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James P. Knight, Director, Licensing & Regulatory Division, DOE/HQ (RW-23),
FORS

REPORT OF OBSERVATIONS MADE DURING SCIENCE APPLICATIONS INTERNATIONAL CORPORATION (SAIC) QUALITY ASSURANCE (QA) AUDIT OF NEVADA NUCLEAR WASTE STORAGE INVESTIGATIONS (NNWSI) PROJECT ACTIVITIES AT THE U.S. GEOLOGICAL SURVEY (USGS)/ DENVER, MARCH 10-14, 1986

Reference letter, Susan G. Bilhorn to John L. Linehan, dated June 2, 1986.

The purpose of this letter is to document the Waste Management Project Office's (WMPO) comments regarding some of the observations reported in the above referenced letter. The comments are as follows.

1. In the section titled "The Audit," paragraph 1C states "Coordination between SAIC and USGS prior to the audit was lacking. Audit interviews had not been arranged (schedules and individuals) prior to the preaudit meeting, therefore, last minute arrangements and adjustments were necessary."

The following coordinating actions had been taken prior to the audit.

a. The audit plan was transmitted to USGS on April 22, 1986, outlining the purpose, scope, audit schedule, and the requirements to be audited.

b. A specific request had been made of the USGS QA Manager to provide the number of persons that would support the audit team units during the auditing of the various QA elements. We were advised that due to the uncertainty of personnel availability the assignments would be made during the preaudit meeting.

c. Three telephone conversations had been held with the USGS QA Manager to coordinate specifics prior to the audit.

d. Historically last minute arrangements and adjustments are associated with the start of an audit.

2. Paragraph A under Conclusions states "The audit was highly compliance-oriented in spite of the inclusion of technical team members and reviews of technical activities (see Enclosure 1 as illustration). This differs from the NRC approach to inspections and audits (such as IDI's) which focus more on the quality of technical work than on compliance with QA procedures."

By definition in NQA-1, Criteria 18, an audit is a planned activity performed to determine compliance with established procedures, instructions, drawings, and other applicable documents. The other seventeen criteria of NQA-1 were designed to provide assurance that technical activities are accomplished and reviewed by competent trained personnel--not QA auditors. WMPO audits have been and will continue to be highly compliance oriented.

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3. Paragraph 3 under Concerns states "The conditions which merit issuance of a stop work order on repository activities during preclicensing have not been defined. Also, the method, authority, and responsibility for recommending a stop work order based on audit findings are not in place, especially for audits conducted by a contractor, such as SAIC."

The conditions meriting the issuance of a stop work order are judgmental and would be difficult to define. QMP-18-01 "Audit System for the Waste Management Project Office (WMPO/NV)," paragraph 4.3 charges the lead auditor with the responsibility for immediately reporting any significant conditions affecting quality to the WMPO Director for appropriate action. Presumably if the conditions warrant stop work, a stop work order will be issued. QMP-18-01 is currently being revised to define the method, authority, and responsibility for recommending a stop work order.

4. Paragraph 4 under Concerns states "A potential problem with independence from cost and scheduling was apparent regarding audits conducted by contractors such as SAIC. In spite of the uncertainty associated with a first time recommendation of a stop work order, I believe that the SAIC audit team gave undue attention to what they thought SAIC management and NNWSI would want to hear. In addition, the lead auditor was concerned about contacting the NNWSI QA Manager to discuss the situation. I consider that if contracting organizations such as SAIC are to function as 'extensions of project staff' in the area of QA, that they should feel free to act with project authority and exhibit the necessary independence from cost and scheduling."

The WMPO fails to understand how the actions of the audit team and audit team leader relate to potential problem with independence from costs and scheduling. As stated, the uncertainty associated with a first time recommendation of a stop work order which required the understanding of the protocol for a stop work order may have resulted in the lead auditors concerns, however, cost and scheduling should not have been a concern. Enclosure 1, WMPO organization chart, is structured such that the QA Support Contractor (SAIC/QASC) Manager, who is responsible for providing auditor assistance for the conduct of audits and reports to the WMPO Director which provides the independence required to perform QA functions. In addition, if disputes in QA arise the QASC Manager, who supports the WMPO Project Quality Manager (PQM), has access to the DOE/NV Manager through the PQM, thereby providing complete independence from cost and scheduling.

5. Observation Number 1 states "NNWSI and DOE/HQ attribute the term 'technical audit' to NRC (initiated by NRC at the site visit, December 1984). NNWSI has been pushed, therefore, to conduct such audits but has been given little direction as to the definition or intent of the term. This has generated numerous interpretations and much confusion. The NRC's intent should be clarified."

This observation very aptly presents the WMPO's uncertainty as to the NRC intent relative to the execution of technical audits. The WMPO has received various versions of the NRC intent, all of which have been verbal. These covered such actions as a review for compliance to technical procedures, a

vertical slice through a design process amounting to a design review, a peer review of publications, or a review for adequacy of experiments. Until such time as the NRC clarifies the position formally, the WMPO will conduct technical audits by:

- a. Reviewing for compliance to technical procedures.
- b. Reviewing technical documents for adequacy of peer reviews.

