

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

Region I

Report No. 50-213/80-08
Docket No. 50-213
License No. DPR-61 Priority -- Category C

Licensee: Connecticut Yankee Atomic Power Company
P. O. Box 270
Hartford, Connecticut 06101

Facility Name: Haddam Neck Plant

Inspection at: Haddam Neck, Connecticut

Inspection conducted: April 21-25, 1980

Inspectors: J. Chung, Reactor Inspector
N. Blumberg, Reactor Inspector

6-19-80
date signed

6-19-80
date signed

date signed

Approved by: E. G. Greenman
E. G. Greenman, Chief, Nuclear Support
Section No. 2, RO&NS Branch

6-20-80
date signed

Inspection Summary:

Inspection on April 21-25, 1980 (Report No. 50-213/80-08)

Areas Inspected: Routine, unannounced inspection by two regionally based inspectors on previous inspection findings; administrative controls for facility procedures; conformance to Technical Specifications; temporary and permanent changes in conformance to Technical Specifications and licensee procedures; changes in procedures to 10 CFR 50.59(a) and (b) requirements; checklists and related forms for currency to latest changes; administrative controls for safety-related maintenance; safety-related maintenance activities; maintenance personnel qualifications, and control room and facility tours. The inspection involved 59 inspector-hours onsite by two NRC regionally based inspectors.

Results: Of the ten areas inspected, no items of noncompliance were observed in five areas and five items of noncompliance were identified in the remaining five areas - (Deficiency - failure to properly approve procedures and failure to conduct PORC meetings with a quorum (see paragraph 3.b); Infraction - failure to establish written procedures for annunciators and failure to change procedures to reflect annunciator modifications (see paragraph 4.c(2)); Infraction - failure to use procedures and to

perform post maintenance inspections and tests for safety-related maintenance (see paragraph 10.c(1)); Deficiency - failure to use latest revision of a procedure and failure to post procedure revisions (see paragraph 4.c(1) and 6.b)); and Deficiency - failure to maintain records of maintenance activities (see paragraph 10.c(2)).

DETAILS

1. Persons Contacted

- *R. M. Blewett, Quality Assurance Supervisor
- N. A. Burnett, Operations Supervisor
- J. Chiarella, Instrument and Control Foreman
- **J. H. Ferguson, Station Service Superintendent
- S. T. Fleming, Training Supervisor
- R. L. Gracie, Operations Assistant Supervisor
- R. H. Graves, Station Superintendent
- W. Kadlec, Production Test Coordinator - NUSCO
- J. M. Levine, Engineering Supervisor
- E. Musil, Mechanical Maintenance Foreman
- *J. B. Overbaugh, Electrical Maintenance Supervisor
- M. D. Quinn, Chemistry Supervisor
- M. T. Ronzo, Office Supervisor
- R. P. Traggio, Unit Superintendent

The inspectors also interviewed other licensee employees during the inspection, including Reactor Operators, Technical Support, Administrative and Clerical personnel.

* denotes those present at the exit interview

** Acting Plant Manager on exit interview

2. Licensee Action on Previous Inspection Findings

(Closed) Infraction (213/79-10-01): Failure to perform the post maintenance and the surveillance tests of the high pressure fire pumps on a 31-day interval, and performance evaluation as required by Technical Specification. The inspector verified by reviewing surveillance test records (SUR 5.1-15) that the subsequent functional tests were performed on 31-day intervals, and the procedure was updated to reflect the requirements of TS 4.15.

(Closed) Deficiency (213/79-10-02): Failure to follow QA 1.2-11.2, Review of Test Data, and to implement into a plant information report (PIR). The inspector verified by review of PIR records that the deficiency was identified in the PIR and the documented corrective action was taken by the plant management.

(Closed) Unresolved Item (213/79-10-03): Failure to establish administrative controls for the review of test data while maintaining a second independent level of review. The inspector confirmed, by review of QA 1.2-11.2, Operational Surveillance Test, and QA audit records conducted on October 26, 1979, that QA 1.2-11.1 was updated on March 17, 1980 to define the review procedure clearly maintaining the independent review process.

