U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-410/86-41

Docket No. 50-410

License No. CPPR-112

Licensee: Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Facility Name: Nine Mile Point Nuclear Station, Unit 2

Inspection At: Scriba, New York

Inspection Conducted: July 29 - August 1, 1986

Inspectors: for D. Florek, Lead Reactor Engineer — 8-13-86 date

J. Golla, Reactor Engineer — 8-13-86 date

Approved by: P. Eselgroth, Chief Test Program Section
Operations Branch, DRS — 8-13-86 date

Inspection Summary: Inspection on July 29 - August 1, 1986 (Inspection Report No. 50-410/86-41).

Areas Inspected: Routine unannounced inspection by two region based inspectors of the power ascension test program procedures, surveillance activities to support initial fuel load, in office CILRT pre-operational test report review, QA interfaces, independent measurements and calculations and tours at the facility.

Results: No violations were identified.

NOTE: For acronyms not defined refer to NUREG-0544, Handbook of Acronymns and Initialisms.

DETAILS

1. Persons Contacted

Niagara Mowhawk Power Corporation (NMPC) and Contractors

R. Abbott, Station Superintendent
*J. Conway, Power Ascension Manager
M. Coulomb, Operation Surveillance Coordinator
*W. Hansen, Manager Nuclear QA
L. Lagoe, I&C Unit Supervisor
D. Myers, Supervisor Planning and Scheduling
J. Robles GE Site Operations Manager
R. Warren, Surveillance Coordinator
*I. Weakley, Special Projects
*P. Wielde, Supervisor, Surveillance QA

U.S. Nuclear Regulatory Commission

*W. Cook, Senior Resident Inspector
*T. Koshy, Reactor Engineer
*R. McBrearty, Reactor Engineer
*W. Schmidt, Resident Inspector
*C. Woodard, Reactor Inspector

*Denotes those present at exit meeting held on August 1, 1986.

2. Power Ascension Test Program

2.1 References

- Regulatory Guide 1.68, Revision 2, August, 1978 "Initial Test Programs for Water-Cooled Nuclear Power Plants".
- ANSI N18.7-1976 "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants".
- Nine Mile Point Unit 2 (NMP-2) Technical Specifications Final Draft, June 25, 1986.
- NMP-2 Final Safety Analysis Report (FSAR), Chapter 14 "Initial Test Program".
- NMP-2 Safety Evaluation Report.

2.2 Power Ascension Procedure Review

Scope

The inspector reviewed N2-SUT-3-OV, Fuel Load, Revision 0 Final draft dated July, 1986 and N2-SUT-25-HU, Main Steam Isolation Valves, Revision 0 draft dated June, 1986 utilizing the attributes defined in Inspection Report 50-410/86-38, Section 3.3.

The inspector also reviewed the analysis performed by the licensee to support the test methodology specified in N2-SUT-16-HU, Selected Process Temperature and Water Level Measurements, and performed independent calculations using the licensee analysis equations to determine if the test methodology in N2-SUT-16-HU was adequate.

Discussion

The fuel load procedure reflected the comments generated by the licensee review process and was consistent with the observations of the inspector during inspection 50-410/86-38. The procedure was in the final stages of the review process. The methodology in N2-SUT-25-HU was acceptable.

The inspector performed independent calculations to access whether the methodology utilized in N2-SUT-16-HU to satisfy the reactor water level scale end point error acceptance criterion was sufficient. The inspector concluded that for wide range water level indication, the methodology was acceptable but questioned the methodology for narrow range water level indications. The inspector also questioned the adequacy of limiting the analysis performed to only one level indicator to justify the test methodology. The licensee will perform analyses on additional level instruments using "as built" data to justify the methodology or modify the method as appropriate.

Findings

No violations were identified.

3. Surveillance Activities to Support Initial Fuel Load

Scope

The inspector reviewed the licensee program for assuring that the plant will satisfy the technical specification surveillance requirements applicable for the initial fuel load. In addition, the inspector reviewed the interim surveillance procedures listed in Attachment 1 to determine if they will lead to a successful procedure to satisfy the Technical Specifications (final draft dated June 25, 1986).

