WMPO QUALITY ASSURANCE AUDIT REPORT

NNWSI AUDIT OF HOLMES & NARVER, INC.

LAS VEGAS, NEVADA

AUDIT NUMBER 87-2

conducted on: September 8-11, 1987

Prepared By: Robert H. Klemens Date: 10/5/87
Lead Auditor

Approved By: W. R. Kaser Date: 10/5/87
Manager, Audits & Surveillances

Approved By: James Blaylock Date: 10/5/87
PQM (WMPO)

1.0 Introduction

This report contains the results of the Quality Assurance audit of Holmes & Narver (H&N), Las Vegas, Nevada. The audit was conducted on September 8-11, 1987 in accordance with the WMPO Quality Assurance Program Plan, NVO-196-18, Rev. 2, and Quality Management Procedure (QMP) 18-01, Rev. 1.

2.0 Audit Purpose and Scope

The purpose of the audit was to evaluate the effectiveness of the H&N Quality Assurance Program with respect to the requirements of NNWSI Project Quality Assurance Plan, NVO-196-17, Revision 4, and to verify implementation of the QA Program as it relates to activities on the NNWSI Project.

The scope of the audit included an objective evaluation of the QA Program and NNWSI Project Procedures. Areas selected within the QA Program included such activities as design control, document control, training programs, control of measuring and test equipment, microfilming and archival storage, and QA software.

3.0 Audit Team Personnel

Robert H. Klemens, Lead Auditor, SAIC
Theodore Vetter, Auditor, SAIC
Frederick J. Ruth, Auditor, SAIC
Peter Karnoski, Technical Specialist, SAIC
John Jardine, Technical Specialist, SAIC

4.0 Summary of Audit Results

Evaluation of the H&N Quality Assurance Program and selected tasks indicates general compliance with NVO-196-17, Revision 4 requirements. However, design procedures require some further clarification and additional details in order to be in full compliance. Four deficiencies were identified during the course of the audit, as well as five observations and six recommendations. The deficiencies, which have been entered on Standard Deficiency Repots (SDRs), and also the observations and recommendations are delineated in Section 6.0 of this report.

Within the scope of this audit, the following program elements of the H&N Quality Assurance Program were found to be in compliance with the NNWSI Project requirements (NVO-196-17, Rev. 4).

1.0 Organization
2.0 QA Program
5.0 Instructions, Procedures & Drawings
6.0 Document Control
12.0 Control of Measuring & Test Equipment
15.0 Nonconforming Materials
16.0 Corrective Action
18.0 Audits

Program elements which the audit team identified as being deficient were:

3.0 Design Control
17.0 QA Records

The SDRs were qualified by the application of severity levels which are related to the significance of the finding. A discussion of the SDR severity levels is provide in Attachment 1. Two of the SDRs are classified as severity level 2 and two SDRs are classified as severity level 3.

The observations identify conditions that are presently not a violation of procedural requirements, but, in the opinion of the audit team, could lead to a violation of requirements in the future. The observations were in the programmatic areas of design review and procurement of services. The recommendations were in the programmatic areas of Calibration, Design Control and Document Control.

The audit also reviewed H&N implementation of the NNWSI Project Procedures Manual covering the performance of Quality Level I and II activities.

5.0 Audit Meetings

5.1 Preaudit Conference

A preaudit conference was held on September 8, 1987, at 9:00 a.m. The purpose, scope and agenda of the audit were reviewed with the H&N Project Management Staff. The audit team members and their assigned counterparts were identified, and lines of communication were established (see Attachment 2 for attendees).

5.2 Postaudit Conference

The postaudit conference was held on September 11, 1987 at 10:00 a.m. The results of the audit, including the deficiencies, observations, and recommendations identified during the course of the audit were presented to the H&N staff. Rough draft copies of the SDRs, observations, and recommendations were provided to the H&N management at this time (see Attachment 3 for attendees).

6.0 Synopsis of SDRs, Observations and Recommendations

6.1 Standard Deficiency Reports

1. SDR NO. 083 - Severity Level 3

   The response to CAR-010 was not received by the response due date and there is no evidence that a request for extending the response due date was issued. The QA Program, Section 16 requirements were not followed.

2. SDR NO. 084 - Severity Level 3

   Revision 1 to the QA Manual was not signed and approved by the Vice President/General Manager as required by Section 2 of the QA Program.

3. SDR No. 085 - Severity Level 2

   Special study 6A was initiated without compliance to NNWSI Project Procedure 007, Rev. 0, ICN 001, Rev. 0, which covers the handling of design inputs.

