

12/13/89 QA MINUTES

- 1 -

FEB 05 1990

Mr. Ralph Stein, Associate Director
 for Systems Integration and Regulations
 Office of Civilian Radioactive Waste Management
 U.S. Department of Energy, RW 30
 Washington, D.C. 20545

Dear Mr. Stein:

The purpose of this letter is to convey the minutes of the December 13, 1989 bi-monthly Quality Assurance (QA) meeting. The participants were: the staff of the U.S. Nuclear Regulatory Commission (NRC), the U.S. Department of Energy (DOE), and the State of Nevada. As a result of the meeting, the NRC staff wants to bring the following concerns to your attention.

The effect of the changes contained in "The Report to Congress on Reassessment of the Civilian Radioactive Waste Management Program," on the QA programs of DOE and its contractors was a major topic at the meeting. While the specific dates and milestones regarding the program changes were not yet final, DOE did propose one QA program milestone, NRC acceptance of the overall QA program of the DOE Office of Civilian Radioactive Waste Management (OCRWM) in September 1990. Upon consideration of the information provided at the meeting, the staff concludes that further discussions with DOE are necessary to consider all of the actions necessary to achieve the September 1990 date. Specific topics for further discussions include:

1. the perturbation of the baselined QA program plans, accepted by the NRC staff in the last year, as a result of organizational changes in OCRWM, possible new contractors needed to implement the recommendations in the report, and other changes in QA plans being considered by DOE;
2. the time needed for development of the QA program for the DOE Yucca Mountain Project Office (the program lags those of the contractors by about a year);
3. the need for a complete set of milestones for QA program acceptance which do not assume only best case conditions, and which include follow-up audits or surveillances of programs where a determination of the ability to implement could not be made at the time of the initial QA audit;
4. the need to take into account QA program changes resulting from the implementation of the report to Congress;
5. existing open items (e.g., Privacy Act restrictions on access to personnel qualification information) needing to be resolved.

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The staff has similar concerns about the timely development of the QA programs for the glass producers, the West Valley Demonstration Project (WVDP) and the Defense Waste Processors Facility (DWPF). At present, the NRC staff has received neither the Quality Assurance Requirements Document revision nor the Quality Assurance Program Descriptions for either WVDP or DWPF. Although the glass producers have been performing pre-production work under QA programs, these programs have neither been accepted by OCRWM nor have they been reviewed by the staff. Since neither of the glass producers has an accepted QA program in place, OCRWM may be unable to ensure that WVDP and DWPF activities that need to be conducted under a 10 CFR Part 60, Subpart G QA program are properly controlled. At the QA meeting, the staff proposed an approach for the review of the glass producers' QA programs. DOE needs to review and comment on this "strawman" approach and provide dates for NRC/DOE follow-on actions. DOE should also integrate the acceptance of the glass producers' QA program reviews into the overall repository program.

The staff and DOE agreed that the above concerns, as well as others discussed in the minutes, would be addressed at the next QA meeting which was scheduled for February 15, 1990. However, since DOE has determined that dates and milestones for implementing the program changes discussed above cannot be finalized until the new OCRWM Director takes office, we have agreed to cancel the February meeting. The staff stands ready to meet with DOE as soon as DOE can provide the dates and milestones which are needed in order to determine a realistic path to achievement of the September 1990 milestone of NRC acceptance of the OCRWM QA program. While the April 1990 bi-monthly QA meeting is being used for planning purposes, we will be ready to meet with DOE earlier if the necessary information is available.

If you have any questions, please contact Mark Delligatti of my staff on (301) 492-0430.

Sincerely,

JSL Joe Holomuch for

John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management

Enclosure: 12/13/89 QA Meeting Minutes

cc: R. Loux, State of Nevada
C. Gertz, DOE/NV
S. Bradhurst, Nye County
M. Baughman, Lincoln County
D. Bechtel, Clark County
K. Turner, GAO

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| DATE | : <i>01/30/90</i> | : <i>1/30/90</i> | : <i>2/06/90</i> | : | : | : |



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Received w/Ltr Dated 2/5/90

FEB 05 1990

Mr. Ralph Stein, Associate Director
for Systems Integration and Regulations
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U.S. Department of Energy, RW 30
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If you have any questions, please contact Mark Delligatti of my staff on (301) 492-0430.

