

The Foxboro Company  
Highland Plant  
Docket No. 99900225/80-01

NOTICE OF DEVIATION

Based on the results of an NRC inspection conducted on March 17-21, 1980, it appears that certain of your activities were not conducted in accordance with NRC requirements as indicated below:

- A. The Foxboro Company corrective action response letter, dated October 14, 1977, states in part, "The corrective action taken was to revise the workmanship standard to require  $1\frac{1}{2}$  minimum thread protrusion for all nuts and bolts regardless of use or configuration. This conforms to nationally accepted standards for thread protrusion which results in the need to revise approximately 70 engineering drawings, to revise screw lengths, etc., in order to meet the across the board requirement  $1\frac{1}{2}$  minimum thread protrusion. We anticipate that this entire activity will be completed by January 1, 1978. All inspectors will receive copies of this new workmanship standard with emphasis on inspecting for this particular parameter. In addition, the inspectors will be subject to a minimum of four audits per year to ensure that they are doing a proper inspection job."

Contrary to the above:

1. The workmanship standard had not been revised to require a minimum of one and one-half thread protrusion for all nuts and bolts regardless of use or configuration.
2. A minimum of four audits had not been performed in 1978 for Department No. 704 to ensure that inspectors were doing a proper inspection job.

Criterion V of Appendix B to 10 CFR 50 states: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Deviations from these requirements are as follows:

- B. Section D, paragraph II of the Operation and Maintenance Procedure No. 14100 YF, dated March 1976, states in part, "Note: All preventive maintenance performed by the Maintenance Department shall be logged in the PMO Schedule attached to the folder.

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"All unscheduled maintenance repairs or major adjustments shall be logged in the Sequencer Maintenance Log, the date, a description of what was done and who performed by. The Log Book is part of the Tool Folder which accompanies the machine."

Section D also identified scheduled preventive maintenance; that is, monthly cleaning, 100 hours lubrication, monthly diagnostic tests, etc.

Contrary to the above, monthly preventive maintenance had not been logged in the PMO Schedule attached to the folder. The attached Preventive Maintenance Procedures Performed by Maintenance Department Schedule displayed the last three entries of April 21, 1979; May 29, 1979; and November 30, 1979.

- C. Section E, paragraph 2, of the Operations and Maintenance Procedure No. 14101 BK, dated June 21; July 29 and 30; and August 2, 1976, states in part, "A maintenance check list (Attachment A) will be attached to the Tool Folder and the maintenance personnel, performing the maintenance will sign his and date when the maintenance is completed (sic)."

Section E, paragraph 4. and its subparagraphs identified scheduled preventive maintenance; that is, inspecting, cleaning, and lubricating at two week intervals, monthly maintenance of the computer, and semi-annual maintenance.

Contrary to the above, a maintenance checklist identifying the preventive maintenance, personnel performing and date of accomplishment had not been attached to the tool folder. There was no indication the checklist had been accomplished.

- D. Paragraph F.3. of Department Procedure No. 52.2L, dated January 31, 1980, states in part, "Single stamp, as acceptable, the sampled units of the product, and the applicable inspection operation on the route card. Stock stamp, as required, by Production routing."

Sequence No. 5 of Quality Control Inspection Instruction No. 24100 LQ, Revision B, dated April 28, 1976, states, "Location of Inspection Stamp on Documents:

- a. Production Routing Card - Circle Stamp per inspection operation.
- b. Before Stocking - 'Okay for Stock' stamp goes on lower portion of main card --- not on tear-off section."

Contrary to the above, the circle stamp had not been placed at the applicable operation on the following Production Routing Cards for items identified as okay to stock:

<u>Part No.</u>	<u>Batch No.</u>	<u>Quantity</u>
BØ13ØXR	2	50
BØ13ØXR	1	49
BØ13ØWM	3	50
BØ13ØWM	5	17

E. Operation Control and Maintenance Procedure No. 14100 YB, Revision B, dated March 27, 1979, contains the following requirements:

1. "The following procedure shall be strictly adhered to. The parameter for each module is as follows:

1. A. Machine Speed 5.8 - 6.2 FPM

D. Module III

3. Nozzle Pressure 30-50 PSI.

E. Module IV

2. Temperature 140°F, - 165°F

3. Nozzle Pressure 60 - 80 PSI

G. Module VI

1. Temperature Setting Heater 1 - 220°F.  
Temperature Setting Heater 2 - 220°F."

Additionally, the machine speed indicator bore a label which stated "Calibration Void if Broken."

2. "Each week, five sample boards will be put through the cleaning system and tested to determine the cleanliness level, using the DI water and bag technique. The resulting data to be provided to Manufacturing Engineering as soon as possible. Sample boards to be known as clean assemblies prior to test. White glove handling is necessary. The parameters for acceptable tests are 1.5 micro-siemens per 100 ml. of DI water per 100 CM<sup>2</sup> (test board area).

"Three of the five assemblies need to pass the test to insure the cleaning system is within control parameters. Data for all will be recorded . . . Should the test fail, a second test starting from the beginning will be necessary."

Contrary to the above:

1. (a) The procedure had not been adhered to strictly, inasmuch as the following conditions were observed: The machine speed was 7.8 feet per second; also, the calibration Void if Broken label on the speed indicator was broken. (b) Module III Nozzle Pressure was 18 pounds per square inch. (c) Module IV Temperature was 170<sup>o</sup>F while the Nozzle Pressure was 35 pounds per square inch. (d) Module VI Temperature (both heaters) was 250<sup>o</sup>F.
2. Five sample boards had not been tested weekly during the period of March 27, 1979, to March 20, 1980. Available records indicated this activity had occurred four times during the cited period.