

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

Report No. 99900118/79-01

Program No. 51300

Company: Walworth Company  
Greensburg Plant  
P.O. Box 1103

Inspection at: Greensburg, Pennsylvania 15601

Inspection Conducted: May 7-9, 1979

Inspector:

William D. Kelley  
William D. Kelley, Contractor Inspector  
Vendor Inspection Branch

5/17/79  
Date

Approved by:

D. E. Whitesell  
D. E. Whitesell, Chief, Components Section I,  
Vendor Inspection Branch

5/17/79  
Date

Summary

Inspection on May 7-9, 1979 (99900118/79-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B and applicable codes and standards including, design document control, procurement control - evaluation of suppliers performance, manufacturing process control - machining, audits - internal management, control of special processes - special welding processes, and inspection and tests - testing of completed products. Also, vendor's action on previously identified items. The inspection involved twenty-one (21) inspector-hour on site by one (1) NRC inspector.

Results: In the seven (7) areas inspected, no deviations or unresolved items were identified.

417 070

7907250154

## Details Section

A. Persons ContactedWalworth Company - Corporate Office (WC-C)

\*R. O. Hunt - Corporate Director of Quality Assurance

Walworth Company - Greensburg Plant (WC-G)

\*G. J. M. Hill - Manager of Quality Assurance

R. G. Knopf - Quality Assurance Engineer

S. N. Shields - Manager of Engineering

\*J. B. Weinzierl - Plant Manager

\*Denotes those persons who attended the exit interview (see paragraph J).

B. General Review of Vendor's Activities

1. The ASME issued the following Certificates of Authorization to WC-G to use their symbol:

<u>Certification No.</u>	<u>Symbol</u>	<u>Product</u>
N-1951	N	Class 1, 2, & 3 valves
N-1952	NPT	Class 1, 2, & 3 valve parts & hard surfacing of vessel parts

These certificates expire on December 9, 1980.

2. The authorized inspection agency is Hartford Steam Boiler Inspection and Insurance Company. The authorized nuclear inspector is an itinerant inspector.
3. WC-G's contribution to the nuclear industry represents approximately five percent (5%) of its total workload.

C. Action on Previously Identified Items

(Closed) Deviation (Report No. 78-03, Item A): Contrary to Criterion V of Appendix B to 10 CFR 50 and Paragraph 2.3 of Section G-14 of the

ASME accepted Nuclear Quality Assurance Manual, valves were processed beyond the Authorized Nuclear Inspector's designated Hold Points.

The inspector verified that:

1. The Documentation Supervisor had been instructed to review each completed Quality Control Sheet (QCS) and the accompanying data package to verify that all Hold Points had been properly signed off prior to placing the data in the files and this training had been documented.
2. A separate set of Quality Control Sheets (QCS) had been developed for valves four (4) inches and under without a Hold Point. The Hold Point will be added upon request from the ANI or if required in the customer's purchase documents.

(Closed) Deviation (Report No. 78-03, Item B): Contrary to Criterion V of Appendix B to 10 CFR 50 and Paragraph 2.5 of Section G-13 of the ASME accepted Nuclear Quality Assurance Manual the Nuclear Engineer had not designated low stress areas for the stamping of valves.

The inspector verified that Paragraph 2.5 of Section G-13 to the ASME accepted Nuclear Quality Assurance Manual had been revised to define the low stress areas of valves and/or valve parts where the stamps are to be applied and the revision to the manual had been accepted by the Authorized Inspection Agency's Specialist.

(Closed) Deviation (Report No. 78-03, Item C): Contrary to Criterion V of Appendix B to 10 CFR 50 and Paragraph 2.2 of Section 14 of the ASME accepted Nuclear Quality Assurance Manual, Hold Points for operation 10 and 11 of QCS-915 (Heat No. G287-P1) were not signed off by the Manager of Quality Assurance, although the valve was completed and shipped.

The inspector verified that the Documentation Supervisor had been instructed to review all data, including data generated by the assembly and test operation, prior to placing the data package in the permanent file and this training had been documented.

