

DOE/SRPO  
QUALITY ASSURANCE AUDIT REPORT

of

PARSONS-REDPATH  
3040 Riverside Drive, Suite 224  
Columbus, Ohio 43221

Audit Dates:  
November 15 and 16, 1984

8504080186 850222  
PDR WASTE  
WM-16 PDR

### 1.0 Purpose of Audit

The purpose of the audit was to evaluate the effectiveness of the Parsons-Redpath (P-R) QA Program as well as evaluate the degree of implementation of the QA Program in conformance with the P-R QA Manual.

It should be noted that P-R QA Manual has not been accepted by DOE/SRPO to date; therefore, revision 1 of the P-R QA Manual dated February 10, 1984, and the proposed draft revision 2 of the QA Manual dated November 1984, were reviewed during the course of the audit.

Also, the audit team evaluated conformance with selected procedures in the Project Procedure Manual dated July 10, 1984.

### 2.0 Personnel Contacted

R.E. Rihs	1,2,3	- QA Manager
A.M. Shoemaker	1,3	- Project Controls Manager
J.E. Powell	1,2,3	- Contract/Administration Manager
C.A. Lyons	1,2	- Procurement Manager
J.W. Burgess	1,2,3	- Chief Engineer
G.A. Stafford	1,2	- Project Director
J. Steinmetz	1	- Project Controls
F.C. Hood	3	- Dupty Project Director

### 3.0 Summary of Audit Results

The audit team noted that the P-R QA Manual is being prepared for submittal to DOE/SRPO in the very near future. The audit team also noted that several procedures and manuals (i.e., QC Manual, Construction Manual) are not under preparation per the schedule denoted in the corrective action response to Observations 1 and 2 of the 1983 SRPO QA Audit. P-R personnel explained that these dates have changed due to the schedule and construction methodology changes, as well as lack of availability of a design.

The team did observe that appropriate procedures and practices are in effect for design-control activities of P-R. Conceptual designs submitted by the Exploratory Shaft Facility Architect-Engineer to the Exploratory Shaft Facility Construction Manager for constructability reviews were documented and reviewed in accordance with the QAP-3 requirements. A good effort by P-R personnel on design control activities was noted by the audit team.

- 
- 1 = Attended preaudit conference  
2 = Contacted during audit  
3 = Attended postaudit conference

As a result of the audit, five (5) findings were identified and documented on Audit Action Reports (AARs) one (1) through five (5), and three (3) observations were identified.

The AARs were documented in the following areas:

- AAR 1 - The area of training was not effectively implemented per the requirements of the P-R QA Manual.
- AAR 2 - Several discrepancies in the document control system were noted that requires attention by appropriate P-R personnel.
- AAR 3 - The proposed QA record designation, control, and storage system does not fully meet ANSI/ASME NQA-1 1983 requirements.
- AAR 4 - The audit system has several areas of nonconformance with P-R procedures and NQA-1 requirements.
- AAR 5 - Proposed corrective action with regard to procedure generation as stated in observation one (1) and two (2) of the 1983 DOE/SRPO audit of P-R has not been effectively implemented.

The audit team suggests that P-R personnel examine the above areas for administrative system improvement in order to correct the above deficiencies. One method would be to conduct more comprehensive audits to gauge weak areas, and assess the overall system effectiveness.

The DOE audit conducted in November, 1983 is considered to be closed and corrective actions verified. Areas not fully implemented are carried over as new findings in this audit.

#### Observations

1. The audit team suggests that P-R consider deleting reference to the QA level classification system as referenced in QAP-1, paragraph 2.2, since DOE has not given any specific direction regarding safety classification or quality classification of systems. Additionally, the type of equipment and systems classified according to the various levels may change due to revisions to designs, etc. This type of information might be better served in an instruction outside of the QA Manual.
2. It is recommended that all personnel and prospective personnel certified as lead auditors should take some auditor training course as provided for by NQA-1 - Supplement 2S-3, paragraph 3.2. The documentation of this training would enhance the certifiability of the individual as well as

provide for uniformity of QA program implementation of DOE Contractors. Also, the team suggests that any audit checklists utilized during audits be kept in a file for future reference.

3. The procurement document control and subcontractor control system should be upgraded to insure a more visible confirmation of document review by the QA Manager to assure adequacy of QA requirement inclusion or exclusion. The present system includes coordination with the QA Manager, but this coordination is difficult to find with the records.

**Definitions:**


Finding - A statement of fact regarding noncompliance with established policy, procedures, instructions, drawing, or other applicable documents. A finding should be worded to identify a generic issue, rather than individual noncompliances, deviations, or deficiencies.

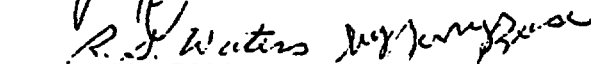
Observation - An opinion regarding an unsatisfactory condition not covered by a specific requirement, or a procedure, practice, or instruction whose effectiveness could be improved.

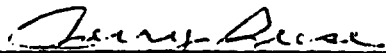
**4.0 Effectiveness**

The team has concluded that the QA program is in an early stage of establishment and implementation, and thus may not have been adequately incorporated into the daily activities of the staff. Therefore, due to the lack of prompt corrective action per the identified response to the November 1983, DOE/SRPO audit and the conditions noted during this audit, the QA program has not been fully implemented.

\* \* \* \* \*

Issued by:  Date 11/29/84  
I.J. Leffman - Audit Team Leader

Reviewed by:  Date 12/10/84  
R.S. Waters - Audit Observer

Approved:  Date 12/10/84  
T.J. Reese, SRPO QA Manager - Auditor

AUDIT ACTION REPORT

1 To: G. Stafford/Project Director      2 From: I.J. Lefman      11/16/84  
(Audit Team Leader)

3 Company: Parsons-Redpath

4 AUDIT NO. 84-E-12      5 AAR NO. 1

6  FINDING       OBSERVATION      7 ISSUE DATE: 11/16/84

---

8 DESCRIPTION OF CONDITION REQUIRING CORRECTIVE ACTION  
The area of training was not effectively implemented per the requirements of the P-R QA Manual as noted below.