Sincerely,



John J. Linehan, Director
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management

Enclosure: 12/13/89 QA Meeting Minutes

cc: R. Loux, State of Nevada
C. Gertz, DOE/NV
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MINUTES OF THE 12/13/89 BIMONTHLY QUALITY ASSURANCE MEETING

The bimonthly 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 December 13, 1989 at NRC Headquarters. While representatives of the Affected Units of Local Government were notified of the meeting, none were in attendance. An attendance list is included as Attachment 1.

After brief opening remarks by NRC and DOE, DOE discussed "The Report to Congress on Reassessment of the Civilian Radioactive Waste Management Program," dated November 29, 1989 (Attachments 2 and 3). For the most part, this was a general discussion of the overall changes in the DOE program and did not include any detailed discussions of QA. This was because most of the specific changes affecting the repository QA program were not yet determined. The discussion focused on the three point program for restructuring the DOE Office of Civilian Radioactive Waste Management (OCRWM) which included: 1) the appointment of a permanent director for OCRWM; 2) the establishment of direct line reporting between the Yucca Mountain Project Office (YMPO) and OCRWM; and 3) an independent management review of OCRWM. A second aspect of the changes in the program discussed was the potential for changes related to ongoing DOE activities at Yucca Mountain. These changes included: 1) the potential for litigation by DOE against NV to assure site access; 2) the redirection of the program to better emphasize scientific investigation; and 3) the focus on alternative methods for site investigation, as recommended by the NRC and the Nuclear Waste Technical Review Board (TRB). A third item discussed by DOE was its plan for changes in the Monitored Retrievable Storage (MRS) program, pursuant to the recent MRS Commission report. Two major concerns were expressed by DOE. The need to modify the linkages between repository and MRS development to allow for early siting and development of an MRS so that DOE can accept waste in a timely manner was the first point. Secondly, the appointment of a Nuclear Waste Negotiator, as authorized by the Nuclear Waste Policy Act Amendments was also recognized by DOE as an important concern. The need for timely development of the appropriate transportation cask by 1998 was also discussed briefly.

Although DOE could not provide a detailed discussion of the effects of the repository program changes on the participants' QA programs, it provided the information which was currently available. DOE stated that the program changes will allow for a consolidation of QA program requirements into a single Quality Assurance Requirements Document (QARD) for all of the program participants. This QARD will be used by OCRWM, YMPO, the DOE contractors, and the glass producers at the West Valley Demonstration Project (WVDP), and the Defense Waste Production Facility (DWPF). DOE stated that there will be no degradation of requirements from those contained in the NRC accepted QARD's for OCRWM and YMPO; therefore, there should be no effect on NRC acceptance of QA programs to date.

Another item discussed was DOE's proposed September 1990 date for NRC acceptance of the OCRWM QA program. The NRC staff indicated that there seemed to be insufficient basis for this date since NRC and DOE have not agreed to specific actions to be taken with regard to the revised program and a new baseline containing a set of milestones and schedules which reflects the program changes. The NRC staff also stated that, in view of the lack of specific information available at this meeting, it may be necessary for another meeting to be held before the next bimonthly meeting.

The final program change discussed by DOE was the fact that it is examining alternatives for the exploratory shaft facility (ESF) design, including alternate methods of construction and the use of a ramp, as opposed to a shaft, for access to Yucca Mountain. In order to prevent the kinds of problems that developed with the original Title I design of the ESF, the staff emphasized that appropriate parts of this new ESF design work (such as the development of the design bases) should be controlled under a 10 CFR Part 60, Subpart G QA program. DOE indicated that this would be the case.

