

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

Report No. 99900228/80-01

Program No. 51400

Company: The Kerite Company
Subsidiary of Harvey Hubbell, Incorporated
49 Day Street
Seymour, Connecticut 06483

Inspection Conducted: August 19-21, 1980

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

8/29/80
Date

Approved by: I. Barnes
I. Barnes, Chief
Components Section II
Vendor Inspection Branch

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Summary:

Inspection on August 19-21, 1980 (99900228/80-01).

Areas Inspected: Implementation of 10 CFR 50, Appendix B criteria, and applicable codes and standards; including follow-up on deviations; follow-up on unresolved items; manufacturing process control; control of measuring and test equipment; and implementation of 10 CFR 21. The inspection involved twenty-five inspector-hours on site.

Results: In the five areas inspected, no deviations or unresolved items were identified in three areas, the following six deviations and two unresolved items were identified in the remaining two areas:

Deviations: Manufacturing Process Control - practices were not consistent with Criterion V of appendix B to 10 CFR 50; Section 1.0 of the QA Manual, Revision 6, dated January 18, 1980 (See Notice of Deviation, Item A); paragraph 4. of Factory Instruction No. 173, dated October 29, 1975 (See Notice of Deviation, Item B); and Work Instruction No. CV-0033, dated June 5, 1979 (See Notice of Deviation, Item C).

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Control of Measuring and Test Equipment - practices were not consistent with Criterion V of Appendix B to 10 CFR 50; the Calibration Manual, dated March 26, 1980 (See Notice of Deviation, Item D); Work Instruction, Compound QA No. 0006, dated August 17, 1979 (See Notice of Deviation, Item E).

Also, the QA Program lacked provisions for control of timers used in tests (See Notice of Deviation, Item F).

Unresolved Items: Manufacturing Process Control - there were no methods for determining that supervisors had inspected recorder charts within twenty-four hours (See Details Section, paragraph D.3.b).

Control of Measuring and Test Equipment - inconsistent application of calibration labels to recorders associated with identical equipment (See Details Section, paragraph E.3.b).

DETAILS SECTIONA. Persons Contacted

- R. Brellis, Technician - Calibration
- R. Fleming, Engineer - Nuclear Development
- *J. B. Gardner, Vice President - Engineering
- A. Goss, Supervisor - Compound Quality Assurance
- G. Knowlton, Purchasing Agent
- W. Krivda, Technician - Quality Assurance
- W. Lewicki, Manager - Personnel
- F. Mastriano, Engineer - Plant Electrical
- L. Ostrom, Group Leader - Insulating Department
- *J. K. Richards, Manager - Quality Assurance

*Attended the Exit Interview.

B. Follow-up on Deviations1. Objective

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 deviations.

2. Methods of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing the following documents to verify that committed corrective actions and preventive measures had been taken:
 - (1) Work Instruction - Engineering No. 0010, dated September 25, 1978 - Engineering Change Instruction.
 - (2) Inter Office Memoranda -
 - (a) Dated September 27, 1978, To: H. E. McGrane, From: J. B. Gardner, Subject: Reinstruction of Design Group on ECI Procedures.
 - (b) Dated September 8, 1978, To: H. McGrane, From: S. T. Sabnis, Subject: Periodic Review of Technical Standards.
 - (c) Dated October 30, 1978, To: J. B. Gardner, From: H. E. McGrane, Subject: NRC Inspection of Kerite (August 8-10, 1978).

- (d) Dated September 26, 1978, To: H. E. McGrane, From: J. B. Gardner, Subject: Review of Work - Factory Instructions.
 - (e) Dated December 14, 1978, To: H. E. McGrane, From: J. E. Rogers, Subject: Reinstruction of Department Heads re: Review of Work Instructions.
 - (f) Dated September 27, 1978, To: H. McGrane, From: J. I. Fabbro, Subject: NRC Audit - Corrective Action.
 - (g) Dated December 5, 1978, To: H. McGrane, From: J. I. Fabbro, Subject: NRC Audit - Corrective Action.
- (3) Plastics Department Daily Machine Production Report, dated August 4, 1978, Shift 7-3, Machine No. 4.