(Closed) Unresolved Item (213/79-08-03): Resolve discrepancy between administrative procedure which requires a test equipment history use log and actual practice which requires only recording of test instrument on the calibration data sheet. Procedure QA 1.2-12.1, "Control of Measuring and Test Equipment" has been revised to require that test equipment calibration sheets to be attached to the applicable work permit. On a random basis, the inspector verified, that for test equipment calibrated in house, the calibration sheet is attached to the work permit; and, for equipment sent out for calibration, the test equipment number is recorded on the calibration data sheet of the instrument being calibrated which is, in turn, attached to the work permit. The inspector also observed that although a history log is not maintained, for the current method of filing calibration data, it is feasible to determine usage of a test instrument should it be found out of calibration.

(Closed) Unresolved Item (213/78-07-05): Procedures are required to be established for Charging Pump and Boric Acid Pump Surveillances. The inspector verified the following procedures have been established for the pump surveillances:

- SUR 5.1-104, Boric Acid Pump Weekly Functional Test, Revision 1, October 27, 1978
- SUR 5.1-4, Hot Operational Test, Revision 8, February 21, 1980 (accomplishes charging pump tests)

(Closed) Deficiency (213/78-07-03): Instrument and Calibration Department not maintaining documentation for calibration of test gages. A licensee representative stated that test gages are calibrated before each use and calibration data is attached to the data record sheet of the instrument which is calibrated by use of test gages. On a random basis, the inspector selected several instrument calibration records, which required use of a test gage, and verified that test gage calibration data was attached to the calibration records.

(Closed) Unresolved Item (213/78-07-01): "Desired Output" values on calibration data records did not correspond to those values given in associated procedures. The inspector verified that the following procedures or their respective data sheets have been revised to provide consistent "Desire Output" values.

- SUR 5.2-34, Boric Acid Storage Tank Level Calibration PIF Converter (LM-118)
- SUR 5.2-17, Boric Acid Control Calibration, Boric Acid Flow Recorder
- SUR 5.2-17, Boric Acid Flow Integrator (F-I-112B) Calibration
- SUR 5.2-46, Calibration Safety-Related Instruments Not Specified In Technical Specifications (For Demineralized Water Storage Tank Level Calibration, High Level (LS 1307H) Alarm).

(Closed) Unresolved Item (213/78-07-02): Emergency Generator EG-2B, Load (KW) Meters to be recalibrated to correct apparent out of tolerance readings and Procedure PM 9.5-89, Testing Switchboard Panel Meters and Transducer Calibration, to be revised to more clearly define acceptance criteria. The inspector observed recalibration data and verified that this data met procedural accuracy requirements. However, procedure PM 9.5-89 had not been revised and accuracy calculations were being recorded in the "remarks" sections of the data sheet per verbal instructions of the supervisor. Prior to the completion of the inspection, the inspector observed that PM 9.5-89 had been revised to specify the calculations required for meter accuracy, and to include a meter accuracy column on the data sheet.

3. Facility Administrative Control Procedures

- a. The inspector reviewed, on a sampling basis, the following administrative procedures and the minutes of PORC meetings for conformance with Technical Specifications, Section 6, ANSI N18.7-1972, and Regulatory Guide 1.33.
- ADM 1.1-42, Periodic Procedure Review, Revision 3, May 12, 1977
 - ADM 1.1-8, License Operator Acknowledgement of Changes to Facility Procedures and License Document Acknowledgement Sheet, Revision 5, October 25, 1979
 - QA 1.2-6.1, Document Distribution and Accountability, Revision 7, February 15, 1980
 - QA 1.2-6.4, Temporary Procedure Change, Revision 7, September 30, 1979
 - QA 1.2-6.5, Procedure Review and Approval, Revision 5, May 11, 1979
 - ODI #73, Control Room Schedule of Routine Activities, Tests and Checks, Revision 5, July 25, 1979
 - Minutes of Plant Operation Review Committee (PORC) Meetings, 1979 through 1980

b. Findings

Technical Specifications and Station Administrative Procedure ADM 1.1-1, stated that a quorum of PORC meeting shall consist of chairman and four members, two of which may be alternates. The inspector confirmed by review of PORC minutes, that PORC meetings were conducted without the quorum in the following instances:

- February 28, 1980, PORC # 80-7
- November 28, 1979, PORC #79-91
- February 13, 1979, PORC #79-18