Next, DOE discussed its revised FY-90 audit schedule, a copy of which is given in Attachment 4. The NRC staff expressed concern about the "complete" status given for some of the audits, such as Reynolds Electrical and Engineering Co. (REECO.) and the United States Geologic Survey (USGS) since NRC had noted at the September 7, 1989 QA meeting that the scope of those audits was not sufficient to allow a determination to be made either about the audits or about the contractors' ability to implement the QA programs. NRC had also noted that DOE would need to do follow-up observations and additional audits. DOE agreed that follow-up observations are necessary at these contractors to assess implementation of QA requirements and agreed to discuss this issue further. DOE will review this question and it will be discussed further at the next bimonthly QA meeting. NRC also questioned the difference between the status listed by DOE for the qualification of Los Alamos National Laboratory (LANL) and USGS. NRC had rated both DOE audits as minimally acceptable, yet DOE was rating the qualification phase as minimally acceptable at USGS but requiring an additional audit at LANL, since evaluation of their program by DOE indicated that it was not functioning at an acceptable level. DOE stated that the audit of USGS was the better of the two and that it had covered a significant enough amount of work to enable them to make a determination. The staff requested that DOE also be prepared to better justify its position at the next bimonthly QA meeting.

DOE and the NRC staff then discussed the audits of REECO., LANL, and Sandia National Laboratories (SNL), all of which had been completed since the last bimonthly QA meeting (Attachment 5). It was noted that the findings at SNL were scattered across the 10 CFR Part 50, Appendix B criteria. From this DOE inferred that there were neither particular strengths nor weaknesses found by the audit team. NRC feels that additional audits will be necessary at REECO. once more work is undertaken there. DOE noted that the audit of LANL did provide an important insight into the status of that program. It was noted by DOE that the Standard Deficiency Reports at LANL were clustered in the 10 CFR 50, Appendix B criteria 2 (QA Program), 3 (Design Control), and 18 (Audits).

LANL's weaknesses in these three areas led DOE to stress the need for LANL management to pay more attention to their QA program. DOE mentioned that a site representative would oversee the improvements being made in the LANL QA program. Finally DOE noted that there were no issues of significance regarding REECo. because there was a minimal amount of ongoing work there. Therefore, the audit could not assess how well REECo. was implementing its program.

At the request of NV, DOE presented its position on NRC/NV participation in implementation surveillances. DOE stated that while it has prepared a six month schedule of surveillances (included as part of Attachment 4), NRC/NV can be helpful in identifying areas needing surveillance that have not been included therein. DOE stated that it is committed to notifying NRC/NV of changes to the schedule. The NV representative requested, and DOE agreed, to attempt to inform NRC/NV of changes to the schedule whenever possible. However, DOE asked that consideration be given to the fact that some surveillances are scheduled and conducted with very little lead time. DOE further noted that it may not be possible to inform NRC/NV of every change to the schedule. A second issue of concern to NV was whether or not NV technical observers could accompany the QA staff on implementation surveillances. DOE stated that its goal is to maintain a small number of participants in these surveillances, but that it would consider written requests from NV if the number of requested participants was reasonable.

Following these discussions, the NV representative provided a review of the DOE audits, noting an overall improvement by most DOE participants in the last year. However, given the overall lack of program implementation, it is the State's opinion that it is hard to determine the success or failure of the audit program to date. In cases where there was the most work to review, the audit results were the most negative. The NV representative also commented that a big risk was involved in leaving the audits of OCRWM headquarters and YMPO for last. If major QA program inadequacies are found in either of these organizations responsible for overall repository program management, the effectiveness of the entire program could be called into question since YMPO and OCRWM have been responsible for managing, auditing, and qualifying all of the other programs. The State also noted a problem of low morale among some of the audit staff.

A USGS staff member then discussed the USGS Software Control Program (Attachment 6). He noted that fifty codes had been entered into the system and that four had been baselined. An important premise of the program is to build QA into the process, from a code's inception. The system divides software into three categories: developed software, acquired software, and existing software. A user's manual is planned and a software configuration management system is being implemented. A problem identified by the USGS that needs further study involves the development of the configuration management system and its implementation at all USGS facilities covered by the software control program. The configuration management system will be designed to prevent scientists

from changing codes without documenting the changes. While such systems are usually implemented to resolve problems of this kind, USGS is mindful of the fact that they take time to implement and may face conscious or unconscious resistance from users who have not had to work under such discipline previously.

Next DOE provided a status report on the resolution of the Privacy Act issue of accessibility of personnel qualification records to DOE and NRC/NV auditors (Attachment 7). The Federal Register notice describing DOE's proposal to establish a new system of records for the purpose of maintaining QA qualifications and training records of OCRWM program participants is currently in DOE's concurrence cycle. The next step is approval by both Houses of Congress and then publication for comment in the Federal Register. The entire process will probably take more than six months. In the meantime, DOE will have the appropriate Technical Project Officer (TPO) sign a statement vouching for the qualifications of personnel on that TPO's project.

