

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

Region I

Report No. 50-245/80-24
50-336/80-23
Docket No. 50-245
50-336
License No. DPR-21 Priority -- Category C
DPR-65

Licensee: Northeast Nuclear Energy Company
P.O. Box 270
Hartford, Connecticut 06101

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

Inspection at: Waterford, Connecticut 06385

Inspection conducted: November 9 thru December 31, 1980

Inspectors: J. T. Shedlosky, Sr. Resident Inspector 1/22/81
date signed
date signed
date signed

Approved by: R. R. Keimig, Chief, Reactor Projects 1/27/81
Section No. 1, RO&NS Branch date signed

Inspection Summary:

Inspection on November 9 thru December 31, 1980 (Combined Report Nos. 50-245/80-24 and 50-336/80-23).

Areas Inspected: Routine, onsite, regular, and backshift inspection by a resident inspector (70 hours, Unit 1: 39 hours, Unit 2). Areas inspected included the control rooms and the accessible portions of the Unit 1 reactor, turbine, radioactive waste, gas turbine generator, and intake buildings; the Unit 2 enclosure, auxiliary, turbine and intake buildings; the condensate polishing facility; radiation protection; physical security; fire protection; plant operating records; surveillance testing; calibration; maintenance; core power distribution limits; and reporting to the NRC.

Results: No items of noncompliance were identified during this inspection.

DETAILS

1. Persons Contacted

The below listed technical and supervisory level personnel were among those contacted:

J. Bangasser, Station Security Supervisor
J. M. Black, Unit 3 Superintendent
P. Callaghan, Unit 1 Maintenance Supervisor
A. Cheatham, Radiological Services Supervisor
J. Crockett, Unit 2 Engineering Supervisor
F. Dacimo, Quality Services Supervisor
E. C. Farrell, Station Services Superintendent
H. Haynes, Unit 2 Instrumentation and Control Supervisor
R. J. Herbert, Unit 1 Superintendent
J. Kangley, Chemistry Supervisor
J. J. Kelley, Unit 2 Superintendent
E. J. Mroczka, Station Superintendent
V. Papadopoli, Quality Assurance Supervisor
R. Place, Unit 2 Maintenance Supervisor
R. Palmieri, Unit 1 Engineering Supervisor
W. Romberg, Unit 1 Operations Supervisor
S. Scace, Unit 2 Operations Supervisor
E. Spruill, Health Physics Supervisor
F. Teeple, Unit 1 Instrumentation and Control Supervisor

2. Review of Plant Operation - Plant Inspections (Units 1 and 2)

The inspector reviewed plant operations through direct inspection and observation of Units 1 and 2 throughout the reporting period. Activities in progress at Unit 1 included refuel outage work and routine power operation of Unit 2.

a. Instrumentation

Control room process instruments were observed for correlation between channels and for conformance with Technical Specification requirements. No unacceptable conditions were identified.

b. Annunciator Alarms

The inspector observed various alarm conditions which had been received and acknowledged. These conditions were discussed with shift personnel who were knowledgeable of the alarms and actions required. During plant inspections, the inspector observed the condition of equipment associated with various alarms. No unacceptable conditions were identified.

c. Shift Manning

The operating shifts were observed to be staffed to meet the operating requirements of Technical Specifications, Section 6, both to the number and type of licenses. Control room and shift manning was observed to be in conformance with Technical Specifications and site administrative procedures.

d. Radiation Protection Controls

Radiation protection control areas were inspected. Radiation Work Permits in use were reviewed, and compliance with those documents, as to protective clothing and required monitoring instruments, was inspected. Proper posting of radiation and high radiation areas was reviewed in addition to verifying requirements for wearing of appropriate personal monitoring devices. There were no unacceptable conditions identified.

e. Plant Housekeeping Controls

Storage of material and components was observed with respect to prevention of fire and safety hazards. Plant housekeeping was evaluated with respect to controlling the spread of surface and airborne contamination. There were no unacceptable conditions identified.

f. Fire Protection/Prevention

The inspector examined the condition of selected pieces of fire fighting equipment. Combustible materials were being controlled and were not found near vital areas. Selected cable penetrations were examined and fire barriers were found intact. Cable trays were clear of debris.

g. Control of Equipment

During plant inspections, selected equipment under safety tag control was examined. Equipment conditions were consistent with information in plant control logs.

h. Instrument Channels

Instrument channel checks recorded on routine logs were reviewed. An independent comparison was made of selected instruments. No unacceptable conditions were identified.

i. Equipment Lineups

The inspector examined the breaker position on switchgear and motor control centers in accessible portions of the plant. Equipment conditions, including valve lineups, were reviewed for conformance with Technical Specifications and operating requirements.