(Closed) Deviation (Report No. 78-03, Item D): Contrary to Criterion VI of Appendix B to 10 CFR 50, and Paragraph NCA-4134.6 of Section III to the ASME Code, WC-C Procedures No. CDP-1, Revision 5 and No. CDP-2, Revision 1, was transmitted to WC-G and WC-A on February 18, 1977 by WC-C memo and there was no documentary evidence that these procedure had been reviewed and/or approved and these procedures had been used for flange analyses.

The inspector verified that WC-C Procedures No. CDP-1 and 2 had been approved by the designated management personnel of WC-C and WC-G.

(Closed) Deviation (Report No. 78-03, Item E): Contrary to Criterion VI of Appendix B to 10 CFR 50, Paragraph NCA-4134.6 of Section III to the ASME Code, and Paragraph 2.4 of Section G-6 to the ASME accepted Nuclear Quality Assurance Manual eight addenda had been added to WC-G welding procedures specification 4-GWR, Revision 2 that had not been approved by the Quality Assurance Engineer.

The inspector verified that the format of the addenda had been revised and required the same approvals as the basis welding procedure and all addenda issued since October 1, 1978 have been approved by Nuclear Engineering and Quality Assurance Engineering.

(Closed) Deviation (Report 78-03, Item F): Contrary to Criterion IX of Appendix B to 10 CFR 50, Paragraph NCA-4134.9 of Section III to the ASME Code, and Paragraph NB-4361(b) of Section III to the ASME Code the welding procedure for canopy seals was not qualified as a new procedure.

The inspector verified that the welding procedures for canopy seals are separate qualified procedures.

(Closed) Deviation (Report No. 78-03, Item G): Contrary to Criterion IX of Appendix B to 10 CFR 50, Paragraph NCA-4134.9 of Section III to the ASME Code, Paragraph QW-201.2 of Section IX to the ASME Code, and Article II of Section IX of the ASME Code.

1. Changes to the nonessential variables to WC-G welding procedures specification 4-GWP, Revision 2 had been made by the addition of eight different addenda.
2. WC-G welding procedure specification 4-GWP, Revision 2 did not address the impact test but there was a procedure qualification record of impact valves.
3. WC-G welding procedure specification 4-GWP, Revision 2 paragraph 1.6.4 heating and cooling rates were exceeded in the qualification.

The inspector verified that:

1. The addenda to welding procedure now require the same approval as the welding procedure.

2. The welding procedure had been revised to include the impact test requirements and the revision had been approved in accordance with the requirements of the ASME accepted Nuclear Quality Assurance Manual.
3. The welding procedure specification 4-GWP had been revised to agree with the heating and cooling rates used for procedure qualification.

(Closed) Unresolved Item (Report No. 78-01): Welding procedures were being corrected using "white-out" and approval signature blocks pasted on it.

The inspector verified that the use of "white-out" and pasted on signature blocks had been discontinued.

(Closed) Unresolved Item (Report No. 78-01): The welding procedure qualification records state the current range, but do not state the current used in preparing qualification test coupons.

The inspector verified that the actual current used in preparing the qualification test coupons was recorded on the welding procedure qualification records.

(Closed) Unresolved Item (Report No. 78-01): The impact test values were not documented on the procedure qualification records.

The inspector verified that the impact test values are now recorded as part of the procedure qualification records.

D. Design Document Control

1. Objectives

The objectives of this area of the inspection were to ascertain whether procedures had been developed and properly implemented to control the review, approval, release and issuance, of design documents in a manner consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Nuclear Quality Assurance Manual, Revision 7:

- (1) Section G-9, Design Control,
- (2) Section G-11, Drawing and Print Distribution and Control, and
- (3) Section G-19, Documentation,

to verify that the vendor had established procedures to prescribe a system for design document control.

- b. Review these selective procedures:

- (1) COP-1, Revision 2, Procedure for the Preparation of Stress Reports,
- (2) COP-2, Revision 1, Procedure for the Review of Nuclear Valve Design,
- (3) COP-3, Revision 0, Procedure for Nuclear Valve Design Control and Interfaces, and
- (4) COP-1, Revision 5, Procedure for Design of Body-Bonnet Flange Joint,

to verify that they had been prepared by the designated authority, approved by management, and reviewed by QA.

