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WM Record File

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WM Project 1

Docket No. \_\_\_\_\_

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(Return to WM, 623-SS)

AUG 03 1987

MEMORANDUM FOR:

Robert E. Browning, Director  
Division of High-Level Waste Management, NMSS

Michael J. Bell, Deputy Director  
Division of High-Level Waste Management, NMSS

John J. Linehan, Acting Chief  
Operations Branch, HLWM

James E. Kennedy, Section Leader  
Operations Branch, HLWM

FROM:

Linda K. Riddle  
Operations Branch, HLWM

SUBJECT:

LANL AUDIT FOLLOW-UP

INTRODUCTION

The NRC audit of Los Alamos National Laboratories (LANL) was the first audit conducted by the NRC of DOE's High-Level Waste Program. One objective of the audit was to build a foundation for future NRC audits by developing plans, procedures and methods; building a core team of trained and experienced auditors; and integrating quality assurance and technical staff efforts. One of the considerations in achieving these goals is to evaluate the conduct of this audit. As part of this effort, I polled the participants listed below to obtain comments on the strengths and weaknesses of the audit.

The comments varied widely and included praise, criticism, and recommendations. The comments fit roughly into five categories: general, conduct of audit team, conduct of meetings, pre-audit preparation and miscellaneous. The comments are organized below into these categories. The order of comments within the categories is not based on the frequency of the comment, the importance of the comment, or the positive or negative aspect of the comment. Instead, the comments are organized within each category by subject.

Numerous commentors made similar points; however, some commentors had unique insights for improvements. Many of the comments have a sound, objective basis and should be used in the preparation of future audits. Other comments are of a subjective nature and have been included here to represent the spectrum of comments. Several comments, however, were criticism of pre-audit agreements. These comments seemed to result from a lack of communication, within DOE, of these agreements and the rationale for these agreements to all audit participants. Most of these comments have little value for the improvement of future audits and have not been included in this memo.

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Some of the comments compared the NRC audit to the audit by the DOE Nevada Project Office. In this memo, this audit is referred to as the WMPO audit. The WMPO audit was conducted March 30 - April 3, 1987 by 9 auditors, including three technical specialists.

#### PARTICIPANTS POLLED

<u>Participants</u>	<u>Affiliation</u>
Carl Newton	DOE/HQ
Don Oakley	LANL
Paul Guthals	LANL
Larry Maassen	LANL
Jerry DePoorter	LANL
Dave Vaniman	LANL
Dave Bish	LANL
Henry Nunes	LATA*
Carl Johnson	St. of NV
Jim Donnelly	NRC
Paul Bembia	NRC
John Bradbury	NRC
Jack Doyle	NRC (Consultant)

\*LATA is Los Alamos Technical Associates and is a quality assurance subcontractor to LANL.

#### COMMENTS

##### General

- ° The audit was a worthwhile activity for both the NRC and the DOE. Several commentors suggested that there should be more ongoing interaction between NRC and DOE QA and technical staff, such as Appendix 7 visits.
- ° The audit process could have been accomplished through an Appendix 7 visit rather than a formal audit. One commentor indicated that the audit should not have been performed since the NRC knew in advance that NVO-196-17 and the LANL Quality Assurance Program Plan (QAPP) were deficient.
- ° Some participants indicated that the audit could have been more effective if the audit team had known the relative importance of the mineralogy/

petrology program to the entire repository project. With this information, some of the audit findings might be rather insignificant or the audit might have focused strictly on critical areas.

- The audit was thorough and effective in finding problems.
- The NRC audit, in comparison to the WMPO audit, focused on "dotting the i's and crossing the t's" rather than on assessing how the system as a whole was functioning. The audit focused on "nits." The auditors should have looked in more detail to determine if these "nits" are significant problems. The teams accomplished this in part but the teams were inconsistent.
- The NRC audit focused on licensability. WMPO, on the other hand, focused on the appropriateness of procedures rather than compliance to procedures. Thus, the WMPO audit was viewed as less administrative.
- Some participants expected the NRC to audit by taking a vertical slice, starting with the end product. If problems were found with the end product, then the NRC would work backwards to determine the root cause.
- The audit should have examined systematically how the LANL QAPP implemented the NVO-196-17 document, how the LANL procedures implemented the QAPP and how the LANL procedures were implemented. The audit also should examine the work flow, from generation of plans to the accomplishment of the work.
- The audit should focus on areas that are important to the work being accomplished. For example, the procurement area does not have a heavy impact on the quality of site characterization results and therefore should receive less attention.
- There is considerable concern over what is meant by "not qualified" and how the LANL QA program will become qualified. Some commentators recognize this to be as much a DOE problem as an NRC problem.
- NRC has provided little guidance (criteria) on the specific needs of licensing. The audit report would be more helpful if it included examples of acceptable records such as, a satisfactory certification record.

