JUL 27 1990

MINUTES OF THE 5/23/90 QUALITY ASSURANCE MEETING

The monthly meeting of the staff of the United States Nuclear Regulatory Commission (NRC); representatives of the United States Department of Energy (DOE); and the State of Nevada (NV) to discuss issues of mutual interest with regard to quality assurance (QA) was held on May 23, 1990 in Bethesda, MD. While representatives of each of the Affected Units of Local Government were notified of the meeting, only Nye County, NV sent a representative. An attendance list is included as Attachment 1.

DOE, in opening remarks, stated that as a result of the May 22, 1990 meeting on the proposed QA workshop, one approach being considered was to hold two or more workshop meetings. First, a meeting, of all of the DOE program participants, or a series of meetings with individual program participants would be held to discuss the issues related to perceived problems with QA program implementation. Then an issue resolution meeting would be held by DOE. NRC and NV would be invited to participate in all such meetings. In response to a question from the NRC staff, DOE stated that firm dates for these meetings had not been set, but that July was possible for the first meeting.

DOE also stated that due to recent events the planned qualification audits of the Office of Civilian Radioactive Waste Management (OCRWM) headquarters and the Yucca Mountain Project Office (YMPO) would be postponed, with no firm new dates yet established for them. These audits will be preceded by a series of management system improvements which, in part, will ensure that QA is woven into the very fabric of the OCRWM management system. It was noted that a reorganization of OCRWM will also be taking place at the same time as the management system improvements. In response to a question from the NV representative, DOE made it clear that the delays in the YMPO and OCRWM audits do not directly affect DOE's plans to begin new site characterization work after the NRC staff's QA objection from the Site Characterization Analysis (SCA) has been lifted for activities that support site characterization for any of the OCRWM repository program participants. DOE stressed that the lack of resolution of the permit and access issues are more likely to prevent new site characterization work. In response to another question from the NV representative, DOE stated that the only impact these delays will have on other audits and surveillances is to provide an opportunity to assure that all participants' QA Program Documents (QAPDs) are consistent with the QA Requirements Document (QAR).

The next topic discussed was the DOE audit/surveillance schedule (Attachments 2 and 3). In addition to the postponement of the OCRWM headquarters and YMPO audits, several other changes were discussed. Audits of several headquarters management contractors have been added to the schedule. Among them is KOH Systems, Inc.,

ENCLOSURE

company that that will operate the quality records center for OCRWM; the Repository Technical and Transportation Division of the DOE Chicago Operations Office (RTTD) which is involved in the transportation and Monitored Retrievable Storage programs; and Pacific Northwest Laboratory (PNL) which is characterizing spent fuel and waste glass by looking at their properties. Some preliminary schedules were provided later in the meeting for the submittal of QAPDs by the high-level waste (HLW) form producers (Attachment 4). To date, the submittal of the Defense Waste Processing Facility QAPD is the most definite. This is scheduled for late June 1990. Preliminary planning dates for audits of the Office of Environmental Restoration and Waste Management (EM) by OCRWM are December 1990-January 1991. There will also be surveillances of the HLW form producers. NRC and NV will be invited to participate as observers in these activities.

A presentation was made by DOE on the preparation of the revised OCRWM QARD (see Attachment 5). This presentation had been planned for the April meeting, but the presenter had been unable to attend that meeting. The reason for revising this document and the QAPDs was to accommodate the direct line reporting from YMPO to OCRWM. It was stated that no requirements were lessened in the revisions. However, the revised QARD contains two new chapters (chapters 19 and 20) which cover software controls and scientific investigation controls. There will be a revision in procedures which will reflect the document revisions. Because there is not a reduction in DOE commitments to NRC with regard to meeting regulatory and other requirements, DOE does not anticipate a "ripple effect" revision to program participant QAPDs. DOE clarified that the April 14, 1990 letter from Linda Desell to John Linehan forwarding the revised QARD and QA Program Description documented this. DOE did note that the revised QARD did contain reductions in DOE administrative and procedural requirements. However, it is not necessary to officially notify NRC of these.

