

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION IV

Report No. 99900348/79-01

Program No. 51300

Company: NPS Industries, Inc.
10420 Metric Boulevard
Austin, Texas 78758

Inspection Conducted: September 4-7, 1979

Inspector:

L. E. Ellershaw
L. E. Ellershaw, Contractor Inspector
Components Section II
Vendor Inspection Branch

9/27/79
Date

Approved by:

D. M. Hunnicutt
D. M. Hunnicutt, Chief
Components Section II
Vendor Inspection Branch

9/27/79
Date

Summary

Inspection on September 4-7, 1979 (99900348/79-01)

Areas Inspected: Implementation of 10 CFR 50 Appendix B Criteria, and applicable codes and standards including: previous inspection findings; nonconformances and corrective action; qualification of personnel performing special processes (NDE); equipment calibration; procurement source selection; weld material control; internal audits; welding procedure specifications; procurement document control; and joint fitup and welding. The inspection involved thirty (30) inspector-hours on site.

Results: In the ten (10) areas inspected, three (3) deviations and one (1) unresolved item were identified in four (4) areas.

Deviations: Internal Audits-actual corrective action, reaudit results, and closing of audit findings were not signed off by responsible personnel, which is not consistent with Criterion XVIII of Appendix B to 10 CFR 50 (Notice of Deviation Item A.) Welding Procedure Specifications - incorrect revision numbers to WPSs were recorded on the procedure qualification records, and certain WPSs had not been signed off by the QA Manager, which is inconsistent with Criterion V of Appendix B to 10 CFR 50 (Notice of Deviation, Item B.).

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Procurement Document Control - purchase order to vendor did not require certifications for liquid penetrant materials which is inconsistent with Criterion IV of Appendix B to 10 CFR 50 (Notice of Deviation, Item C.).

Unresolved Item: Joint Fitup and Welding - The QA Manual refers to Work Procedure No. 9.3.5 relative to Weld Data Sheet control and the documentation of inspections performed on code welding. This procedure does not exist. (See Details Section, paragraph K.3.b.)

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DETAILS SECTION

(Prepared by L. E. Ellershaw)

A. Persons Contacted

T. Clelar - QA Documentation Supervisor
 S. Gray - QA Internal Auditor
 J. Gober - Manager, QA
 D. G. Harbison - Corporate Manager, QA
 L. Hovi - Executive Vice President
 E. LaLonde - Purchasing Agent
 J. F. O'Connell - Manager, Technical Services
 T. J. O'Connell - Senior Welding Inspector
 L. Walker - Supervisor, Quality Control

B. Action on Previous Inspection Findings

1. (Closed) Deviation No. A. (Report No. 78-01): This item dealt with a QA Manual requirement violating the ASME Code relative to requalification times of welders.

NPS Industries, Inc. (NPS) had implemented their committed corrective action in that the QA Manual was revised to conform to the ASME Code requirement.

2. (Closed) Deviation No. B (Report No. 78-01): This item dealt with NPS's failure to specify an ASME Code required nondestructive examination of primary member welds on the Process Control Sheet.

NPS has implemented their committed corrective action in that all Process Control Sheets were reviewed to assure compliance with ASME Code requirements.

3. (Closed) Deviation No. C. (Report No. 78-01): This item dealt with NPS's acceptance of weld wire certifications showing typical chemical analysis and physical properties rather than the required actuals.

NPS had implemented their committed corrective action in that the actual test results were obtained, and a review of all purchase orders and certifications, relative to welding materials, revealed that actual test results are being received.

4. (Closed) Deviation No. D. (Report No. 78-01): This item dealt with a welder performing gas metal arc welding using an amperage range well in excess of that which was allowed by the welding procedure specification.

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NPS had implemented their committed corrective action in that a nonconformance report was issued and a training session was held. The inspector further ascertained, through observation of various welding operations, that welders were adhering to the parameters of welding procedure specifications.

