

OCRWM-EQ QUALITY ASSURANCE SURVEILLANCE REPORT
SURVEILLANCE OF THE YMP QA PROGRAM QUALIFICATION
AUDIT 89-02 OF HOLMES & NARVER, INC. (H&N)

SURVEILLANCE NUMBER OCRWM-EQ-SR-89-007

CONDUCTED APRIL 24 - 28, 1989

Prepared by: Gay J Faust FOR W.R.M. Date 7/10/89
Surveillance Team Leader

Approved by: W. H. Shuler Date 7/12/89
Director, OQA

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SURVEILLANCE REPORT NUMBER
OCRWM-HQ-SR-89-007

A. INTRODUCTION

A surveillance to assess the QA Program compliance, adequacy and effectiveness of the YMP QA audit program was performed by the OCRWM Office of Quality Assurance on April 24 - 28, 1989.

The surveillance team consisted of the following persons:

Team Leader - W. R. Marchand (Weston)
Member - F. C. Chen (Weston)

Personnel contacted during this surveillance:

J. Blaylock (YMP)
H. Caldwell (SAIC)
W. Mansel (YMP)
S. Metta (SAIC)

B. SURVEILLANCE SCOPE

The scope of this surveillance was the YMP QA Program Qualification Audit 89-02 of Holmes & Narver, Inc. (H&N). The purpose of the surveillance was to assess the QA Program compliance, adequacy and effectiveness of the YMP QA audit program. The surveillance included investigation of the following YMP QA Program elements:

1. Audit personnel qualification and certification system.
2. QA audit program system.
3. Standard deficiency reporting system.

C. REQUIREMENTS SURVEILLED

1. YMP Quality Assurance Plan 88-9 (as applicable)
2. YMP Quality Assurance Program Plan 88-1 (as applicable)
3. QMP-02-02, Rev. 1 Qualification of Quality Assurance Program Audit Personnel
4. QMP-16-03, Rev. 1 Standard Deficiency Reporting System
5. QMP-18-01, Rev. 3 Audit System for the Waste Management Project Office

D. RESULTS OF SURVEILLANCE

The following is a summary of the results of the surveillance:

1. The audit material was well prepared and in conformance with the requirements of QMP-18-01, Rev. 3, "Audit Systems for the WMPO". Audit preparation included a pre-audit procedure review. Prior NRC concerns and the results of previous audits were considered and incorporated into the audit checklist.
2. The audit was conducted in a professional manner with the interface and coordination between the audit team, audit organization, and the audit observers considered to be very effective.
3. The technical specialists assigned to the audit team were knowledgeable and well aware of the project QA requirements and the scope of H&N activities.
4. The lead auditor/auditors were qualified and certified and the technical specialists trained in conformance with the requirements of QMP-02-02, Rev. 1, "Qualification of Quality Assurance Program Personnel".
5. The YMP QA Audit 89-2 identified two (2) deficiencies which will be documented on SDRs in accordance with QMP-16-03, Rev. 1, "Standard Deficiency Reporting System", fourteen (14) observations and three (3) recommendations. The two (2) deficiencies related to: 1) H&N's QAPP does not address the organizational structure, lines of communication, and authority and duties of the NTSO and EG&G organizations (both organizations perform QA functions on the project and both are referenced in H&N implementing procedures), and 2) H&N (the inspection organization) does not have sufficient authority or organizational freedom to assure the control of nonconforming or unsatisfactory conditions until proper disposition has occurred. Additionally, no other organization or person that performs QA functions have been identified or documented as controlling the further processing of nonconforming items.
6. The YMP audit team conclusion(s) presented at the audit exit were as follows:
 - A) Based on the results of the audit, the H&N QA program appears to be adequate to support the initiation of the Title II design. This is based on the fact that staffing appears adequate, training is satisfactory, most required procedures are in place, and there are no major outstanding deficiencies.
 - B) It should be noted that the QA program at this point is not in total compliance with 88-9, Rev. 2 (i.e., organization and control of nonconforming items).

