

SEP 24 1992

Mr. John P. Roberts, Acting Associate Director
for Systems and Compliance
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Mr. Roberts:

SUBJECT: OBSERVATION AUDIT OF THE WEST VALLEY DEMONSTRATION PROJECT

This letter transmits the NRC staff comments resulting from its observation of the July 27-31, 1992, U.S. Department of Energy (DOE), Office of Environmental Restoration and Waste Management, Office of Waste Management, Vitrification Projects Division (EM-343), Qualification Audit (No. 92EA-WV-AU-001) of the quality assurance (QA) activities related to the West Valley Demonstration Project (WVDP), located near West Valley, New York. The EM-343 audit was also observed by a representative of the DOE office of the Civilian Radioactive Waste Management (OCRWM).

West Valley Nuclear Services (WVNS) is a subsidiary of Westinghouse Electric Corp. and is the operating contractor for the WVDP. WVDP is required to produce a high-level waste form product, including the glass form, the canister, and the production methods for shipping to and the retention at the waste repository. The DOE West Valley Demonstration Project Office (WVPO) is responsible for the construction and operations of the WVDP. The audit examined the adequacy and effectiveness of implementation of the Quality Assurance Program Description which included the WVNS and WVPO organizations

Overall, the audit was generally effective in evaluating the adequacy and effectiveness of implementation of the WVPO and WVNS QA programs. The audit was effective in identifying a number of deficiencies in the implementation of the WVPO and WVNS QA programs. Audit checklists were comprehensive but the content of the audit checklists did not clearly indicate whether the implementing procedures were being checked for adequacy as opposed to being checked for compliance as the audit checklists seem to indicate.

The audit team determined that the implementation of the WVPO and WVNS QA programs were considered to be marginally effective based on the findings and observations. The NRC staff generally agrees with this determination.

Based on the 18 preliminary findings by the audit team, it is questionable whether the WVPO system of audits and surveillances is as effective as it should be. For example, the WVPO Audit/Surveillance Log revealed that in the past year, over 50 audits/surveillances had been performed; over 35 of which

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included Title 10 Code of Federal Regulations (10 CFR) Part 50 Appendix B Criteria. In reviewing several of the audit/surveillance reports, it appeared to the NRC staff that the WVPO checklist questions did not go into sufficient detail or the reports lacked the in-depth information of what was actually audited or surveilled. The WVPO surveillance/audit program should be more carefully monitored in the future to assure it is being effectively implemented.

As a result of the June 17-21, 1991, EM-343 audit of the WVPO (9IEA-WV-AU-001), six Deficiency and Corrective Action Reports (DCARs) were issued. Four of the six DCARs had been previously verified as closed, one open, and one to be verified on this audit. It is the NRC staff's understanding that one of the closed DCARs pertained to inadequate implementation of personnel qualification, indoctrination, and training requirements. During this audit, the auditors identified two potential findings in the area of indoctrination, qualification, and training. It appears that verification of root cause and corrective action may not have been effective in this case.

The NRC staff believes that the WVNS QA implementing procedure structure may be excessively complex and difficult to implement because of multiple groups of implementing documents e.g., QA Procedures, Engineering Procedures, Quality Control Procedures, Standard Operating Procedures, etc.). Each group of procedures address most of the requirements in accordance with 10 CFR Part 60, Subpart G, which references 10 CFR Part 50, Appendix B. There are several examples where for an individual activity, more than one type of procedure applies, and in some cases, more than one type of procedure apply to the same work group. The NRC staff recommended this area be closely looked at to consider a procedure consolidation effort which may facilitate ease of implementation.

The auditor of Criterion 12, "Control of Measuring and Test Equipment," identified a number of related deficiencies in the implementation of WVNS calibration controls. An audit finding was considered, but WVNS issued an internal corrective action, and therefore, the audit finding was not issued. Previous OCRWM audits have allowed resolutions of minor nonconformances requiring only remedial action (no root cause analysis or action to prevent recurrence) when those conditions could be corrected during the audit. The WVNS nonconforming conditions were not corrected during the audit, and root cause analysis and recurrence investigation may have been necessary. The NRC staff recommends that this practice be made consistent with the OCRWM practice since otherwise it may lessen the effectiveness of the DCAR system i.e., corrective action, root cause determination, monitoring implementation, etc.

The WVNS QA Program uses a graded approach for quality levels (Q-levels) that relate to the safety and service classification of items and activities. This Q-level system of four classes, (A, B, C, and N) is intended to be consistent with the provisions of NUREG-1318, "Technical Position on Items and Activities in the High-Level Waste Geologic Repository Program Subject to Quality Assurance Requirements." Based on the limited observation of this grading

process by the NRC staff, it appears that the four tier process is not clearly defined. The NRC staff commented that similar type problems were encountered with the Yucca Mountain Site Characterization Project (YMP) grading system, which precipitated the QA Grading Workshop effort by DOE to revise the grading process. The NRC staff recommended that the WVNS consider looking into the revised YMP grading effort from a "lessons learned" aspect to enhance their grading process.

The WVNS Project Appraisals Department trending process was reviewed for its implementation. This process is designed to identify problems, root causes, trends, and make recommendations to upper management on the corrective actions that should be taken for improvement. The data for this trending analysis effort stems from internal (site) and external (suppliers) sources (e.g., occurrence reports, nonconformance reports, audits, surveillance reports and corrective action reports). It was obvious to the NRC staff that in reviewing several of the WVNS Quarterly Quality Trend Analysis Reports and associated implementing procedures and data, that much effort had been put into developing this system. In short, inputs are categorized into a specific activity or nuclear QA code, assigned a direct, contributing, or root cause code, and a document origin code. Other data such as the associated procedure and specific department are included in this trending effort. Once the data is assembled in can be sorted any number of ways and graphically depicted in the form of histograms, bar charts, pie charts etc., to provide a quick overview. The NRC was extremely impressed with this trending effort and recommend it be reviewed by OCRWM management for possible application to its high-level waste repository QA program.

The EM-343 objective was to use this audit as a "Qualification" type audit in order to fully qualify the WVDP QA program activities. At the post-audit meeting, it was stated that if all program elements had been found acceptable, the audit team would have found the WVDP program fully qualified. The NRC staff disagrees that a programmatic audit by itself, with no provisions to assure technical adequacy, can be utilized as the basis for "qualification" as the word was, applied to the OCRWM QA program.

Should you have any questions regarding this letter, please contact W. Belke of my staff on (301) 504-2445.

Sincerely,

/s/

Joseph J. Holonich, Director
Repository Licensing and Quality Assurance
Project Directorate
Division of High-Level Waste Management
Office of Nuclear Material Safety
and Safeguards

(See attached list for cc's and distribution)

CC'S FOR LETTER TO JOHN P. ROBERTS FROM J. J. HOLONICH, SUBJECT: "OBSERVATION
AUDIT OF THE WEST VALLEY DEMONSTRATION PROJECT," DATED ~~SEP 24 1992~~

- cc: R. Loux, State of Nevada
- T. J. Hickey, Nevada Legislative Committee
- C. Gertz, DOE/NV
- S. Bradhurst, Nye County, NV
- M. Baughman, Lincoln County, NV
- D. Bechtel, Clark County, NV
- D. Weigel, GAO
- P. Niedzielski-Eichner, Nye County, NV
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