

WM Record File
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WM Project 11
Docket No. _____
PDR
LPDR

NNWSI PROJECT/NRC MANAGEMENT DISTRIBUTION

June 12, 1986

(Return to WM, 623-SS)

Las Vegas, Nevada

ATTENDEES

A list of attendees and their organizational affiliations is attached as Enclosure 1.

BACKGROUND/FACTS

An agenda is attached as Enclosure 2. Copies of the viewgraphs used by the NNWSI Project and NRC are attached as Enclosures 3 and 4 respectively.

Introduction

In the introduction, D. L. Vieth noted that the NNWSI Project objective, as evidenced in past interactions, has been to make technical meetings more productive through an open and free exchange of information. The NNWSI Project recognizes that the responsibility for demonstration of compliance rests with the applicant. However, it was noted that the NNWSI Project must have a reasonable understanding of what is required to be successful in the licensing process, and what will constitute the NRC's criteria for judgement should Yucca Mountain be selected for the repository. NRC noted, in its introductory comments, that the program has reached a stage where we need to identify specific open items that should be addressed, what needs to be done to resolve these items, and areas where NRC guidance is needed by DOE. As reflected in its 5 Year Plan, NRC intends to move into a more proactive, rather than reactive mode and focus its activities on issue identification and resolution. NRC indicated that its immediate goal for this meeting was to identify areas of interaction that would be appropriate for the pre-SCP period including a rigorous review of open items and potential interaction subjects on a site specific basis. DOE questioned the availability of adequate time, during the pre-SCP phase, to meet NRC's goal and suggested that it may be possible to allocate the interaction efforts between the pre-and post-SCP submittal phases. NRC responded that preparation time for any pre-SCP interactions could be minimized by focusing the interactions on "technical discussions" on specific items rather than document reviews and formal presentations. The NNWSI Project stated that a workable process for establishing agreement on technical items must be reached between NRC, DOE and the states/tribes.

Meeting Objectives

The Meeting objectives presented by the NNWSI Project appear in Enclosure 3. The NNWSI expressed frustration with previous failures in its attempts to obtain guidance from NRC in technical and regulatory matters and hoped to reach a better understanding with NRC on its policies regarding providing guidance.

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The NNWSI Project objective of reaching tentative agreement on topics and schedules for future NNWSI/NRC interactions was specified by the NRC as its prime objective. Both organizations understood that all agreements on topics and schedules were tentative pending DOE Headquarters review and approval.

NNWSI Project Organization and Management

The respective organizational structures of the Nevada Operations Office, Waste Management Project Office and the NNWSI Project were discussed. In response to an NRC question regarding whether the current organization allowed DOE/WMPO and DOE/HQ adequate control over Project staff and activities, it was noted that the DOE/HQ-NVO-WMPO ~~communication~~^{management} chain was functioning effectively. NRC agreed that, while the situation was not optimum they had no current problems if in fact the organization allowed for adequate control. It was further noted by the NNWSI Project that fiscal control is being emphasized. NRC expressed a concern with DOE (WMPO) staffing levels in the context of ability to control the Project. DOE responded that the WMPO staff had expanded significantly but was still limited by ~~budgetary~~^{policy} restraints. WMPO technical staff members have been assigned technical review/management responsibilities over contractors and that, in addition, the primary Project contractors serve as checks on each other where their responsibilities coincide.

D. L. Vieth observed that, in response to a previously stated NRC concern, management agreements between the DOE Nevada, Albuquerque and San Francisco offices had been reached with respect to NNWSI Project control, and that he has been designated as the Contract Officer's Technical Representative for on-site contractors.

NRC Waste Management Organization

The NRC explained the functional responsibilities of the different branches in the Division of Waste Management, emphasizing the portions of the organization that interact with the NNWSI Project and with the State of Nevada.

Implementation of 5 Year Plan

x The NRC (Enclosure 4) presented a new more proactive approach to its conduct of its high-level nuclear waste program as outlined in the HLW 5 Year Plan. The approach calls for ~~NRC~~ an aggressive NRC program focused on activities necessary to provide sufficient licensing guidance to DOE and sufficient interaction with DOE, States, Indian Tribes, and other agencies to identify licensing open items early-on and then begin the process of resolving them. Furthermore, having identified those licensing open items, the NRC will strive aggressively to work towards formal resolution of the open items prior to the licensing hearing, to the extent practicable. This approach is designed for NRC to lay out its program - what it needs to do to more effectively carry out its role during the prelicensing consultation phase - and to make the NRC's program less susceptible to slips in DOE schedules and milestones. The NRC stressed that the intent of this aggressive program is not to be prescriptive on how to tell DOE to run its program.

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On the matter of working toward resolution of open items, the DOE inquired whether the SCA will not only lay out open items but also indicate how to close them out. The NRC responded that when the SCA will identify concerns it will also identify what is needed to resolve these concerns; however, the NRC's Technical Positions (GTP's and STP's) may be the vehicles for providing more guidance than the SCA on how to resolve specific concerns or open items.

One major element of the 5 Year Plan that was emphasized in the presentation is provision for early and full involvement of the states, Indian Tribes, and the public in the processes of identifying, prioritizing, and resolving licensing open items. Despite this emphasis by the NRC, the State of Nevada expressed concern that the States and the public would not have satisfactory participation in these processes.

