June 9, 2005

Mr. James A. Spina
Vice President Nine Mile Point
Nine Mile Point Nuclear Station, LLC
P.O. Box 63
Lycoming, NY 13093

SUBJECT: NINE MILE POINT NUCLEAR STATION - NRC LICENSE RENEWAL INTERIM INSPECTION REPORT 05000220/20050006 AND 05000410/2005006

Dear Mr. Spina:

On March 4, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed the principal portion of an inspection of your application for renewal of the Nine Mile Point Nuclear Station (NMPNS), Units 1 and 2 license. The inspection focused on two areas of your license renewal application. The inspection reviewed your methodology to address the requirement under 10 CFR 54.4(a)(2) to identify, in general, non-safety systems that affect the function of safety systems and the inspection also focused on the efficacy of selected aging management programs proposed in your application. The enclosed inspection report documents the interim inspection observations which were discussed on March 4, 2005, with Mr. Tim O'Connor and other members of your staff. An additional on-site inspection was conducted during the week of April 4, 2005. The results of that inspection were communicated to your staff on April 25, 2005.

Based on the information provided, the inspectors were unable to confirm the adequacy of the scoping of non safety-related systems that could affect the functioning of a safety-related system. Additionally, the inspectors were unable to confirm that several of your proposed aging management programs could reasonably manage the effects of aging. As a consequence of the additional actions you are taking, described in your letter to the NRC dated March 3, 2005 (ML050680270), to recover the quality of your license renewal application, the NRC Regional Office, in consultation with the Office of Nuclear Reactor Regulation (NRR), has decided to delay the completion of this inspection. The NRC has further determined it would be appropriate to provide our interim inspection observations. The NRC will complete our inspection of your application for a renewed license subsequent to the completion of the quality enhancements that you proposed to the license renewal application.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of NRC's document

management system (ADAMS). ADAMS is accessible from the NRC web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Raymond K. Lorson, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-220, 50-410
License Nos. DPR-63, NPF-69

Enclosure: Inspection Report 05000220/2005006 and 05000410/2005006

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.	50-220, 50-410
License Nos.	DPR-63, NPF-69
Report Nos.	05000220/2005006 and 05000410/2005006
Licensee:	Nine Mile Point Nuclear Station, LLC (NMPNS)
Facility:	Nine Mile Point, Units 1 and 2
Location:	348 Lake Road Oswego, NY 13126
Dates:	February 14 - 18, February 28 - March 4, 2005 April 4 - 8, 2005
Inspectors:	M. Modes, Team Leader, DRS F. Bower, Sr. Resident Inspector, PBAPS T. O'Hara, Reactor Engineer, DRS C. Hott, Reactor Engineer, DNMS S. Chaudhary, Reactor Engineer, DNMS T. Burns, Reactor Engineer, DRS
Approved by:	Raymond K. Lorson, Chief Plant Support Branch 1 Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000220/2005006 and 05000410/2005006; February 14 - 18, February 28 - March 4, 2005, and April 4 - 8, 2005, Nine Mile Point Nuclear Power Station, Unit 1 and Unit 2; Interim report of inspection of the proposed aging management procedures and compliance with 10 CFR 54.4(a)(2) for the Nine Mile Point Nuclear Power Station application for a renewed license.

This inspection of license renewal activities was performed by six region-based inspectors. The inspection program followed was NRC Manual Chapter 2516 and NRC Inspection Procedure 71002. This inspection did not identify any "findings" as defined in NRC Manual Chapter 0612.

Inspection Summary

Based on the information provided, the inspectors were unable to confirm the adequacy of the scoping of non safety-related systems, structures, or components whose failure would affect the ability of a safety-related system to perform its safety function.

