U.S. NUCLEAR REGULATORY COMMISSION REGION I

Report Nos. 50-220/91-14
50-410/91-14

Docket Nos. 50-220
50-410

License No. DPR-63 and NPF 69

Licensee: Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Facility Name: Nine Mile Point 1 & 2

Inspection At: Oswego, New York

Inspectors: H. J. Kaplan — 8-8-91
H. J. Kaplan, Senior Reactor Engineer — date
Materials Section, Engineering Branch
Division of Reactor Safety

C. D. Beardslee — 8/8/91
C. D. Beardslee, Reactor Engineer, — date
Intern, Division of Reactor Safety

Approved by: E. H. Gray — 8/8/91
E. H. Gray, Chief, Materials Section — date
Engineering Branch, Division of
Reactor Safety

Inspection Summary: Unannounced inspection on July 8-12, 1991 (Report No. 50-220; 50-410/91-14).

Areas Inspected: Problem Reports are being replaced by the Deviation/Event Report system. The areas inspected are the conversion of Problem Reports to Deviation/Event Reports, Nine Mile Point's compliance to Bulletins 79-02 and 79-14, the Corrosion of the Refueling Seal Platform, the Erosion/Corrosion Program, and Water Control Chemistry.

Results: The inspectors determined that problem reports are not being neglected in favor of the Deviation/Event Reports (D/ERs). Additionally, it appears that the D/ER system is effective and is

being monitored and audited for its effectiveness. The Erosion Corrosion program which was reviewed appears to be on schedule for full implementation during the next refueling outage. Its progress is being satisfactorily monitored through the Niagara Mohawk Commitment Tracking system. The inspection of water chemistry control indicated that the control of reactor water conformed to Technical Specifications.

DETAILS

1.0 Overall Scope

The topics the inspectors covered were the conversion of Problem Reports to Deviation/Event Reports, Nine Mile Point's compliance to Bulletins 79-02 and 79-14, the corrosion of the refueling seal platform, the Erosion/Corrosion Program, and Water Control Chemistry.

2.0 Problem Report (PR) to Deviation/Event Report (D/ER) Conversion

Scope

Nine Mile Point Units 1 & 2 employees previously used Problem Reports (PRs) to identify problems within the plant. The system was found not to be as effective as originally intended. Therefore, Nine Mile Point developed a new system called Deviation/Event Report (D/ER) which is intended to replace the PRs. A system which is more effective will increase the safety of the plant. As of April 1, 1991 , any employee who discovers a problem will report it using the new system.

The intent of this inspection was to evaluate the new D/ER system and the conversion of PRs to D/ERs.

Findings

The Nuclear Division Interfacing Procedure (NIP-ECA-01) which explains the use of the D/ER system includes the following important aspects:

1) Defines the responsibilities of each organization, individual and the Nuclear Division which are required to take action by this procedure.
2) Defines the conditions and events for which personnel shall use D/ERs.
3) Defines the General Requirements of this procedure.
4) Defines the procedure for initiating, evaluating, dispositioning, implementing and closing the D/ER, and who is responsible for each of these functions.

One aspect of importance is that the plant manager is informed of all D/ERs and has responsibility for dispositioning them. Additionally, the D/ER Coordinator, who is responsible for tracking the reports through to completion, consistently informs the plant manager of any overdue D/ERs.

At this time, Nine Mile Point is revising and simplifying the D/ER procedure as a result of employee comments. The effectiveness and implementation of this system will be determined by various audits and QA surveillances. In addition, any open PRs which are not closed within one year will be converted to D/ERs. Several PRs and D/ERs were examined.

2.1 Problem Report (PR) #355 - Refueling Seal Platform (37700)

The inspector reviewed the status of PR #355, which currently remains open. This PR documented the condition that the Unit 1 refueling seal platform is subject to corrosion and at some time in the future could become significantly weakened. If the refueling seal platform were to fail, the drywell would become flooded with contaminated water.

Nine Mile Point hired a consultant (Impell), in 1990, to analyze the situation and recommend a solution. Impell compared the corrosion rate of the refueling seal platform to more than two times the corrosion rate of the torus and from their analysis, made two recommendations.

1) Perform Ultrasonic Testing, during the next refueling outage, to determine the thickness of the platform.
2) Perform an analysis, during the next refueling outage, to recreate the design basis of the platform (The original design basis is missing).

It was determined that Nine Mile Point is tracking this situation in the Niagara Mohawk Commitment Tracking System (NCTS). The inspector viewed a printout from the NCTS which verified that NMP intends to perform Ultrasonic Testing, in concurrence with the consultants recommendation, during the next refueling outage. In addition, NMP has indicated to the NRC that they will perform a structural analysis of the platform since they could not retrieve the original design data.

The inspectors concluded that PRs are not being neglected in favor of D/ERs.

2.2 Problem Report #1290 - Bulletin 79-02, 79-14 Compliance (37700)

The inspector reviewed the status of Bulletins 79-02, Pipe Support Base Plate Designs Using Expansion Anchor Bolts, and 79-14, Seismic Analysis for As-Built Safety Related Piping Systems. The completeness of NMP's compliance was verified in the following manner.

The inspectors reviewed correspondence with respect to these bulletins and determined that NMP informed the NRC of their intended actions on behalf of the bulletins. In 1984, an inspection was conducted (84-15) whose function, in part, was to view the licensee's actions in response to Bulletins 79-02 and 79-14. There occurred six open items as a result (84-15-01 through 84-15-06). These open items have been closed during the following inspections.