A licensee representative stated that a fourth member indeed attended the meeting on February 28, 1980 (#E0-7) but his name was not recorded on minutes of the meeting due to a clerical mistake. Similarly, the guest attendee of the meeting held on November 28, 1979 was in fact an alternate as designated in ADM 1.1-14, Revision 8, June 22, 1979, thus meeting the required quorum. Again, clerical errors were blamed for the discrepancies found in the minutes. The licensee acknowledged initially that PORC meeting (#79-18) on February 13, 1979 did not meet the required quorum, and temporary procedure changes as well as items approved in that meeting will be reviewed in a subsequent PORC meeting. The items approved in the meeting were:

- TPC #625 to NOP 2.4-5, "Draining An Isolation Loop"
- TPC #626 to SUR 5.3-24, "Dead Weight Tested PC-23C Loop"
- TPC #627 to SUR 5.1-47, "CCW to Neutron Shield Tank"
- TPC #629 to SPL 10.5-30, "Testing of OT-2 Switch"
- TPC #630 to FP-CYW-R8, "Refueling Procedure"
- TPC #631 to FP-CYW-R8, "Refueling Procedure"
- TPC #632 to FP-CYW-R8, "Refueling Procedure"
- TPC #633 to M 8/5-11, "Boric Acid Filter"
- TPC #636 to SPL 10.5-155, "Welding and NDE Requirements...."
- Approval of Technical Specification Change Request #79-2 and 79-3

However, in subsequent telephone discussions, a licensee representative stated that the February 13, 1979 meeting also was attended by a fourth member, meeting the required quorum, and again clerical error was blamed without substantiating documentation.

Failure to maintain the minutes of PORC meetings properly and the PORC quorum, and subsequent implementation of the procedures approved in the meeting are contrary to Technical Specifications 6.5.1.5 and 6.5.1.8 and ADM 1.1-1, and is a deficiency level item of noncompliance (213/80-08-01).

4. Facility Procedures

- a. The inspector reviewed facility procedures and temporary procedure changes, on a random basis to verify the following:
 - Procedures and changes, if any, were reviewed and approved in accordance with the requirements of the Technical Specifications and the licensee's administrative controls
 - The overall procedure format and content were in conformance with the requirements of the Technical Specifications and ANSI N18.7-1972, "Administrative Controls for Nuclear Power Plants"
 - Safety and Operability Criteria were in conformance with the requirements of the Technical Specifications

- Procedures, checklists and related forms in Plant Working Files are current with respect to revision and change in conformance with the requirements of the Technical Specifications
 - Appropriate Technical Specification limitations had been included in the procedure
 - The applicable checklists were compatible with step-wise instructions in the procedures
 - Temporary changes were made in conformance with Technical Specification requirements and the licensee's administrative controls
- b. The following procedures were randomly selected and reviewed:
- (1) General Operating Procedures
- *-- NOP 2.1-3, Operation at Hot Standby - Reactor Critical, Revision 2, April 6, 1978
 - *-- NOP 2.7-5, Purification of Refueling Cavity Water, Revision 1, April 17, 1980
 - NOP 2.9-3, Refueling Cavity Filling and Dewatering, Revision 2, May 18, 1978
 - * Procedures reviewed for technical adequacy
- (2) System Operating Procedures
- *-- NOP 2.7-1, Processing Letdown Liquid, Revision 2, April 17, 1980
 - *-- NOP 2.13-1, Reactor Containment Atmosphere Control System Air Recirculation, Revision 1, June 16, 1977
 - *-- NOP 2.13-2, Reactor Containment Internal Filtration and Purging, Revision 3, May 27, 1977
 - NOP 2.18-1, Startup - Filling and Venting Feedwater System, Original, February 14, 1975
 - NOP 2.7-6, Purification of Volume Control Tank, Original, January 1, 1976
 - *-- NOP 2.12-1, Core Cooling System Lineup for Shutdown and Air Power Operation, Revision 9, September 28, 1979
 - NOP 2.23-3, Demineralizer Regeneration - Manual, Revision 2, March 7, 1978

- NOP 2.16-2, Generator Phasing and Unloading, Revision 2, October 27, 1978
- NOP 2.2-2, Steady State Operation and Surveillance, Revision 8, March 28, 1980
- NOP 2.14-13, Waste Evaporator Bottom Drumming, Revision 6, April 6, 1978

