

U.S. NUCLEAR REGULATORY COMMISSION

Region I

Report Nos. 50-245/82-16
50-336/82-17
50-245
Docket Nos. 50-336
DPR-21
License Nos. DPR-65 Priority -- Category C

Licensee: Northeast Nuclear Energy Company

P. O. Box 270

Hartford, Connecticut 06101

Facility Name: Millstone Nuclear Power Station, Units 1 and 2

Inspection At: Waterford, Connecticut

Inspection Conducted: August 2-6, 1982

Inspectors: N. Blumberg, Reactor Inspector

8/27/82
date signed

P. Bissett, Reactor Inspector

8/27/82
date signed

Approved By: D. L. Caphton, Chief, Management Programs Section

8/30/82
date signed

Inspection Summary: Inspection on August 2-6, 1982 (Combined Inspection Report 50-245/82-16 and 50-336/82-17)

Areas Inspected: Routine unannounced inspection by two region based inspectors of licensee action on previous inspection findings; administrative controls for Unit 2 procedures; Unit 2 operating procedures for technical adequacy and conformance to Technical Specifications and administrative controls; administrative controls for Units 1 and 2 surveillance program; and program and implementation for surveillance testing for Units 1 and 2. The inspection involved 68 inspector-hours onsite by two region based inspectors.

Results: Of the five areas inspected, one violation was observed in one area (Violation - Inadequate document control, paragraph 4.b(1)).

DETAILS

1. Persons Contacted

J. Becker, Unit 2 Operations Engineer
T. Blanchard, Unit 2 Inservice Inspection (ISI) Coordinator
E. Farrell, Station Service Superintendent
*R. Herbert, Unit 1 Superintendent
D. Kross, Unit 2 Interim Instrument and Control (I&C) Supervisor
J. Leason, Unit 1 ISI Coordinator
*E. Mroczka, Station Superintendent
*S. Scace, Unit 2 Operations Supervisor
R. Spurr, Unit 2 Shift Supervisor

USNRC

D. Lipinski, Resident Inspector
T. Shedlosky, Senior Resident Inspector

The inspectors also interviewed other licensee personnel including reactor operators, staff engineers, technicians and clerical personnel.

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (245/79-27-02): Submit Technical Specification change allowing the direct application of heat to the primary sensor when performing functional tests of fire detectors. The inspector observed that a T.S. change now permits the option of applying heat to the detector when performing fire detector functional tests. Based on the above, this item is resolved.

(Closed) Noncompliance (245/81-09-01):

Item (1) Pump surveillance test procedure SP 1060, along with the individual Test Plans (Form SP 1060-15) for the Fuel Pool Cooling, Reactor Feedwater, and Service Water Pumps do not specify that the system hydraulic resistance be varied to equal an established reference value for differential pressure or flowrate.

The inspector verified that pump test procedure (SP 1060, Rev. 4, 9/1/81) had been revised to include the varying of system hydraulic resistance to an established reference value for the Fuel Pool Cooling Pumps. Relief was requested by the licensee identifying the inability to establish reference values for the Reactor Feedwater and Service Water Pumps due to system design and operating characteristics.

- Item (2) Pump surveillance test procedure SP 1060 permits an optional method of establishing Pump Test Base Line Data (reference values) by analysis of tests over a six month or greater period. A review of SP 1060 revealed that this method of establishing pump test base line data had been deleted.
- Item (3) Pump surveillance test procedure SP 1060 permits an optional use of a pump characteristic curve in lieu of established reference values for analysis of test results and acceptance criteria. The inspector determined that the optional method of establishing reference values by referring to the pump characteristic curve in lieu of established reference values had been deleted from SP 1060.
- Item (4) Pump surveillance test procedure SP 1060 does not invoke the specific required corrective actions when test results are unacceptable and fall within the "Alert Range" or "Required Action Range" of Table IWP-3100-2.

Sections 7.6.1 and 7.6.2 of SP 1060 now detail specific corrective actions to be taken when test results are unacceptable and fall within the "Alert Range" or "Required Action Range."

- Item (5) Pump surveillance test procedure SP 1060, along with the Test Plan (Form 1060-15) for the Service Water Pumps does not require measurement and recording of sea level for conversion to equivalent suction pressure as required by the IWP Table.

The inspector observed that SP 1060 along with Test Plan (Form 1060-15) for Service Water Pumps had been changed to reflect the requirements of IWP Table which, in turn, had been revised to delete the requirement for measuring and recording sea water level in calculating the suction pressure for the Service Water pumps.