The State of Nevada also questioned what "formal closure" of open items means, and expressed the position that the State does not want any issue to be prevented from coming up at the licensing hearing by this mechanism. The State has, in fact, written a letter to the director of NRC's Office of Nuclear Materials Safety and Safeguards requesting a meeting on "formal closure" this summer. The NRC responded that clearly any issue other than those already closed out through rulemaking or by a hearing board may be brought up at the time of the hearing. Formal closure as used in the 5 Year Plan presentation ranges from agreement by all parties on documents such as technical position to final formal closure of an open item through rulemaking or before a hearing board. These mechanisms are all specifically designed to promote full public participation. The DOE pointed out that with a two year minimum to accomplish rule-making, the obvious danger is in causing DOE to try to change directions in mid-course. NRC responded that if such a change is warranted it would be better for the program to have it occur as early as possible.

The DOE asked what constitutes a valid issue of open items and expressed a concern that it may be required to expend resources addressing non-pertinent issues. For its part, the NRC stated that its staff is working on how to deal with the potential flood of issues and focus on those with technical merit.

Turning to the timing of the "pre-SCP" portion of the NRC's 5 Year Plan, in particular NNWSI-NRC interactions on open items, the DOE explained that with only six months to go prior to release of the SCP, all the Project resources are directed toward the SCP. The DOE suggested that it lay out the strategies for compliance demonstration in the SCP; then the NRC can comment on these in the SCA and cite problems. The SCP progress reports can subsequently be used to delineate alterations in DOE's strategies in response to NRC comments. The NRC said that it is DOE's choice whether to put off interactions until after the SCP but that the NRC has identified several items in the various technical areas that it feels should be discussed prior to the SCP. The lack of ~~comment~~ ^{commitment} on the part of DOE as a whole to interact with NRC early on in the development of test plans is not consistent with the recognized need for early pre-licensing consultation in the NRC/DOE procedural agreement. Over the past year the priority given to EAs and recently SCPs has resulted in an inability to schedule timely interactions. Furthermore, the lack of pre-SCP technical inter-actions, which were assumed in developing NRC's schedule for issuance of the SCA may affect NRC's ability to issue the SCA within 6 months of the SCP.

Identification of NNWSI Project Schedule and Major Milestones

The Mission Plan Reference Schedule for the first repository was presented by DOE as the basis for this discussion. Constraints imposed on the Project by the SCP preparation schedule were noted with respect to the availability of Project personnel to interact with the NRC in the near term. DOE observed that it is prepared to work cooperatively with the NRC and the State, but emphasized that interactions must be technically based. With regard to detailed schedules, it was noted that a number of milestones are currently being reconsidered in the light of technical questions asked by the State and the NRC and some readjustment may be necessary.

Identification of, and Agreement on, Preliminary Significant Site Specific Issues and Tentative Dates for Interactions

The DOE/HQ guidelines for Project interactions with NRC were discussed. It was noted that specific interaction dates could not be established without HQ review and concurrence and, further, that a number of topics of potential interest are generic and under HQ control. The DOE WBS was presented as one system which might assist in categorizing areas where concerns may be identified. A list of key NNWSI Project documents which may be appropriate subjects for technical interactions was provided to NRC. NRC identified two additional documents of interest, the "Surface Investigation Plan" and the Performance Assessment Plan. In the case of the former document, DOE noted that section 8.3 of the SCP would provide the same information. The status of the PAP and its relationship to the SCP is uncertain at this time. A brief discussion of work and study plans and their relationship to the SCP followed. In this regard, the NNWSI Project expressed a concern relative to the potential level of detail in the plans, and the apparent redundancy between the various plans. It was also noted by the Project that the phased submittal of study plans may not be realistic since essentially all studies must start very early in site characterization. NRC observed that it would like to see study plans as long as possible before the studies start, and before the plans are essentially finalized.

It was observed by both NRC and the NNWSI Project that the issues presented by both parties were similar and agreement in principle was reached that the topics are appropriate for discussion in the near future. NRC noted that such discussions should emphasize the technical plans and strategies for resolving the issues. It was agreed that DOE would review NRC's proposed issue listing and associated recommendations for interactions and provide a response to DOE/HQ for consideration. The DOE noted that SCP preparation constraints would severely limit the NNWSI Project's ability to interact with NRC over the next several months and that most interactions should be planned for the fall of 1986 after the SCP is in the production phase. In response to a restatement of DOE's concern that agreements resulting from interactions may come too late to be reflected in the SCP, the NRC noted that such agreements could be referenced in the SCA and expanded upon in the SCP progress reports.

The NRC presented its preliminary significant site-specific areas of concern in six technical disciplines and proposed a series of Appendix 7 visits and technical meetings in the pre-SCP timeframe to address those concerns. The list of disciplines and related concerns is as follows:

Geology/Geophysics	Seismotectonics; secondary deposits; erosion; licensing usability of geologic data.
Hydrology	Unsaturated and saturated zones - ranges of conceptual models.
Geochemistry	Unsaturated zone groundwater characterization; solubility of key radionuclides; radionuclide mobility (especially sorption); sorptive mineral stability in repository environment.
Performance Assessment	Performance allocation
Waste Package	Non-uniform corrosion of austenitic stainless steel and other alloys; spent fuel cladding as potential barrier; spent fuel testing; waste package performance assessment.
Rock Mechanics/Design	Open items needing resolution prior to shaft construction; exploratory shaft testing in selected areas; selected aspects of repository design.

In reaction to the NRC list of areas of concern, the NNWSI Project reminded NRC that its legitimate realm of responsibility is radiological health and safety and questioned how a few of the items on the list related to radiological health and safety.

Aspects of Site-Specific Procedural Agreement

The NRC stated that it has recently completed an audit of how well the DOE and NRC are complying with the provisions of the Site-Specific Procedural Agreement. This audit, which will be provided to DOE/HQ in the near future, indicates that while overall implementation of the agreement is working well, both agencies have areas in which they need to improve.