4. SDR No. 086 - Severity Level 2

   Contrary to the requirements of Section 6 of the QA Manual, several deficiencies exist in the document review process, requiring procedure revisions to provide a means of specifying the responsible personnel for reviews/approvals, provide a means of documenting reviews, and provide a means for documenting the resolution of disputes.

6.2 Observations

Observation No. 1

NNWSI-010, Rev. 0, Para. 6.2.4 states that "...calibration services other than REECo and EG&G shall be contracted to provide these services, as prescribed by appropriate procurement procedures."

Although H&N presently has no procurement procedures, Section 4 of the Quality Assurance Program specifies that H&N will provide technical and quality assurance requirements for procurement of items or services under DOE/NV approved procedures, (i.e., MESA). It also requires H&N to provide support to REECo in vendor evaluation, bid evaluation, and documented review of procurement documents by QA.

There is no evidence of H&N compliance with the above requirements in the placing of a contract for calibration services with Technical Sciences, an outside service contractor.

Action is required by H&N to implement an NNWSI Project Procedure, describing the procurement of items or services in accordance with the requirements of the H&N Quality Assurance Program, and to verify that the problem does not exist with other procurements of services within H&N.

Observation No. 2

Section III, Para. A.5 (Pink) of the H&N QA Manual, Rev. 1, states, "Design documents, such as drawings and specifications, will be identified with the appropriate NNWSI Quality Assurance Levels, as determined by the Participating Organization."

H&N QA Guideline, 3.0, Rev. 1, "Drawing and Specification Review," does not contain a requirement for H&N QA to check drawings or specifications for appropriate QA Level designations. This should be included in the QA review.

Observation No. 3

Section III, Para. 5, of the H&N QA Manual, Rev. 1, states "Tests on models or mock-ups shall follow established and verifiable scaling laws."

H&N NNWSI Project Procedure 014 Rev. 0, "Design Verification" does not reiterate this requirement as it should.

Observation No. 4

Section III, Para. F (White), of the QA Manual, Rev. 1, states:

"Internal and external design interfaces shall be identified and controlled. Interface controls shall include the assignment of responsibility and the establishment of procedures among participating organizations for the review, approval, release, distribution, and revision of documents."

No specific H&N procedure exists that addresses internal design interface control. It has been explained that each H&N NNWSI Project procedure contains measures for the review, approval, release, distribution, and revision of documents involving interfaces. However, these Project procedures do not provide means for those design engineering disciplines that may be affected to be given an opportunity for review. In view of the fact that H&N Project Procedures do not provide a means to document the review of design documents, this method is not adequate to ensure documented evidence that such reviews to achieve internal interface control have been performed.

Observation No. 5

Section III, Para. A.1 (Pink) of the H&N QA Manual, Rev. 1 states:

"Applicable Design Inputs, such as... shall be identified and documented via an Engineering Data Sheet prepared and approved by the responsible NNWSI Project Engineer."

ICN 001, Rev. 0, which modifies Procedure 007 such that the requirements of the QA Manual may be implemented was not in effect until June 30, 1987. Development of H&N Special Study No. 6A, "Life Safety Alarm System," a Quality Level II design activity, was authorized to proceed, without the benefit of ICN 001, Rev. 0, on May 21, 1987 (reference Work Initiation Form No. 87-008 Rev. 0). The requirement specifying the identification, documentation, review and approval of design inputs for Special Study 6A via an Engineering Data Sheet was not implemented. It is recommended that the Work Initiation Form NO. 87-008 be revised in a manner that identifies the applicable design inputs and exhibits the review/approvals necessary to comply with H&N NNWSI Project Procedure 007, Rev. 0 with ICN 001, Rev. 0.

6.3 Recommendations

Recommendation No. 1

NNWSI-010, Rev. 0, Para. 7.1.7 requires that the history file on each piece of equipment shall include Certificates of Calibration, if calibration was done by other than REECo or EG&G. A Universal Testing Machine (#111302) and X-Y Recorder (70198) were calibrated at H&N in February 1987 by a service contractor who put calibration stickers on the equipment but provided no Certificates of Calibration as required. The certificates were to be mailed to H&N by the services contractor. The history file on the Universal Testing Machine and X-Y Recorder do not include these certificates.

It is recommended that prior to the use of this equipment for NNWSI Project activities, H&N review the equipment history files and take the necessary action to assure compliance with the above requirements.

