing to quality or quality assurance problems at some reactor projects was insufficient control and/or oversight over the project by the licensee. Causes for these shortcomings in overall project management included:

(a) Insufficient licensee staffing levels devoted to the project, both QA and non-QA.

(b) Project management arrangements in which the licensee project management team had insufficient, direct authority to carry out his project responsibilties.

(c) Contracting arrangements in which the licensee project management team was limited in its ability to take strong, effective action quickly for substandard performance by contractors.

In light of these lessons learned from the Ford Study, the NRC staff believes that the following areas merit close scrutiny by DOE &

(a) The ~~level~~ numbers of ~~DOE~~ NNWSI DOE staff members, QA and non-QA, assigned to the project.

(b) The degree to which ~~project team~~ WMPO has authority ~~is~~ over contractors and project participants. ~~commensurate with project team responsibility~~.

(c) The leverage which the ~~project team~~ WMPO has over its contractors and project participants and the degree to which contracts provide ~~incentives~~ incentives consistent with the DOE project goals.

- In ~~another~~ the preceding remark, the NRC team points out some of the project management challenges facing the DOE project staff. Similar challenges face some of the key project participants, including the USGS. The USGS project team is headed by a ~~TPO~~ Technical Project Officer that has direct administrative control over only 3 of about 85 FTE USGS project personnel. Within USGS, the NNWSI Project has to compete with other USGS projects and priorities for personnel and resources. The USGS support for the project originates from six separate locations, complicating the already difficult tasks of ~~the~~ project coordination and control, procurement control, records management, and quality oversight of the project by the small QA organization. Based on the lessons of the Ford Amendment Study regarding management structure and control ~~it is unclear that such a fractionated~~ project organization such as that within the USGS ~~can~~ may not provide adequate ~~support to the DOE~~ direction for an extended period of time without potential for developing significant quality or quality assurance problems.

- The issue of the delegation of responsibility of specified quality assurance requirements between line management and the quality assurance organization needs clarification. NRC regulations require the establishment of an independent QA organization. This organization is responsible for assuring that an appropriate QA program is established and effectively executed, and that certain work activities have been performed correctly. The lessons of the Ford Study indicate that a heavy quality orientation by project personnel, other than those in the QA organization, is important to both achieving and assuring quality. However, NRC regulations require that the formal QA organization be able to determine whether the QA program is being effectively executed or not. ~~DOE~~ NNWSI project must be careful that emphasis on the line responsibilities for quality and QA does not lead to an unbalanced situation in which the required independent QA organization does not or cannot fulfill its Appendix B responsibilities.
This issue should be the topic of further discussions.

During the meeting it was agreed that NNWSI and NRC staffs projects should review examples of specific geotechnical work (eg. geologic mapping) to determine if the QA applied is sufficient to meet the needs of licensing.

- NNWSI described a procedure that is being developed to handle verification of previously generated data (SOP-03-03). NRC staff requests a copy of this procedure as soon as it has been issued (March, 1985).

not under open items

for under open items

ATTACHMENT 5 –

STATE OF NEVADA Comments

1. While the State agrees with the three levels of quality implemented for this project, we have a concern with the concept of a graded approach to Level I quality. We sense the highest levels of quality control and accountability might be compromised by this approach. We would recommend another meeting to discuss this concept in detail.

2. We would question whether some USGS technical detailed procedures are ~~in fact~~ true procedures. Examples given in the meeting, "Preliminary Procedure ~~and~~ for Drilling and Coring of Wet- and Dry Lake Sediments" and "Rock and Paleomagnetic Investigations" appear to be very detailed work plans, not specific procedures to accomplish specific work tasks.

3. There was much discussion in the meeting about the data base and the quality levels which will be expected in the licensing process. There is at least 20 years of history in reactor licensing as to the types of data required and the appropriate QA. We suggest DOE review this historical information as background to what may be required in the way of QA documentation in licensing.