The NRC and NNWSI Project concurred that the Appendix 7 visits held with the NNWSI Project have been beneficial and that no major problems have arisen in these interactions. The State of Nevada expressed concern that the States are not necessarily included in these interactions and hence may be cut out of the pre-licensing consultative interaction in contradiction to the expressed desire of NRC in its 5 Year Plan to actively promote State involvement. It was further noted that policies on including the States seem to vary from project to project. The DOE/HQ's representative took as an action item that DOE/HQ will determine a consistent approach across projects to state involvement in Appendix 7 visits.

OBSERVATIONS

NRC and NNWSI Observations are included in the preceding summary of Introduction. Observations of the State of Nevada at the meeting follow.

1. The State intends to be a full party in all NRC/NNWSI interactions. The State will provide comments and observations where appropriate. A lack of comment by the State should not be interpreted as agreement on open items or issues. A plan should be developed for involvement of the State in setting meeting agendas and defining issues. The State may choose at any meeting to discuss or present an issue item from the State perspective.
2. The goal and objectives of the NRC's 5 Year Plan seems to exclude public input into the interaction process on early resolution of issues, yet NRC also intends to strive for formal resolution of licensing issues prior to the licensing hearing. NRC is proceeding down a risky path if the public is excluded from formal closure of issues. There must be the opportunity to visit any issue, whether open or closed, during a licensing hearing.
3. The NRC discussion of pre-SCP areas of concern included a numerous Appendix 7 visits and meetings between NRC and NNWSI and its contractors. The State is formally excluded from Appendix 7 interactions. This is inconsistent with other NRC remarks in the meeting relative to complete involvement and interaction with States/Tribes. NRC should include States/Tribes in all NRC/DOE interaction activities, including Appendix 7 meetings, or should exclude the State/Tribes from any involvement. The latter path would be in conflict with the Nuclear Waste Policy Act.
4. From the NRC's discussion of their 5 Year Plan, there appears to be the perception on the State's part that NRC intends to guide the technical studies of Yucca Mountain by formal critique of NNWSI methodologies and technical study plans. The State believes that such action goes beyond NRC's regulatory responsibility. In our view, NRC should provide guidance only to DOE and DOE should be left to itself to develop methodologies and implement plans based on that guidance, if DOE finds the guidance acceptable. NRC can then interpret the results in light of the licensing criteria.

AGREEMENTS

1. It was agreed, in those cases where agreements between the NRC and the NNWSI Project on approaches to resolving open items and site characterization testing are not reached in time for incorporation in the

SCP, that the existence of such understandings will be reflected in the SCA and SCP progress reports.

2. It was agreed that the proposed open items and interaction recommendations provided by NRC will be reviewed by the NNWSI Project and comments/recommendations forwarded to DOE/HQ.

OPEN ITEMS

1. The question of participation by state representatives in Appendix 7 interactions was raised. It was noted that development of policy in this area is a generic question. The DOE/HQ representative at the meeting agreed to raise this point with DOE/OGR management.

Donald L. Vieth 6/13/85

Donald L. Vieth, Director
Waste Management Project Office
U.S. Department of Energy
Nevada Operations Office

Newton K. Steblein 6/13/86

for
John J. Linehan
Acting Branch Chief
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Division of Waste Management
Office of Nuclear Materials
Safety and Safeguards
U.S. Nuclear Regulatory Commission

*Note: John Linehan read
and approved this summary
prior to final typing.
NKS 6/13/86*

ENCLOSURE 2

NNWSI PROJECT/NRC MANAGEMENT MEETING

JUNE 12, 1986

LAS VEGAS, NEVADA

Introduction/Opening Remarks	NNWSI/NRC
Meeting Objectives	NNWSI/NRC
NNWSI Organization & Management	NNWSI
NRC Waste Management Organization	NRC
Implementation of NRC Five Year Plan Generic Issues Site-Specific Issues	NRC
Identification of NNWSI Project Schedule and Major Milestones	NNWSI
Identification of and Agreement on Preliminary Significant Site-Specific Issues and Tentative Dates for NNWSI Project-NRC Interactions Concerning Those Issues	NNWSI/NRC
Review of Aspects of Site-Specific Procedural Agreement	NNWSI/NRC
Preparation of Meeting Summary	NNWSI/NRC

ENCLOSURE 4

EARLY IDENTIFICATION AND CLOSURE OF LICENSING OPEN ITEMS

JOHN LINEHAN
BRIAN THOMAS

FIVE YEAR PLAN - HIGH LEVEL WASTE REPOSITORY PROGRAM

0 GOALS AND OBJECTIVES.

- AGGRESSIVE PROGRAM FOCUSED ON ACTIVITIES NECESSARY TO PROVIDE SUFFICIENT LICENSING GUIDANCE TO DOE AND SUFFICIENT INTERACTION WITH DOE, STATES, INDIAN TRIBES, AND OTHER AGENCIES IN ORDER TO IDENTIFY LICENSING OPEN ITEMS AND BEGIN THE PROCESS OF RESOLVING THEM.
- AGGRESSIVE PROGRAM THAT STRIVES TO ASSURE A FORMAL RESOLUTION OF LICENSING OPEN ITEMS PRIOR TO THE LICENSING HEARING, TO THE EXTENT PRACTICABLE.
- DEVELOP AN INDEPENDENT TECHNICAL CAPABILITY TO REVIEW DOE'S LICENSE APPLICATION WITHIN A 3-4 YEAR TIME FRAME.
- IDENTIFY AND ELIMINATE, TO THE EXTENT POSSIBLE, IMPEDIMENTS TO MEETING NRC'S STATUTORY TIME FRAME FOR LICENSE PROCEEDING AND IDENTIFY AND IMPLEMENT EFFICIENCIES IN THE LICENSING PROCESS.