3. Review of Plant Operations - Logs and Records - (Units 1 and 2)

During the inspection period, the inspector reviewed operating logs and records covering the inspection time period against Technical Specifications and Administrative Procedure Requirements. Included in the review were:

Shift Supervisor's Log	- daily during control room surveillance
Plant Incident Reports	- 11/9 through 12/31
Jumper and Lifted Leads Log	- all active entries
Maintenance Requests and Job Orders	- all active entries
Construction Work Permits	- all active entries
Safety Tag Log	- all active entries
Plant Recorder Traces	- daily during control room surveillance
Plant Process Computer Printed Output	- daily during control room surveillance
Night Orders	- daily during control room surveillance

The logs and records were reviewed to verify that entries are properly made; entries involving abnormal conditions provide sufficient detail to communicate equipment status, deficiencies, corrective action restoration and testing; records are being reviewed by management; operating orders do not conflict with the Technical Specifications; logs and incident reports detail no violations of Technical Specification or reporting requirements; and logs and records are maintained in accordance with Technical Specification and Administrative Control Procedure requirements.

No items of noncompliance were identified.

4. Plant Maintenance and Modifications

During the inspection period, the inspector frequently observed various maintenance and problem investigation activities. The inspector reviewed these activities to verify: compliance with regulatory requirements, including those stated in the Technical Specifications; compliance with the administrative and maintenance procedures; compliance with applicable codes and standards; required QA/QC involvement; proper use of safety tags; proper equipment alignment and use of jumpers; personnel qualifications; radiological controls for worker protection; fire protection; retest requirements; and ascertain reportability as required by Technical Specifications. In a similar manner the implementation of design changes and modifications were reviewed. In addition to those items addressed above, the licensee's safety evaluation was reviewed. Compliance with requirements to update procedures and drawings were verified and post modification acceptance testing was evaluated. The following activities were included in this review:

Unit 1

- Torus Modification - install vent header deflectors
- Torus Modification - install saddles
- Torus Modification - cut downcomers
- Torus Modification - install new LPCI piping
- Torus Modification - install new instrumentation
- Replacement of Feedwater spargers
- Repair of Isolation Condenser piping
- Inservice inspection of Isolation Condenser piping
I.A.W. NUREG 0313 REV 1
- Removal of stainless clad from Reactor Vessel Feed Water
Nozzles
- Removal of CRD return water piping and removal of reactor vessel
nozzle thermal sleeve
- Replacement of Core Spray Piping
- Replacement of Feedwater Check Valves
- Installation of ATWS Recirculation Pump Trip
- Replacement of Service Water Piping
- Repair of Main Steam Line pipe restraints
- Inspection of Jet Pump Beams

Unit 2

- Repair of oil leak on D Reactor Coolant Pump Motor

No items of noncompliance were identified.

5. Licensee Event Reports (LER's)

The inspector reviewed the following LER's to verify that the details of the event were clearly reported, including the accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required, and whether generic implications were involved. The inspector also verified that the reporting requirements of Technical Specifications and Station Administrative and Operating Procedures had been met, that appropriate corrective action had been taken, that the event was reviewed by the Plant Operations Review Committee, and that the continued operation of the facility was conducted within the Technical Specification limits.

Unit 1

- 80-11: Discovery of cracked weld on Main Steam Line A and D restraints MSR# 28 and 32. Failure attributed to lack of penetration in failure regions.
- 80-19: Discovery of defects in isolation condenser stainless piping. Failure attributed in part to intergranular stress corrosion cracking.
- ETS 80-03: Radio-isotope of silver found in oysters which exceeded control station average by greater than a factor of ten.

