

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

Report No. 99900297/80-01

Program No. 51400

Company: The Foxboro Company
Systems Operations
38 Neponset Avenue
Foxboro, Massachusetts 02035

Inspection at: Mansfield, Massachusetts and Cocasset Plant-Foxboro, MA.

Inspection Conducted: April 22-25, 1980.

Inspector:

W. E. Foster
W. E. Foster, Contractor Inspector
Components Section II
Vendor Inspection Branch

5/1/80
Date

Approved by:

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

5/1/80
Date

Summary:

Inspection on April 22-25, 1980 (99900297/80-01).

Areas Inspected: Implementation of 10 CFR 50, Appendix B criteria, and applicable codes and standards, including follow-up on inspector identified deviations; and manufacturing process control. The inspection involved twenty-four and one-half inspector-hours on site by one NRC inspector.

Results: In the two areas inspected, no unresolved items were identified; the following two deviations were identified.

Deviations: Follow-up on Inspector Identified Deviations - the audit of February 1979 had not specifically covered the audit findings of Inspection Report No. 77-01, and Systems Operations had not conducted audits of pre-insulated terminals for damaged insulation (See Notice of Deviation, Item A); and Systems Operations Reference Manual Procedure No. 163 did not control issuance of Production Route Sheets (See Notice of Deviation, Item B).

DETAILS SECTIONA. Persons Contacted

- *R. A. Boudro, Manager - Industrial Engineering
- A. J. Coleman, Group Leader - Special Services
- *R. Foster, Manager - Systems Quality Assurance
- D. E. Heeks, Technician - Quality Control, Electromechanical
- H. A. Kasparian, Supervisor - Support Engineering
- *J. M. Kenney, Manager - System Packaging Operations
- *F. H. Leathers, Corporate Quality Assurance
- R. F. Lillienthal, Specialist - Checkout
- R. A. Malonson, Painter
- L. E. Newman, Coordinator - Quality Control, Systems
- *R. D. Souza, Supervisor - Quality Control
- *D. G. Tower, Analyst - Quality Assurance
- *R. A. Webb, Manager - Quality Control

*Attended Exit Interview.

B. Follow-up on Items of Noncompliances/Deviations1. Objectives

The objectives of this area of the inspection were to verify that the vendor had taken the corrective actions and preventive measures stated in their correspondence to IE regarding items of noncompliances/deviations.

2. Methods of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing Systems Operations Quality Assurance Audit Reports dated February 1979, and subsequent, to verify that audits covered the specific findings of NRC Inspection Reports.
- b. Reviewing Bechtel Power Corporation's SNUPPS PROCESSING/TRANSMITTAL FORM No. 143, dated January 24, 1979 and its transmitted document, Haveg Industries, Incorporated Engineering Report No. 2689, Revision 0, dated January 19, 1979, to verify that Bechtel was aware of Haveg's Engineering Report.
- c. Reviewing the following documents to verify provisions were in place to conduct re-inspection of hardware that had been reworked:

- (1) Procedure Listing for the Systems Packaging Material Flow and Quality Control Inspection Control Points (unnumbered), dated December 10, 1979, and
 - (2) Systems Operations Reference Manual (SORM) Procedure No. 373 (Interim), dated June 1979-System Traveler.
- d. Reviewing the following documents to verify that welding equipment (spot welder) had been placed under a qualification program:
 - (1) SORM Procedure No. 391, dated February 1980-Spotwelder Qualification Inspection Procedure, and
 - (2) Maintenance File, dated December 26, 1979.
 - e. Reviewing SORM Procedure No. 163, dated November 1979, to verify that it detailed control of issuing Production Route Sheets.
 - f. Reviewing SORM Procedure No. 338, dated December 1979 to verify that it required the designer's name and date be placed next to revisions occurring to design documents on the production floor.

3. Findings

- a. (Open) Deviation (Inspection Report No. 79-01): Evaluation of preventive measures commitment contained in The Foxboro Company's letters dated March 8, and April 20, 1979, revealed that the Systems Operations Quality Assurance audit of February 1979, and subsequent, did not specifically cover the findings of Inspection Report No. 77-01 and damaged insulation of pre-insulated terminals (See Notice of Deviation, Item A).