The NRC staff discussed three recent observations. At Apache Leap, Arizona, the NRC staff observed a prototype drilling exercise (Attachment 6). The NRC observer noted that procedures were followed well. However, it was also noted that better communication was needed between the driller and the geologists and that the United States Geologic Survey (USGS) should have a physical presence there during drilling operations since USGS is responsible for establishing requirements for handling and logging of core samples. The observation of the surveillance by DOE of the USGS Software QA program was also discussed (Attachment 7). The NRC staff found that the surveillance was useful and effective and that adequate implementation of procedures was demonstrated. Finally, the NRC staff discussed the observation of the DOE audit of Los Alamos National Laboratory (LANL). The NRC staff found that the programmatic and technical portions of the audit were generally effective and well integrated. Several weaknesses were noted (see Attachment 8). Among the weaknesses documented by the NRC staff were:

- the audit was performed so soon after the implementation of a number of new or revised LANL procedure that QA program effectivity in some areas could not be determined;

- Several detailed procedures which are required to contain "acceptance criteria" for various investigations stated only that the Principal Investigator would use his judgement as to what was acceptable. Such lack of acceptance criteria is not satisfactory. The procedure which explains how to write detailed procedures is not sufficiently descriptive in the area of acceptance criteria.

DOE provided an update on the status of the Federal Register notice describing the new records system designed to resolve the Privacy Act issue which has prevented NRC staff and NV from reviewing training and qualification records at DOE audits and surveillances. The Federal Register notice had been through the DOE concurrence process and was sent to the responsible Undersecretary and the Secretary of Energy. After their review and approval, it will be published. DOE noted that another records system maintained by the Office of Personnel Management is being considered as an accessible source of information which would provide information on records of DOE, USGS, and other federal agencies.

The NRC staff provided an update on the QA Open Items (Attachment 9). It was noted that progress had been made at this meeting on Item 1-90 regarding the HLW waste form producers, and on Item 6-90 regarding the Privacy Act issue. Six of the original thirteen FY-90 items have been closed.

It was agreed that future QA meetings will be return to a bi-monthly schedule with a tentative date of July 19, 1990 for the next meeting. Potential agenda items include:

- Update on the QA Workshop
- Progress in DOE Qualification of the HLW Waste Form Producers' QA programs
- Status of Comment Resolution of QAR/QAPD comments.

In brief closing remarks, DOE introduced Larry Vaughan as the QA manager for Waste Operations in EM.

Following the closing remarks the meeting was adjourned.

NV did not submit a written statement for inclusion in these minutes.

Mark S. Delligatti, QA Project Manager
Repository Licensing and Quality
Assurance Project Directorate
Office of Nuclear Material Safety
and Safeguards, NRC

Corinne Macaluso
Repository Licensing Branch
Office of Civilian Radioactive
Waste Management, DOE

ATTACHMENT 1

NRC/DOE QA MEETING

May 23, 1990

NAME	ORGANIZATION	TELEPHONE
William Belke	NRC/HLWM	FTS 492-0445
J. R. Caldwell	MACTEC	(702) 794-2559
Robert Clark	DOE/HQ OQA	FTS 896-1238
		(202) 586-1238
Tom Colandrea	EEI-U Waste	(619) 487-7510
Jim Conway	NRC/HLWM	FTS 492-0453
Mark Delligatti	NRC/HLWM	FTS 492-0430
Gary Faust	Weston/UE&C	646-6729
John Gilray	NRC/HLWM	(702) 293-5369
Thomas Gutmann	DOE/EM-343	FTS 233-5343
		(301) 353-5343
Chris Henkel	EEI-U Waste	(202) 778-6693
Kenneth R. Hooks	NRC/HLWM	FTS 492-0447
Donald G. Horton	DOE/YMP	FTS 544-7504
Rose Konouck	SAIC	(703) 827-4887
Donald Loosley	NRC/PMDA	FTS 492-0657
Corinne Macaluso	DOE/HQ	586-2837
		FTS 896-2837
Martin S. Markowicz	Performance Development Corp	(615) 482-9004
Paul Narducci	CER	(703) 276-9300
Mark Senderling	DOE/RW-3	FTS 896-2878
Dwight Shelor	DOE	586-7220
Stephen Spector	CNWRA	(703) 979-9129
Jim R. Stowe	DOE-SR	(803) 557-1076
Larry D. Vaughan	DOE/EM-30	FTS 233-3137
Tilak R. Verma	NRC/HLWM	FTS 492-3465
Nancy Voltura	DOE/YMP QA	(702) 794-7972
Raymond H. Wallace, Jr.	USGS-HQ/DOE HQ	FTS 896-1244
Susan Zimmerman	State of Nevada	(702) 687-3744