The following documents were reviewed:

- NMP2 Surveillance Test Matrix dated July 25, 1986.
- N2-SAP-R5 Interim Surveillance Procedures, Revision 1 dated April 21, 1986.
- AP-2.0 Production and Control of Procedures, Revision 5 dated June, 1986.
- AP-8.2 Surveillance Testing and Inspection Program, Revision 2 dated July 10, 1986.
- N2 Instrument Surveillance Procedures Index dated July 30, 1986.
- NMPC Working Schedule Run dated July 30, 1986.

Discussion

The inspector reviewed surveillance activities for the Operations and Instrument and Control Departments. These two departments are utilizing a method of interim surveillance procedures to develop workable final procedures prior to issuing final surveillance test procedures. Other departments utilize only final surveillance test procedures. As of July 28, 1986, the licensee has identified 216 surveillance test procedures for all departments required for fuel load and 81 have been approved as final surveillance procedures.

The licensee approach is to use the interim surveillance procedure in the field and make changes necessary to make the procedure workable and capable of satisfying technical specification requirements. The procedures and changes are controlled under N2-SAP-125 as part of the preoperational test program. The interim surveillance procedure review process does not satisfy the review and approval process required by technical specification so that once a successful surveillance test is performed, the licensee will then use the interim surveillance procedure to prepare a final version. It will then be reviewed and approved as required per the Technical Specification 6.8.2 in accordance with licensee administrative procedure AP-2. This includes satisfying the SORC review function, QA review, ALARA review and Health Physics review as required and approval by the General Superintendent. The licensee plans on using the results from the successful interim test however to satisfy surveillance test requirements if minor changes occur in the AP-2 review cycle. The inspector was initially concerned that the licensee process would result in technical specification requirements being based on procedures not reviewed and approved as required per the technical specification. Based on discussions with the Plant Superintendent, the licensee will have AP-2 reviewed and approved final surveillance procedures to satisfy technical specification requirements prior to fuel load. Department supervisors will be responsible to assure that the final surveillance procedure requirements are satisfied. Thus based on these discussions, the inspector initial concerns were resolved.

At the exit the inspector reiterated that the licensee can only take credit for technical specification surveillance when an approved signed procedure by the General Superintendent exists. The Department supervisors are then responsible to assure that data used to satisfy the surveillance requirements of the final approved procedure, whether it is based on preoperational test results, interim surveillance procedure data or data gathered using the approved procedure, is appropriate for the plant condition. However, for the purposes of determining when the surveillance test needs to be performed again, the actual performance date of the test should be utilized.

The inspector attempted to review the final surveillance test procedures for operations and I&C surveillances. Copies of final surveillance test procedures for these groups were not yet distributed although eighteen I&C procedures were approved and signed on July 28, 1986. The inspector

did review final surveillance procedure N2-ISP-NMS-R202 Fixed Neutral Flux Response, Revision 0 dated July 28, 1986 and the associated interim surveillance test results. The test data supported the surveillance test procedure. The inspector noted that the procedure covered all 6 Average Power Range Monitors and that the tests were performed on different dates. The date included in the licensee's working schedule for the purposes of establishing a reperformance date was the latest APRM test completion date rather than the earliest completed date. The licensee I&C Unit Supervisor indicated that he would review the indicated dates for rescheduling surveillances to assure that the dates were compatible with the earliest completed portion. The inspector noted that the discrepancy was well within the 25% allowance identified in technical specifications.

The inspector review of the interim surveillance procedures of Attachment 1 noted that the procedures were acceptable for use as a basis to establish final surveillance procedures.

The inspector also reviewed the method to assure that the required surveillance tests were completed. Each department is responsible for assuring its assigned surveillance tests are current. The licenseé utilizes a document Cold Functional Test N2-CFT-1 to list all surveillances required for Modes 4 and 5 and to sign off when they are complete as well as individual department tracking to assure assigned surveillances are completed. In addition, the planning and scheduling department is in the process of finalizing a program to schedule surveillance tests based on test date completed and technical specification frequencies.

Findings

No violations were identified.