KEY ELEMENTS OF THE FIVE YEAR PLANNING APPROACH

- o PROACTIVE AS OPPOSED TO REACTIVE.
- o FOCUS THE PROGRAM ON THE KEY LICENSING DECISIONS THAT MUST BE MADE WITH RESPECT TO 10 CFR 60 PERFORMANCE OBJECTIVES AND SITING AND DESIGN CRITERIA.
- o OPEN AND DOCUMENTED PROCESS FOR DEVELOPMENT OF GUIDANCE AND EARLY IDENTIFICATION, PRIORITIZATION AND RESOLUTION OF OPEN ITEMS.
- o PROVISION FOR EARLY AND FULL INVOLVEMENT WITH DOE, STATES, INDIAN TRIBES.
- o DEVELOPMENT OF A FORMAL MECHANISM FOR IMPLEMENTATION.

DEVELOP SYSTEMATIC APPROACH FOR DEVELOPMENT OF GUIDANCE
AND FOCUSING PROGRAM ON EARLY IDENTIFICATION AND CLOSURE OF OPEN ITEMS

- o OPEN ITEM IDENTIFICATION AND PRIORITIZATION.
- o DEVELOP MECHANISM TO FOCUS DEVELOPMENT OF GUIDANCE AND NRC/DOE INTERACTIONS ON FORMAL CLOSURE OF OPEN ITEMS.

OPEN ITEM IDENTIFICATION AND PRIORITIZATION

- o GENERIC COMPLIANCE DEMONSTRATION ISSUES
- o SITE SPECIFIC OPEN ITEMS
- o CONSULT WITH DOE, STATES, AND TRIBES
- o PRIORITIZATION
 - DETERMINE WHERE GUIDANCE AND WORK ON OPEN ITEM RESOLUTION IS MOST NEEDED
 - MOST CONTENTIOUS OPEN ITEMS
 - CRITICAL TO EARLY PHASES OF PROGRAM
 - LONG-LEAD TIME ITEMS
 - TIMING WITH RESPECT TO OVERALL PROGRAM SCHEDULES

MECHANISMS FOR FORMAL CLOSURE

- o FOCUS NRC/DOE INTERACTIONS ON RESOLUTION OF OPEN ITEMS
 - AGREE ON CONSULTATION POINTS
DOE, STATES, AND TRIBES
 - DEVELOP AGENDAS THAT FOCUS ON DEVELOPMENT OF APPROACHES FOR RESOLVING ISSUES
 - EFFECTIVE STATE AND TRIBAL PARTICIPATION
 - MINUTES THAT REFLECT PROGRESS TOWARDS OPEN ITEM RESOLUTION, AGREEMENTS, DISAGREEMENTS, AND IDENTIFY ACTIVITIES NEEDED TO ACHIEVE RESOLUTION

MECHANISMS FOR FORMAL CLOSURE (CONTINUED)

- o FORMAL AND DOCUMENTED TECHNICAL POSITIONS.
 - MECHANISM TO ESTABLISH AND DOCUMENT CONSENSUS ON AGREEMENTS REACHED AT MEETINGS
 - VENTILATE POSITIONS TO ESTABLISH TECHNICAL CONSENSUS
 - PEER REVIEW
 - PUBLIC COMMENT
 - TARGET GROUPS
 - DOCUMENT CONSENSUS/AGREEMENTS IN FINAL TECHNICAL POSITIONS
 - DOE, STATES, AND TRIBES
 - TYPES OF TECHNICAL POSITIONS
 - STRATEGIES - DEVELOP CRISP BASELINE/GROUND RULES.
E.G., HYDROLOGIC TESTING
 - METHODOLOGIES - IMPLEMENTATION OF EPA STANDARD.

MECHANISMS FOR FORMAL CLOSURE (CONTINUED)