DRAFT 4TH QUARTER FY 90 AUDIT SCHEDULE

OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

SHEET 1 OF 2
WBS NO. _____
REV. NO. _____
DATE _____

AUDIT SCHEDULE

AUDIT NUMBER	ORGANIZATION	AUDIT SCOPE	LOCATION	DATES	LEAD AUDITOR/MEMBERS	AUDIT SCHEDULED											
						O	N	D	J	F	M	A	M	J	J	A	S
OCRWM-HQ-AR-90-	OCRWM (HQ)	QAPD/ IMPLEM.	WASH, D.C.	TBD	TBD												
OCRWM-HQ-AR-90-	OCRWM (YMP)	QAPD/ IMPLEM.	LAS VEGAS NV	TBD	TBD												
YMPO 90-4	SNL	QAPP/ IMPLEM.	ALB. NM	JUL 1990	KRANTZINGER										X		
YMPO 90-5	REECO	QAPP/ IMPLEM.	LAS VEGAS, NV	AUG 1990	HEANEY											X	
OCRWM-HQ-AR-90-	DOE-ID	PRCP QAPD	IDAHO FALLS, ID	AUG 1990	TBD											X	
YMPO 90-6	H&N	QAPP/ IMPLEM.	LAS VEGAS, NV	AUG 1990	CRAWFORD											X	
OCRWM-HQ-AR-90-	KOH	KOH QAPD/ IMPLEM.	WASH. DC	SEPT 1990	TBD												X
YMPO 90-7	FSN	QAPP/ IMPLEM.	LAS VEGAS, NV	SEPT 1990	DANA												X

REV. 1/89

ATTACHMENT 2

DRAFT FIRST QUARTER FY 91 AUDIT SCHEDULE

OFFICE OF CIVILIAN
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

SHEET 2 OF 2
WBS NO. _____
REV. NO. _____
DATE _____

AUDIT SCHEDULE

AUDIT NUMBER	ORGANIZATION	AUDIT SCOPE	LOCATION	DATES	LEAD AUDITOR/MEMBERS	AUDIT SCHEDULED											
						O	N	D	J	F	M	A	M	J	J	A	S
ORWM-HQ-AR-91-	RTTD (Chicago Ops)	RTTD QAPD	CHICAGO, IL	OCT 1990	TBD	X											
OCRWM-HQ-AR-91-	PNL	MCC	RICHLAND WA	NOV 1990	TBD		X										
OCRWM-HQ-AR-91-	EM-343	EM QAPD	WASH. DC	DEC/JAN 1991	TBD			X									

REV 1/89

REPT	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH
4	TITLE I & II DOCUMENTATION	16MAY90	15MAY90
	SOFTWARE CONTROL	11JUN90	13JUN90
1	SOFTWARE CONTROL	16MAY90	15MAY90
	CRITERIA 16 AND 18	4JUN90	8JUN90
90-028	CRITERIA 5, 16, 18	7MAY90A	11MAY90A
2	CRITERIA 2, 5, 6, 16, 17, 18	9JUL90	13JUL90
	SOFTWARE/CRITERIA 16, 17, 18.	23JUL90	26JUL90
90-024	SOFTWARE/CRITERIA 4, 7, 12, 16, 18.	2APR90A	6APR90A
3	CRITERIA 2, 5, 6, 16, 17.	6AUG90	10AUG90
1	CALIBRATION	16MAY90	15MAY90
90-027	CRITERIA 3, 5, 6, 12, 16.	23APR90A	26APR90A
	CRITERIA 4, 7, 15, 17, 2.	29MAY90	1JUN90
4	EPA (RADIOLOGICAL MONITORING)	16MAY90	15MAY90
	STUDY PLANS	4JUN90	8JUN90
3	CRITERIA 1, 2, 5, 6.	20AUG90	24AUG90
90-026	STUDY PLANS/TECHNICAL REVIEW	16APR90A	20APR90A
90-029	1-5-6	3MAY90A	4MAY90A
5	CRITERIA 4, 12, 15, 16.	20AUG90	24AUG90