(3) Off-Normal Procedures

- *-- EOP 3.1-34, Complete Loss of Control Air Supply, Original, February 1, 1975
- EOP 3.1-35, High Air Activity Level in SIB Exhaust, Original, February 1, 1975
- *-- EOP 3.1-9, Total Loss of AC, Revision 6, January 31, 1980
- EOP 3.1-5, Steam Generator Tube Failure, Revision 4, September 13, 1979
- EOP 3.1-12, Emergency Boration, Original, February 1, 1975
- EOP 3.1-31, Loss of A Vital or Semi-Vital Bus, Revision 1, September 2, 1975
- *-- EOP 3.1-8, Loss of Condenser Vacuum, Revision 2, April 10, 1980
- EOP 3.1-19, Automatic Makeup System Malfunction, Original, February 1, 1975

(4) Emergency Procedures

- *-- EOP 3.1-4, Loss of Coolant, Revision 11 January 18, 1980
- EOP 3.1-14, Rod Drop at Power, Original, February 1, 1975
- *-- EP 1.5-12, Emergency Procedure for High Levels of Radioactivity in Containment, Revision 2, January 1, 1980
- EP 1.5-15, Emergency Procedure for Fuel Storage Area, Revision 1, January 1, 1980

(5) Annunciator Response Procedures

- *-- ANN 4.1-32, Letdown Waste Disposal - High Temperature, Original, February 1, 1975

- ANN 4.2-91, Waste Evaporator Level Hi-Hi, Original, February 14, 1975
- ANN 4.4-2, Dropped Rod - Rod Stop, Original, October 1, 1975
- ANN 4.4-11, NIS Power Range Channel Deviation Alarm, Original, October 3, 1975
- *-- ANN 4.4-13, Containment Evacuation Alarm, Revision 1, December 8, 1975
- ANN 4.4-15, Radiation Monitoring Channel High Activity, Original, October 1, 1975
- ANN 4.5-2, Volume Control Tank Lo-Lo Level, Revision 1, December 8, 1975
- *-- ANN 4.5-5, Refueling Water Storage Tank Hi-Lo Level, Original, October 3, 1975
- ANN 4.8-2, Low Vacuum Alarm, Original, October 3, 1975
- ANN 4.9-10, Vital Bus Inverter Off, Original, October 3, 1975

c. Findings

- (1) Surveillance Procedure of Fire Protection System Tests, SUR 5.1-15, was revised to reflect the acceptance requirements of Technical Specifications and the consequent performance evaluation of fire pumps, which is effective as of August 21, 1979. Yet, the subsequent test records showed that the tests were conducted with the superseded procedure (Revision 4, October 6, 1978) on August 23, August 31, September 11 and September 13 of 1979.

Also, the inspector confirmed, by a selected review of procedures in the control room file and the library, that several outdated procedures were not replaced with the revised ones. The following are a few samples:

	<u>Revision In Procedure</u>	<u>Revision In Effect</u>
- NOP 2.7-5,	Original	Revision 1
- NOP 2.7-1,	Revision 1	Revision 2
- NOP 2.12-1,	Revision 9	Revision 10
- NOP 2.2-2,	Revision 7	Revision 8
- EOP 3.1-9,	Revision 5	Revision 6

Failure to use the latest procedure revision while performing a test; failure to incorporate latest revisions to procedure; and failure to remove and discard a superseded procedure from controlled files is contrary to Technical Specification 6.8.1; ANSI N18.7, paragraph 5.1; and procedure QA 1.2-6.1, paragraph 7.1 constitute a deficiency level item of noncompliance (213/80-08-02).

- (2) The inspector examined the Main Control Annunciator Board (MCB), on a random sampling basis, to verify that the changes were accurately reflected in the appropriate corresponding procedure. The inspector identified that the following examples of annunciator additions/changes were not reflected in the appropriate procedures and that the plant had been operating in the interim.

