

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

Report No. 99900100/79-02

Program No. 51400

Company: Limatorque Corporation  
5114 Woodall Road  
Lynchburg, Virginia 24502

Inspection Conducted: October 2-4, 1979

Inspector: R. E. Oller 10-29-79  
R. E. Oller, Contractor Inspector  
Components Section II  
Vendor Inspection Branch  
Date

Approved by: R. E. Oller 10-29-79  
D. M. Hunnicutt, Chief  
Components Section II  
Vendor Inspection Branch  
Date

Summary

Inspection on October 2-4, 1979 (99900100/79-02)

Areas Inspected: Implementation of 10 CFR 50, Appendix B Criteria, other NRC requirements and applicable codes and standards including: action on previous inspection findings, review of vendor activities, nonconformances and corrective action, material identification and control, and internal audits. The inspection involved twenty-four (24) inspector-hours on site.

Results: In the five (5) areas inspected, no deviations were identified in four (4) areas. The following was identified in the remaining area.

Deviation: Nonconformances and Corrective Action; three (3) variation reports, concerning nonconforming material found during machining, were not signed by the Operator and/or the Manufacturing Supervisor as required by standard operating procedure No. 4.C. (See Notice of Deviation.)

Unresolved Items:

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None.

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DETAILS SECTION

A. Persons Contacted

- J. Allen, QC Supervisor
- \*H. Beers, Plant Superintendent
- C. Formica, QA Administrator
- \*K. Groome, QC Manager
- R. Hawkins, Assembler
- J. Klein, Saw Operator
- K. Kurtz, QC Administrator
- \*T. Mignogna, Vice President and General Manager
- C. Sinclair, Receiving Inspector

\*Attended Exit Meeting.

B. Action on Previous Inspection Findings

1. (Closed) Deviation A (Report No. 79-01): Failure to include appropriate parameters in subprocedure QCP-12.F of standard operating procedure No. 12, to control the welding during fabrication of floor stands (supports for the valve operators). The inspector found that Section VI, D.1 of the QA Manual was revised to control welding, and procedure QCP 12 was revised on June 15, 1979 to provide parameters for the following welding processes:
  - a. Flux Cored Arc Welding.
  - b. Gas Metal Arc Welding.
  - c. Shielded Metal Arc Welding
2. (Closed) Deviation B (Report No. 79-01): Failure to qualify the person performing the welding and maintain welding qualification records. The inspector found that the person performing the welding was qualified in accordance with AWS Specification D1.1-1979 for the process of Shielded Metal Arc Welding and Gas Metal Arc Welding which includes Flux Cored Arc Welding, on May 18, 1979, and his qualification records are being maintained by the QC Department.

C. Review of Vendor's Activities

1. Objective

The objective of this area of the inspection was to assess the vendor's activities and their impact on future NRC inspections.

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## 2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the revised QA Manual dated 5/1/79 and selected revised standard operating procedures identified as QCPs.
- b. Discussions with cognizant personnel.
- c. Observation of in-process work on valve operators.

## 3. Findings

### a. Deviations From Commitments

None.

### b. Unresolved Items

None.

### c. Other Findings

- (1) The QA Manual was completely revised and issued on May 1, 1979. All references to administrative and engineering activities conducted at King of Prussia, Pennsylvania have been deleted and now are referenced as Lynchburg Plant activities.
- (2) Most of the standard operating procedures (known as QCPs) have also been revised to eliminate references to King of Prussia.
- (3) Limitorque's nuclear safety related valve operator work load is declining.
- (4) Limitorque continues to have difficulties in assisting utility licensees with Limitorque valve operator problems as the LERs, of which they receive copies, still do not identify the Limitorque operator serial number and are vague in describing the problem. At least 50% of Limitorque's letter's to the utilities offering assistance in solving operator related problems, are not responded to by the utilities.

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D. Nonconformances and Corrective Action

1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC requirements.

- a. A written system has been established to assure that nonconformances are controlled and corrective action is taken.
- b. Documented procedures or instructions are implemented for identification, documentation, segregation and disposition of nonconforming materials parts or components, and notification to affected organizations.
- c. Nonconforming items are reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.
- d. Conditions adverse to quality are promptly identified and corrected.
- e. The causes of significant conditions adverse to quality are determined and corrected to preclude repetition.
- f. The condition adverse to quality, the cause and the corrective action are documented and reported to appropriate levels of management.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the QA Manual Section X "Control of Non-conforming Material and Corrective Action."
- b. Review of the following standard operating procedures:
  - (1) QCP-3 "Receiving Inspection Procedures."
  - (2) QCP-4 "Machine Shop Inspection Procedures."
  - (3) QCP-5 "Assembly Inspection Procedures."
  - (4) QCP-13 "Material Review Board Procedures."

