

QUALITY ASSURANCE AUDIT REPORT NO SP02-85
DESIGN AND DOCUMENT CONTROL ACTIVITIES

Conducted: May 7 and 8, 1985

Auditors: W.E. Underwood
J.R. Fitch

Observers: L.A. Parys DOE
T.Verma NRC

Contacted: Morrison-Knudsen Personnel

Quality Assurance	D.R. Bledsoe
Engineering Manager	R.W. Whiton
Staff Engineer	D. Rogers
Staff Engineer	W.R. Kennedy
Senior Staff Engineer	J.J. Sinsky
Document Control Coordinator	Michelle L. Paurley

Scope:

The noted Morrison-Knudsen Salt Project Team Members were interviewed to assess the degree of compliance, implementation, and effectiveness to Salt Project requirements as defined in the M-K Salt Project Procedure Manual, M-K Quality Assurance Manual, and M-K Quality Assurance Procedures. Major areas covered during the performance of this audit included:

- 1) Design Control
- 2) Procurement Document Control
- 3) Instructions and Procedures
- 4) Document Control
- 5) Design Verification
- 6) Computer Codes and Calculations
- 7) Engineering Study Reports

The following areas were also included in the audit checklist, but were judged not auditable or applicable due to insufficient activity at this stage of the project:

- 1) Design verification items per checklist numbers 4,25 and 26

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- 2) Resolution of disagreements between reviewer and originator of documents per checklist item 14
- 3) Alternate calculations per checklist item 15
- 4) Voided drawing requirements per checklist item 20
- 5) Revisions to reports per checklist item 21
- 6) Documents issued external to originating discipline per checklist item 24

Results

One discrepancy (Finding) was identified and recorded as noted below-

Findings:

- 1) Checklist item 18, based on PPM paragraph 6.4.3 states that initials and dates of reviewer of calculations shall be entered on calculation sheet. Contrary to this requirement calculation item number 3 for diesel fuel supply system has not been completed and/or reviewed/checked even though the results were reported/used in the Utility Service Entrance in Boreholes report.

It should be noted that corrective action was taken in that these calculations were completed and checked prior to audit completion.

Three observations were identified and recorded as noted below-

Observations:

- 1) Checklist item number 1, based on QAM paragraph 3.2.2, discusses changes to approved documents. Response to this audit question made reference to PPM paragraph 6.8.1g which left doubt as to who provided final approval status. Final approval status is by DOE. Paragraph 6.8.1g should be modified to indicate this position

- 2) Checklist items 12 & 13, based on QAP 3.3 "Design Verification", documentation provided to show compliance to these paragraphs was a test case situation which addressed comments on a report only and did not constitute a design document review as intended by QAP 3.3. Also M-K has issued to Fluor a position paper on Verification and Reviews (copy attached) which recommends that the Independent Review requirements be satisfied by the DOE/ONWI review activity.

Recommendation: It is recommended that QAP 3.3 be either rescinded, modified, or applicable positions written into New Engineering Procedure Manual until such time as Position document has DOE resolution.

- 3) Checklist Items 17 & 18, based on PPM Paragraphs 6.4.1 and 6.4.3, require that calculations shall be titled as to scope and objectives. This activity is adequately covered, however, no reference is shown on calculations Lead Sheet as to which report calculation is being prepared for.

Recommendation: The Calculation Lead Sheet should reference the report or document to which it is applicable and/or the published reports should have the calculation number entered along or near calculation title.


W.E. Underwood

Project Quality Assurance Manager


J.R. Fitch

Manager, Columbus Operations



FLUC ENGINEERS, INC.
ADVANCED TECHNOLOGY DIVISION

3333 MICHELSON DRIVE
 IRVINE, CALIFORNIA
 TELEPHONE: (714) 553-5000
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 REPLY TO:
 P.O. BOX C-11944
 SANTA ANA, CA 92711-1944

U. S. Department of Energy
 Salt Repository Project Office
 505 King Avenue
 Columbus, Ohio 43201

Date: May 16, 1985

Reference: Nuclear Waste Repository in Salt
 Contract DE-AC02-83WM46656
 Fluor Contract 839704

Attention: Mr. T. J. Reese, Manager
 Quality Assurance

Transmittal No.: FIDC 201 T
 PSWBS 1.3.4.1

Gentlemen:

TRANSMITTAL

enclose One copies of the items listed below. These are issued for:

- Approval Reference Review and Comment Other _____
- To be returned to Fluor within _____ working days after receipt with approval and/or comments.
- To be returned to Fluor by _____

NUMBER	REV.	DATE	TITLE
		5-15-85	Quality Assurance Audit SP02-85 Design and Document Control Activities (Morrison-Knudsen)

DISTRIBUTION:

cc: J. R. Fitch, Fluor/Columbus
 R. B. Lahoti, DOE
 L. A. Parys, DOE
 D. K. Robinette, DOE
 Project Control Room, DOE/Columbus
 PIC, Fluor w/o att.

Attachment 9.1

Please acknowledge receipt of this material by signing and returning one copy to sender.

Very truly yours,

T.O. Mallonee
 T.O. Mallonee
 Project Manager

Received by _____ Date _____

1065

ROUTING AND TRANSMITTAL SLIP

Date

5/18/85

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2. <u>M. Bell</u>		
3. <u>J. Benning</u>		
4. <u>J. Linehan</u>		
5. <u>S. Bilhorn</u>		

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REMARKS

WM DOCKET CONTROL CENTER

85 MAY 28 AM 11:43

WM Record File

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WM Project 16

Docket No.

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LPDR [initials]

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OPTIONAL FORM 41 (Rev. 7-76)

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FPMR (41 CFR) 101-11.206

*Orig cover sheet
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