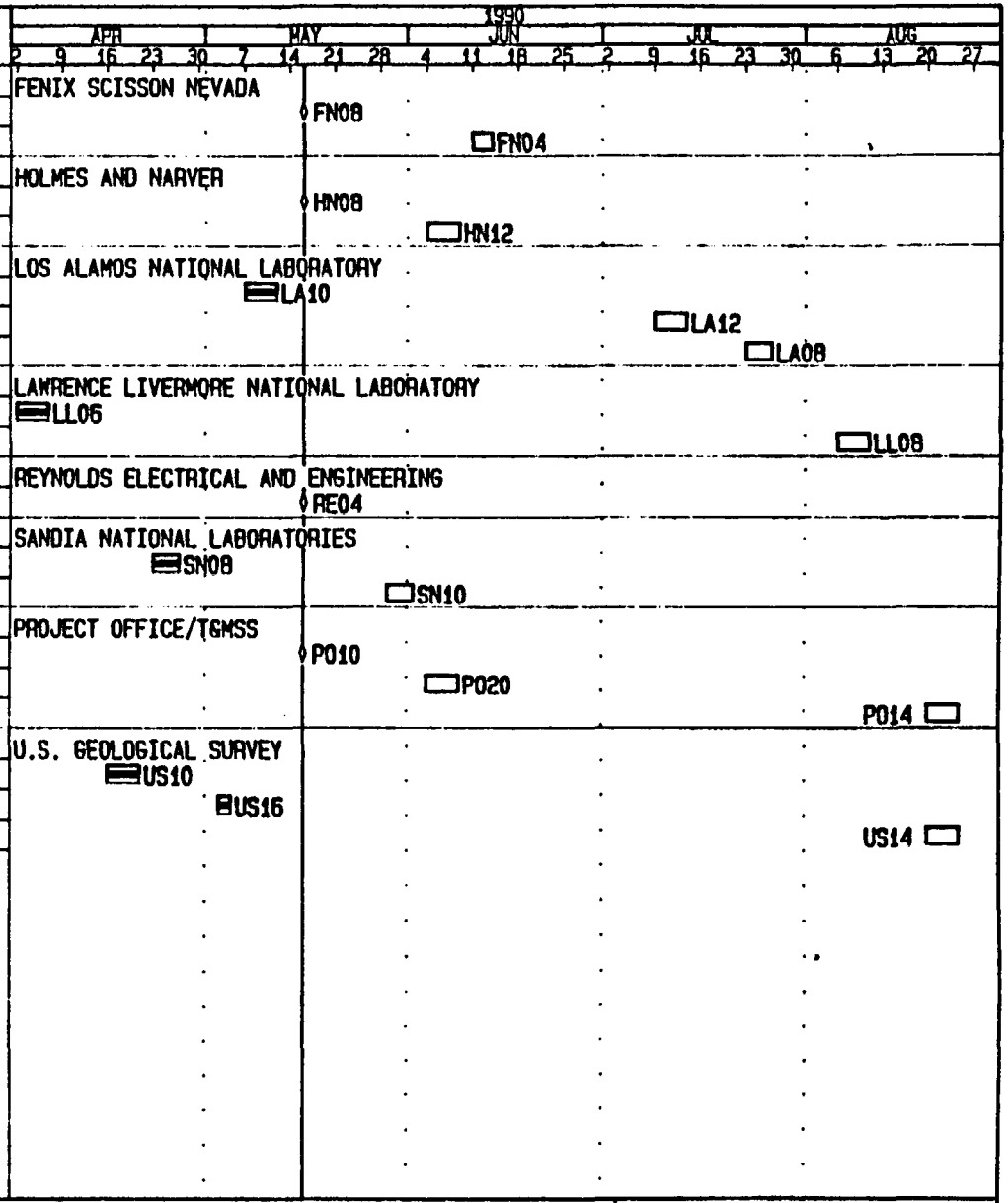
1-POSTPONED ON REV 5.

2-FOLLOW UP TO AUDIT 90-1.

3-POSTPONED DUE TO AUDIT CONFLICT.

4-POSTPONED UNTIL FURTHER NOTICE.