9 DISCUSSION OF CONDITION REQUIRING CORRECTIVE ACTION

1. Not all P-R staff have received indoctrination in the 5/84 or 9/84 sessions as required by QAP-2. B. Loran has not been trained to date.
2. The training program is not comprehensive in that specific requirements of the QA Manual and the project procedures have not been presented or read. Additionally, the corrective action response to SRPO audit of 11/83 - Observation 5 stated that requirements of NQA-1 and the project QA Manual will be presented in a training session to be completed by 5/15/84.
3. The documentation of training was not complete per the requirements of QAP-2 in that the trainee title and the duration of the training session was not identified on the training attendance sheets noted for the 5/14/84 or 9/5/84 training sessions.

10 REQUIREMENT/REFERENCE CRITERIA  
QAP-2, paragraph 6.1 states that the P-R QA Manager has the overview responsibility to assure that P-R or subcontractor personnel performing quality-related functions are adequately instructed about the purpose, scope and details of those activities to properly accomplish them.

11 REPORTED BY: I.J. Lefman 11/16/84      12 DISCUSSED WITH: F.C. Hood 11/16/84

---

13 PROPOSED CORRECTIVE ACTION (including action to prevent recurrence):  
(Response due to SRPO QA by \_\_\_\_\_.)  
(date)

14 Scheduled Completion Date: \_\_\_\_\_ 15 Signed: \_\_\_\_\_  
(Authorized Representative) (Date)





AUDIT ACTION REPORT

1 To: G. Stafford/Project Director      2 From: I.J. Lefman 11/16/84  
(Audit Team Leader)

3 Company: Parsons-Redpath

4 AUDIT NO. 84-E-12                      5 AAR NO. 4

6  FINDING       OBSERVATION              7 ISSUE DATE: 11/16/84

---

8 DESCRIPTION OF CONDITION REQUIRING CORRECTIVE ACTION

In the area of audits several instances of nonconformance were noted as follows:

9 DISCUSSION OF CONDITION REQUIRING CORRECTIVE ACTION

1. R. Rihs has not been certified as a Lead Auditor prior to conducting several internal audits (84-1, 84-2, 84-4, 84-5).
2. Audit responses have not been verified in subsequent audits or surveillances (QAP-18, paragraph 2.10).
3. Audits have not been properly closed out per the requirements of QAP-18, Supplement 1, paragraph 3.5.
4. Audit responses are not documented consistently. In some cases they are documented on the close out action portion of the finding sheet, and in other cases they are documented on a memorandum to the QA manager.
5. The method of documentation of evaluation of audit response adequacy was not consistently documented.

10 REQUIREMENT/REFERENCE CRITERIA

QAP-18, NQA-1 - Supplement 2S-3, 18S-1.

11 REPORTED BY: I.J. Lefman 11/16/84    12 DISCUSSED WITH: F.C. Hood 11/16/84

---

13 PROPOSED CORRECTIVE ACTION (including action to prevent recurrence):  
(Response due to SRPO QA by \_\_\_\_\_.)  
(date)

14 Scheduled  
Completion Date: \_\_\_\_\_ 15 Signed: \_\_\_\_\_  
(Authorized Representative) (Date)





## ARGONNE PEER REVIEW REPORTS PUBLISHED TO DATE

Harrison, W., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Geochemical Program Plan, ANL/EES-TM-242, 26 p., (February 1984)

Winter, R., D. Fenster, and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Socioeconomic Program Plan, ANL/EES-TM-243, 47 p., (July 1984)

Harrison, W., and others, Radioactive Waste Isolation In Salt: Peer Review of the Office of Nuclear Waste Isolation's Plans for Repository Performance Assessment, ANL/EES-TM-246, 117 p., (May 1984)

Fenster, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Reports on Preferred Repository Sites within the Palo Duro Basin, Texas, ANL/EES-TM-254, 41 p., (April 1984)

Ditmars, J., and others, Radioactive Waste Isolation in Salt: Special Advisory Report on the Status of the Office of Nuclear Waste Isolation's Plans for Repository Performance Assessment, ANL/EES-TM-256, 155 p., (October 1983)

Fenster, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Plan to Decommission and Reclaim Exploratory Shafts and Related Facilities, ANL/EES-TM-258, 28 p., (July 1984)

Fenster, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Report on the Organic Geochemistry of Deep Groundwaters from the Palo Duro Basin, Texas, ANL/EES-TM-259, 30 p., (August 1984)

Fenster, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the Texas Bureau of Economic Geology's Report on the Petrographic, Stratigraphic, and Structural Evidence for Dissolution of Upper Permian Bedded Salt, Texas Panhandle, ANL/EES-TM-260, 40 p., (August 1984)

Hambley, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Report on Functional Design Criteria for a Repository for High-Level Radioactive Waste, ANL/EES-TM-261, 37 p., (August 1984)

Hambley, D., and others, Radioactive Waste Isolation in Salt: Peer Review of the D'Appolonia Report on Schematic Designs for Penetration Seals for a Repository in the Permian Basin, Texas, ANL/EES-TM-262, 37 p., (September 1984)

McPheeters, C., and others, Radioactive Waste Isolation in Salt: Peer Review of the Office of Nuclear Waste Isolation's Report on Multifactor Life Testing of Waste Package Materials, ANL/EES-TM-263, 45 p., (September 1984)

January 24, 1985