#### Conduct of Audit Team

- LANL technical staff were impressed with the NRC technical team. The role of the technical team in the audit, however, should be defined more clearly. Some commentators viewed their role as information gathering rather than as assessment of the quality of the work. One commentator felt

that a good scientist, regardless of his field of expertise, could assess the technical basis of the work at LANL. This person also would welcome an indepth technical review. DOE personnel expected the audit to be an indepth technical assessment but felt that the audit did not accomplish this goal.

- The NRC auditors were inexperienced but applied themselves well. They did a good job of overcoming shortcomings in the checklists. The NRC team was more familiar with LANL procedures than the WMPO audit team.
- LANL staff were very receptive to the audit and the audit process. In the future, audited parties may not be as receptive and efforts should be taken to minimize contentions between auditor and auditee. Any implications made by an auditor that the auditee is attempting to "cover up" problems should be avoided unless well founded.

#### Conduct of Meetings

- The entrance meeting should have been longer, should have included more details on the rationale for what we are doing, and should elaborate on what the NRC will use to measure their QA Program. Many meetings and discussions occurred prior to the audit and the results of these should have been presented to the participants as background information. The composition of the audit team, including the individuals' positions in the NRC organization, should be explained at the entrance meeting. In addition, the auditors should introduce themselves and give a brief summary of their background.
- Prior to auditing each area of the lab, the auditors should request a presentation about how work is accomplished. This presentation would aid the auditor in modifying his questions for the area audited.
- The LANL staff were especially complimentary of the daily meetings, between the audit team and LANL staff. During these meetings the audit team briefed the LANL staff on NRC concerns. The LANL staff felt the meetings kept them well informed. One commentor suggested these meetings should be limited to one per day and that NRC concerns should be presented daily in writing.
- The evening meetings of the audit team should have been attended by the LANL Technical Project Officer and the DOE observers.
- The evening team meetings should be more focused. This could be facilitated by requiring the team members to write up their concerns prior to the meeting.

- The presentation of results at the exit meeting should have relied on the findings, deficiencies, and observations to support the general result that the program is not "qualified." The exit meeting did not relay the message of NRC trying to help DOE get their program in place.
- The change in the definition of finding to include licensing considerations received nearly unanimous criticism by DOE, LANL, and LATA staff. This change occurred at the exit meeting and therefore is contrary to the basic principles of auditing. One commentor, however, agreed with the change.
- Deficiencies should be more positively stated.

#### Pre-Audit Preparation

- The audit team needs more training such as participation in or observation of an NRR or regional inspection.
- Audit team should know more about the organization to be audited and its function before auditing.
- Each auditor should prepare his/her own checklist. The checklists should be filled out neatly and carefully and retained as a record of the audit. In comparison to the WMPO audit, the NRC checklist was not as detailed, or organized.
- The audit team, excluding observers, was too large for the area audited. The audit team should be limited to four. Large teams are a problem, especially in secured areas.
- The audit should be better organized. A detailed schedule should be prepared indicating the areas to be examined and the people who will be interviewed. The lack of a detailed schedule, resulted in one principal investigator carrying the burden of the audit. Thus, the audit did not accomplish a broad look at the minerology/petrology area.
- The audit subteams should be better coordinated in areas where the checklist questions overlapped or focused on different aspects of a particular activity. One commentor suggested that the team should have met as a group prior to the Sunday evening preceding the audit.

#### Miscellaneous

- DOE would like to see the checklist in order to assist them in "calibrating" their program.

- Information has been disseminated concerning the team's discussion in one evening meeting about the lack of QA experience by the QAIM and QAL. However, none of the NRC findings, deficiencies, or observations refer to this discussion. DOE/LANL is concerned that this might "come back to haunt them later."
- If LANL is audited again, the same team should be sent.
- NRC contractors should be required to have a QA program equivalent to that required for DOE.

**Original Signed By:**

Linda K. Riddle  
Operations Branch, HLWM

cc: R. Ballard      J. Doyle  
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OFFICIAL CONCURRENCE AND DISTRIBUTION RECORD

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FROM: Linda K. Riddle  
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SUBJECT: LANL AUDIT FOLLOW-UP

DATE: 8-3-87

DISTRIBUTION

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CONCURRENCES

ORGANIZATION/CONCUREE	INITIALS	DATE CONCURRED
HLOB/ LRiddle	<u>LKR</u>	87/08/03

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