6. Observation Number 2 states "NRC staff have noted that the scope of the audits conducted by DOE projects have been too optimistic in that they attempt to cover all 18 criteria in less than 4 days. NNWSI has apparently interpreted this to mean that they need only evaluate the criteria which most directly affect the quality of work performed by each contractor and not audit against all 18 criteria stated in the requirements. The intent was, however, that the adequacy of QA be evaluated as necessary to determine compliance with the requirements. In order to conduct an adequate evaluation, audits may need to be longer or divided into parts. In addition, regular surveillance and review should indicate areas which need greater or lesser attention during audits."

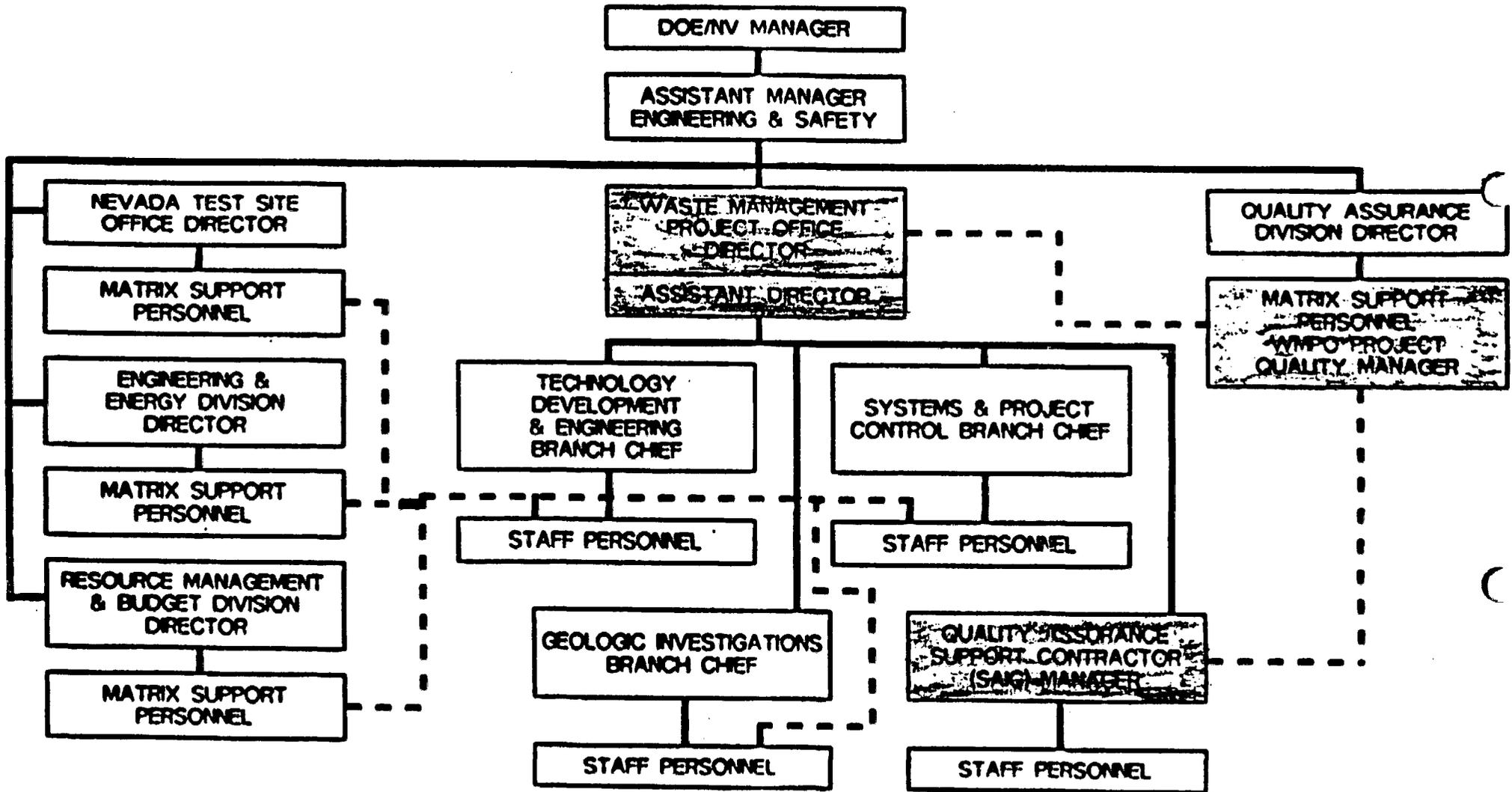
The audit plans for each of the WMPO FY 1985 and 1986 audits to date have addressed all 18 criteria. The degree of evaluation of each element has been a function of the amount of activity required to adequately evaluate the QA element. Where there had been little activity the effort expended was not as extensive as in areas of greater activity. Where there had not been any activity, these elements were not audited. It is difficult to audit an activity for compliance to requirements if no work has been performed on the activity, or when an activity does not involve all 18 criteria. The WMPO will continue to audit all active QA elements of the 18 criteria during each audit. The number of elements that can be adequately audited in a time period is a function of the number of auditors assigned. To date the WMPO feels that a sufficient number of auditors have been assigned and that each of the audits has adequately evaluated all of the appropriate QA elements. The WMPO's audit policy is to follow up audits with surveillances to further probe and conduct in depth reviews of areas noted to required additional attention.


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WMPO:JB-2077

Enclosure:
As stated

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- Administrative Responsibility, Authority and Accountability
- - - Matrix Support Functional Responsibilities and Accountabilities