o RULEMAKING

- IDENTIFY TOPICS FOR RULEMAKING

- CRITERIA

RIPE, WELL VENTILATED, MATURE
MOST CONTENTIOUS
LONG LEAD TIME

- POSSIBLE TOPICS

DISTURBED ZONE
METHODOLOGY FOR IMPLEMENTATION OF EPA STANDARD

DEVELOPMENT OF INDEPENDENT TECHNICAL REVIEW CAPABILITY

o . ESTABLISH REVIEW CRITERIA AND REVIEW APPROACH

- FOR EACH COMPLIANCE DEMONSTRATION ISSUE
- FOR VARIOUS PHASES OF THE PROGRAM

SCP
SCP UPDATES
LICENSE APPLICATION

o MODELING STRATEGY DOCUMENT

GEN. C TECHNICAL POSITIONS
AS OF 04/24/86

	<u>DRAFT</u>	<u>FINAL</u>
o GTP ON PERFORMANCE CONFIRMATION	TBD	TBD
o CONFIGURATION MANAGEMENT FOR CONCEPTUAL DESIGN	TBD	TED
o QUALIFICATION OF EXISTING DATA	TBD	TBD
o PEER REVIEW	TBD	TBD
o GTP ON DOCUMENTATION OF COMPUTER CODES	---	6/83
o MODELING STRATEGY DOCUMENT FOR HLW PERFORMANCE ASSESSMENT	---	7/84
o GTP ON SOLUBILITY	---	11/84*
o GTP ON BOREHOLE AND SHAFT SEALS	6/84	2/86
o LICENSING ASSESSMENT METHODOLOGY FOR HLW GEOLOGIC REPOSITORIES	7/84	5/86
o GTP ON PERFORMANCE ASSESSMENT	8/84	4/86
o GTP ON IN-SITU TESTING DURING SITE CHARACTERIZATION	10/84	12/85
o GTP ON WASTE PACKAGE RELIABILITY	11/84	12/85
o GTP ON DESIGN INFORMATION NEEDS IN SITE CHARACTERIZATION PLANS	4/85	12/85
o GTP ON SORPTION	1/86	'86
o GTP ON INTERPRETATION AND IDENTIFICATION OF DISTURBED ZONE	7/86	TBD
o GTP ON GROUNDWATER TRAVEL TIME AND DISTURBED ZONE	7/86	'86
o GTP ON STRUCTURES, SYSTEMS AND COMPONENTS IMPORTANT TO SAFETY AND BARRIERS IMPORTANT TO WASTE ISOLATION	7/86	'87
o GTP ON SEISMO-TECTONIC EVALUATION METHODOLOGY	8/86	'87
o TECHNICAL POSITIONS ON SELECTED QA IMPLEMENTATION ISSUES	2-9/86	TBD

U.S. DEPARTMENT OF ENERGY

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Nevada
Wuclear
Site
Investigations
PROJECT

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MOUNTAIN

ENCLOSURE 3

NNWSI PROJECT/NRC

MANAGEMENT MEETING

LAS VEGAS, NEVADA

JUNE 12, 1986

6/12/86

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Nuclear
Waste
Storage
Investigations
PROJECT

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MOUNTAIN

NNWSI PROJECT
MEETING OBJECTIVES

- o **DISCUSS AND REACH A MUTUAL UNDERSTANDING OF NRC'S POLICY WITH REGARD TO PROVIDING TECHNICAL OR REGULATORY GUIDANCE AND RECOMMENDATIONS IN RESPONSE TO NNWSI PROJECT REQUESTS.**

- o **REACH TENTATIVE AGREEMENT ON TOPICS AND SCHEDULES FOR TECHNICAL MEETINGS.**

6/12/86

U.S. DEPARTMENT OF ENERGY

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Storage
Investigations
PROJECT

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MOUNTAIN

OGR

NNWSI PROJECT ORGANIZATION

AND

MANAGEMENT

D. L. VIETH

6/12/86

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DIRECTOR - Donald L. Vosh
DEPUTY DIRECTOR - Marshall P. Kuech 5-1128

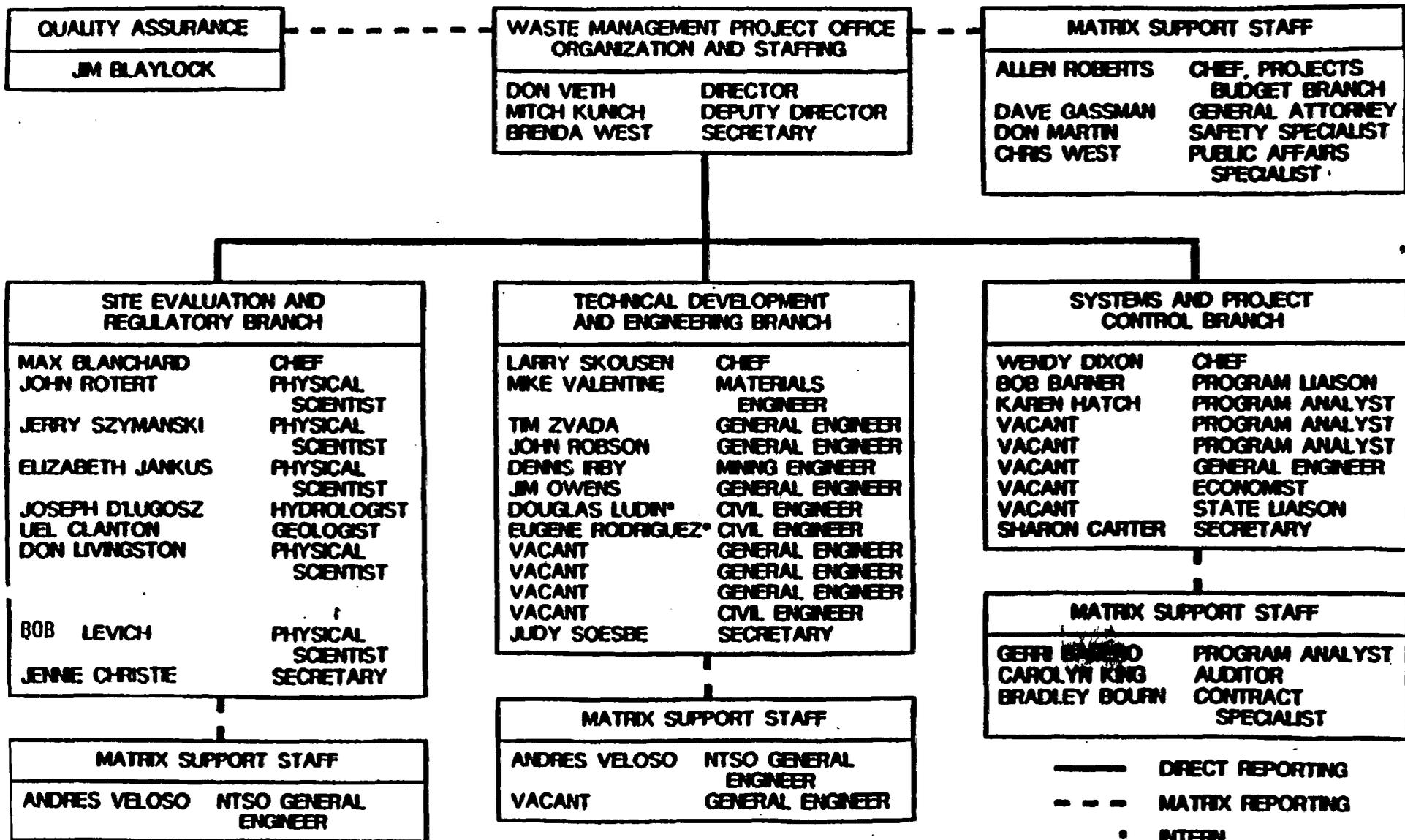
REGULATORY & SITE EVALUATION BRANCH 5-1580
CHIEF - Maxwell B. Stanfield 5-1091