Open Item #	Inspection Report #
84-15-01	87-23
84-15-02	89-04
84-15-03	85-06
84-15-04	87-23
84-15-05	89-04
84-15-06	88-20

2.3 Deviation/Event Reports

The inspector reviewed six material related reports from a listing of the 475 Deviation/Event Reports. These were identified as follows: D/ER 2-91-Q-0434 Potential Cracking in Hydraulic Control Unit (HCU) Charging Water Riser, D/ER 2-91-Q-0455 Stress Fractures in Air Regulator Lines, D/ER 2-91-Q-0241 Overloaded Condenser Nozzle, D/ER 2-91-Q-0435 Reactor Vessel Head Stud Cracking Potential, D/ER 2-91-Q-0344 Potential Fouling of Service Water System and D/ER 2-91-Q-0262 Potential Check Valve Failures.

All reports discussed the problems in detail and included recommended appropriate corrective actions. None of the items constituted immediate safety concern.

Conclusions

The inspectors were satisfied that Problem Reports are not being neglected in favor of the Deviation/Event Reports. In addition, the recent implementation of the D/ER system appears to be effective and the inspectors feel that the system is being satisfactorily monitored and audited for its effectiveness.

3.0 Erosion Corrosion Program (73753)

Scope

In response to Generic Letter (GL) 89-13, the licensee was required to develop and implement an Erosion/Corrosion Program. The licensee responded to the NRC (NMP1L 0553, Dec. 10, 1990) that they were in the process of developing this program. The intent of this inspection was to determine that the program is being developed, is on schedule to be implemented and will be tracked and audited for its effectiveness.

Findings

All correspondence with respect to GL 89-13 was gathered and it was determined that the licensee has satisfactorily responded to the requirements of the Generic Letter.

The Nine Mile Point 1 "Service Water Systems Erosion Corrosion Review Program (ECPR-N2-SWP-001)" was reviewed. The primary purpose of this program is to study erosion/corrosion effects in piping to prevent material failure, personal injury, and loss of electric generation. This is accomplished in several steps:

1) A system Design Review is performed
2) A physical inspection is performed
3) Acceptability of erosion/corrosion data is determined
4) Corrective action is performed
5) Authorities and responsibilities of maintaining and auditing the program are defined

In addition to the program description, the Niagara Mohawk Commitment Tracking System (NCTS) was viewed and printouts were obtained which confirm that the progress of the E/C Program is being tracked. The first required response to GL 89-13 was tracked on the system and has been closed. As a result of the first response letter, the licensee added several more categories of activities to the system, and their status is "in progress."

Conclusions

The Erosion/Corrosion Program appears to be on schedule for complete implementation during the next refueling outage. It's progress is being satisfactorily monitored through the NCTS.

4.0 Water Chemistry Control (84750)

Scope

The objective of this inspection was to review the licensee's control of the reactor water chemistry for Units 1 and 2.

Findings

The periods reviewed covered 4/1/91 to 7/11/91 for Unit 1 and 2/1/91 to 7/1/91 for Unit 2. The governing procedures as reviewed by the inspector were N1-CSP-1V for Unit 1 and N2-CSP-1V for Unit 2 with NDD-CHE as an adjunct corporate specification. The controlling attributes as determined by Technical Specifications were conductivity $<= 1.0$ umho/cm, chlorides $<= .2$ ppb and pH 5.6 - 8.6. The records showed that the values were well within specification requirements for both units during Mode 1 (power operation). In

accordance with EPRI guidelines the licensee also monitored sulfate < 15 ppb. On March 31, 1991, Unit 2 experienced a sulfate excursion while the plant was in a cold shutdown. The inspector reviewed the licensee's internal report dated 4/15/91 which attributed the excursion (108 - 135 ppb) to an intrusion of resins into the reactor in November 1990 during the refueling outage. The sulfate has been restored to acceptable levels by a combination of cleaning and flushing. Presently, the concentration is 5 ppb.

The inspector reviewed several Quality Assurance surveillance reports from each Unit covering chemistry activities. All reports were found to be detailed and comprehensive. Several minor findings were reported. The reports indicated that appropriate corrective actions were taken.

Conclusions

The inspection indicated that the control of reactor water conformed to Technical Specifications. Unit 2 experienced a sulfate excursion which was attributed to a spent fuel resin intrusion. This condition was corrected by a combination of flushing and cleaning of various systems.

5.0 Exit Meeting

An exit interview was held on July 12, 1991 with members of the licensee's staff noted in Table 1. The inspector discussed the scope and findings of the inspection.

TABLE 1

Persons Contacted

Niagara Mohawk Power Corporation

*J. A. Perry, Vice President Quality Assurance
*W. Drews, Plant Manager, Unit I
*M. J. McCormick, Plant Manager, Unit II
*W. Hansen, Supervisor Quality Service
*M. Jaworsky, Site Licensing
*J. T. Pavel, Site Licensing
*M. Carson, Regulatory Compliance, Unit I
*G. Brownell, Regulatory Compliance, Unit II
*J. Burton, Manager Quality Assurance Operations, Unit I
*C. Beckhan, Manager Quality Assurance Operations, Unit II
*C. Senska, Supervisor Chemistry, Unit I
*G. Corell, Manager Chemistry, Unit I
*J. J. Blasiak, Chemistry Manager, Unit II
*M. Becker, Nuc. Gen. Spec. Chemistry, Unit II
*A. Vierling, Acting Manager Technical Services
*L. Klosowski, Gen. Supervisor Nuclear Design
*J. T. Conway, Mgr. Tech. Support, Unit II
B. Hammelman, Inspection Development
J. Marshall, Inspection Development
L. D. Kassakatis, Safety Analysis
P. George, Asst. Mgr. Structural Design, Unit I
L. Pisano, Work Control Group

U. S. Nuclear Regulatory Commission

W. Schmidt, Senior Resident Inspector
*R. Laura, Resident Inspector.

*Denotes those attending the exit meeting