- c. Review of the procedures listed in paragraph b, to verify that they provided for identification of personnel responsible for preparing, reviewing, approving, and issuing design documents; and that the review and approval of significant changes were performed by the same personnel.
- d. Review of Section G-19, Documentation the ASME accepted Nuclear Quality Assurance Manual, Revision 7, to verify that the Nuclear Procedure Distribution Lists are current and that the proper documents are identified, accessible, and are being used.

- e. Interviews with personnel to verify whether they were knowledgeable in the procedures applicable to design document control.

3. Findings

- a. The inspector verified that procedures had been developed and properly implemented to control the review, approval, release and issuance, of design documents in a manner consistent with NRC rules and regulations and the vendor's commitments in the ASME accepted Quality Assurance Manual.
- b. Within this area of the inspection no deviation or unresolved items were identified.

E. Procurement Control  
Evaluation of Supplier Performance

1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures had been prepared and approved by the vendor to prescribe a system for evaluation of suppliers performance which is consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance.
- b. The procedures for evaluation of supplier's performance are being properly and effectively implemented by the vendor.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Nuclear Quality Assurance Manual, Revision 7;
    - (1) Section G-12, Control of Purchased Material, Equipment and Services, and
    - (2) Section G-22, Nonconformities and Corrective Action,
- to verify the vendor had established procedures for effecting evaluation of suppliers, that is consistent with NRC rules and Code requirements.



- b. Review of six (6) sets of documents applicable to three (3) suppliers to verify that the procedures, and necessary procurement documents, were available to the persons responsible for performing the quality affected activities, and that the procedures were properly implemented.
- c. Interviews with personnel to verify whether they were knowledgeable in the procedures applicable to evaluation of the suppliers' performances.

### 3. Findings

- a. The inspector verified that:

- (1) Procedures had been prepared and approved by the vendor to prescribe a system for evaluation of suppliers performances which is consistent with NRC rules and regulations and the vendor's commitments in the ASME accepted Quality Assurance Program.
- (2) Within this area of the inspection no deviations or unresolved items were identified.

## F. Manufacturing Process Control - Machining

### 1. Objectives

The objectives of this area of the inspection were to verify that the machining operations are performed under a controlled system of manufacturing which meets NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program, and is effective in assuring product quality.

### 2. Method of Accomplishment

- a. Review of the ASME accepted Nuclear Quality Assurance Manual, Revision 7;
    - (1) Section G-14, Process Control, and
    - (2) Section G-22, Nonconformances and Corrective Action,
- to verify that procedures had been established to prescribe a control system of operation.

417 077



b. Review the Sections of the ASME accepted Nuclear Quality Assurance Manual referenced in paragraph a, to verify that they had been prepared by the designated authority, approved by management, and reviewed by QA, and are consistent with NRC rules and regulation, and the ASME accepted Quality Assurance Program.

c. Review these selective documents:

- (1) Production Order,
- (2) Drawing, and
- (3) Bills of Material,

to verify that they provide drawing/document control in the shop, and also provides for part identification and traceability, in-process and final inspections, identification and segregation of defective items, the resolving of non-conforming items, and that the gages and measuring devices are under a controlled calibration system.

d. Examine three (3) representative samples of finished machined parts to verify that they were properly, identified and machined to conform to the drawings and specifications.

### 3. Findings

- a. The inspector verified that the machining operations are performed under a controlled system of manufacturing which meets NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Manual, and is effective in assuring product quality.
- b. Within this area of the inspection no deviations or unresolved items were identified.

## G. Audits Internal Management

### 1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures have been prepared and approved by the vendor, to prescribe a system for Internal Management auditing which is consistent with NRC rules and regulation, and

the vendor's commitments in the ASME accepted Quality Assurance Program.

- b. The audit procedures are being properly and effectively implemented by the vendor.