TECHNOLOGY DEVELOPMENT & ENGINEERING BRANCH 5-1584
CHIEF - Lester P. Shouren, Jr 5-0933

SYSTEMS & PROJECT CONTROL BRANCH 5-1836
CHIEF - Wendy R. Thout 5-1837

United States Department of Energy
NEVADA OPERATIONS OFFICE 6/7/85

WMPO ORGANIZATION



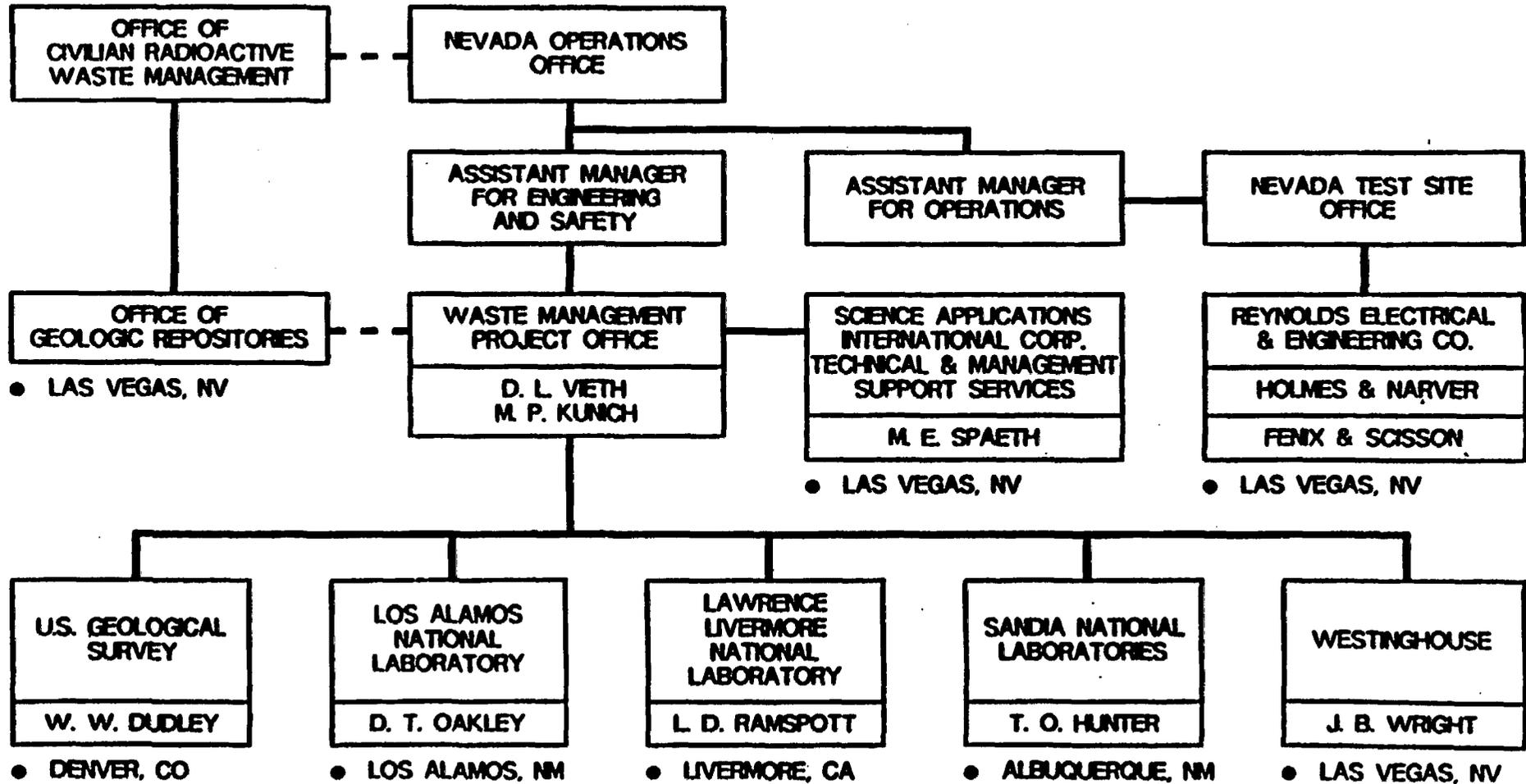
——— DIRECT REPORTING
 - - - MATRIX REPORTING
 • INTERN

Waste Management Project Office

NWWSI PROJECT FY 1986

[WMPO.ORG:05/12/86]

NNWSI PROJECT ORGANIZATION



Nevada Nuclear Waste Storage Investigations Project

4/18/85

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NNWSI PROJECT
CONTRACTOR CONTROL