5-CRIT 1 AND 5 COVERED DURING US16.



Activity Bar/Early Dates
Critical Activity
Progress Bar

Primavera Systems, Inc. 1984-1988

DEPARTMENT OF ENERGY
YUCCA MOUNTAIN PROJECT OFFICE
FY-90 STATUS, MAY 16, SURV SCH W/ORG

Sheet 1 of 1

Project Start : 10CT89
Project Finish: 15SEP90*

Data Date: 16MAY90
Plot Date: 16MAY90

FY-90 REV 6 SURVEILLANCE SCH W/ORG

Date	Revision	Checked	Approved

ATTACHMENT 3

HIGH-LEVEL WASTE FORM PRODUCER

QUALITY ASSURANCE PROGRAM DESCRIPTIONS

OFFICE OF ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT (EM-343)

QAPD addresses all High-Level Waste Form (HLWF) Producers

- Defense Waste Production Facility - DWPF
- West Valley Demonstration Project - WVDP
- Hanford Waste Vitrification Project - HWVP
- Idaho Chemical Processing Project - ICPP

QAPD, Part 1 (HLWF Overview) and Part 2 (HLWF Development and Qualification)

- EM review complete
- RW review scheduled for mid-June
- Submittal for NRC review late-June/early-July

QAPD, Part 3 (HLWF Production)

- Reviews scheduled to commence late 1990

ATTACHMENT 4

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE PROGRAM CONSOLIDATION

I. Quality Assurance Program Consolidation Initial Phase

- The Director, OQA reports to the Director, OCRWM
- The Yucca Mountain Project Quality Assurance Division functionally reports to the Director, OQA
- The OCRWM Quality Assurance Requirements Document and Yucca Mountain Project Quality Assurance Plan consolidated
- The OCRWM Quality Assurance Program Description and Yucca Mountain Project Quality Assurance Program Plan consolidated

ATTACHMENT 5

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE PROGRAM CONSOLIDATION

II. Quality Assurance Program Requirements Document Submitted to the USNRC April 13, 1990

- Incorporates specific requirements from the NNWSI/88-9 document
- Does not affect existing Program Participant QA Program Plans
- Satisfies NQA-1-1989 with noted exceptions
- Address the USNRC Standard Review Plan to the extent that effective QA Program Descriptions can be developed
- Non-essential administrative descriptiveness eradicated
- Software controls are delineated in Section 19
- Scientific Investigation controls are in Appendix A Section 20

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE PROGRAM CONSOLIDATION

III. Quality Assurance Program Description Document Submitted to the USNRC April 13, 1990

- Incorporates specific descriptions from the YMPO/88-1 document
- Satisfies the QARD with noted exceptions
- Sections 1 through 19 are applicable to each program element
- Appendices are applicable to specific program elements
- Non-essential administrative descriptiveness eradicated
- Software controls are delineated in Section 19
- Scientific Investigation controls are delineated in Appendix A Section 20

HIGH-LEVEL WASTE FORM PRODUCER

QUALITY ASSURANCE PROGRAM DESCRIPTIONS

DEFENSE WASTE PRODUCTION FACILITY (DWPF) OPERATING CONTRACTOR

QAPD, Part 1 (HLWF Overview) and Part 2 (HLWF Development and Qualification)

EM review in-process
RW review scheduled for mid-June
Submittal for NRC review late-June/early-July

QAPD, Part 3 (HLWF Production)

Reviews scheduled to commence late 1990

HIGH-LEVEL WASTE FORM PRODUCER

QUALITY ASSURANCE PROGRAM DESCRIPTIONS

DEFENSE WASTE PRODUCTION FACILITY (DWPF) DOE PROJECT OFFICE

QAPD, Part 1 (HLWF Overview) and Part 2 (HLWF Development and Qualification)

EM review in-process
RW review scheduled for mid-June
Submittal for NRC review late-June/early-July

QAPD, Part 3 (HLWF Production)

Reviews scheduled to commence late 1990

HIGH-LEVEL WASTE FORM PRODUCER

QUALITY ASSURANCE PROGRAM DESCRIPTIONS

WEST VALLEY DEMONSTRATION PROJECT (WVDP) QAPDs

EM review to commence mid-August
RW review tentatively scheduled to commence November 1990
Submittal for NRC review tentatively scheduled for early-1991