Recommendation No. 2

Section III, Para. C.1 (Pink), H&N QA Manual, Rev. 1, states "Methods of analyses shall be defined and controlled by written procedures prepared by the responsible design department."

This statement suggests that a particular arrangement and use of equations selected by a designer, such as that used to determine bearing stress on foundations under different design conditions, would have to be defined and performed in accordance with procedures. This requirement does not exist in NVO 196-17 and therefore its appearance here is curious. In any case, the actual meaning of this requirement is not clear nor do the H&N NNWSI Project Procedures provide a means for implementation for this requirement. It is recommended that H&N review this requirement and take the necessary steps to alleviate this situation.

Recommendation No. 3

H&N NNWSI-016 Survey Department Document Control and Distribution

Para. 6.1.1.3 "Field Books and their Pages are prenumbered by the SD clerk, and issued..."

This statement can be interpreted to mean prenumbering with the field book number and/or the page numbers. Both have been done at times by the SD clerk.

Recommendation - clarify what numbers are referred to.

Recommendation No. 4

H&N NNWSI-016, Para.. 6.1.2 "The Party Chief verifies that all necessary data is included on the field notes... and initials and dates the survey data."

This statement requires the Party Chief to commit to verifying an undefined amount of data.

Recommendation - limit the Party Chief's commitment to data he has generated.

Recommendation No. 5

H&N QA Manual, Rev. 1, Section III, Para. A.2 (White) "Changes from approved design inputs..." NNWSI-007 "Work initiation, criteria gathering and reporting..." does not mention "input data." The term criteria is intended to include input data.

Recommendation - define criteria to satisfy QA Manual statement.

Recommendation No. 6

Section III of the H&N QA Manual makes use of the terms "design documents" in reference to reviews, approvals and other specifics. However, the text excludes design analyses when referring to "design documents." Design analyses are required documentation and as such should be handled in the same way as input, output, and interface control documentation.

7.0 Required Action

Written responses are required for each SDR identified in Section 6.0 (information copies of SDR Nos. 083-086 are attached to this report). Work copies of these SDRs were forwarded to H&N on September 24, 1987, along with instructions which stated that responses to the SDRs are due within 20 working days of the date of the transmittal letter. Upon WMPO acceptance of H&N responses, and the satisfactory completion of applicable remedial and corrective actions, the SDRs will be closed by WMPO and H&N will be notified by letter of the SDR closures.

A written response is also required for each observation contained within Section 6.0. Responses to observations are due within 20 working days of the date of the transmittal letter for this audit report.

Written responses are not required for the recommendations contained within Section 6.0. The recommendations were included by the audit team for consideration by the H&N staff during implementation of the QA Programs.

SEVERITY LEVELS

Severity Level 1 - Significant deficiencies considered of major importance. These deficiencies require remedial, investigative, and corrective actions to prevent recurrence.

Severity Level 2 - A deficiency which is not of major importance, but may also require remedial, investigative, and/or corrective action to prevent recurrence.

Severity Level 3 - A minor deficiency in that only remedial action is required. These deficiencies are generally isolated in nature or have a very limited scope. In addition, the integrity of the end result of the activity is not affected nor does the deficiency affect the ability to achieve those results.

Remedial Action - Actions taken to correct the specific deficiencies noted on the SDR.

Investigative Action - Actions taken to further examine the deficient condition to determine the extent and depth. This action should identify all conditions similar to the examples listed on the SDR.

Corrective Action - Actions taken to identify the cause of the condition and to prevent recurrence of the condition identified on the SDR.

H&N
Las Vegas, NV

Audit Report 87-2
September 8, 1987

PREAUDIT CONFERENCE

Name	Title	Organization	Location
T. Vetter, Jr.	QA Engineer	SAIC	Las Vegas, NV
Peter J. Karnoski	QA Engineer	SAIC	Las Vegas, NV
Phil Gehner	Prov. Eng.	H&N	Las Vegas, NV
Jim Pedalino	TPO	H&N	NTS
Mark Happ	Engineer	H&N	Las Vegas, NV
Ronald P. Sabol	QA Engineer	H&N	NTS
Evert Mouser	QA Engineer	H&N	NTS
C. O. Wright	Chief, QA	H&N	NTS
J. Jardine	Sr. QA Engineer	SAIC	Las Vegas, NV
Joe Calovini	Engr. Mgr.	H&N	Las Vegas, NV
Frederick J. Ruth	QA Engineer	SAIC	Las Vegas, NV
Walt Kazor	Act. Mgr. A&S	SAIC	Las Vegas, NV
Robert H. Klemens	Team Leader	SAIC	Las Vegas, NV
Jan Verden	Planning Coord.	H&N	Las Vegas, NV