Additionally, the inspectors were unable to confirm that several of the proposed aging management programs could reasonably manage the effects of aging. Specifically, these program guidance documents contained undocumented variances from the GALL, or incomplete technical standards and requirements that prevented the inspectors from completing their review. The programs reviewed during this inspection that will require additional inspection included:

- Closed and Open Cycle Cooling
- Systems Walkdown Program
- Non-Environmentally Qualified Electrical Cables and Connectors Program
- Non-Environmentally Qualified Fuse Holder Program

Based on the number of open issues associated with this inspection, these results are considered interim and will be reviewed during an additional follow-up inspection of this application.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Other

a. License Renewal

(1) Inspection Scope

This inspection was conducted by NRC Region I inspectors in order to verify that documentation, procedures, guidance, and personnel, appropriately supported the license renewal application. This inspection also reviewed the proposed methodology used to comply with 10 CFR 54.4(a)(2). The efficacy of the methodology was verified by independently evaluating selected systems, structures, and components (SSCs) against the rule and comparing the results with those obtained using the applicant's proposed methodology. The systems were selected based on insights from the staff's review of the license renewal application, uniqueness, safety impact, and risk insights. The inspection evaluated whether the scoping process adequately included non safety-related systems, structures and components whose failure could prevent safety-related SSCs from accomplishing a safety function. Consideration of hypothetical failures that could result from system interdependencies that are not part of the current licensing bases and that have not been previously experienced was not required. Additionally, the inspectors noted that the scoping criterion required under 10 CFR 54.4(a)(2) did not apply to functions identified in 10 CFR 54.4(a)(3) "Regulated Events."

This inspection also reviewed the proposed procedures for managing the effects of aging in the systems, components, and structures determined, previously, to be within the scope of license renewal and for which an aging effect applied. The aging management program could be either an existing program, an existing program modified for the purpose of aging management, or a new program credited with managing the aging effects on within scope systems at the Nine Mile Point Nuclear Power Station (NMPNS). The inspectors selected a sample of aging management procedures to verify the adequacy of the applicant's documentation and to determine whether adequate evaluations, including consideration of industry experience and historical information, were conducted to determine all the applicable aging effects. For selected aging management procedures, systems were reviewed to determine whether the proposed aging management procedure would adequately manage the effects of aging in that system. The inspectors interviewed applicant personnel to confirm the accuracy of the license renewal application conclusions. For a sample of plant systems and structures determined to require aging management, the inspectors performed a visual examination of accessible portions of the systems to observe aging effects in those systems. These determinations were used to assess whether there was reasonable assurance that the effects of aging would be adequately managed and the intended function of the SSCs maintained through the period of extended operation.

(2) Observations and Findings

Scoping of Non Safety-Related Systems, Structures, and Components

The inspectors reviewed the applicant's proposed method for identifying non safety-related SSCs whose failure would affect the ability of a safety-related system to perform its safety function. The applicant developed a custom methodology that was based, in part, on guidance contained in NEI 95-10, Appendix F, "Industry Guidance on Revised 54.4(a)(2) Scoping Criterion (Non-Safety Affecting Safety)," Revision 4. The inspectors did not review the scoping of equivalent anchors in non safety-related SSCs directly connected to safety-related SSCs. Additionally, the inspectors did not review the scoping of non safety-related SSCs explicitly identified in the current licensing basis, such as pipe whip restraints in Unit 2.

The inspectors reviewed the scoping of non safety-related piping in proximity to safety-related equipment. The applicant utilized the preventive option described in Interim Staff Guidance ISG09, "Identification and Treatment of Structures, Systems, and Components Which Meet 10 CFR 54.4(a)(2) in Addressing the Question of Proximity." This approach required NMPNS to consider all non safety-related piping, fittings, and equipment containing water or steam to be within the scope of license renewal if located in the vicinity of safety-related equipment. Non safety-related piping, fittings, and equipment were considered to be in the vicinity of safety-related equipment if located in the same building, corridor, and floor as safety-related equipment.