3. Findings

- a. (Closed) Deviation (Inspection Report No. 78-01): The inspector verified that Work Instruction, Engineering No. 0010 had been revised to include provisions for review and approval of Engineering Change Instruction forms, and that re-instruction had occurred.
- b. (Closed) Deviation (Inspection Report No. 78-01): The inspector verified that documentation of review of Work Instructions, dated 1974 had been submitted to the QA Manager by the Engineering and Process Engineering Departments. It was also verified that the Engineering and Process Engineering Department Heads had been re-instructed regarding adherence to Work Instruction, Engineering No. 0009.
- c. (Closed) Deviation (Inspection Report No. 78-01): The inspector verified that the department supervisor had been re-instructed to comply with all factory instructions.
- d. (Closed) Deviation (Inspection Report No. 78-01): The inspector verified that the Plastics Department Daily Machine Production Report, dated August 4, 1978, Shift 7-3, Machine No. 4, had been corrected and stamped on September 25, 1978.

C. Follow-up on Unresolved Items

1. Objectives

The objectives of this area of the inspection were to verify that inspector identified problems and unresolved items, during previous inspections, had been corrected and resolved satisfactorily.

2. Methods of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing the forms in use by the Test and Inspection personnel, during preliminary end examination, to verify that the forms had been identified as specified in Work Instruction, Test and Inspection No. 0007.

3. Findings

(Closed) Unresolved Item (Inspection Report No. 78-01): The inspector verified that the forms in use had been identified as specified in Work Instruction, Test and Inspection No. 0007.

D. 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 that measures had been established and documented to control manufacturing, inspection and test activities.
 - (1) Quality Assurance Manual, Revision 6, dated January 18, 1980, Sections 6.0; 7.0; 9.0; 10.0; 11.0; 12.0; and 15.0.
 - (2) Factory Instructions, Nos. -
 - (a) 017, dated May 15, 1980 - Transmittal of Factory and/or Work Instructions to Departments
 - (b) 020, dated June 27, 1973 - Conductor Material Traceability For QA Documented Orders Requiring Conductor Traceability.
 - (c) 022, dated August 7, 1980 - Plastic Department Inspection of Polyethylene, Semi-conductive and Vinyl Jackets.

- (d) 024, dated January 26, 1979 - Nuclear Cable Manufacturing Records.
 - (e) 027, dated March 5, 1980 - Splice and Ring - Cut Identification.
 - (f) 047, dated January 4, 1979 - Intermediate Inspection, Routing and Test Voltages.
 - (g) 065, dated January 16, 1979 - Composition and Issuance of Factory Instructions.
 - (h) 074, dated December 14, 1979 - Factory Production Ticket Procedures.
 - (i) 076, dated June 2, 1977 - Instructions for Final Inspection.
 - (j) 095, dated June 28, 1973 - Examination of Cables During Extrusion.
 - (k) 135, dated February 28, 1975 - Handling of Production Tickets.
 - (l) 173, dated October 29, 1975 - Changing of Screen Packs in Insulating Department.
 - (m) 036, dated June 17, 1977 - Inspection of Vulcanizer Charts from the Insulating Department.
- (3) Work Instructions -
- (a) Cabling, No. 0001, dated June 19, 1980 - Cabling Machine Set-up and Operating Procedures for Multi-Conductor Cable.
 - (b) Cabling, No. 0003, Revision 1, dated June 1972 - Large Concentric Finish.
 - (c) Continuous Vulcanizing (CV) No. 0001, dated May 10, 1976 - Interface Temperature Recorders CV-1 & 2.
 - (d) CV, No. 0033, dated June 5, 1979 - Inspection of Steam Pressure Charts from the CV Department.
 - (e) Examination, No. 0003, dated April 15, 1975 - Repairing Surface Defects on Insulation.

- (f) Examination, No. 0006, dated March 22, 1979 - Procedures for Surface Mends on Insulation and Jackets.
 - (g) Examination, No. 0007, dated November 30, 1978 - Procedures for Full Mends on Insulation.
- b. Reviewing steam pressure charts from the Continuous Vulcanizing Department to verify implementation of established and documented measures.
 - c. Observing activities in the Continuous Vulcanizing, Compound Quality Assurance, Insulation and Examination Departments to verify implementation of established and documented measures.

3. Findings

a. Deviations From Commitment

- (1) See Notice of Deviation, Item A.
- (2) See Notice of Deviation, Item B.
- (3) See Notice of Deviation, Item C.