- An "Axial Offset, Plus-Minus Alarm" was installed on MCB B-1-3-4 but the corresponding procedure had not been established
- The "High Volts Per Hz Alarm" was replaced and unit annunciators EG-2A and EG-2B were moved from MCB G-1-1-6 to a new 345 KV switching board. However, an appropriate procedure was not established for the first alarm and annunciator response procedures. ANN 4.9-1 and 4.9-2 did not reflect the changes to the latter two annunciators
- There was no procedure established for the "Steamline Trip Valve Air Reservoir Low Pressure Alarm"

The inspector determined that the above examples were only a few instances where procedures were not established for new annunciators or established procedures did not reflect changes to corresponding annunciator alarms. With respect to the first example, a licensee representative stated that a written procedure would be established prior to restart from this scheduled refueling outage. Further, the licensee representative stated that procedures associated with alarms that have undergone changes/modifications will be reviewed to assure that the response procedures reflect the current status and requirements of the alarm. The failure to establish appropriate alarm response procedures, as described above, is contrary to Technical Specifications 6.8; Regulatory Guide 1.33-1972, Appendix A, Paragraph E; and, ANSI N18.7-1972, Paragraph 5.3.3. The foregoing constitutes an infraction level item of noncompliance (213/80-08-03).

- (3) The inspector confirmed, by review of three on-site controlled copies of Technical Specifications, that substantial parts of Technical Specifications were changed administratively without the Commission approval. For instance, the following is a part of changes used as per memorandum dated November 2, 1979 (EN-MO-1793) and subsequent PORC approved:

- 3.6 Core Cooling System
- 3.12 Station Service Power
- 4.3 Core Cooling System Periodic Testing
- 4.5 Emergency Power System Periodic Testing

Also, the acceptable system leakage of RHR System was changed to 3 liter/HR in paragraphs 4.4 and 3.14 of Technical Specifications Control Copy #107 (Control Room) and only paragraph 3.14 of the control room copies #133 (Operation Supervisor) and #133 (QA supervisor) was changed contradicting the changes in #107.

The use of unapproved administrative Technical Specifications, although providing more conservative requirements, requires further review and clarification. This item is unresolved pending further NRC review during a subsequent NRC:RI inspection (213/80-08-04).

- (4) While reviewing the operating procedures, the inspector raised the safety concern on prevailing conditions of radiation limits for the ion exchanger and the demineralizer services. The operating procedures NOP 2.7-5 and 2.7-1 were revised to eliminate the radiation and DF limits for resin replacement services, leaving the decision to the discretion of site chemists and/or health physicists. The inspector was informed that in using the new procedures the ion exchanger and the demineralizer were taken out for services with contact radiation levels of 1000 R/hr, or greater as compared with 200-300 R/hr limits imposed in earlier procedures. A licensee representative stated that the procedure will be reviewed and a realistic limit will be implemented.

This item will be reviewed during a subsequent NRC:RI inspection.

5. Technical Content of Facility Procedures

The inspector reviewed facility procedures on sampling basis, using facility systems descriptions, diagrams and technical specifications, to verify that procedures were sufficiently detailed and contained sufficient technical information to control the operation or evolution as described in Technical Specifications and the requirements. The procedures reviewed with respect to this are marked with an asterisk (*) in paragraph 4 (Facility Procedures) of this report.

One item of noncompliance was identified and is detailed in paragraph 4.c.(2).

6. Procedure Changes Resulting From License Amendment

- a. The license amendments (Nos. 31 and 32) issued during the past thirteen months, were reviewed to verify the applicable changes in Technical Specifications and associated procedures as necessary to reflect the amendments.

b. Findings

Amendment 31, dated March 26, 1979, addressed the replacement of eight feedwater hydraulic snubbers with mechanical snubbers, which did not require the normal surveillance of hydraulic snubbers. The inspector verified that Technical Specifications 3.19 and 4.13 were updated to reflect the amendment, and the corresponding Surveillance Procedure, SUR 5.5-11, was revised in accordance with the changes. However, the superseded Surveillance Procedure, SUR 5.5-14, Feedwater Snubber Surveillance, was not discarded from the station procedure files until the inspector verified the existence of the invalid procedures. Subsequently, a special PORC meeting was conducted on April 24, 1980 to invalidate the procedure, SUR 5.5-14.

This is an example of an item of noncompliance which is detailed in paragraph 4.c.(1) above.

7. Checklists and Related Forms

Checklists, data sheets, acknowledgement forms, and other forms related to facility operating procedures were reviewed to see that current revisions and on-the-spot changes were posted.

No items of noncompliance were identified.