HANFORD WASTE VITRIFICATION PROJECT (HWVP) QAPDs

Review pending

IDAHO CHEMICAL PROCESSING PROJECT (ICPP) QAPDs

Review pending

SUMMARY OF NRC STAFF OBSERVATIONS OF THE APACHE LEAP
PROTOTYPE DRILLING AND CORE SAMPLE PROCESS PROGRAM

On March 19 and 20, 1990, members of the Nuclear Regulatory Commission staff (NRC) observed the Department of Energy (DOE) Prototype Drilling operation conducted at the Apache Leap drilling location approximately seven miles east of Superior, Arizona. On March 22, 1990, the NRC staff observed how the core samples transported from the Apache Leap location were processed at the Sample Management Facility (SMF) located on the Nevada Test Site. A list of participants and observers is provided in Attachment 1.

Assisting the NRC staff was a consultant geologist from the NRC staff contractor for the high-level waste program (Center for Nuclear Waste Regulatory Analyses). The results of this individual's observations are provided in Attachment 2. The NRC staff considers his recommendations to be consistent with the NRC staff recommendations described below.

The overall purpose of the DOE Prototype Drilling program is to gain sufficient experience to determine whether the prototype air drilling and coring equipment, that has been specially designed and built for the Yucca Mountain Project, can satisfactorily retrieve core from the required depths. Satisfactory retrieval will be demonstrated by core samples which can provide the necessary scientific information for site characterization of the high-level radioactive waste geological repository.

On March 20, 1990, and March 22, 1990, the NRC staff briefed appropriate management of the drilling site and SMF, respectively, and the following NRC comments and recommendations were discussed:

1. At the drilling site, there were two instances (one of which is described above) in which DOE had problems encapsulating the core samples into the lexan liners. In these two instances, the core samples acquired during the drilling process were damaged and partially compressed the lexan liner resulting in poor core recovery. This stopped the drilling operation until the necessary adjustments could be made. The NRC staff commented that if the core moisture property analysis was of such importance, it would appear prudent that a USGS representative be present to analyze the core moisture properties at the field location in lieu of the laboratory location. This could eliminate the need for the lexan liner and the difficulties associated with its use.

2. During the processing of the core samples at the SMF, the NRC staff again commented on the absence of the USGS. Considering the past history and problems encountered in the core sample process, and that USGS will be responsible for producing the official documentation for geologic activities associated with site characterization, the NRC strongly suggested that the USGS be represented at all future drilling and core sampling activities. This would enable them to become familiar with the drilling and core sample process, keep informed of the problems that arise, provide expertise on solutions to such problems, and contribute to enhancing the overall core sample process.

3. The NRC staff observed that there did not appear to be any instances where procedures or documentation explicitly required independent verifications or inspections for the more important activities. From a licensing viewpoint, the NRC staff recommended that controls be established for designated independent verification points during successive stages of the core sampling process. This would provide confidence that the process was independently verified in accordance with established guidelines and/or

4. At times, there appeared to be a lack of communication between the Lead Driller and Lead Geologist. On several occasions, the Lead Driller was the only individual taking the drilling depth measurements. The NRC staff suggested that the field geologist logging the core be allowed to confirm the core sample depth intervals that are measured by the driller. DOE indicated that when the actual drilling and coring commences at the Nevada Test Site for the Yucca Mountain Project, the Lead Geologist and Lead Driller will be required to communicate effectively for all technically-related aspects associated with drilling and core sampling.

5. When the core samples were taken from the drill rig to the SMF trailer for logging, they were identified for top to bottom core location and depth of core sample. As discussed above, the core run was not photographed until the core had been broken, whole samples removed, and adjusted for 'representativeness.' The NRC staff recommended that the video photographing of the core be done immediately after the inner core barrel containing the core is opened. Also, the NRC staff recommended that the entire drilling and core sampling process be videotaped for use as a tutorial in familiarizing and training personnel performing quality-affecting activities.

6. Copies of the procedures were present and used at the drilling and SMF locations. Since this was a prototype exercise, certain of the procedures were unapproved draft procedures. As work progressed and as experience was gained in their use, it necessitated handwritten changes to the procedures by the users. A positive aspect is that the procedure changes in several instances, were made by the same individual that was instrumental in writing the procedure.