The QA Open Item list was discussed by NRC and DOE (Attachments 8 and 9). While no major discrepancies were seen, it was noted that NRC, OCRWM, and YMPO all use different numbering systems for the open items. The participants agreed to hold a conference call to resolve this. Attachment 10, a copy of DOE 4700.1, "Project Management System" was provided in response to NRC Open Item 5, "Definitions for Conceptual Design for Title I, Title II, and Title III".

Following the talks on the open items, DOE and NRC discussed the QA programs for the waste glass producers--WVDP and DWPF. Attachment 11 was used by the NRC staff to outline the milestones NRC considers appropriate and desirable for review of the program. DOE outlined its program in Attachment 12. DOE further stated that although the QARD for OCRWM has been submitted to and accepted by NRC, the QARD will be revised to include QA requirements for the glass producers and will consider upgrading to meet American Society of Mechanical Engineers Standard NQA-1-1989, "Quality Assurance Program Requirements for Nuclear Power Plants." OCRWM has been working with its Office of Defense Programs and has scheduled an audit of the WVDP for Spring, 1990. DOE also noted that a new Office of Environmental Restoration and Waste Management has been created to handle defense waste activities including: WVDP, DWPF, and the Waste Isolation Pilot Project (WIPP). This office will have a QA director reporting directly to the Office Director who will oversee the development and implementation of the QA programs for the glass producers and WIPP. NRC noted that, as in the discussions on the changes in the repository project, the unavailability of dates and milestones makes it difficult for NRC to comment on the programs. NRC hopes that these dates and milestones will be forthcoming soon.

NRC and DOE then discussed the recent report resulting from the National Research Council's "Colloquium on the QA Aspects of Geotechnical Practices for

Underground Radioactive Waste Repositories," which was held in August 1988. Attachments 13 and 14 were used by NRC and DOE, respectively. DOE noted that the potential issues raised in the report should not be left unresolved, even if there is debate about their validity. NRC provided some potential solutions to the problems, suggesting that a workshop in the Spring of 1990 be held to work with the scientists toward a better understanding of how to implement meaningful QA programs on their projects. Publication of papers and providing guidance to DOE were also recommended by NRC.

At the September 1989 bimonthly QA meeting, DOE had presented a discussion on some proposed changes to its quality level classification system. Since these changes are now the basis for the DOE position on the quality level classification system, this presentation was repeated (Attachment 15). DOE stated that because the existing system was difficult to implement, it has been changed to eliminate quality levels in favor of a system of determining the necessary quality requirements for individual components and activities. DOE reported that the Yucca Mountain Project Procedure 6.17, "Determination of the Importance of Items and Activities" and Yucca Mountain Administrative Procedure 5.28Q, "Quality Assurance Grading" which will implement this system, should be effective in March 1990.

The final topic on the agenda was DOE's discussion of the "Criteria for Technical Aspects of Audits" (Attachment 16). DOE emphasized that an audit is a "snapshot in time" which should not be considered either a technical review or a peer review. DOE listed nine criteria for technical aspects of audits (see page 3 of the attachment). Further, DOE stated that subjects chosen for an audit may vary depending on activity status, importance of activity to project schedule, potential problem areas identified by project reviews and surveillance, and other factors.

After the completion of the presentations, the NV representative brought up an item of concern regarding the TPO Action Log. The State was concerned that an action item had been logged but later closed out by DOE, when no one could remember what the action item was. NV does not consider this to be an acceptable resolution. The State identified the item number as 89-1552T.

The next bimonthly meeting is scheduled for February 15, 1990. Potential agenda items include:

Disposition of the NV Item of Concern (TPO Action Log)

Transducer Data from the USGS

Finalized Schedules and Milestones for Program Changes
Discussed at Today's Meeting

Overview of High-Level Waste Form Product QA Process

After closing remarks by NRC and DOE, the meeting was adjourned. NV did not have any closing remarks.

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

Mark S. Delligatti 2/2/90

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Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards, NRC

Linda Desell 2/2/90

Linda Desell
Repository Licensing Branch
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