8. Changes to Procedures Pursuant to 10 CFR 50.59(a) and (b)

Inspector verified, on a random sampling basis, that changes made to facility procedures during the past thirteen month period were in compliance with 10 CFR 50.59(a) requirements and that records of these changes were maintained in compliance with 10 CFR 50.59(b).

No items of noncompliance were identified.

9. Administrative Controls for Safety-Related Maintenance

Administrative controls were reviewed to determine the licensee's program for implementing requirements associated with the conduct of safety-related maintenance as specified in Technical Specification Section 6; Regulatory Guide 1.33; Quality Assurance Program Requirements; and ANSI N18.7, Administrative Controls for Nuclear Power Plants.

The following documents were reviewed:

- QA 1.2-2.4, Housekeeping Requirements, Revision 6, September 13, 1979
- QA 1.2-5.1, Maintenance Work Requests and Work Permits, Revision 10, April 7, 1980

- QA 1.2-5.2, Procedure Format, Revision 3, September 13, 1979
- QA 1.2-6.1, Document Distribution and Accountability, Revision 7, February 15, 1980
- QA 1.2-6.4, Temporary Procedure Change (TPC), Revision 7, September 13, 1979
- QA 1.2-6.5, Procedure Review and Approval, Revision 5, May 11, 1979
- QA 1.2-7.1, Material Receipt and Inspection, Revision 6, January 25, 1980
- QA 1.2-8.1, Identification of Materials, Parts and Components, Revision 4, November 28, 1979
- QA 1.2-8.2, Material Issue, Revision 3, May 11, 1979
- QA 1.2-8.3, Weld Material Control, Revision 4, January 25, 1980
- QA 1.2-10.1, Installation Inspections, Revision 5, January 25, 1980
- QA 1.2-11.3, Retest/Test Requirements, Revision 7, March 17, 1980
- QA 1.2-15.1, Nonconformance Report, Revision 5, January 25, 1980
- ADM 1.1-32, Shutdown Worklists, Revision 1, May 17, 1976
- ADM 1.1-36, Miscellaneous Gas Cylinders in Plant, Revision 2, February 7, 1980
- ADM 1.1-35, Fire Hazards and Housekeeping Committee, Revision 4, September 29, 1979
- ADM 1.1-37, Radiation Work Permit Completion and Flow Control, Revision 8, February 7, 1980
- ADM 1.1-51, Inservice Inspection Program, Revision 1, February 21, 1980

No items of noncompliance were identified.

10. Review of Safety-Related Maintenance Activities

- a. The inspector reviewed safety-related maintenance conducted by the licensee on a sampling basis to verify that:
 - Technical Specification Requirements were met while equipment was out of service, and a Licensee Event Report was submitted for maintenance associated with a reportable occurrence;

- Required administrative approvals were obtained to perform the work;
 - An approved procedure was used where appropriate;
 - Required inspections were performed; and,
 - Records to substantiate quality of work and parts used were available (this includes documentation associated with procurement, inspections and test results).
- b. Documentation of the following maintenance activities were reviewed:
- Note: "MA" designator is for mechanical and electrical work permits and "IC" designator is for instrument and control work permits.
- IC-0305, Replace Main Control Board Vibration Recorder, December 8, 1979
 - IC-0358, Replace Drive Motor for No. 3 Steam Line Break Indicator, January 21, 1980
 - MA-0389, Overhaul of "A" Charging Pump Motor, March 21, 1979. Procedure M 8.5-28, Maintenance of Charging Pump Motors
 - MA-0390, Repack of Reactor Coolant Loop Stop Valves, March 12, 1979. Procedure M 8.5-19, Reactor Coolant Stop Valves
 - MA-0392, Replace No. 2 RCP Seal Water Supply Bypass Valve, March 16, 1979
 - IC-0409, Repair Nuclear Instrument System Hi Failure Light "B", March 20, 1980
 - MA-427, Repair Weld Leak on No. 1 Feed Sensing Line, May 18, 1979
 - MA-0430, Weld Repair Leak on HP Turbine Gland Heating Steam Line, May 25, 1979
 - MA-0444, Change Out Boric Acid Filter, June 11, 1979. Procedure M 8.5-11, Replacement of Boric Acid Filter
 - MA-0473, Install New Stack Monitor Flow Meter, June 25, 1979
 - MA-0500, Replace Fuel Line to Repair Fire Pump Diesel Fuel Oil Leak, July 6, 1979