- o **MANAGEMENT AGREEMENTS BETWEEN NV AND**
 - **SAN**
 - **AL**

- o **CONTRACTOR OFFICER TECHNICAL REPRESENTATIVE FOR ON-SITE CONTRACTORS**

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NNWSI PROJECT MANAGEMENT
OBJECTIVE FOR NRC INTERACTIONS

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IDENTIFY AND REACH CLOSURE ON LICENSING CONCERNS PRIOR TO LICENSE
APPLICATION BASED ON EFFECTIVE COMMUNICATION BETWEEN THE NNWSI PROJECT
AND:

- o DOE/OGR
- o NRC/WM
- o NRC-OR
- o STATE AND PUBLIC

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NNWSI PROJECT MANAGEMENT APPROACH
TO ACHIEVE THE INTERACTION OBJECTIVE

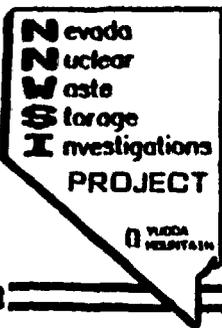
-
- o ENCOURAGE FREE AND OPEN TECHNICAL COMMUNICATION WITH NRC STAFF IN COOPERATIVE, NOT REACTIVE, MODE.

 - o MAINTAIN LEAD ROLE IN IDENTIFICATION AND RESOLUTION OF LICENSING CONCERNS:
 - WITH NRC INPUT AND CRITIQUE
 - DEVELOPMENT OF POSITIONS FOR NRC REVIEW & COMMENT
 - FULL DOCUMENTATION

 - o INCLUDE FULL CONSIDERATION OF NRC COMMENTS AND RECOMMENDATIONS AS AN INTEGRAL PART OF ISSUE RESOLUTION PROCESS.

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NNWSI PROJECT REQUIREMENTS TO
ACHIEVE THE INTERACTION OBJECTIVE

- o TECHNICAL AND/OR PROCEDURAL BASIS FOR RECOMMENDATIONS, COMMENTS, OR DECISIONS MUST BE IDENTIFIED AND DIRECTLY RELATED TO THE INTERACTION OBJECTIVE.
 - RESOURCE ALLOCATION
 - LIMITED TIME
 - SUPPORT MANAGEMENT DECISIONS & DIRECTION

- o DOE & NRC MUST INTERFACE IN AN OBJECTIVE MODE DURING SITE CHARACTERIZATION PHASE: ISSUES MUST BE ADDRESSED ON THEIR TECHNICAL MERIT IN THE CONTEXT OF ASSESSING A RADIOLOGICAL HAZARD
 - TECHNICAL UNDERSTANDING
 - FLEXIBILITY
 - CREATIVENESS - AVOID THE REACTOR SYNDROME
 - AVOID DEFENSIVENESS

- o GENERIC CONCERNS MUST BE ADDRESSED THROUGH DOE HEADQUARTERS.
 - COORDINATION WITH HEADQUARTERS REQUIRED FOR ALL FORMAL INTERACTIONS

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NNWSI PROJECT SCHEDULE

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**IDENTIFICATION OF PRELIMINARY
SIGNIFICANT ISSUES FOR
NNWSI PROJECT/NRC INTERACTION**

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NNWSI PROJECT/NRC INTERACTION GUIDELINES

- o GUIDELINES ESTABLISHED BY DOE HEADQUARTERS GOVERNING PROJECT/NRC INTERACTIONS TO:
 - ASSIST DOE/HQ IN COORDINATING NRC INTERACTIONS ON A PROGRAM-WIDE BASIS
 - ASSURE CONSISTENCY AMONG PROJECTS ON GENERIC TOPICS
 - ASSESS IMPACT OF SITE SPECIFIC TOPICS ON OTHER PROJECTS

- o THE FOLLOWING RESTRAINTS APPLY TO COMPLIANCE WITH THE HEADQUARTERS GUIDANCE:
 - SITE SPECIFIC MEETING DATES CANNOT BE SET - COORDINATION WITH HEADQUARTERS REQUIRED
 - GENERIC MEETING DATES AND OBJECTIVES SET BY DOE HEADQUARTERS

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WORK BREAKDOWN STRUCTURE

WBS 1.2.1 SYSTEMS

- 1.2.1.1 SYSTEMS MANAGEMENT & INTEGRATION**
- 1.2.1.2 SYSTEMS ENGINEERING**
- 1.2.1.3 TECHNICAL DATA BASE MANAGEMENT**
- 1.2.1.4 TOTAL SYSTEMS PERFORMANCE ASSESSMENT**

WBS 1.2.2 WASTE PACKAGE

- 1.2.2.1 MANAGEMENT & INTEGRATION**
- 1.2.2.2 WASTE PACKAGE ENVIRONMENT**
- 1.2.2.3 WASTE FORM & MATERIAL TESTING**
- 1.2.2.4 DESIGN, FABRICATE, AND PROTOTYPE TESTING**
- 1.2.2.5 PERFORMANCE ASSESSMENT**

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WORK BREAKDOWN STRUCTURE CON'T

WBS 1.2.3 SITE INVESTIGATIONS

- 1.2.3.1 MANAGEMENT & INTEGRATION
- 1.2.3.2 GEOLOGY
- 1.2.3.3 HYDROLOGY
- 1.2.3.4 GEOCHEMISTRY
- 1.2.3.5 DRILLING
- 1.2.3.6 ENVIRONMENT
- 1.2.3.7 SOCIOECONOMIC
- 1.2.3.8 PERFORMANCE ASSESSMENT
- 1.2.3.9 DEFERRED SITE CLOSE OUT