The NRC staff expressed to DOE that, overall, they appeared to be developing proper procedures for the drilling and core sampling program. The NRC staff believes the prototype drilling and coring exercise was worthwhile to obtain the necessary expertise in preparation for the site characterization of Yucca Mountain for the geologic nuclear waste repository.

Overall, the NRC staff's observations of the prototype drilling were favorable, however, there appears to be limitations on the drilling rig itself. It appears that the drilling rig is not capable of slant hole coring which the NRC staff believes may be necessary to investigate the near-vertical jointing and fractures expected at Yucca Mountain. Also, it appears that it will not be possible to orient (north-south orientation) the cores obtained with this device.

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NRC SURVEILLANCE OBSERVATION OF UNITED STATES GEOLOGICAL SURVEY SOFTWARE QUALITY ASSURANCE

The NRC observers found the DOE/YMPO surveillance of the USGS software QA program useful and effective. The surveillance team was familiar with the USGS software QA Plan and the two procedures being implemented. Their checklist for this surveillance was well prepared and utilized in determining the status and effectiveness of implementation. The team seemed to have a good knowledge of the software QA requirements of Nevada Nuclear Waste Storage Investigations Quality Assurance Plan (NNWSI/88-9), Appendix H. The scope of this surveillance was limited to procedural implementation and no assessment of the technical adequacy and qualification of any of the computer codes was made during the surveillance. The NRC staff agrees with the DOE/YMPO surveillance team's conclusion that the implementation of both USGS software procedures is adequate.

NRC Observation Audit of Los Alamos National Laboratory

Summary

The staff has determined that the DOE/YMPO Audit No. 89-7 of LANL was effective. The programmatic portion of the audit was generally effective, but some of the technical portions of the audit were ineffective. Integration of the technical and programmatic portions of the audit was not as effective as in some recent DOE/YMPO audits.

In general, the NRC staff agrees with the preliminary DOE/YMPO audit team findings that the LANL QA program is inadequate in the areas of procedures, training, technical reviews, and audits and surveillances. The audit team identified approximately twenty potential deficiencies in the LANL QA program, of which twelve remained unresolved by the time of the exit meeting on November 17, 1989. Some of these deficiencies were further examples of deficiencies previously identified and thought to be corrected, which raises questions about the effectiveness of both the LANL corrective action program and the DOE surveillance program.

The potential deficiencies in the areas of adequacy of position descriptions and the lack of trend analyses are similar to deficiencies identified in several other contractor programs during calendar year (CY) 1989, and may be generic deficiencies throughout the contractor programs. The NRC staff recommends that DOE/YMPO evaluate the results of the CY 1989 audits for generic deficiencies, repeated failures of corrective action programs, and adverse program trends.

(a) Observations

- No NRC staff observations relating to deficiencies in the audit process were identified. Apparent deficiencies in the LANL QA program identified by the NRC staff were also identified and presented as potential deficiencies or observations by the DOE/YMPO audit team.

- The NRC staff observed that the DOE surveillance process for verifying corrective actions resulting from previously identified deficiencies appears inadequate. Several corrective actions which were verified by DOE surveillances, solely on the basis of procedural changes and training, appear to have been ineffective in resolving the root causes of the deficiencies. If this finding had been against the audit process it would have been classified as a Level 1 or Level 2 Observation. The NRC staff recommends that DOE evaluate the results of the CY 1989 audits for recurrence of deficiencies assumed to have been corrected by the DOE contractor organization and DOE.

(b) Weaknesses

The NRC staff identified the following weaknesses in the audit process:

- Some portions of the technical audit were inadequate; in particular, there was insufficient probing for the data and documents forming the bases for the SPs and objective evidence of the use of DPs in the technical process. This may be indicative of inadequate training of some technical specialists in QA requirements and audit process.

- The integration of the technical and procedural portions of the audit was highly variable, ranging from excellent to inadequate.

- The technical portion of the audit appeared in some instances to be driven by schedule or some other external forcing function.

- The LANL SPs associated with the technical areas included in the audit scope were not available to the NRC or State of Nevada observers prior to the start of the audit.