4. During the discussion of USGS Technical Procedures we heard no mention of "change order" procedures, i.e. procedures to handle changes in approved work procedures due to field "surprises" or other conditions discovered in field which were not accounted for by work procedures. Does the USGS have a change order procedure?

Attachment 6 - Open Items

- NRC staff will formally respond to the written questions NNWSI provided NRC prior to the meetings (in Attachment 3).
- NRC agreed to furnish NNWSI with reactor program inspection procedures for computer code quality assurance.
- The DOE discussed use of Readiness Reviews during site characterization. In reactor licensing, some utilities believe it advantageous to have early NRC involvement in these readiness reviews so that NRC feedback and problems identification are obtained in a timely manner. DOE should consider the potential benefits of early involement of NRC in this type of activity. NRC staff will forward NNWSI additional background information on this approach, and is prepared to discuss this matter further with DOE.

Hachmeister 6 continued

OPEN ITEMS

DOE requests the following from NRC:

1. Written response to the ten questions submitted by DOE prior to the meeting, and discussed on December 13.

2. NRC comments on use of references in procedures without physical incorporation of the content of the reference into the procedure.

3. NRC to provide DOE with documentation indicating the staff's disposition of DOE comments on the QA Review Plan.

4. NRC will provide for DOE consideration, copies of ~~the~~ documents including the reactor SRP section which contains discussions of quality assurance as applied to ~~the SRP for computer code verification and QA inspection procedure.~~ computer codes and the IE inspection procedure for computer code QA.

ATTACHMENT 7 -

AGREEMENTS

It is mutually agreed to hold a series of meetings to more sharply focus the QA program. One topic identified for a future meeting is a discussion of the graded approach in applying quality requirements to work related to safety and waste isolation.

DEC 10 1984

cc:
J. W. Bennett, DOE/HQ (RW-22), FORSTL
R. J. Blaney, DOE/HQ (RW-22), FORSTL
C. R. Cooley, DOE/HQ (RW-24), FORSTL
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Nevada Operations Office
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DEC 10 1984

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

NNWSI WEEKLY HIGHLIGHTS FOR WEEK ENDING DECEMBER 6, 1984

I. Issues Requiring Involvement of HQ or Other Projects

A. New Issues:

None to report.

B. Previously Reported Issues:

None to report.

II. Major Internal Concerns

None to report.

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

SA

The NNWSI EA Briefing Book was sent to HQ on Friday, November 30.

In accordance with NRC's requests during the data review that took place in July at Sandia National Laboratories, eight data packages have been sent to NRC. SNL sent the information to WMPO/NV for transmittal to NRC. The data included information on bulk properties, repository sealing, thermal conductivity, thermal expansion, field testing, laboratory rock mechanics, and rock mass classification. The data packages consisted of 800 pages of information. During the data review, another 3000 pages of information had been provided to NRC by SNL representatives.

II

None to report.

IV. Upcoming Events

1. Coordination Group Meetings

- o Monday, December 10: Waste Package Coordination Group Tour of NTS.
- o Tuesday-Wednesday, December 11-12: Waste Package Coordination Meeting, Las Vegas.
- o Thursday-Friday, December 13-14: Repository Coordination Group Meeting, Irvine, CA.

2. HQ Meetings

- o Wednesday-Thursday, December 12-13: National Policy Outreach and Institutional Affairs Meeting, D.C.

3. Internal Project and DOE/NV Meetings

- o Thursday-Friday, December 6-7: ESTP Committee Meeting, Albuquerque, NM.
- o Monday, December 17: SCP Working Group (Issues) Meeting, Las Vegas.
- o Monday-Friday, December 17-21: ESI Visits to USGS, SNL, and LANL (Records).
- o Monday-Friday, January 7-11 and 14-18: ESI Visits to NTS Contractors.
- o Monday-Friday, January 14-18: ESI Visit to SAIC, Las Vegas.
- o Wednesday-Thursday, January 15-16: PM-TPO Meeting, Las Vegas.
- o Thursday-Friday and Monday-Wednesday, January 17-18, 21-23: ESTP PI Meetings with D. L. Vieth, Las Vegas.