4. Containment Integrated Leak Rate Test Report Preview Scope

The inspector reviewed the Summary Technical Report submitted to the NRC by the licensee entitled "Reactor Containment Building Integrated Leakage Rate Tests Types A, B, and C" dated April, 1986 to determine if the tests satisfied 10CFR50 Appendix J.

Discussion

The Nine Mile Point 2 Preoperational Containment Integrated Leak Rate Test (CILRT) was conducted during the period April 10, 1986 to April 14, 1986. It included a reduced pressure test run at 20 psig and a full (accident) pressure test run at 40 psig. Each test was run for 24 hours of data observation with a 4 hour temperature stabilization period before and a 5 hour period following data observation for the conduct of a superimposed leakage verification test.

Both tests were successful in that the containment leak rate demonstrated by each was within the acceptance criteria delineated in 10CFR50 Section III.A.4.(b).(1)&(2) of Appendix J (See table below). Each test was followed by a successful superimposed leakage verification test.

TEST PRESSURE (PSIG)	TEST METHOD AND TYPE OF ANALYSIS	ACCEPTANCE CRITERIA (WT. %/DAY)	TEST RESULT (WT. %/DAY) MUST BE LESS THAN ACCEPTANCE CRITERIA
20	ABSOLUTE METHOD OF MASS POINT ANALYSIS	0.75 Lt OR 0.525	0.143
20	ABSOLUTE METHOD OF TOTAL TIME ANALYSIS	0.75 Lt OR 0.525	0.238
40	ABSOLUTE METHOD OF MASS POINT ANALYSIS	0.75 La OR 0.659	0.205
40	ABSOLUTE METHOD OF TOTAL TIME ANALYSIS	0.75 La OR 0.659	0.290

Findings

No violations were identified.

5. QA Interfaces

The inspector discussed with the Supervisor QA Surveillances the QA involvement in the Power Ascension Test Program. QA is reviewing all startup test (SUT) procedures in accordance with AP-2. Inspector reviewed QA comment sheets for selected SUTs. QA will also review all completed test results. QA plans to have at least 2 QA personnel on shift to witness startup testing on an as run basis. QA is notified when each SUT is performed as a prerequisite to each SUT to facilitate QA coverage. The inspector reviewed the SUT procedure review guidance provided to the QA personnel and the checklist for completed test results evaluation.

The inspector also discussed whether QA review is provided for surveillances procedures. QA review is required per the AP-2 for safety related surveillance procedures and is ongoing.

No acceptable conditions were noted in the QA involvement.

6. Independent Measurements and Calculations

During the test procedure review, the inspector performed independent calculations to justify the methodology used to perform end point error analysis on water level measurements. The results are discussed in Section 2.2.

7. Tours of the Facility

The inspector made several tours of various areas of the facility including the control structure, diesel generation building and turbine building to observe work in progress housekeeping, cleanliness and status of construction.

No acceptable conditions were noted.

8. Exit Interview

At the conclusion of the site inspection on August 1, 1986, an exit interview was conducted with the licensee's senior site representatives (denoted in Section 1). The findings were identified and previous inspection items were discussed.

At no time during this inspection was written inspection findings provided to the licensee by the inspector. Based on the NRC Region I review of this report and discussions held with licensee representatives during this inspection, it was determined that this report does not contain information subject to 10 CFR 2.790 restrictions.

ATTACHMENT 1

Interim Surveillance Procedures Reviewed:

N2-OSP-LOG-S001	Shift Checks, Revision 0 dated June 24, 1986.
N2-OSP-LOG-D001	Daily Checks, Revision 0 dated May 20, 1986.
N2-OSP-RMC-W@002	Reactor Mode Switch Functional Test of Refueling Interlocks, Revision 0 dated April 9, 1985.
N2-OSP-SLS-M001	Standby Liquid Control Explosive Valve Continuity Check and Valve Lineup Verification.
N2-OSP-SLS-Q001	Standby Liquid Control Pump, Check Valve and Relief Valve Test, Revision 1 dated June 9, 1986.
N2-OSP-SLS-R001	Standby Liquid Control Manual Initiation Actuation, Revision 1 dated May 20, 1986.
N2-OSP-SLS-R002	Standby Liquid Control Heat Traced Piping and Storage Tank Heater Operability Test, Revision 1 dated May 26, 1986.