- Item (6) Valve surveillance test procedures SP-1061, SP 608.15, and SP-608.17 do not invoke the specific required corrective actions when test results are unacceptable by a valves' failure to exhibit the required change of disk position. The inspector determined that SP 1061 (Rev. 2, 6/29/81); SP 608.15 (Rev. 5, 11/7/81); and SP 608.17 (Rev. 2, 9/19/81) have been revised to include specific actions when test results are unacceptable.

Items 1 thru 6 above had collectively constituted an item of noncompliance (245/81-09-01). The inspector verified that corrective action had been completed by the licensee for each item. Based on the above review, this item is closed.

3. Administrative Controls for Facility Procedures (Unit 2)

Administrative procedures for Unit 2 governing the preparation, review, approval, and control of facility procedures were inspected to determine their conformance with the requirements of 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants..."; Technical Specifications, Section 6, "Administrative Controls"; ANSI 18.7 - 1972 and 1976, "Administrative Controls for...Nuclear Power Plants"; and Regulatory Guide 1.33 - 1972 and 1978, "Quality Assurance...Requirements (Operation)". The following procedures were reviewed:

- ACP-QA-1.04, Plant Operations Review Committee, Revision 15, June 8, 1982
- ACP-QA-1.05, Site Operations Review Committee, Revision 9, June 8, 1982
- ACP-QA-2.12, System Valve Alignment Control, Revision 2, July 15, 1982
- ACP-QA-3.01, Administrative Control Procedures and Station Forms, Revision 9, January 6, 1982
- ACP-QA-3.02, Station Procedures and Forms, Revision 22, July 8, 1982
- ACP-QA-3.03, Document Control, Revision 17, April 1, 1982
- 2-OPS-3.01, Procedure and Procedure Change Processing, Revision 1, March 14, 1980
- 2.OPS-4.01, Forms Control, Revision 1, January 30, 1980

No violations were identified.

4. Facility Procedures (Unit 2)

- a. A sampling of facility operating, emergency, abnormal, and alarm response procedures for Unit 2 were inspected for adherence to administrative controls specified in the procedures listed in paragraph 3 and for technical adequacy. The following items were verified:
 - Procedures, plus any changes, were properly reviewed and approved;
 - Overall procedure format and content were correct;
 - Checklists, when used, were compatible with instructions in the procedure;

- Appropriate Technical Specification limitations had been included or referenced in the procedure;
- Procedures were technically correct and conformed to the Technical Specifications or other appropriate reference documents;
- Temporary changes were correctly implemented; and,
- Procedures were properly controlled.

(1) General Operating Procedures

- OP-2201, Plant Heatup, Revision 10, June 10, 1982
- OP-2202, Reactor Startup, Revision 6, February 1, 1981
- OP-2204, Load Changes, Revision 5, August 6, 1981

(2) System Operating Procedures

NOTE: Alarm response procedures are contained within applicable system operating procedures.

- OP2304E, Charging Pumps, Revision 6, April 23, 1981
- OP2306, Safety Injection Tanks, Revision 7, April 22, 1982
- OP2321, Feedwater System, Revision 6, July 16, 1981
- OP2346A, Emergency Diesel Generators, Revision 5, April 9, 1981
- OP2350, Refueling Water Storage Tank and Containment Sump, Revision 6, January 14, 1982
- OP2384, Engineered Safeguards Actuation System Operations, Revision 1, February 19, 1982

(3) Emergency Procedures

- EP2513, Shutdown from Outside the Control Room, Revision 6, April 23, 1981
- EP2518, Loss of Service Water, Revision 3, April 9, 1982
- EP2507, Loss of Condenser Vacuum, Revision 4, February 18, 1981
- EP2514, Emergency Boration, Revision 4, October 8, 1981

b. Findings

- (1) During review of the Control Room Technical Specifications (Controlled Copy No. 84) the inspector observed that the most recent amendment (Amendment No. 79) had not been correctly posted. Pages 2-5 through 2-9 of Section 2, Safety Limits, had been replaced with pages 3/4 2-5 through 2-9 of Section 3.2, Power Distribution Limits. Concurrently obsolete pages of Section 3.2 which should have been replaced remained in the Technical Specification.

The inspector also observed that Amendment No. 79 was incorrectly posted to Operations Department T.S., Controlled Copy No. 82, in that obsolete page 2-4 of Section 2 was not removed.