4. State and Public Interaction

- o Thursday, December 6: National Conference of State Legislatures Tour of NTS.

- o Tuesday, January 8: EA Briefing to State Officials in Carson City.
- o Tuesday, January 8: Tour of Yucca Mountain for Purcell and Stein (HQ).
- o Tuesday, January 22: EA Public Briefing, Las Vegas.
- o Wednesday, January 23: EA Public Briefing, Beatty.
- o Thursday, January 24: EA Public Briefing, Reno.

5. NRC Interaction

- o Thursday-Friday, December 13-14: NRC NNWSI QA Review Meeting, Las Vegas.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:DLV-405

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DEC 03 1984

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

NNWSI WEEKLY HIGHLIGHTS FOR WEEK ENDING NOVEMBER 29, 1984

I. Issues Requiring Involvement of HQ or Other Projects

A. New Issues:

None to report.

B. Previously Reported Issues:

None to report.

II. Major Internal Concerns

None to report.

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

SA

The NNWSI Draft Environmental Assessment (EA) (Chapters 2-6) was hand-carried on schedule to DOE/HQ by Craig Toussaint of Weston at 12:45 a.m. Friday, November 30!

The NNWSI Plan for Implementation of EA Interaction activities was sent to DOE/HQ on schedule November 27. It contains a full description of the three major release activities, describes implementation plans, and identifies responsible personnel and milestone dates.

The State Notification Plan for the EA release was sent to E. S. Burton on November 20.

A Draft NNWSI Systems Description Document has been delivered by SNL to WMPO for review.

II

BWIP and NNWSI have come to an agreement on a general outline and content for Chapter 8 of the SCP during meetings held in Las Vegas on November 27-28.

Daryl Morse (DOE/NV contracting officer) has sent a letter to the USGS notifying them of assignment of Main-Hurdman by DOE/HQ to audit Nuclear Waste Fund activities for FY 83-84. The letter requested that Main-Hurdman auditors be allowed to access USGS records at Denver, Reston, and other locations as appropriate.

IV. Upcoming Events

1. Coordination Group Meetings

- o Monday, December 3: Institutional/Socioeconomics Coordination Group Meeting, D.C.

2. HQ Meetings

- o Monday-Wednesday, December 3-4: EA Interaction Training Meeting, D.C.
- o Monday-Friday, December 3-7: Program SCP ATOC meeting, Las Vegas.
- o Wednesday-Thursday, December 5-6: Office Automation Meeting, D.C.

3. Internal Project and DOE/NV Meetings

- o Wednesday, December 5: ESF Status Meeting, NTS.
- o Thursday-Friday, December 6-7: ESTP Committee Meeting, Las Vegas (tentative).
- o Monday, December 10: SCP Working Group (Issues) Meeting, Las Vegas (tentative).
- o Monday-Friday, December 10-14: ESI Visit to SNL (Records).
- o Monday-Wednesay, December 10-12: ESTP PIs meeting with DLV, Las Vegas (tentative).
- o Monday-Friday, December 17-21: ESI Visits to USGS, SNL, and LANL (Records).
- o Monday-Friday, January 7-11 and 14-18: ESI Visits to NTS Contractors.
- o Monday-Friday, January 14-18: ESI Visit to SAIC, Las Vegas.
- o Wednesday-Thursday, January 23-24: PM-TPO Meeting, Las Vegas.

4. State and Public Interaction

- o Thursday, December 6: National Conference of State Legislatures Tour of NTS.

- o Friday, December 7: Nye County Commissioners/Advisory Board tour of NTS.
- o Tuesday, January 8: EA Briefing to State Officials in Carson City.
- o Tuesday, January 22: EA Public Briefing, Las Vegas.
- o Wednesday, January 23: EA Public Briefing, Beatty.
- o Thursday, January 24: EA Public Briefing, Reno.