C) In addition, the fourteen (14) observations should also be an indication that the full program is not yet complete. The observations should be closely scrutinized and actions taken where necessary.

E. OBSERVATIONS

There were no deficiencies or observations identified during this surveillance.

Minor deficiencies in the lead auditor/auditor/technical specialist qualification, certification, and/or training identified in Surveillance Report OCRWM-HQ-SR-89-005 were revisited during this surveillance with the current status described in Attachment 1 of this report. Follow-up on the items that remain open will be conducted as part of subsequent surveillances.

F. CONFERENCES

A separate pre-surveillance conference was not conducted. The surveillance purpose, scope, team member introductions, etc., was presented as part of the audit team briefing meeting held on April 24, 1989. An informal post-surveillance conference was held on April 28, 1989.

G. REQUIRED ACTION

As a result of no deficiencies/observations being identified during this surveillance, there is no action required by the YMP with respect to this report.

AUDIT PERSONNEL RECORDS
UNAVAILABLE

1. J. Friend

- No records of audit participation. Closed
- No record of evaluation of training needs as a lead auditor. Open
- No record of lead auditor exam. Closed

2. S. Dana

- No record of evaluation of training needs as a lead auditor. Open
- No record of lead auditor exam. Closed
- WMPO indoctrination records not signed by S. Dana. Closed

3. S. Crawford

- No record of evaluation of training needs as an auditor. Open

4. A. Watkins

- No signed audit guide for technical specialists. Closed
- No training records. Closed



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QA

Dwight E. Shelor, Acting Director, Quality Assurance, HQ (RW-3) FORS

YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE) ACCEPTANCE OF THE HOLMES & NARVER, INC. (H&N), QUALITY ASSURANCE (QA) PROGRAM

Reference: Letter, Gertz to Shelor, dtd. October 25, 1989

The purpose of this memorandum is to provide an update documenting the Project Office acceptance of the QA Program of H&N. This acceptance is based upon the following:

1. The U.S. Nuclear Regulatory Commission (NRC) has accepted the H&N Quality Assurance Program Plan (QAPP) based upon safety evaluation letter dated October 3, 1989, from Linehan to Stein. All NRC staff comments were resolved prior to issuance of the safety evaluation letter.
2. Project Office QA surveillance of the H&N QA Program procedures for adequacy to control the subject activities and conformance with applicable H&N QAPP requirements (reference enclosure 1 for surveillance report numbers, scope, and summary of results).
3. Project Office performance of the H&N QA Program Qualification Audit 89-2 conducted April 24-28, 1989 (reference letter, Blaylock to Calovini, dated May 24, 1989). Responses have been provided to NRC observations generated as a result of the audit. This audit concluded that the QA Program is capable of identifying, tracking, and closing deficiencies.
4. Project Office review of outstanding H&N QA Program deficiencies that could have technical or quality impact on output products (reference enclosure 2 for outstanding deficiency numbers and descriptions).

The Severity Level Checklist criteria established in Project Office Quality Management Procedure 16-03 were used to determine impact of the open deficiencies (reference enclosure 3). If the deficiency did not meet Severity Level I criteria, it was regarded as not having significant impact on the start of Title II activities.

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MAR 01 1990

Based on the above, the Project Office has concluded that the H&N QA Program is in conformance with the applicable requirements of the Yucca Mountain Project QA Plan NWSI/88-9, Revision 2, and is adequate to support the initiation of Title II work relative to quality-affecting activities with the following noted exceptions:

1. Procurement - This activity should not constrain start of the Title II work and H&N will not engage in any procurement activities until appropriate procedures have been put in place. The Project Office (letter, Gertz to Calovini, dated October 23, 1989) has directed H&N not to engage in any procurement of quality-related items or services until such time as H&N's procedures are adequate to fully implement all procurement requirements.
2. Software QA Program - H&N has been directed (letter, Gertz to Calovini, dated October 23, 1989) not to perform quality-related software activities until Project Office acceptance of H&N's Software QA Program. Anticipated acceptance date is March 30, 1990.
3. Upon resolution of the Privacy Act issues, the Project Office will assess the qualifications of individuals to perform their respective quality-affecting activities.