5. (Closed) Deviation No. E. (Report No. 78-01): This item dealt with failing to weld a qualification test coupon, such that it did not conform to the requirements of the welding procedure specification (WPS) relative to preheat and interpass temperatures.

NPS has implemented their committed corrective action in that the test coupon was rewelded in accordance with the WPS parameters, and retested. The QA Manual was also revised to include specific requirements relative to the welding and testing of qualification test coupons.

6. (Closed) Deviation No. F. (Report No. 78-01): This item dealt with a canister of Type 309 welding wire being in a controlled storage area, without having a M.I.C. number assigned.

NPS has implemented their committed corrective action in that the unidentified wire was discarded and the QA Manual was revised to include specific requirements relative to storage of weld materials.

7. (Closed) Deviation No. G. (Report No. 78-01): This item dealt with work procedures not being followed relative to nonconformance reports.

NPS had implemented their committed corrective action in that training sessions were held and "Hold" areas were established for nonconforming materials.

8. (Closed) Unresolved Item (Report No. 78-01): This item dealt with absence of documentation relative to the required review of Owner's Design Specifications with respect to determination of impact test requirements for component supports.

NPS has implemented their committed corrective action by revising the QA Manual to change the responsibility for reviews. Evidence of reviews are on file.

C. Nonconformances and Corrective Action

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for the control of nonconformances

and corrective action in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Sections 15 and 16, revision 0 dated May 21, 1979.
- b. Review of Work Procedure 15.0.1.
- c. Review of open and closed nonconformance reports.
- d. Observation of nonconforming material in hold areas to assure identification and status is maintained.
- e. Review of corrective action log.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitments

None.

b. Unresolved Item

None.

D. Qualification of Personnel Performing Special Processes (NDE)

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for the qualification of personnel performing nondestructive examinations in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 9.3, "Nondestructive Examination," revision 0 dated May 21, 1979.

- b. Review of Work Procedure 9.3.4, "Visual Examination and Inspection," revision 1 dated August 27, 1979.
- c. Review of Work Procedure 9.3.1, "Qualification of NDE Personnel," revision 0 dated February 1, 1979.
- d. Review of qualification records for NDE personnel to assure compliance to ASNT Recommended Practice SNT-TC-1A (1975) and ASME Code Section V requirements.
- e. Discussion with cognizant personnel.

3. Findings

- a. Deviation From Commitment
None.
- b. Unresolved Item
None.

E. Equipment Calibration

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for the control of equipment calibration in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 12.0, "Control of Measuring and Test Equipment," revision 0 dated May 21, 1979.
- b. Review of Work Procedure 12.0.1, dealing with calibration of measuring and test equipment.
- c. Review of calibration records for micrometers, ring gages, welding power sources, and plug gages.
- d. Review of subcontracted calibration services and their certifications to assure traceability to the National Bureau of Standards.

- e. Observation of measuring equipment and welding power sources to assure they were calibrated and identified.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitment

None.

b. Unresolved Item

None.

F. Procurement Source Selection

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for qualification and maintenance of vendors for subcontracted materials and services in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 7.0, "Supplier Evaluation and Selection," revision 0 dated May 21, 1979.
- b. Review of Approved Vendors List, issued monthly, from March, 1979 through September, 1979, and comparing against the Purchase Order Log, which lists all purchase orders, their dates, and the vendors.
- c. Review of fifteen (15) Vendor Files, to assure the required annual vendor audits have been performed, and/or Vendor's ASME Certificates of Authorization were in the possession of NPS.
- d. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitment

None.

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b. Unresolved Item

None.

G. Weld Material Control1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for the control of welding materials in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 9.1, "Welding," revision 0 dated May 21, 1979.
- b. Review of Work Procedure 9.1.1, "General Welding Control," revision 1 dated April 30, 1979.
- c. Observation of weld material storage areas.
- d. Observation of welding wire in use, and reviewing purchase orders and certifications relative to the welding wire in use.
- e. Discussions with cognizant personnel.