ATTACHMENT 2

H&N
Las Vegas, Nevada

Audit 87-2
September 11, 1987

POSTAUDIT CONFERENCE

Name	Title	Organization	Location
Ted Vetter	QA Engineer	SAIC	Las Vegas, NV
Jim Blaylock	PQM	DOE/WMPO	Las Vegas, NV
Ronald P. Sabol	H&N QA Engr.	H&N	NTS
Joseph C. Calovini	H&N Engr. Mgr.	H&N	Las Vegas, NV
Jim Pedalino	TPO	H&N	NTS
C. O. Wright	Chief, QA	H&N	NTS
Jan Verden	Planning Coord.	H&N	Las Vegas, NV
Peter J. Karnoski	QA Engineer	SAIC	Las Vegas, NV
Phil Gehner	Lead P.E.	H&N	Las Vegas, NV
Helen Hall	Staff Engineer	H&N	NTS
John Jardine	QA Engr.	SAIC	Las Vegas, NV
Frederick J. Ruth	QA Engineer	SAIC	Las Vegas, NV
Walter R. Kazor	Act. Mgr. A&S	SAIC	Las Vegas, NV
Evert Mouser	QA Engr.	H&N	NTS
Mark Happ	Staff Engineer	H&N	Las Vegas, NV
Robert H. Klemens	Team Leader	SAIC	Las Vegas, NV
Stan Klein	QA Manager	SAIC	Las Vegas, NV

ATTACHMENT 3

WMPO STANDARD DEFICIENCY REPORT

N-QA-038
3/87

Completed by Originating QA Organization

1 Date	2 Severity Level	Page
9/11/87	☐ 1 ☐ 2 ☒ 3	1 of 2

3 Discovered During	3a Identified By	3b Branch Chief Concurrence Date	4 SDR No. / Rev.
WMPO Audit 87-2	F. J. Ruth	N/A	083 / Rev. 0

5 Organization	6 Person(s) Contacted	7 Response Due Date is 20 Working Days from Date of Transmittal
Holmes & Narver	Ron Sabol	

8 Requirement (Audit Checklist Reference, if Applicable) H&H/ESD, Quality Assurance Program, Subject: Corrective Action, Section 16, Paragraph IV. D.2 CAR Response states "responses to the CAR should be received within 30 days of issue or on the response due date whichever is shorter. Paragraph IV D.2b states, (cont'd)

9 Deficiency As a result of the H&N audit Number 87-02, CAR Numbers 87-A-005 through 87-A010 were issued. The response to CAR-010 was due on 4/15/87 but was not received until 5/1/87. There is no objective evidence either in writing or documented on a Record of Oral Information that there was a request for extending (cont'd)

10 Recommended Action(s): ☒ Remedial ☐ Investigative ☐ Corrective

Remedial - Reinstruct personnel to procedural requirements and provide objective evidence of reinstruction. Place appropriate documentation in the file referencing this SDR and action taken for future reference.

Aprvl.

11 QAE/Lead Auditor Date	12 Branch Manager Date	13 Project Quality Mgr. Date
Robert H Klemens 9/16/87	9/16/87	James Blaylock 9/16/87

Completed by Organization in Block 5

14 Remedial/Investigative Action(s)

15 Effective Date _____

16 Cause of the Condition & Corrective Action to Prevent Recurrence

17 Effective Date _____

18 Signature/Date

Comp. by Orig. QA Org.

19 Response	☐ Accept ☐ Reject ☐ Amended Response	QAE/Lead Auditor/Date	Branch Manager/Date
20 Amended Response	☐ Accept ☐ Reject	QAE/Lead Auditor/Date	Branch Manager/Date
21 Verification	☐ Satisfactory ☐ Unsatisfactory	QAE/Lead Auditor/Date	Branch Manager/Date

22 Remarks

23 QA CLOSURE	QAE/Lead Auditor/Date	Branch Manager/Date	PQM/Date

Section 8 Requirement (cont'd)

"if the response is not received within five working days after the due date, a memo shall be sent to the next level of management, noting the lack of a timely response." (Checklist item no. 1b-45)

Section 9 Deficiency (cont'd)

the response due date. The response was received more than five working days after t due date and a memo was not sent to the next level of management noting the lack of a timely response.