- MA-0622, Repair Main Control Board Annunciator, October 5, 1979
- MA-0647, Rebuild Pressurizer Code Safety Valve 584, October 8, 1979. Procedure SUR 5.5-1, Test of Pressurizer Safety Valves
- MA-0654, Remove No. 2 RCP Motor, October 2, 1979
- MA-0684, Rod Drive MG Sets Preventive Maintenance, October 5, 1979. Procedure 9.5-15, Rod Drive Motor Generator Sets
- MA-0709, Repair Weld Pinhole Leak in "B" Component Cooling Water Heat Exchanger, October 15, 1979
- MA-0788, Align "A" Auxiliary Feed Pump, December 4, 1979. Procedure M 8.5-40, Maintenance of Steam Generator Auxiliary Feed Pumps
- MA-0812, Repair Boric Acid Heat Trace, February 23, 1980
- MA-0877, Repair Rod Control, Bank B, Group 8, Sluggish Step Counter, January 17, 1980. M 8.5-109, Removal and Repair of Facility Slow Cycle While Critical
- MA-0899, Replaced Auxiliary Feed Pump Flow Control Valve MS-PICV-1206A, January 28, 1980
- MA-0904, Repair Pulse Generator In 115 KV Service 389SS KWH Meter, January 25, 1980
- MA-0906, Rebuild Fire Pressure Maintenance Pump, February 7, 1980
- MA-0908, Repack No. 3 Steam Header Steam Flow Isolation Valve, February 7, 1980
- MA-0909, Repair Spent Fuel Building Crane Loose Pendent Cable, January 29, 1980
- MA-0926, Replace Diesel Generator 2A Air Start Drain Valve, February 7, 1980
- MA-0954, Connect Diesel Fire Pump Trouble Alarm to Main Control Board Annunciator, February 23, 1980
- MA-0978, Replace Valve Internals In "C" Control Air Isolation Valve, March 4, 1980
- MA-0983, Replaced "B" Charging Pump Lube Oil Pump, March 4, 1980
- MA-1006, Semiannual Testing of Heat and Smoke Detectors, April 12, 1980. Procedure SUR 5.5-13-C, Semiannual Heating and Smoke Detectors
- MA-1024, Replace Faulty Timer Motor in "C" Control Air Compressor, March 24, 1980

c. Findings

(1) During the inspection, the inspector observed that several maintenance activities did not comply with the requirements of ANSI N18.7 in that certain safety-related maintenance was performed without use of a procedure and without performance of post maintenance functional testing. In addition, various requirements of plant quality assurance procedures were not followed in that post maintenance installation inspections were not performed; quality assurance authorization was not obtained; and, in one instance, the material control serial number was not recorded. The following maintenance work permits did not comply with one or more of the above requirements:

- Work Permit, MA-0899, Disassemble and Repair 1A Auxiliary Feed Pump Valve 1206-A
- Work Permit, MA-0926, Replaced Emergency Diesel Generator 2A Air Start Drain Valve
- Work Permit, MA-0392, Replaced Reactor Coolant Pump Seal Bypass Valve
- Work Permit, MA-0444, Change Boric Acid Filter
- Work Permit, MA-0788, Realign "A" Auxiliary Feed Pump
- Work Permit, MA-0983, Replaced Charging Pump Main Lube Oil Pump
- Work Permit, MA-0674, Remove Feedwater Regulation Valve in order to facilitate system testing

The following chart indicates which maintenance activity did not comply with a specific requirement:

Requirement	ANSI N18.7 Para. 5.1.6 No Procedure	ANSI N18.7 Para. 5.3.5(3) No Functional Test	QA 1.2-10.1 Para. 5.1 No Installation Inspection	QA 1.2-5.1 Para. 6.2.13 No QA Authori- zation	QA 1.2-8:2 Para. 7.1 and 7.2 No Material ID No. Recorded
Work Permit Number					
MA-0899	X		X	X	
MA-0926	X	X	X		X
MA-0392	X				
MA-0444			X		
MA-0788				X	
MA-0983	X	X	X		
MA-0674	X	X	X	X	

In addition, the discrepancies noted above indicate that final QA review for Work Permits, to assure completeness, is not adequate.