3. Findingsa. Deviation From Commitment

None.

b. Unresolved Item

None.

H. Internal Audits1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for scheduling and performing internal audits in accordance with the QA Manual and applicable NRC and ASME Code requirements.

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2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 18.0, "Audits," revision 0 dated May 21, 1979.
- b. Review of internal audit schedule for 1979.
- c. Review of internal audit checklists and verification that scheduled internal audits have been performed.
- d. Review of Finding Sheets to assure of proper distribution, corrective action, follow-up, and close out.
- e. Review of Internal Audit Log, which shows the status of audits performed.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitments

See Notice of Deviation, Item A.

The specific audits identified in Item A are: AUS 08.0 (79-01); AUS 09.2 (79-08), and AUS 09.1 (79-07).

b. Unresolved Item

None.

I. Welding Procedures Specifications (WPS)

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for qualification and the control of WPSs in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 9.1, "Welding," revision 0 dated May 21, 1979.

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- b. Review of Work Procedure 9.1.1, "General Welding Control," revision 1 dated April 30, 1979.
- c. Review of six (6) WPSs and their respective procedure qualification records (PQR).
- d. Comparison of essential and nonessential variables as listed on the WPSs against that which is required by the ASME Code.
- e. Review of required tests used in qualifying a specific WPS.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitment

See Notice of Deviation, Item B.

b. Unresolved Item

None.

J. Procurement Document Control

1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for the control of purchase documents in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 4.0, "Procurement and Procurement Document Control," revision 0 dated May 21, 1979.
- b. Review of purchase orders to assure that all ASME Code requirements were contained therein.
- c. Observation of liquid penetrant materials in the shop, and tracing back to the specific purchase orders, to assure compliance with ASME Code requirements.
- d. Discussions with cognizant personnel.

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3. Findingsa. Deviation From Commitments

See Notice of Deviation, Item C.

Purchase order AO 1491 dated March 6, 1979 was released to Wilson Oxygen and Supply Company, for purchase of liquid penetrant developer and cleaner. The purchase order did not require Wilson Oxygen and Supply Company to provide certifications for the materials, showing total halogen and/or residue content, thus there were none available.

In addition, a box of developer was noted in the shop, in which neither the box nor the spray cans were identified with a batch/lot number.

b. Unresolved Item

None.

K. Joint Fitup and Welding1. Objectives

The objectives of this area of the inspection were to verify that NPS had implemented the requirements for joint fitup and in process welding control in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Manual Section 9.1, "Welding," revision 0 dated May 21, 1979.
- b. Review of Work Procedure 9.1.1., "General Welding Control," revision 1 dated April 30, 1979.
- c. Review of Work Procedure 9.3.4., "Visual Examination and Inspection," revision 1 dated August 27, 1979.
- d. Observation of three (3) in-process gas metal arc welding operations.

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- e. Review of WPSs at the work stations to assure welders were performing within the parameters of the WPS.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitments

None.

b. Unresolved Item

The QA Manual does not address, nor are there procedures for the monitoring of welders performing ASME Code, production welding. It should be noted that a form is used, which allows for an inspector to check-off whether or not he verified amperage and voltage settings being used on a given power source. This is a visual observation of the power source (ammeters & voltmeters), as there were no tong meters. In addition, the QA Manual refers to the use of Work Procedure 9.3.5, for inspecting and documenting Code welding on a Weld Data Sheet and this procedure has not yet been issued.

L. Exit Interview

A meeting was held at the conclusion of this inspection on September 7, 1979, with the following management representatives:

- F. Galus - Plant Manager
- J. Gober - Manager, Quality Assurance
- D. Harbison - Corporate Manager, Quality Assurance

The scope and findings of this inspection were summarized. Management acknowledged the statements relative to the findings.

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