Two sets of procedures were being maintained in the Shutdown Storage Box located adjacent to the Hot Shutdown Panel. One set, a set of emergency procedures, was being controlled; however, a second set, a compilation of three procedures, one valve lineup, one procedure figure, and two T.S. figures was not controlled. In addition, a Technical Forms and Data Book, maintained in the Control Room, which is a compilation of selected operations forms and figures, was not being controlled.

Periodic audits were being performed to assure that the procedures and forms maintained in Shutdown Storage Box and Technical Forms and Data Book were the latest revision. The inspector informed the licensee, that periodic audits did not constitute proper document control. The inspector also noted that the audits were not effective, as several forms were not the latest revision at the time of the audit yet were not detected by the audit.

Failure to properly post Technical Specification changes and failure to establish distribution controls for plant procedures is contrary to 10 CFR 50, Appendix B, Criterion VI; and NUSCO QAM, Sections V and VI and constitutes a violation (50-336/82-02-01).

- (2) Procedure OP2513, "Shutdown from Outside of the Control Room" references actions to be performed in the following procedures:
- OP2329, Condenser Air Removal System
 - OP2323, Turbine
 - OP2208, Reactivity Calculations

-- ACP1.07, Communications, Outside Assistance and Response.

Although, OP2513 was located adjacent to the Hot Shutdown Panel, the other procedures were not.

Since the basic premise of OP2513 is that the Control Room will not be accessible, the procedures required by it may not be available on an immediate basis, to bring the plant into a hot shutdown condition. Following discussions with the inspector, the licensee agreed to place controlled copies of procedures referenced by OP2513 adjacent to the Hot Shutdown Panel. This item is unresolved pending licensee action and subsequent NRC:RI review (50-336/82-17-01).

The inspector also noted the same problem existed with procedure OP2213, "Plant Cooldown from Outside the Control Room" which referenced many more procedures than OP2513. The licensee pointed out that the immediate objective in a Control Room evacuation emergency was to establish a hot shutdown condition. Plant cooldown would be more long term, allowing time for procedures to be obtained from locations other than the Control Room. The inspector had no further questions at this time.

5. Administrative Controls for Safety Related Surveillance Procedures and Inservice Inspection Program

Administrative controls governing the performance of safety related surveillances and the Inservice Inspection Program were inspected to determine their conformance with the requirements of 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants...", Technical Specification Section 6, Administrative Controls"; Regulatory Guide 1.33-1978, "Quality Assurance Program Requirements" and ANSI N13.7-1976, "Administrative Control and Quality Assurance for the Operational Phase of Nuclear Power Plants."

The following procedures were reviewed.

- ACP-QA-3.02, Station Procedures and Forms, Revision 23, July 20, 1982
- ACP-QA-8.16, Training, Certification, and Identification of Qualified Inspection and Testing Personnel, Revision 9, January 29, 1982
- ACP-QA-9.02, Plant Surveillance Program, Revision 6, January 30, 1980
- ACP-QA-9.02A, Unit 1 Surveillance Master Control List, Revision 7, July 15, 1982

- ACP-QA-9.02B, Unit 2 Surveillance Master Control List, Revision 5, April 20, 1982
- ACP-QA-9.04, Control and Calibration of Measuring and Test Equipment, Revision 8, December 28, 1981
- ACP-QA-3.03, Document Control, Revision 17, April 13, 1981
- ACP-QA-9.06, Inservice Inspection Program Revision 5, February 16, 1982

No violations were identified.

6. Surveillance and Inservice Testing (Program and Implementation)
Units 1 and 2

- a. Surveillance Test and Inservice Test programs and their implementation were inspected for their adherence to the regulations, standards, and procedures detailed in paragraph 5 above.
 - (1) The procedural and programmatic areas were inspected for the following:
 - Responsibility had been assigned for 1) maintaining master test schedules and 2) assuring that required test schedules are satisfied
 - Test procedures are available and up-to-date
 - Test format and technical content are adequate and provide satisfactory testing of related systems or components
 - A master schedule had been established for all testing
 - Test procedures had been reviewed and approved by appropriate personnel
 - Test procedures adequately covered prerequisites, preparations and restorations
 - Responsibilities had been assigned for performance of tests
 - Methods and responsibilities had been established for review and evaluation of test data
 - Corrective actions had been established for those tests failing to meet acceptance criteria.

(2) Completed test data sheets were reviewed for the following:

- Test data was in specification and met applicable acceptance criteria
- Tests were performed within the required frequency
- Tests were performed by qualified individuals
- Special test equipment, when needed, was calibrated
- Test results were reviewed by designated personnel
- Plant Incident Reports (PIR) were completed and investigations were performed when tests failed to meet acceptance criteria.