Additionally, the inspector verified an Engineering Report on flame testing of wire had been transmitted to, and acknowledged by Bechtel Power Corporation.

- b. (Closed) Deviation (Inspection Report No. 79-01): The inspector verified that provisions are in place to conduct re-inspections of hardware that had been reworked.
- c. (Closed) Deviation (Inspection Report No. 79-01): The inspector verified that the spot welder had been placed under a qualification program.
- d. (Open) Deviation (Inspection Report No. 79-01): Evaluation of corrective action commitments contained in The Foxboro Company's letter dated March 8, 1979, revealed that action had been taken

to control Production Route Sheets; however, the control did not embrace issuance of Production Route Sheets. That is, who is authorized to issue, review, and change Production Route Sheets. (See Notice of Deviation, Item B).

- e. (Closed) Deviation (Inspection Report No. 79-01): The inspector verified that SORM Procedure No. 338, dated December 1979, contained the requirement that the designer's name, along with the date, appear next to revisions occurring to design documents on the production floor.

C. Manufacturing Process Control

1. Objectives

The objectives of this area of the inspection were to verify that measures had been established and documented to control manufacturing, inspection and test activities. Also, to verify these activities had been accomplished in accordance with the established and documented measures. Additionally, verification of indication of mandatory hold points in appropriate documents.

2. Methods of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing the following documents to verify measures had been established and documented to control manufacturing, inspection and test activities:
 - (1) Systems Operations Quality Manual, dated June 1979, Sections V, IX, X, XI, and XIV.
 - (2) Systems Operations Reference Manual Procedures Nos.-
 - (a) 135, dated April 1978 - Sub-assembly Inspection,
 - (b) 318 (Interim), dated July 1979 - Final Assembly Inspection,
 - (c) 368 (Interim), dated June 1979 - Support Engineering Checkout Procedure.
 - (d) 319, dated February 1980 - Quality Control In-Process Inspection,
 - (e) 328 (Interim), dated July 1979 - Final Inspection and Release Procedure.

- (f) 306, dated November 1979 - Special Processes,
 - (g) 373, (Interim), dated June 1979 - System Traveler,
 - (h) 381, (Interim), dated April 1979 - Assembly Cleanup Prior to Shipment.
 - (i) 386 (Interim), dated April 1979 - Polyurethane Paint Processing,
 - (j) 321, dated March 1980 - Quality Control Stamps,
 - (k) 398, dated November 1979 - Welding Machine Qualification Procedure, and
 - (l) 399, dated November 1979 - Welding Qualification Procedure.
- b. Observation of alarm adjustment on rack for York Electro Panel, Sales Order No. 78N 47453F to verify that appropriate documents were at the work station and were being used.
- c. Reviewing the following records to verify that the established and documented measures had been implemented:
- (1) Welding Machine Qualification Tests and Reports, dated February 8, 1980,
 - (2) Welder Qualification Test Records, dated February 28, 1980,
 - (3) Pre-Assembly Checklists, dated January 15, 1980 for Sales Order No. 78N 47453G; and dated January 17, 1980 for Sales Order No. 77N 61277B,
 - (4) System Travelers for Sales Orders Nos. 78N 47453G and 77N 61277B,
 - (5) System Test Reports for Sales Order Nos. 79N 36291A and 79N 36291D,
 - (6) Assembly In-Process Checklists, dated April 9, 1980 for Sales Order No. 78N 47453G; and dated February 19, 1980 for Sales Order No. 77N 61277B, and
 - (7) In-Process Inspection Reports for Sales Order Nos. 78N47453G and 77N 61277B.

3. Findings

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

D. Exit Interview

1. The inspector met with management representatives denoted in paragraph A. at the conclusion of the inspection on April 25, 1980.
2. The following subjects were discussed:
 - a. Areas inspected.
 - b. Deviations identified.
 - c. Contractor response to the report.

The inspector ascertained that Mr. F. H. Leathers recalled the response information covered at the Highland Plant exit meeting conducted on March 21, 1980. Mr. Leathers recalled; consequently, the inspector did not go into detail. However, the inspector did suggest that Mr. Leathers be alert for a paragraph in the cover letter which would require a response.

3. Management representatives requested and was provided a clarification of measures to control the issuance of Production Route Sheets.