Regarding Notice of Deviation, Item A - At the time of the inspection, CV-1 was operating. The Interface Control Panel displayed a tag with hand-written information of instrument settings. Work Instruction No. CV-0001, dated May 10, 1976, entitled - Interface Temperature Recorders CV-1 and 2 provided instructions concerning interface controls but the description did not agree with the hardware. The inspector was informed that the system had been changed but formalized instructions for its operation had not been initiated.

b. Unresolved Item

Work Instruction No. CV-0033, dated June 5, 1979, and Factory Instruction No. 036, dated June 17, 1977 requires that Continuous Vulcanizing and Insulating Department Supervisors, respectively, inspect recorder charts within twenty-four hours after removal from the recorder and completion of the vulcanizing cycle.

There was no apparent requirement to annotate the charts with: (1) the time of removal from the recorder, (2) the time of completion of the vulcanizing cycle, or (3) the time of inspection by the supervisor.

Consequently, the NRC inspector was not able to determine that the twenty-four hours requirement had been satisfied.

E. Control of Measuring and Test Equipment

1. Objectives

The objectives of this area of the inspection were to verify that measures had been established to assure that tools, gages, instruments, and other measuring and testing devices used in activities affecting quality had been properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within necessary limits.

2. Methods of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing the following documents to verify that measures had been established to control, calibrate and adjust tools, gages, instruments and other measuring and testing devices used in activities affecting quality:
 - (1) Quality Assurance Manual, Revision 6, dated January 18, 1980, Section 13.0.
 - (2) Calibration Manual, dated March 26, 1980.
 - (3) Work Instruction, Compound Q.A., No. 0006, dated August 17, 1979 - Calibration Services and Schedule of Calibration Intervals for Compound QA Test Equipment.
 - (4) Factory Instructions, Nos. -
 - (a) 117, dated January 9, 1975 - Thermometric Equipment Calibration and Maintenance.
 - (b) 139, dated March 12, 1975 - Procedure for Evaluation of Cable Tested and Inspected Using Out-of-Calibration Equipment.
 - (c) 190, dated October 27, 1975 - Operating Procedure For Diameter Control Gauges.
- b. Reviewing Calibration Sheets to verify that documented measures had been implemented.
- c. Observing measuring and test equipment at various locations to verify that documented measures had been implemented.

3. Findings

a. Deviations From Commitment

- (1) See Notice of Deviation, Item D.
- (2) See Notice of Deviation, Item E.
- (3) See Notice of Deviation, Item F.

b. Unresolved Item

An HP7130A Recorder on a Mooney Viscometer (Serial Nos. not apparent) did not display a calibration label; while an Honeywell Recorder on another Mooney Viscometer did display a calibration label. In other words, one piece of equipment displayed two calibration labels, while the other piece of equipment displayed one calibration label. The NRC inspector was informed that the single calibration label (on the one piece of equipment) signified that the servicing agency had also serviced the HP7130A Recorder. No documents could be located to substantiate the statement.

F. Implementation of 10 CFR Part 21

1. Objectives

The objectives of this area of the inspection were to verify that suppliers of safety related equipment had established and implemented procedures in accordance with 10 CFR Part 21.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Reviewing Ebasco Services Incorporated Purchase Contract No. NY-422573, dated May 21, 1976, and selected supplements dated through August 5, 1980, to verify that 10 CFR 21 had been invoked.
- b. Reviewing the following documents to verify that procedures had been established and implemented in accordance with 10 CFR 21:
 - (1) Factory Instruction No. 091, dated April 27, 1978 - 10 CFR Part 21 - Defect and Nonconformance Reporting.
 - (2) Factory Instruction No. 206, dated April 27, 1978 - 10 CFR Part 21 - Sub-Tier Vendor Relations.

- c. Observing Bulletin Boards in Buildings 15-1, 16, and R20 to verify that the procedures had been implemented.

3. Findings

- a. Deviations From Commitment

None.

- b. Unresolved Items

None.

- G. Exit Interview

1. The inspector met with management representatives denoted in paragraph A. at the conclusion of the inspection on August 21, 1980.
2. The following subjects were discussed:
 - a. Areas inspected.
 - b. Deviations identified.
 - c. Unresolved Items identified.
 - d. Contractor response to the report.

The contractor was requested to structure his response under headings of corrective action, preventive measures, and dates for each deviation.

Additionally, management representatives were requested to notify the Commission in writing if dates require adjustment, commitments require modification, etc.

3. Management took exception to the deviation regarding calibration of timers used to measure the duration that test voltages are applied to hardware; however, he would not declare that there was no effect upon quality.