The Project Office will verify and document resolution of these exceptions by Yucca Mountain Project QA surveillances.

If you have any questions or comments regarding the Project Office position on this matter, please contact Donald G. Horton of my staff at (702) 794-7504 or FTS 544-7504.



Carl P. Gertz, Project Manager
Yucca Mountain Project Office

YMP: DGH-2170

Enclosures:

1. Task Force Surveillances of the H&N QA Program
2. H&N Open QA Deficiencies
3. SDR Severity Level Checklist
4. Ltr 10/23/89 Gertz to Calovini

cc w/encls:

Ralph Stein, HQ (FW-30) FORS
J. C. Calovini, H&N, Las Vegas, NV
C. O. Wright, H&N, Las Vegas, NV
S. R. Dippner, SAIC, Las Vegas, NV, 517/T-08
J. W. Gilray, NRC, Las Vegas, NV

TASK FORCE SURVEILLANCES OF THE H&N QA PROGRAM

SURVEILLANCE NUMBER	PROCEDURE AND SCOPE	SUMMARY RESULTS	DEFICIENCIES ISSUED
YMP-SR-89-026	NNWSI-007, R-1, Work Initiation NNWSI-015, R-0, Design Input Control NNWSI-038, R-0, QA Drawing and Specification Review YMP-003, R-1, Specification Preparation and Control YMP-005, R-2, Design Drawing Preparation and Control YMP-006, R-2, Design Analysis YMP-014, R-1, Design Verification YMP-018, R-0, Design Basis Document Preparation and Control NNWSI-029, R-1, Interface Control	Project Office QA generated 6 SDR's: - QA responsibilities is not addressed appropriately in "Responsibilities Section(s) of H&N procedures. - CQA signature represents a "concurrence" in H&N procedures rather than "approval." - Procedures do not specify QA Records. - All interfaces not appropriately addressed in NNWSI-029. - YMP-018 does not address RIB in Purpose or Scope - YMP-014 does not address all Design Review requirements from AP-5.14Q.	SDR-289 (closed) SDR-290 (closed) SDR-292 (closed) SDR-293 (closed) SDR-294 (closed) SDR-295 (closed)
YMP-SR-89-027	YMP-025, R-0, Microfilming and Archival Storage Services Facility (MASSF) NNWSI-027, R-1, Document Filing System YMP-008, R-3, Records Management	Project Office SDR-292 generated for Surveillances 89-026, 027, 028, and 029 regarding Quality Records. H&N generated CAR identifying procedure deficiency regarding lost or damaged records.	SDR-292 (closed) CAR-89-0-002 (closed)
YMP-SR-89-028	NNWSI-033, R-2, Surveillance Activities NNWSI-032, R-0, Qualification of Audit Personnel NNWSI-031, R-0, Audits NNWSI-009, R-0, Stop Work Order NNWSI-012, R-0, Corrective Action	- QA responsibilities not addressed in procedures (see YMP-SR-89-026) - Quality Records section of procedures inadequate - No trending procedure. - H&N CAR identifies procedural deficiency regarding requirements for significant conditions adverse to quality.	SDR-289 (closed) SDR-292 (closed) SDR-291 (open) CAR-89-0-003 (closed)