Failure to implement procedures for safety-related maintenance; failure to perform post maintenance functional tests; failure to perform post maintenance installation inspections; failure to obtain QA authorization on work permits; failure to record QA material identification serial number on the Work Permit; and failure to perform adequate final QA review of Maintenance Work Permits is contrary to ANSI N18.7, paragraphs 5.1.6 and 5.3.5(3); QA 1.2-10.1, paragraph 5.1; QA 1.2-5.1, paragraph 6.2.13; QA 1.2-5.1, paragraph 6.2.23 and collectively constitutes an infraction level item of noncompliance (50-213/80-08-05).

- (2) The licensee was unable to locate the complete work permits and associated records of the following maintenance activities:

- Work Permit MA-0380, Monthly Electrical PMs, performed January 3, 1979;
- Work Permit, MA-0450, Monthly Electrical PMs, performed June 1, 1979; and,
- Work Permit, MA-0646, No. 2 Reactor Coolant (RCP) Seal Replacement, performed September 30, 1979

In addition, although records of Work Permit MA-0647, Repair of Pressurizer Code Safety Valve 524, were available, the safety valve set pressure data as required by procedure SUR 5.5-1, "Testing of Pressurizer Valves", Attachment No. 1, was not maintained with the Work Permit records and could not be located. There was a sign-off in the procedure indicating setpoint testing had been satisfactorily completed.

Subsequent to the inspection, the licensee stated that some documentation concerning the RCP seal replacement was located; however, the work permit still could not be located.

Failure to maintain records of maintenance activities and associated data is contrary to Technical Specification 6.10.1 and procedure QA 1.2-5.1 paragraphs 6.2.22, 6.2.25 and 6.2.26 and is considered a deficiency level item of noncompliance (50-213/80-08-06).

- (3) Procedure No. SUR 5.5-1, "Testing of Pressurizer Safety Valve", provides a disassembly and repair procedure in the event the valve indicates excessive seat leakage during the test. The inspector observed that the procedure does not retest the safety valve setpoint subsequent to the repair and queried the licensee about this. A licensee representative stated the valve is not set pressure tested again in order to prevent rescoring of the seat. During the inspection, the valve manufacturer was contacted and stated that it was possible to repair the valve without significantly affecting the setpoint. The inspector had no further questions.

- (4) In response to a Northeast Utilities Services Company (NUSCO) audit, the licensee QA Department is in the process of updating the Category I systems and components listing. The licensee has stated in their reply dated February 6, 1980 to Audit Q80-017 that the new listing will be issued subsequent to the 1980 re-fueling outage. The inspector reviewed the Category I listing during the inspection and it appeared to be in the need of updating. This item will be reviewed during a subsequent NRC:RI inspection.

11. Maintenance Personnel Qualifications

The inspector reviewed the qualification records of selected technicians and craft personnel who performed maintenance on safety-related systems and components to certify that the individual's experience level and training were in accordance with the guidelines of ANSI N18.1-1971, Selection and Training of Nuclear Power Plant Personnel, Section 4.

No items of noncompliance were identified.

12. Control Room Observations and Facility Tours

The inspector observed Control Room Operations for control room manning, shift turnover and log sheets, and facility operation in accordance with the Administrative procedures and Technical Specification requirements. Inspection tours of turbine/generator building and selected protected areas were conducted, and no items of noncompliance were identified.

13. Unresolved Items

Unresolved items are matters about which more information is required to clarify whether they are acceptable, or items of noncompliance, or deviations. One unresolved item was identified and detailed in 4.c(3).

14. Entrance and Exit Interviews

Licensee management was informed of the purpose and scope of the inspection at the entrance interview, and the findings of the inspection were periodically discussed with the licensee representatives as summarized in the following:

<u>Date</u>	<u>Reportable Details Covered</u>
April 21, 1980	Entrance Interview
April 22, 1980	2 and 6.b
April 23, 1980	10.c(1), 3.b, 4.c(1), 4.c(2), 4.c(3)
April 24, 1980	10.c(1), 10.c(4), 4.c(1), 4.c(2), 4.c(3)
April 25, 1980	10.c(2), 4.c(1), Exit

The inspector conducted an exit interview with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection, where the findings of the inspection were presented and acknowledged by the licensee.