

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-443/84-03

Docket No. 50-443

License No. CPPR-135

Priority --

Category B

Licensee: Public Service Company of New Hampshire

1000 Elm Street

Manchester, New Hampshire 03105

Facility Name: Seabrook Station, Unit 1

Inspection At: Seabrook, New Hampshire

Inspection Conducted: March 12-16, 1984

Inspectors:

R. J. Paolino
Lead Reactor Engineer

5/18/84
date

F. P. Paulitz
Reactor Engineer

5/18/84
date

Approved by:

C. J. Anderson
C. J. Anderson, Chief
Plant System Section, EPB

5/23/84
date

Inspection Summary:

Inspection on March 12-16, 1984 (Inspection Report No. 50-443/84-03)

Areas Inspected: Routine, unannounced inspection by region-based inspectors of procedures, work activities, and quality records related to the installation, inspection and testing of electrical equipment. The inspection involved 68 inspector hours on site by two inspectors.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

1.1 Yankee Atomic Electric Company (YAEC)

- *L. Monteith, Quality Assurance Engineer
- *S. B. Sadosky, Quality Assurance Engineer
- *F. Bean, Quality Assurance Engineer
- J. A. Briasco, Quality Assurance Engineer
- *R. E. Guillette, Quality Assurance Engineering Supervisor
- *G. F. McDonald, Quality Assurance Manager
- *W. Middleton, Field Quality Assurance
- *J. Singleton, Construction Field Quality Assurance Manager
- *D. Bacon, Staff Engineer (PSNH)

1.2 United Engineers and Constructors (UE&C)

- *B. E. O'Connor, Quality Assurance Administrative Assistant
- *T. A. Grusetske, Engineer
- D. Hanson, Quality Assurance Receipt & Storage Supervisor
- J. Carrabba, Preventive Maintenance Supervisor
- D. Caron, Preventive Maintenance Supervisor
- W. Perkins, Preventive Maintenance Supervisor

1.3 Fishbach-Boulos-Manzi-N.H.

- M. D'Orsay, Document Supervisor
- W. O'Connell, Quality Control Supervisor

1.4 USNRC

- *A. Cerne, Senior Resident Inspector
- H. Westcott, Resident Inspector

*denotes those present at exit interview.

2.0 Facility Tour

- 2.1 The inspectors observed work activities in progress, completed work and plant status in several areas of the plant during a general inspection of Unit 1. The inspector examined work items for obvious defects or noncompliance with NRC requirements or licensee commitments. Particular note was taken regarding the presence of quality

control inspectors and indications of quality control activities through visual evidence such as inspection records, material certifications, nonconformance and acceptance tags.

- 2.2 Specific work activities and completed work observed by the inspectors included the following Class 1E systems or components:

480 Volt Motor Control Centers
 480 Volt Switchgear
 4160 Volt Switchgear
 Emergency Diesel Generators and Fuel Storage
 125 Volt DC Batteries and Chargers
 Cable Raceways Including Spreading Room
 Electrical Penetrations of Primary Containment

- 2.3 During the inspection of the cable spreading room the inspector noted that the vertical raceways were attached to horizontally run cable trays for partial and/or complete support. For example, 1) vertical raceway 2EX/VA was attached to horizontal tray nos. 27S1RA, 06D1VA, and 27I1VA; and 2) vertical raceway DEG-VA was attached to several horizontal trays including 07C1VA and 26D1VA.

Section 5.2.19 of Construction Procedure FECP-503, revision 3, dated December 12, 1983, states, in part, that "trays shall not be used for rigging or supporting personnel or as a means of providing temporary or permanent support for any equipment other than cable."

Section 2.3.21 of Control Document No. 48-2, General Electrical Installation Procedure states, in part, that: "trays shall not be used for rigging or supporting personnel or as a means of providing temporary support for any equipment other than cable."

Design Installation drawings (M-300 series) show vertical wireways attached to Horizontal trays.

The inspector noted the discrepancies in the above documents in discussions with the licensee. The inspector inquired as to whether the additional weight of the raceway attached to horizontal trays was taken into consideration for routing and loading of cable trays using the CASP program. The licensee was not able to provide this information for this inspection period.

This item is unresolved pending NRC review of licensee evaluation and action taken (443/444-84-03-01).

- 2.4 During the inspection of the electrical penetrations, the inspector noted that the gauge pressure on penetration no. PEN-TR-81-02 read zero. Individual preventative maintenance record sheets for each electrical penetration are provided that specify the required monthly inspection frequency with signatures of the QA/QC representatives and Construction supervisor. There is no requirement to record the nitrogen pressure except to make a satisfactory notation for pressures of 15 psig or above. Under special requirements, pressures that drop below 15 psig are referred to Westinghouse for instructions. There are no maintenance/surveillance procedures for electrical penetrations that identify surveillance responsibility, surveillance criteria, or responsibility for corrective action. This item is unresolved pending NRC review of licensee action regarding electrical penetrations in which the nitrogen pressure drops below 15 psig (443/444-84-03-02).

3.0 Electrical Components/Systems - Quality Record Review

- 3.1 The inspectors reviewed pertinent work and quality records for the installation of the Diesel Generator Power System to ascertain whether the records meet established procedures and whether the records reflect work accomplishments consistent with NRC requirements and FSAR commitments in the areas of receipt inspection, storage, identification, installation and inspection.

- 3.2 Documents examined for this determination include:

- Diesel Generator Control Panel (el. 21'-6") Nos. F/2-DG-SKD-7A and F/2-DG-SKD-7B
- Lube Oil Pump with Speed and Motor Reducer SN-MTR-7805-02-001
- Drawing Nos. F-31052, F-31051, and F-10698
- Battery Charger No. 1-EDE-BC-1C
- Drawing Nos. F-310431 and F-300208
- Specification No. 9763-006-48-2 (Installation)
- Quality Assurance Procedure (QAP) - 101SB1, Revision 3

In addition to the above documents, an examination of the receipt and inspection report for electrical penetrations revealed that the environmental report was sent to UE&C for review. To date this

review is incomplete due to the lack of vendor information. These penetrations are installed without the necessary qualification documents and without a nonconformance report being written for the missing documentation. This is representative of other electrical equipment which has been conditionally released for installation. Discussions with the licensee indicate all class 1E electrical equipment is under independent review by a subcontractor and that a monthly status report is submitted of equipment qualification status. The inspector verified the existence of the monthly report and determined this method of tracking equipment qualification status to be acceptable.

No violations were identified.

4.0 Electrical Separation

- 4.1 The inspectors observed what appeared to be an electrical separation problem in the electrical penetration area outside the containment. The blue cable tray, 29 MIVC, is routed under the red electrical penetration, H48. The vertical distance between redundant wiring is less than the three feet required by IEEE Standard 384. The FSAR has a commitment that requires that all solid bottom trays shall have a tray cover. Cable tray 29 MIVC is a solid bottom tray which will have the required tray cover. IEEE standard permits barriers to be used where the separation distance is not maintained. In this case, the tray cover is the required barrier. The inspector had no further questions.

No violations were identified.

5.0 Personnel Qualification

- 5.1 The inspector reviewed personnel records of quality control inspectors to determine whether the applicants were properly trained and qualified in accordance with established procedures.

Items examined for this determination include:

- Education requirements
- Experience requirements
- Training
- Verbal Communication

No violations were identified.

6.0 Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations or deviations. Unresolved items disclosed during the inspection are discussed in paragraphs 2.3, and 2.4.

7.0 Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) on March 16, 1984, and summarized the purpose, scope and findings of the inspection.

At no time during this inspection was written material provided to the licensee by the inspector.