TASK FORCE SURVEILLANCES OF THE H&N QA PROGRAM

SURVEILLANCE NUMBER	PROCEDURE AND SCOPE	SUMMARY RESULTS	DEFICIENCIES ISSUED
YMP-SR-89-029	NNWSI-037, R-0, Control of Quality Assurance Program Plan YMP-001, R-2, Generation and Control of Procedures YMP-002, R-1, Indoctrination, Training, Qualification and Certification YMP-004, R-2, Controlled Document Distribution	- CQA signature is concurrence rather than an approval. - QA Records not identified. - H&N CAR addresses incompleteness of training requirements form and procedural deficiency regarding job descriptions and Certifications of Competency.	SDR-290 (closed) SDR-292 (closed) CAR 88-S-005 (open)
YMP-SR-89-048	YMP-091, R-0, Procurement NNWSI-011, R-0, Nonconformance Control ICM #1, ICM #2	SDR'S 289 and 292 generated in Surveillance YMP-SR-89-026 have subsequently been closed and are identified in this surveillance.	None
YMP-SR-89-049	NNWSI-010, R-1, Control of Measuring and Test Equipment NNWSI-016, R-0, Survey Department Document Control and Distribution NNWSI-017, R-1, Survey Department Work Function	Two deficiencies were identified but resolved during course of surveillance. (1) Incorrect procedure reference and incomplete "Standards" accuracy in one procedure. (2) Lack of revision indicators on attachment and lack of clarity of review/approval process.	None
YMP-SR-89-050	NNWSI-019, R-1, General Testing Procedure for the Material Test Laboratory YMP-045, R-0, Qualification and Certification of QC Inspection Personnel. YMP-050, R-1, Field Inspection	SDR-292 regarding QA Records addressed in this surveillance.	None

TASK FORCE SURVEILLANCES OF THE H&N QA PROGRAM

SURVEILLANCE NUMBER	PROCEDURE AND SCOPE	SUMMARY RESULTS	DEFICIENCIES ISSUED
YMP-SR-89-051	NNWSI-022, R-0, ICN #1, Nondestructive Testing Personnel Certification NNWSI-028, R-0, ICN #1, Magnetic Particle Testing Procedure YMP-035, R-0, Ultrasonic Flaw Detection YMP-036, R-0, Ultrasonic Testing AWS	H&N issued procedural change to correct procedure to meet SNT-TC-1A requirements.	None
YMP-SR-89-052	YMP-025, R-0, Microfilming and Archival Storage Services Facility (MASSF) at Valley Bank Center NNWSI-026, R-0, Microfilming and Archival Storage Services Facility (MASSF)	Five deficiencies identified were resolved during course of the surveillance by procedure. revision: - Defining MASSF as alternate single facility. - NNWSI-026 clarified as an interim procedure. - Control of temperature exceeded 70°f (e.g., 72°f) - No check valve in floor drain for Sample Storage facility. - YMP not consistent with 36 CFR1230 for background density requirements.	None

HEN OPEN QA DEFICIENCIES

DEFICIENCY NO.	ISSUED BY	DESCRIPTION OF DEFICIENCY	COMMENTS
SDR-291	Project Office (Surveillance)	Trending of Deficiencies not controlled by an approved procedure.	Not a constraint to Title II work. Trending Procedures have been developed pending approval. Corrective Action to be completed March 30, 1990.
CAR-N88-A-005	HEN (Audit)	Procedural noncompliance regarding records filing system by WBS numbers and retrievability.	Pending verification. procedure being revised and training complete. Not a restraint to Title II work. QA verification scheduled for March 1, 1990.
CAR-N89-O-004	HEN	Drawing revisions not to Procedure YMP-005.	Non-Quality finding. Drawings are for A/E offsite building.
CAR-N89-A-005	HEN (Audit)	Procedural implementation noncompliance. Record packages not being transmitted to LRC via Transmittal Records nor in a timely matter to CRF.	The following HEN CARs issued from HEN Audit all reflect minor procedural and/or implementation deficiencies. All are pending response evaluation and are not constraints to Title II work. QA verification scheduled for March 1, 1990.
CAR-N89-A-006	HEN (Audit)	Method of storage of records not adequately defined in records management procedures.	Procedure YMP-1710 to be revised.
CAR-N89-A-007	HEN (Audit)	Records management procedures do not adequately define the requirement for statusing records.	Procedure YMP-1710 to be revised.
CAR-N89-A-008	HEN (Audit)	Procedures do not exist for qualifying and certifying test personnel.	No testing performed to date that would require certified personnel. Procedure YMP-220 to be revised.