Unit 2

- 80-34: Turbine driven auxiliary feed water pump removed from service to allow the repair of a drain valve.
- 80-35: Fire barrier between Cable Spreading Room and East Containment Electrical Penetration Room breached to remove temporary cables without proper sealing.
- 80-36: Channel D detectors inoperable due to cable reversal.
- 80-37: Set point drift, RPS Channel D local power density and turbine trip bypass bistable.
- 80-38: Service water pump A out of service due to a damaged strainer body. The strainer body leaked because of corrosion.
- 80-39: Containment hydrogen analyzer B inoperable due to the failure of an operational amplifier in an alarm circuit.
- ETS 80-03: Radio-isotope of silver found in oysters which exceeded control station average by greater than a factor of ten.

6. Review of Periodic and Special Reports

Upon receipt, periodic and special reports submitted by the licensee pursuant to Technical Specification 6.9.1 and 6.9.2 and Environmental Technical Specification 5.6.1 were reviewed by the inspector. This review included the following considerations: the report includes the information required to be reported by NRC requirements; test results and/or supporting information are consistent with design predictions and performance specifications; planned corrective action is adequate for resolution of identified problems; determination whether any information in the report should be classified as an abnormal occurrence; and the validity of reported information. Within the scope of the above, the following periodic reports were reviewed by the inspector:

- Monthly Operating Reports Unit 1 and 2, October 1980.
- Monthly Operating Reports Unit 1 and 2, November 1980.

7. Control of Containment Purge Valves

Unit 1: The licensee has provided qualification data to the NRC to justify unlimited operation of containment vent/purge valves. The licensee has not committed to limiting the periods of time those valves could be operated.

The latest letter from the licensee dated August 8, 1980, has been responded to by the NRC by letter dated November 26, 1980.

Unit 2: The licensee has maintained containment purge valves shut with control power removed since July, 1978, when an event discussed in LER 50-336/78-16 was identified. The inspector verified the licensee's corrective actions during Inspection 50-336/78-24. The conditions of the containment purge valves and verification of removal of operating control power has been a routine inspection item since this issue was discovered at Millstone Unit 2. There were no unacceptable conditions identified at this time.

8. Emergency Procedures for Coping with ATWS Events at Power Reactors

Unit 1: Addressed in Inspection Report 50-245/80-18, paragraph 8.

Unit 2: The inspector reviewed Emergency Procedures OP 2502, Emergency Shutdown, Revision 9, Change 6, Dated 1/15/81 and OP 2514 Emergency Boration, Revision 3, Dated 11/14/78. These procedures do contain the requirement to follow an automatic reactor trip with a manual scram, verify CEA insertion and decreasing reactor power. In the event of a failure of the CEA System OP 2514 provides the reactor operator with the authority and responsibility to emergency borate. Operators have been provided with various methods of opening power disconnects and breakers on power to and from the RPS motor generator units. There were no unacceptable conditions identified.

9. Drills

The inspector observed the conduct of a fire drill which simulated a fire in the Unit 2 Diesel Generator Day Tank Room on December 18, 1980. Both Units 1 and 2 Fire Brigade, the Security Department, and the Town of Waterford's Goshen Fire Department participated.

There were no unacceptable conditions identified.

The inspector observed the conduct of a Bomb Threat Drill conducted on December 31, 1980. Both Units 1 and 2 Operations Personnel, and the Security Department participated. Other personnel were evacuated from the protected area as required by station procedure.

There were no unacceptable conditions identified.

10. Inspector Witnessing of Surveillance Tests

The inspector witnessed the performance of surveillance testing of selected components to verify that the surveillance test procedure was properly approved and in use; test instrumentation required by the procedure was calibrated and in use; technical specifications were satisfied prior to removal of the system from service; testing was performed by qualified personnel; the procedure was adequately detailed to assure performance of a satisfactory surveillance; and, test results satisfied the procedural acceptance criteria, or were properly dispositioned. The inspector witnessed the performance of:

Unit 1

--- Reactor Building Leak Tightness Test, November 18, 1980

Unit 2

--- RPS Matrix Testing, November 20, 1980

11. Review of Radioactive Material Shipments - (Unit 1)

The inspector reviewed the activities concerning the shipment of radioactive waste to the Hanford, Wa. burial site. Those activities included receipt inspections of the shipping cask and liner, solidification of material, radiation surveys and the completion of administrative and quality control requirements prior to shipment. These inspections concerned:

--- LSA Boxes, December 4 - 5, 1980

12. Exit Interview

At periodic intervals during the course of the inspection, meetings were held with senior facility management to discuss the inspection scope and findings.