5. NRC Interaction

- o Thursday-Friday, December 13-14: NRC NNWSI QA Review Meeting, Las Vegas.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:DLV-378

cc:
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DEC 14 1984

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NNWSI WEEKLY HIGHLIGHTS FOR WEEK ENDING DECEMBER 6, 1984

I. Issues Requiring Involvement of HQ or Other Projects

A. New Issues:

None to report.

B. Previously Reported Issues:

None to report.

II. Major Internal Concerns

None to report.

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

SA

The WMPO QAPP was transmitted on December 12 to HQ for approval.

All EA references that SNL is preparing have been forwarded to WMPO/NV for policy review. The references will be available for distribution on December 18.

An annotated table of contents (ATOC) for the SCP has been drafted by the SCP working group. Members of the group from the NNWSI, BWIP, and ONWI Projects agreed on the rough draft format and content following a week-long meeting that was held in Las Vegas on December 3-7. The draft ATOC will be delivered to HQ on January 3 along with suggested revisions.

II

The State of Nevada has notified Don Vieth in a telephone call that they intend to file a brief before the Ninth Circuit Court of Appeals in San Francisco on December 14, asking for a temporary restraining order on the release of EAs to the public.

A pre-conceptual design review was held at SNL on December 6-7 to present both underground and surface facility preliminary design concepts. SNL is now rescoping work for Parsons-Brinckerhoff (subsurface) and Bechtel

(surface) in order to support the new approach to conceptual design based on uniform design requirements for all OGR projects.

IV. Upcoming Events

1. Coordination Group Meetings

- o Thursday-Friday, December 13-14: Repository Coordination Group Meeting, Irvine, CA.

2. HQ Meetings

- o Wednesday-Thursday, December 12-13: National Policy Outreach and Institutional Affairs Meeting, D.C.
- o Wednesday, January 9: Program Manager's Meeting, Las Vegas.

3. Internal Project and DOE/NV Meetings

- o Monday, December 17: SCP Working Group (Issues) Meeting, Las Vegas.
- o Monday, December 17: SAIC Monthly Status Review, Las Vegas.
- o Monday-Friday, December 17-21: ESI Visits to USGS, SNL, and LANL (Records).
- o Friday, January 4: Dry-run for NNWSI EA Briefing Team, Las Vegas.
- o Monday-Friday, January 7-11 and 14-18: ESI Visits to NTS Contractors.
- o Friday, January 11: ESTP Committee Meeting, Las Vegas.
- o Monday-Friday, January 14-18: ESI Visit to SAIC, Las Vegas.
- o Wednesday-Thursday, January 15-16: PM-TPO Meeting, Las Vegas.
- o Thursday-Friday and Monday-Wednesday, January 17-18, 21-23: ESTP PI Meetings with D. L. Vieth, Las Vegas.
- o Thursday-Friday, January 31-February 1: ESTP Committee Meeting, Las Vegas.

4. State and Public Interaction

- o Tuesday, January 8: EA Briefing to State Officials in Carson City.
- o Tuesday, January 8: Tour of Yucca Mountain for Purcell and Stein (HQ).
- o Thursday, January 17: PANRG Meeting to discuss Panel results, D.C.

- o Tuesday, January 22: EA Public Briefing, Las Vegas.
- o Wednesday, January 23: EA Public Briefing, Beatty.
- o Thursday, January 24: EA Public Briefing, Reno.
- o Monday-Friday, February 4-8: ASME Meeting on NQA-1 application to repositories, Tucson.

5. NRC Interaction

- o Thursday-Friday, December 13-14: NRC NNWSI QA Review Meeting, Las Vegas.
- o Tuesday, February 12: NRC Legal Presentation to LLNL.
- o Wednesday, February 13: NRC Legal Presentation to SNL, LANL.
- o Thursday, February 14: NRC Legal Presentation to USGS.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:DLV-439

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DEC 10 1984

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NNWSI PROJECT MONTHLY REPORT FOR SEPTEMBER 1984

Enclosed is the NNWSI Monthly Report for September 1984 covering the technical activities and status of the NNWSI Project.

Donald L. Vieth, Director
Waste Management Project Office

WMPO:DLV-398

Enclosure:
As stated