WMPO STANDARD DEFICIENCY REPORT

N-QA-038
3/87

Completed by Originating QA Organization

1 Date	2 Severity Level	Page
9/9/87	☐ 1 ☐ 2 ☒ 3	1 of 2

3 Discovered During	3c Identified By	3b Branch Chief Concurrence Date	4 SDR No.
Audit 87-2	F. Ruth	N/A	084 Rev. 0

5 Organization	6 Person(s) Contacted	7 Response Due Date is 20 Working Days from Date of Transmittal
Holmes & Narver	R. Sabol	

8 Requirement (Audit Checklist Reference, if Applicable)
H&N Energy Support Division, Quality Assurance Program, Subject: Quality Assurance Program, Section 2, Rev. 0, Para. III, General, A., Issuance and Control of the QA Manual 1. The original QA Manual with any changes or addenda will be (cont'd)

9 Deficiency The QA Manual Acceptance page for Rev. 0 of the QA Manual has been signed off as approved by the Vice President/General Manager but since then there has been a revision to the QA Manual which has not been approved by the Vice President/General Manager.

10 Recommended Action(s): ☒ Remedial ☐ Investigative ☐ Corrective
Remedial - Comply with the existing requirement or revise the QA Manual to delete the requirement for the QA Manual, with any changes or addenda, to be signed by the Vice President/General Manager.

Aprvl.

11 QAE/Lead Auditor Date	12 Branch Manager Date	13 Project Quality Mgr. Date
Robert H Klemm 9/16/87	M R Keizer 9/16/87	James B Lynch 9/16/87

Completed by Organization in Block 5

14 Remedial/Investigative Action(s)

15 Effective Date _____

16 Cause of the Condition & Corrective Action to Prevent Recurrence

17 Effective Date _____

18 Signature/Date

Comp. by Orig. QA Org.

19 Response	☐ Accept ☐ Reject ☐ Amended Response	QAE/Lead Auditor/Date	Branch Manager/Date
20 Amended Response	☐ Accept ☐ Reject	QAE/Lead Auditor/Date	Branch Manager/Date
21 Verification	☐ Satisfactory ☐ Unsatisfactory	QAE/Lead Auditor/Date	Branch Manager/Date

22 Remarks

23 QA CLOSURE	QAE/Lead Auditor/Date	Branch Manager/Date	PQM/Date

Block 8 - Requirement (cont'd)

forwarded to the Vice President/General Manager, ESD, for signature.

(Audit Checklist Item No. 1b-1)

WMPO STANDARD DEFICIENCY REPORT

N-QA-0:
3/87

Completed by Originating QA Organization

1 Date 9/10/87 | 2 Severity Level ☐ 1 ☒ 2 ☐ 3 | Page 1 of 2

3 Discovered During	3a Identified By	3b Branch Chief Concurrence Date	4 SDR No. / Rev.
Audit 87-2	J. Jardine	N/A	085 / 0

5 Organization	6 Person(s) Contacted	7 Response Due Date 20 Working Days fr Date of Transmitta
Holmes & Narver, Inc.	Mark Happ & Joe Calovini	

8 Requirement (Audit Checklist Reference, if Applicable)

Section III, Para. A.1 (Pink) of the H&N QA Manual, Rev. 1 states: "Applicable design inputs, such as..., shall be identified and documented via an Engineering Data Sheet prepared and approved by the responsible NNWSI Project Engr.

9 Deficiency (cont

At the time that H&N Special Study 6A, "Life Safety Alarm System", was being developed, no measures to implement the requirement cited were available in H&N procedures. Work on Study 6A, which was assigned a QA Level of II, was (cont

10 Recommended Action(s) ☒ Remedial ☐ Investigative ☒ Corrective

Remedial - identify/review/approve inputs to Study 6A per 007 R/O & ICN 001 R/O.
Corrective - identify/report cause & take appropriate action to correct.

Aprvl

11 QAE/Lead Auditor Date	12 Branch Manager Date	13 Project Quality Mgr. Dat
Robert H Klevans 9/16/87	W R Kenyon 9/16/87	James Blaylock 9/16/87

Completed by Organization in Block 5

14 Remedial/Investigative Action(s)

15 Effective Date _____

16 Cause of the Condition & Corrective Action to Prevent Recurrence

17 Effective Date _____

18 Signature/Date

Comp. by Orig. QA Org.