WBS 1.2.4 REPOSITORY INVESTIGATIONS

- 1.2.4.1 MANAGEMENT & INTEGRATION
- 1.2.4.2 DEVELOPMENT & TESTING
- 1.2.4.3 FACILITIES
- 1.2.4.4 OPERATIONS
- 1.2.4.5 DECOMMISSION
- 1.2.4.6 REPOSITORY PERFORMANCE ASSESSMENT

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WORK BREAKDOWN STRUCTURE CON'T

WBS 1.2.5 REGULATORY/INSTITUTIONAL INVESTIGATIONS

- 1.2.5.1 MANAGEMENT & INTEGRATION
- 1.2.5.2 LICENSING
- 1.2.5.3 ENVIRONMENTAL COMPLIANCE
- 1.2.5.4 COMMUNICATION & LIAISON
- 1.2.5.5 TECHNOLOGY & FINANCIAL ASSISTANCE

WBS 1.2.6 EXPLORATORY SHAFT INVESTIGATIONS

- 1.2.6.1 MANAGEMENT & INTEGRATION
- 1.2.6.2 SITE PREPARATION
- 1.2.6.3 SURFACE FACILITIES
- 1.2.6.4 FIRST SHAFT
- 1.2.6.5 SECOND SHAFT
- 1.2.6.6 SUBSURFACE INVESTIGATIONS
- 1.2.6.7 UNDERGROUND SERVICE SYSTEMS
- 1.2.6.8 OPERATIONS
- 1.2.6.9 TESTING

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WORK BREAKDOWN STRUCTURE CON'T

WBS 1.2.7 TEST FACILITIES

- 1.2.7.1 MANAGEMENT & INTEGRATION
- 1.2.7.2 TESTING
- 1.2.7.3 NEW FACILITY ACQUISITION

WBS 1.2.8 LAND ACQUISITION

WBS 1.2.9 PROJECT MANAGEMENT

- 1.2.9.1 MANAGEMENT & INTEGRATION
- 1.2.9.2 PROJECT CONTROL
- 1.2.9.3 QUALITY ASSURANCE

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GENERIC ISSUES

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OGR PROGRAMMATIC RESPONSIBILITY

- o **COMMON ISSUES HIERARCHY**
 - **ISSUES RESOLUTION STRATEGY**
 - **PERFORMANCE ALLOCATION**
- o **WASTE PACKAGE RELIABILITY**
- o **SCP CONCEPTUAL DESIGN**

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NNWSI PROJECT
SITE SPECIFIC ISSUES

- o NNWSI PROJECT SITE SPECIFIC INFORMATION NEEDS
 - ISSUES RESOLUTION STRATEGY
 - PERFORMANCE ALLOCATION

- o WASTE PACKAGE
 - MATERIALS
 - ENVIRONMENT
 - TESTING PROGRAM

- o ESF
 - TEST PLANS/SCHEDULE
 - PERFORMANCE ANALYSIS
 - DESIGN AND CONSTRUCTION

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NNWSI PROJECT
SITE SPECIFIC ISSUES CON'T

- o ENGINEERED BARRIER SYSTEM BOUNDARY DEFINITION
- o APPROACH TO CHARACTERIZATION OF UNSATURATED ZONE
 - RADIONUCLIDE TRANSPORT
 - GROUNDWATER TRAVEL TIME
- o VALIDITY LABORATORY vs. IN SITU TESTS
- o SEISMIC/TECTONIC EVALUATION - PRE/POST CLOSURE
- o DEFINITION OF ANTICIPATED/UNANTICIPATED PROCESSES AND EVENTS
- o NNWSI PROJECT QUALITY ASSURANCE PROGRAM

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KEY NNWSI PROJECT DOCUMENTS

WBS 1.2.1 SYSTEMS

- o SYSTEMS ENGINEERING MANAGEMENT PLAN
- o CONFIGURATION MANAGEMENT PLAN
- o YUCCA MOUNTAIN MGDS DESCRIPTION

WBS 1.2.2 WASTE PACKAGE

- o NNWSI PROJECT WASTE PACKAGE STRATEGY DOCUMENT

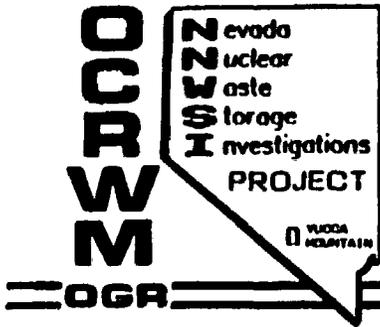
WBS 1.2.3 SITE INVESTIGATIONS

- o EQ 3/6 CODE RELEASE & DOCUMENTATION

WBS 1.2.4 REPOSITORY INVESTIGATIONS

- o REPOSITORY SYSTEMS DESCRIPTION
- o REPOSITORY CONCEPTUAL DESIGN
- o REPOSITORY SEALING PLAN

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KEY NNWSI PROJECT DOCUMENTS CON'T

WBS 1.2.5

- o SEISMIC TECTONIC POSITION PAPER
- o ENVIRONMENTAL MONITORING & MITIGATION PLAN
- o ENVIRONMENTAL PROGRAM PLAN

WBS 1.2.6 EXPLORATORY SHAFT

- o EXPLORATORY SHAFT DESIGN REQUIREMENTS
- o EXPLORATORY SHAFT TITLE II DESIGN
- o EXPLORATORY SHAFT TEST IMPLEMENTATION AND CONTROL PLAN

WBS 1.2.9

- o NNWSI PROJECT MANAGEMENT PLAN
- o WMPO QAPP