Attachment 2

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ENCLOSURE 2

HEN OPEN QA DEFICIENCIES

DEFICIENCY NO.	ISSUED BY	DESCRIPTION OF DEFICIENCY	COMMENTS
CAR-N89-A-010	HEN (Audit)	The QAPP and implementing procedures do not reflect the requirements pertaining to qualifying Inspection and Test personnel via Test or capability demonstration.	See Note for CAR-N89-A-005 Procedure YMP-220 to be revised.
CAR-N89-A-011	HEN (Audit)	The inspection program does not adequately address the system to be utilized to status items inspected.	See Note for CAR-N89-A-005 procedure YMP-1440 to be revised.
CAR-N89-A-012	HEN (Audit)	Inspection group has not processed MTE per procedure.	See Note for CAR-N89-005 Procedure YMP-1210 to be revised.
CAR-N89-A-014	HEN (Audit)	Field Inspection Plans are being prepared by personnel other than required by procedure.	See Note for CAR-N89-A-005 Procedure YMP-1410 to be revised.
CAR-N89-S-017	HEN (Surveillance)	Microfilm being accepted without a correlation established between Resolution and Quality Index film to meet a Quality Index of 5.0.	Second revised response due February 15, 1990.
CAR-N89-S-018	HEN (Surveillance)	Work Initiation not processed per YMP-120; Work Initiation authorization via memo. Authorization deviation to YMP-180.	Isolated procedural deficiency. No constraint to Title II Work.
CAR-N89-O-019	HEN	Late CAR Response.	Isolated procedural deficiency. No constraint to Title II Work.

SDR SEVERITY LEVEL CHECKLIST

N-QA-037
4/89

I. ASSIGN A SEVERITY LEVEL OF 1 IF ONE OR MORE OF THE FOLLOWING IS TRUE.

- | | Yes | No |
|--|-----|----|
| 1. Did the deficiency result in significant damage to natural barriers, structures, systems, or components that will require extensive evaluation, extensive redesign, or extensive repair in order to assure public health and safety? | — | — |
| 2. Does the deficiency involve loss of essential data or information needed for licensing? | — | — |
| 3. Does the deficiency constitute a significant deficiency in design, construction, testing, or performance assessment that were detected subsequent to formal quality verification and acceptance? | — | — |
| 4. Does the deficiency constitute a significant deficiency in design as approved for construction such that the design deviates extensively from design criteria and bases? | — | — |
| 5. Does the deficiency constitute a significant deviation from performance objectives or specifications that will require extensive evaluation, extensive redesign, or extensive repair to establish the adequacy of a natural barrier, structure, system, or component to meet design criteria and bases? | — | — |
| 6. Does the deficiency constitute a significant error detected in a computer program after it has been released for use? | — | — |
| 7. Does the deficiency constitute a significant breakdown in a participant's QA program and/or repetitive, programmatic and hardware deficiencies for which previous corrective action has not been reasonably prompt or effective? | — | — |

II. ASSIGN A SEVERITY LEVEL OF 2 IF THE ANSWERS TO ALL QUESTIONS IN PART I ARE NO AND ONE OR MORE OF THE FOLLOWING IS TRUE:

- | | Yes | No |
|--|-----|----|
| 1. Could failure to correct deficiency have a potentially adverse impact on the health or safety of operations personnel? | — | — |
| 2. Does the deficiency constitute operating outside the scope of the quality program or approved quality procedures where both remedial and corrective actions are required? | — | — |
| 3. Does the deficiency constitute a repetitive hardware deficiency for which no previous corrective action measures exist? | — | — |

III. ASSIGN A SEVERITY LEVEL OF 3 IF THE ANSWERS TO ALL QUESTIONS TO PARTS I AND II ARE NO.

QAE/Lead Auditor

QA Division Manager

PQM

Signature/Date

Signature/Date

Signature/Date