- The NRC staff believes that software QA should have been included in the scope of the audit. Significant work was being done by LANL in computer analyses in support of the SPs, although the LANL software QA plan has not been approved by DOE.

The NRC observers noted the following weaknesses in the LANL QA program which were not explicitly discussed by the Audit Team Leader in the exit meeting:

- The technical review process for documents such as DPs and SPs is inadequately documented to provide objective evidence of the adequacy of the reviews.

- LANL management assessments of the effective implementation of the LANL QA program are nonexistent or inadequate, based on the number and type of deficiencies identified in this audit and the ineffectiveness of the LANL corrective action system.

STATUS OF DOE QA OPEN ITEMS
MAY 23, 1990

ITEM	DESCRIPTION	STATUS	RECOMMENDATION FOR CLOSURE/REMARKS
1-90 (i) QA-F-1 (ii) QA-F-2 (iii) QA-F-3	DOE WASTE GLASS QA PROGRAM	Open	NRC staff has received Revision 3 of the QARD which addresses the staff's comments on OGR B-14. This is currently being evaluated by the NRC staff. DOE will be developing a draft position on OCRWM/NRC overview/verification activities. Development of a Memorandum of Understanding (MOU) among DOE-RW,NE, and DP is in question as the idea of an MOU has not been settled among the 3 DOE offices.
2-90 NRC Items ? & 11	ESF Q-List and QA Measures	Open	DOE should meet with NRC to discuss and resolve concerns related to Q-List for the ESF and ESF conceptual design.
3-90 NRC Item 7	NNWSI Core Handling Procedures	Open	DOE submitted the Core Handling Procedures to the NRC staff in a 8/11/89 transmittal (Gertz to Stein). The issues raised in the YMP QA Surveillance Report (YMP-SR-89-134) will need to be resolved before this item can be closed. NRC will determine acceptability of implementation and adequacy of procedures when they are issued in final form and subsequently implemented.
4-90 QA-A-1 QA-B-1d (1) QA-G-3 QA-G-4 QA-G-5	Qualified QA Program before start of new site character-ization activities	Open	DOE has made a commitment to having a qualified QA Program before the start of new site characterization activities. However, this item remains open up until the NRC staff accepts the DOE QA Program as qualified for the start of new site characterization activities.

ATTACHMENT 9

5-90	Definitions for Conceptual, Title I, II, & III Design	Closed	(2/15/90 QA Mtg.)
6-90 NRC Item 13	Access to Project Participant's Personnel Files for NRC-DOE	Open	DOE is working with General Counsel and personnel managers to initiate a mutually acceptable system. At the 2/15/90 QA meeting, DOE indicated that the Federal Register notice was scheduled to be published 3/90. This would permit QA directors to maintain separate records on personnel qualification and allow access to NRC, DOE, NV, and local governments.
7-90 QA-E-1	Qualification of Existing Data	Open	DOE has provided the NRC with a procedure for qualifying existing data. This procedure was reviewed by the NRC staff for consistency with NUREG-1298 and comments were given to DOE via a January 1990 telecon. The NRC staff is waiting for the DOE response to its comments before formally transmitting comments to DOE.
3-90	SCA comments	Open	DOE should provide a response to the 7/31/89 NRC SCA QA comments on the DOE SCP.
?-90	DOE response (Stein to Youngblood dated 12/28/88) to 7 NRC concerns for DOE Audit 88-01 of Pacific - Northwest Lab. Material Characterization Center	Closed	DOE letter (Appel to Linehan dated 8/10/89) provided responses.
.0-90 IA-G-1; and d	Response to NRC Observation QA Audits		DOE should respond within 30 days after the NRC Observation audit Report transmittal. These DOE responses are to be reviewed and considered by NRC staff in accepting DOE QA Programs. DOE should respond for the observation report for the following Yucca Mountain Project Office Audit:
Oa.	Holmes & Narver Audit S89-1, 11/1/88-11/4/88	Closed	DOE letter (Appel to Linehan dated 6/13/89) provided responses.

10b.	Holmes & Narver Audit 89-2, 4/24/89-4/28/89	Closed	(2/15/90 QA Mtg.)
10c.	Sandia National Laboratory Audit 89-3, 9/11/89-9/15/89	Closed	(2/15/90 QA Mtg.)