Additionally, the inspectors specifically reviewed the qualification of three Instrument and Control Technicians and reviewed the documentation of two Plant Incident Reports (PIR 81-221, Containment Sump Level Indication; PIR 82-41 Spent Fuel Pool Area Radiation Monitor)

b. The following surveillance tests and appropriate data sheets were reviewed.

(1) Unit 1

- SP 6227, LPCI System Operability Test, Revision 6, December 1, 1981

Data was reviewed for five tests performed (Ops. Form 622.7-1, Revision 6, November 20, 1981) on May 6, 1982; April 8, 1982, March 11, 1982; February 11, 1982; and January 14, 1982

- SF 608.17, Diesel Generator Service Water Outlet Valve Readiness Test, Revision 2, September 19, 1981

Data was reviewed for three tests performed (Ops. Form 608.17-1 Revision 2, September 19, 1981) on April 26, 1982; January 25, 1981, and November 29, 1981

- SP 608.13, Condensate Pump Discharge Check Valve Readiness Test, Revision 2, March 17, 1982

Data was reviewed for three tests performed (Ops. Form 608.13-1 Revision 2, May 26, 1982) on April 15, 1982; December 3, 1981; and June 12, 1981

- SP 621.10, Core Spray Operability Test, Revision 3, September 28, 1981

Data was reviewed for five tests performed (Ops. Form 621.10-1, Revision 3, September 28, 1981) on May 9, 1982, April 8, 1982; March 11, 1982, February 11, 1982; and January 14, 1982

- SP 623.8, Containment Isolation Valve Operability Test, Revision 4, October 7, 1981

Data was reviewed for two tests performed (Ops. Form 623.8-1, Revision 6, October 7, 1981) on December 4, 1981 and September 6, 1981

(2) Unit 2

- SP 2402I, Low Temp/Over Pressure Circuitry Functional Test, Revision 2, May 8, 1981

Data was reviewed for five tests performed (I&C Form 2402I-1, Revision 1, October 1, 1980) on July 9, 1982; June 8, 1982; May 13, 1982; April 13, 1982; and March 9, 1982

- SP 2403 B, Engineered Safeguard Actuation System Undervoltage Calibration, Revision 2, July 24, 1980

Data was reviewed for five tests performed (I&C Form 2403B-1, Revision 2, October 1, 1980) on June 9, 1982; May 10, 1982, April 15, 1982; March 8, 1982; and February 11, 1982

- SP 2404H, Spent Fuel Pool Area Radiation Monitor Functional Test, Revision 2, June 15, 1981

Data was reviewed for five tests performed (I&C Form 2404H-1, Revision 1, January 20, 1981) on May 10, 1982; April 12, 1982; March 8, 1982; February 9, 1982; and January 12, 1982

- SP 2408, Containment Sump Level Calibration, Revision 1, July 24, 1980

Data was reviewed for the test performed (I&C Form 2408-1, Revision 0, June 20, 1978) on December 11, 1981

- SP 2601A, Borated Water Source and Flow Path Verification, Revision 6, April 23, 1981

Data was reviewed for five tests performed (Ops. Form 2601A-1, Revision 7, April 30, 1981) on June 23 and 29, 1982; and July 7, 14 and 21, 1982

- SP 2601H, Facility II Charging Pump Operability Test, Revision 4, July 2, 1981

Data was reviewed for three tests performed (Ops. Form 2601H-1, Revision 4, July 2, 1981) on July 21, 1982; June 15, 1982; and May 24, 1982

- EN21111, HPSI Pump 'A' (P-41A) Operational Readiness Test, Revision 1, January 24, 1980

Data was reviewed for two tests performed (Engr Form 21112-1, Revision 2, September 30, 1980) on July 1 and 19, 1982

- EN 21115, LPSI Pump 'B' (P-42B) Operational Readiness Test, Revision 1 January 24, 1980

Data was reviewed for tests performed (Engr Form 21115-1, Revision 2, September 30, 1980) on July 27, 1982; June 23, 1982; May 26, 1982; and April 26, 1982

No violations were identified.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, deviations or violations. One unresolved item was identified during this inspection and is detailed in paragraph 4.c(2).

8. Management Meeting

Licensee management was informed of the scope and purpose of the inspection at an entrance interview conducted on August 2, 1982. The findings of the inspection were periodically discussed with licensee representatives during the course of the inspection. An exit interview was conducted on August 6, 1982 (see paragraph 1 for attendees) at which time the findings of the inspection were presented.