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- c. Observation of the following nonconforming materials for proper disposition tags:
  - (1) Three (3) "Foundry Return" labeled castings located in the storage yard.
  - (2) Machined drive sleeves, worm gears, and housing castings held in segregation bins in the machine shop.
- d. Review of the following variation reports:
  - (1) VR-49526, dated 9/21/79, for a housing casting.
  - (2) VR-49653, dated 9/27/79, for a drive sleeve.
  - (3) VR-48800, dated 8/17/79, for a housing casting.
  - (4) VR-49690, dated 10/3/79, for a worm gear blank.
  - (5) VR-490052 and related VR-490053 for a clutch housing casting.
  - (6) VR-49264, dated 8/29/79, for stem material.
  - (7) VR-49419, dated 9/12/79, for a worm gear casting
  - (8) VR-49629, for a housing cover.
  - (9) VR-41188, dated 4/3/78, involved a variation during assembly wiring.
- e. Review of records of Material Review Board Report No. 18 dated 9/10/79, and Report No. 17, dated 2/16/79.
- f. Observation of the inspection activities in various areas of the shop to ascertain how variations in materials and work are identified.
- g. Discussions with cognizant personnel.

### 3. Findings

#### a. Deviation From Commitments

See Notice of Deviation.

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#### b. Unresolved Items

None.

F. Material Identification and Control1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC requirements.

- a. A written system has been established to assure that material identification and control is performed in accordance with applicable codes.
- b. Documented measures have been used for identification and control of materials and items including partially fabricated assemblies.
- c. Identification is maintained either on the item or on records traceable to the item.
- d. Permanent or temporary identification marks or numbers are legible and are not detrimental to the item quality or interfere with the function of the item.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the QA Manual Section IX, Subsection B, "Material Storage."
- b. Review of the following standard operating procedures:
  - (1) QCP-3, "Receiving Inspection Procedures."
  - (2) QCP-4, "Machine Shop Inspection Procedures."
  - (3) QCP-5, "Assembly Inspection Procedures."
  - (4) QCP-23, "Material Handling, Storage and Shipping."
- c. Observation of color coded bar and tubing stock.
- d. Review of the bar stock receiving "Raw Material Log."
- e. Observations of the barstock and tubing cutoff area facilities, and discussions with the sawman.
- f. Observation of material marking of small housing castings in the machining area, and review of the related material process control

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records consisting of the Shop Order Card No. CIL-44314 for 247 pieces, machining drawing No. 60-002-0007, Revision J and the Inspection Travel Card.

- g. Observation in the storeroom of valve parts selected for assembly of operators using: bills of material, parts lists and drawings.
- h. Observation of identification markings on parts during drive sleeve bearing assembly, and during final operator mechanical assembly.
- i. Observation of nameplate information on completed operators.
- j. Discussions with cognizant personnel.

### 3. Findings

Within this area of the inspection, no deviations or unresolved items were identified.

## G. Internal Audits

### 1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC requirements:

- a. A written system has been established to assure that internal audits are performed and controlled in accordance with applicable codes to verify compliance with all aspects of the QA program.
- b. Planned and periodic internal audits are performed in accordance with written procedures or checklists by qualified personnel not having direct responsibilities in the areas being audited.
- c. Audit results are documented and reviewed by management having responsibility in the area audited.
- d. Followup action, including reaudit of deficient areas, is taken where indicated.

### 2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of the QA Manual Section I, Subsection C, "Audits".

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- b. Review of the following records of internal audit of the manufacturing activities:
  - (1) The original audit report dated June 5, 1979.
  - (2) Twelve (12) Audit Deficiency Notifications.
  - (3) Followup audit check list dated August 6, 1979.
- c. Review of the following records of internal audit of the administrative and engineering area activities:
  - (1) The original audit report dated March 6, 1979.
  - (2) Five (5) Audit Deficiency Notifications.
  - (3) Followup audit records dated May 15, 1979.
- d. Discussions with cognizant personnel.

3. Findings

Within this area of the inspection, no deviations or unresolved items were identified.

H. Exit Interview

- 1. The inspector met with management representative denoted in paragraph A of Details Section at the conclusion of the inspection on October 4, 1979.
- 2. The following subjects were discussed:
  - a. Areas inspected.
  - b. Status of corrective and preventive action for the previous outstanding items.
  - c. The deviation identified in this report.
- 3. The manufacturer's representatives were requested to formulate their corrective and preventative action response to the deviation in accordance with the three (3) conditions identified in the inspection report cover letter.
- 4. Management's questions related to clarification of the above item.

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