19 Response	☐ Accept ☐ Reject ☐ Amended Response	QAE/Lead Auditor/Date	Branch Manager/Date
20 Amended Response	☐ Accept ☐ Reject	QAE/Lead Auditor/Date	Branch Manager/Date
21 Verification	☐ Satisfactory ☐ Unsatisfactory	QAE/Lead Auditor/Date	Branch Manager/Date

22 Remarks

23 QA CLOSURE	QAE/Lead Auditor/Date	Branch Manager/Date	PQM/Date

Section 8 Requirement (cont'd)

(Checklist Item No. 1b-27)

Section 9 Deficiency (cont'd)

initiated on 5/21/87 (refer to Work Initiation Form 87-008 Rev. 0) in accordance with H&N NNWSI Project Procedure 007, Rev. 0. ICN 001, Rev. C to Procedure 007, Rev. 0, which contains measures to implement the requirement cited, was approved on Jun 30, 1987, approximately five weeks subsequent to the beginning of work on Study 6A. The measures provided by ICN 001, Rev. 0 to implement the requirement cited were not applied to Study 6A.

WMPO STANDARD DEFICIENCY REPORT

N-QA-03
3/87

Completed by Originating QA Organization

1 Date | 2 Severity Level ☐ 1 ☒ 2 ☐ 3 | Page 1 of 2

3 Discovered During	3a Identified By	3b Branch Chief Concurrence Date	4 SDR No.
WMPO Audit 87-2	J. Jardine/Klemens	N/A	086 Rev. 0

5 Organization	6 Person(s) Contacted	7 Response Due Date is 20 Working Days from Date of Transmittal
Holmes & Narver	H. Happ, J. Calovini/C. Wright	

8 Requirement (Audit Checklist Reference, if Applicable)

Section 6, Para. III A.3 of the H&N QA Manual, Rev. 0 (White) states: "Document control measures shall provide for reviewing documents and changes to documents for quality requirements, technical adequacy, completeness, and (cont'd

9 Deficiency

Contrary to the cited requirement, several deficiencies exist in the document review process. See Page 2 for specific examples (cont'd)

10 Recommended Action(s): ☒ Remedial ☐ Investigative ☒ Corrective

Remedial - Revise procedures/guidelines to provide a means of specifying the responsible personnel for reviews/approvals, provide a means of documenting reviews and provide a means for documenting the resolution of disputes. (cont'd)

Aprvl.

11 QAE/Lead Auditor Date	12 Branch Manager Date	13 Project Quality Mgr. Date
Robert H. Klemens 9/16/87	W.R. Kaya 9/16/87	James B. Stanford 9/16/87

Completed by Organization in Block 5

14 Remedial/Investigative Action(s)

15 Effective Date _____

16 Cause of the Condition & Corrective Action to Prevent Recurrence

17 Effective Date _____

18 Signature/Date

Comp. by Orig. QA Org.

19 Response	☐ Accept ☐ Reject ☐ Amended Response	QAE/Lead Auditor/Date	Branch Manager/Date
20 Amended Response	☐ Accept ☐ Reject	QAE/Lead Auditor/Date	Branch Manager/Date
21 Verification	☐ Satisfactory ☐ Unsatisfactory	QAE/Lead Auditor/Date	Branch Manager/Date

22 Remarks

23 QA CLOSURE	QAE/Lead Auditor/Date	Branch Manager/Date	PQM/Date

Section 8 Requirement (cont'd)

accuracy prior to approval and issuance." (checklist item nos. 1b-40, 1n-29)

Section 9 Deficiency (cont'd)

Examples indicating deficiencies in the document review process:

1. Observation No. 2, Audit 87-2

   H&N QA Guideline, 3.0, Rev. 1 does not contain a requirement for H&N QA to check drawings or specifications for appropriate QA Levels in accordance with the H&N QA Manual.

2. Observation No. 4, Audit 87-2

   H&N NNWSI Project Procedure 014, Rev. 0, "Design Verification" does not reiterate the requirements concerning scaling laws when models or mock-ups are used to verify a design.

3. Observation No. 5, Audit 87-2

   H&N NNWSI Project Procedures do not provide adequate means for the review, approval, release, distribution, and revision of documents involving design interfaces.

4. Observation No. 6, Audit 87-2

   H&N NNWSI Project Procedures do not provide a means for the documentation of reviews, nor do they specify a means or method for the resolution of disputes which may occur as a result of such reviews.

Section 10 Recommended Action (cont'd)

Corrective Action - Identify and report the cause of the deficiencies and take appropriate action to fix them.

Note: Responses to the observations included as examples in "Section 9 Deficiency" are not to be included in the response to this SDR. Responses to observations are to be provided as directed in the audit report.