

U.S. NUCLEAR REGULATORY COMMISSION
AUDIT OBSERVATION REPORT
FOR THE
BASALT WASTE ISOLATION PROJECT
AUDIT (NO. 8704) OF
WESTINGHOUSE HANFORD COMPANY

8712070102 871015
PDR WASTE PDR
WM-10

James Donnelly
James Donnelly
Operations Branch, DHLWM

10-15-87
Date

U.S. NUCLEAR REGULATORY COMMISSION
AUDIT OBSERVATION REPORT

PURPOSE

The purpose of the observation was to assess the effectiveness of DOE's Basalt Waste Isolation Project (BWIP) audit in determining whether Westinghouse Hanford Corporation's (WHC) quality assurance (QA) program is being adequately implemented.

INTRODUCTION

From August 31, 1987 through September 4, 1987 the staff observed the BWIP audit (No. 8704) of WHC in Richland, Washington. The audit was conducted from August 31, 1987 through September 11, 1987. Thus, the staff participated as an observer for one week of the two week audit. The scope of the BWIP audit covered QA program elements applicable to the BWIP activities currently being performed by WHC, with considerable emphasis on current activities related to the drilling of boreholes DC-24, DC-25, and their related Study Plans.

The audit team was broken up into three Subteams, A, B, and C. On September 1-2, 1987, the observer accompanied Subteam B to look at Criterion III, Design Control for the upcoming drilling activities for DC-24 and DC-25. Subteam B consisted of two auditors -- a Subteam lead and a technical advisor, both from MACTECH.

On September 3-4, 1987 the observer accompanied Subteam C to look at Criterion XI, Test Control. Once again, the Subteam consisted of a Subteam lead and a technical advisor -- both from MACTECH. Subteam C based their audit questioning on the detailed test procedures which are to be used for the DC-24, DC-25 drilling activities.

This observation report is based on observations of the pre-audit conference, the daily morning and afternoon audit team caucuses, the actual conduct of the audit and interviews with the audit team members. The observation did not cover all of the areas audited.

OBSERVATIONS

- a. The overall experience of the audit team was both adequate and appropriate. This is based on the following observations:
 - (1) The Subteam B lead had over 18 years of nuclear QA/QC and NDE experience. In addition, the technical advisor for Subteam B had a

B.S. and M.S. degree in geology and over 14 years of experience in geotechnical engineering and project management.

- (2) The Subteam C lead had over 30 years of QA, R&D, and project management experience. The technical advisor for Subteam C had a B.S. and M.S. degree in geology and over 20 years work experience in geohydrology, low-level and hazardous waste monitoring and disposal.
 - (3) The audit team leader had over 28 years experience in nuclear R&D and QA.
- b. The audit team appeared to be well prepared for the audit. This is supported by the following:
- (1) Audit plans, checklists, and pre-audit briefing material were prepared and distributed to observers prior to the audit.
 - (2) While observing the auditors, it was apparent from their questions and daily caucuses that they were knowledgeable in the WHC QA program and related documents.
- c. Based on observations of Subteam C, the technical advisors were effectively utilized within the defined audit scope. Detailed technical questions on water sampling techniques, equipment calibration and sensitivity, and procedural adequacy were asked of the WHC staff. The ability of the technical advisor to communicate with the WHC technical staff enhanced the effectiveness of this portion of the audit.
- d. When technical advisors are utilized during the audit, it would be helpful if they prepared their own checklists. If other questions arise (as was observed with Subteam C) it would be helpful if they documented these questions, to the extent practical. This would leave a written record that audits of a technical nature have in fact been conducted, and would provide evidence of observation (c.) above.
- e. The auditors should have the option of interviewing individuals without the presence of the immediate supervisor. Supervisors may impede frank and open discussions between the auditor and the auditee.

SUMMARY

During the period of observation, the Subteams performed, what appeared to be, an effective audit. The experience and preparation of the audit team, as well as the effective use of the technical advisors, support this conclusion. Additional observations and/or staff audits will be conducted on the BWIP program to enable the staff to gain confidence in the program. While some improvements could be made in technical checklist preparation and interviewing techniques, this audit was an improvement in DOE's auditing efforts and should be continued.