

QUALITY ASSURANCE AUDIT REPORT
NYE COUNTY
NUCLEAR WASTE REPOSITORY PROJECT OFFICE (NWRPO)
AUDIT NUMBER NWRPO-01-2004

Date: November 19, 2004

To: Doug Davis, NWRPO Quality Assurance Officer

From: Quality Assurance (QA) Audit Team

SUBJECT: Audit of Nye County Nuclear Waste Repository Project Office (NWRPO) QA Program implementation and Sonic Corehole NC-EWDP-22PC

PURPOSE: To verify that the requirements established by the NWRPO QA program are being effectively applied and implemented for the Nye County Testing activities.

SCOPE: The audit included the total QA program implementation and the drilling operations being conducted at NC-EWDP-22PC. The audit team members interviewed cognizant personnel, examined documentation, reviewed procedures, and evaluated procedure implementation to determine adequacy and effectiveness of compliance with NWRPO QA program requirements.

BACKGROUND: The Nye County Independent Scientific Investigation Program which includes the Early Warning Drilling Program (EWDP), is intended to provide data on in situ permeabilities and transport parameters of lithostratigraphic units in the vicinity of the repository on a large scale. The EWDP is planned to be accomplished in four phases with over 30 well drilling operations and locations. Final reports have been issued by Nye County on completed drilling operations. U.S. Department of Energy (DOE) personnel are located at the drilling sites to confirm the drilling process and core sample collection. Core samples to be archived are directed to the DOE Sample Management Facility with chain of custody maintained. The Nye County QA program is intended to provide documented assurance that data derived from the NWRPO EWDP technical programs are of the highest quality. The QA program is intended to ensure that scientific activities are conducted in a systematic manner, using documented instructions and procedures to ensure the validity, integrity, preservation, and retrievability of the data generated.

SUMMARY: The audit team determined that the Nye County QA program requirements were being effectively implemented for the current scope of activities. No conditions adverse to quality were identified however, several recommendations (listed below) were made for consideration to clarify or enhance the QA program implementation.

AUDIT TEAM MEMBERS:

William Belke, QA Contractor Auditor
Kenneth Hooks, QA Contractor Auditor

DATE OF AUDIT: November 8, 9, 2004

PERSONNEL CONTACTED: D. Hammermeister, D. Davis, S. Dudley, K. Gilmore, L. Kryder, J. Walker, and contract geologists at the NC-EWDP-22PC drill site.

AUDIT SCOPE: In accordance with the audit plan, the following QA Program Plan (QAPP) sections were reviewed:

* Denote criteria unable to be reviewed due to lack of activity or not applicable.

- 1.0 Organization
 - 2.0 Quality Assurance Program
 - 3.0 Design Control
 - 4.0 Procurement Document Control *
 - 5.0 Instructions, Procedures, and Drawings
 - 6.0 Document Control
 - 7.0 Control of Items and Services
 - 8.0 Identification and Control of Items
 - 9.0 Control of Special Processes *
 - 10.0 Inspection *
 - 11.0 Test Control
 - 12.0 Control of Measuring and Test Equipment *
 - 13.0 Handling, Storage, and Shipping
 - 14.0 Inspection, Test, and Operating Status
 - 15.0 Control of Nonconforming Items *
 - 16.0 Corrective Action *
 - 17.0 Quality Assurance Records
 - 18.0 Audits *
- Work Plan WP-8
Test Plan TPN-5.3
Technical Procedures TP-7.0 and TP-8.0

The audit team focused on the organizational responsibilities and QA elements associated with the implementation of the QAPP and testing activities. This included the procedural implementation and the necessary technical and scientific information of the testing activities. The audit team reviewed extensive documentation retrieved from the QA Records Center. A visit to NC-EWDP-22PC allowed the audit team an opportunity to witness an ongoing activity at the drilling site, including core sampling and reprocessing. Also observed was the adherence to procedural requirements and the actual recording of data.

In accordance with the audit plan, the audit team developed and used formal checklists based on the applicable QAPP sections and technical procedures identified above, and the implementing Quality Administrative Procedures (QAPs). Checklists associated with this audit will be entered into to the QA Records Center as a separate entity.

RECOMMENDATIONS:

1. QAPP Section 1.0, paras.1.3 and 1.3.6 require the establishment of position descriptions for technical and QA personnel. The position descriptions were found to be in place, however, several of these position descriptions were noted to be too specific and do not allow flexibility to allow personnel to perform other tasks. It is recommended that consideration be given to reviewing the position descriptions to allow more flexibility in assigning responsibilities as intended.
2. QAPP Section 1.0, para. 1.3.4 and Section 3.0, paras. 3.1 and 3.2, require technical reviews of completed technical work. A review of a sample of completed technical work packages verified appropriate reviews, comments and resolutions had been performed. However, certain of the work packages had a sign off sheet while others did not. It is recommended that the technical review process be looked at to determine consistency with the use of sign off sheets.
3. QAPP Sections 1.0, 3.0, 6.0 etc., and several QAPs require the Quality Assurance Officer (QAO) to perform specific quality tasks. During the audit, it was noted that these quality functions were being performed by the QAO and also by the staff. It is recommended that the QAPP and QAPs be reviewed and clarified to add where appropriate, “....reviewed by the QAO and/or designee.”
4. QAP-5.2, para. 5.2.1, requires a table of contents for Work Plans. QAP-5.2, paras. 5.2.2 (Test Plans) and 5.2.3 (Technical Procedures) do not require a table of contents. It is recommended that for consistency and to facilitate ease of use for Test Plans and Technical Procedures, a table of contents be considered.

5. For future revisions to the QAPP and QAPs, it is recommended that vertical bars be placed in the margin adjacent to the change, or a change page or equivalent be initiated, to indicate to the user of the document, what has been changed. This would preclude the user from having to review the entire document to determine what has been revised.
6. The NWRPO QA Organization, Figure 1, on page 11 of the QAPP does not coincide with the current organization and reporting chain of command. It is recommended that next revision to the QAPP, Figure 1 be updated.
7. In August 2002, the Nye County Project QAO performed a QA program procedure review and 87 issues were documented. It appeared that several of the issues were resolved with the recent revisions to the QAPP and QAPs. Several of the issues appear to not have been closed. It is recommended that the 87 issues be reviewed and appropriate documentation be generated to formally close the resolution of these issues.

EXIT SUMMARY: During the exit meeting, the audit team expressed their appreciation for the cooperation and responsiveness from all personnel during the audit. Especially notable was the knowledgeable QA Records Specialist who retrieved all requested information in a timely manner. The audit team also commended the NWRPO Designated Field Representative and staff for their responsiveness at NC-EWDP-22PC.

cc: Nye County Commissioners
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