## 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Nuclear Quality Assurance Manual, Revision 7:
  - (1) Section G-4, Organization, and
  - (2) Section G-23, Audit,to verify that procedures had been established to prescribe a system for auditing, which is consistent with NRC rules and regulations.
- b. Review of WGQC-11, Revision 6, Quality Assurance Procedure instruction for Internal Audit of Quality Programs, to verify it had been prepared by the designated authority, approved by management, and reviewed by QA.
- c. Review of procedure referenced in paragraph b, to verify it identifies the organizations responsible for auditing and their responsibilities; establishes audit personnel qualifications and training, and that the audits are preformed by qualified personnel. Also, to verify that the essential elements of the audit system is established.
- d. Review of the audit schedules to assure that the audits of quality activities during design, procurement and manufacture are planned, documented, and conducted in the prescribed manner, and assures coverage of all aspects of the QA program.
- e. Review of selective audit reports to verify that they include provisions for written plans, team selection, team orientation, audit notifications, pre-audit conferences, audit performances, and post-audit conferences.
- f. Review of selective audit reports to verify that they are properly distributed to management and the audited organization; and that follow-up audits to verify corrective action is required.

- g. Review of selective internal audit reports to verify the applicable procedures were available to the audit team personnel, and that the audit procedures were properly and effectively implemented.

3. Findings

- a. The inspector verified that:

- (1) Procedures had been prepared and approved by the vendor which prescribes a system for auditing consistent with NRC rules and regulation, and the vendor's commitments in the ASME accepted Quality Assurance Program.
- (2) The audit procedures are being properly and effectively implemented.

- b. Within this area of the inspection no deviation or unresolved items were identified.

H. Control of Special Processes -  
Special Welding Applications

1. Objectives

The objectives of this area of the inspection were to verify that special welding specifications (cladding, hard surfacing, seal welding, and weld repair without postweld heat treatment) conform with the additional requirements established ASME Code, Section III and IX, NRC rules and regulation, and the vendor's commitments in the ASME accepted Quality Assurance Program.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Nuclear Quality Assurance Manual, Revision 7:

- (1) Section G-15, Welding Quality Assurance, and
- (2) Section G-17, Heat Treating,

to verify the vendor had established procedures to prescribe

a system for the development and qualification of special welding specifications, and for qualifying welders and/or welding machine operators.

- b. Review the special welding procedures to verify that the special requirements governing special welding applications, procedures, and performance qualifications, imposed by ASME Code regarding test sample size, examination of test sample, and special essential variables are satisfied.
- c. Interviews with personnel to verify that they are knowledgeable in the procedures applicable to special welding applications.

### 3. Findings

- a. The inspector verified that special welding specification conformed with NRC rules and regulations and the ASME accepted Quality Assurance Program.
- b. Within this area of the inspection no deviations or unresolved items were identified.

## I. Inspection and Test - Testing of Completed Products

### 1. Objectives

The objectives of this area of the inspection were to verify that products are assembled in accordance with approved procedures and drawings, all material complied with the specifications, and the functional test of the products were performed.

### 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of test documentation to verify that;
  - (1) Test procedures and/or instructions were available at the test station and had been approved by engineering and quality assurance.
  - (2) The test had been performed in accordance with the procedures and/or instructions.
  - (3) Changes made to test procedure had been approved by engineering and quality assurance and they had been followed.

- (4) The test data was documented and dispositioned in accordance with the procedure and/or instructions.
- (5) The limits of acceptability of test results had been established and were being used for rejection or acceptance of the product.

- b. Review of test instrumentation used to verify that they are as specified by the procedure and/or instruction and were in calibration.

### 3. Findings

- a. The inspector verified that products are assembled in accordance with approved drawings, all material complies with the specifications, and functional tests were performed.
- b. Within this area of the inspection no deviations or unresolved items were identified.

### J. Exit Interview

At the conclusion of the inspection on May 9, 1979, the inspector met with the company's management, identified in paragraph A, for the purpose of informing them as to the results of the inspection. During this meeting management was informed no deviations or unresolved items were identified.

The company's management acknowledged the inspector's statement and had no additional comments.

417 082