For NMPNS Unit 1 non safety-related SSCs (not directly connected to safety-related SSCs), Table 2.2-1, of the license renewal application, listed 20 systems that were not within the scope of license renewal. The inspectors selected the following six Unit 1 systems for a focused review to determine whether the applicant's scoping assessment was correct:

- Main Turbine and Auxiliary System
- Moisture Separator Reheater Steam System
- Screen and Pumphouse Building HVAC System
- 480 VAC System
- Control Room Miscellaneous
- Yard System

For NMPNS Unit 2 non safety-related SSCs not directly connected to safety-related SSCs, Table 2.2-2 of the license renewal application identified 55 systems and structures that were not within the scope of license renewal. The inspectors selected the following six Unit 2 systems and structures for a focused review to determine whether the applicant's scoping assessment was correct:

- Main Steam Line Isolation Valve Seals
- Radioactive Liquid Waste
- Radwaste Building
- Drywell Cooling
- Service Water Chemical Treatment
- Turbine Main System

The inspectors reviewed supporting documents and performed walkdowns of selected plant areas with applicant personnel. The walkdowns were conducted to verify that the applicant correctly implemented the scoping methodology by applying the "preventive option" to non safety-related SSCs not directly connected to safety-related SSCs as described in the NMPNS license renewal application and bases documents.

The inspectors noted that the license renewal bases documents supporting the scoping of non safety-related SSCs not directly connected to safety-related SSCs were not up-to-date or readily auditable. The inspectors also noted that there were several different databases of action items requiring resolution and/or license renewal application bases document revision. The applicant had previously initiated deviation reports (NM-2004-5741, NM-2004-5118 and NM-2005-613) to use the corrective action program to address these problems.

During a review of non safety-related portions of the 4160 volt electrical system, the inspectors observed that the "cascading criteria" specified in the applicant's license renewal bases document and NEI 95-10, Appendix F, Revision 4 had not been applied to these systems and had not been identified in the license renewal application. The applicant initiated deviation report NM-2005-654 to document these omissions. Additionally, the inspectors identified errors in the applicant's equipment database (Q-list). The database errors were entered into the corrective action program (deviation reports NM-2005-650, NM-2005-674 and NM-2005-843). Based on this review, the inspectors identified several systems and components that did not appear to have been properly included within the scope of license renewal. These systems and components included for Unit 1 the extraction steam system, main turbine and control room air-conditioning system sealant; and for Unit 2 the drywell coolers, circulating water system, liquid radwaste, service water chemical injection, and domestic water. The applicant initiated deviation reports NM-2005-671, NM-2005-844, NM-2005-867, and NM 2005-840, to enter these scoping problems into the corrective actions program.

During the inspection, the applicant stated they planned to re-perform their scoping evaluations to meet the requirements of 10 CFR 54.4(a)(2). The inspectors were unable to confirm the adequacy of the applicant's scoping of non safety-related SSCs not directly connected to safety-related SSCs. This area will require additional review during the follow-up inspection.

One Time Inspection Program

The One-Time Inspection Program is a new aging management program intended to verify the effectiveness of other aging management programs, or verify an aging management program is not required, by confirming that unacceptable degradation has not occurred and the intended function of a component will be maintained during the extended period of operation. Additionally, the One-Time Inspection Program will be used to confirm that an aging effect is occurring so slowly as to not affect the component or structure's intended function. The One-Time Inspection Program will be implemented prior to the period of extended operation.

The applicant plans to use the One-Time Inspection Program to implement the programs for water chemistry, small bore Class 1 piping, and selective leaching. The bases documents for the One-Time Inspection Program were not complete or up-to-date and did not identify the specific scope (SSCs covered by this program). The bases documents are expected to be revised as part of the corrective actions taken to resolve deficiency reports NM-2004-5741 and NM-2004-5118.

The One-Time Inspection Program, as proposed, is an inspection program without preventive actions. The applicant plans to use American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI techniques to monitor and inspect parameters for degradation. The terminology and methodology for selecting samples are planned to be consistent with EPRI TR-107514, "Age-Related Degradation Inspection Method and Determination."

At the time of this inspection, the implementing procedures for this program were not complete. However, based on discussions with applicant personnel and reviews of supporting documents, the inspectors concluded that the applicant has plans to develop adequate guidance for implementation of the One-Time Inspection Program. Therefore, the One-Time Inspection Program will provide reasonable assurance that the program will adequately manage the effects of aging.

Closed-Cycle Cooling Water System Program

The closed-cycle cooling water system program is an existing program that manages the loss of material and fouling of components exposed to closed-cycle cooling water environments. The applicable piping systems include: the Unit 1 and Unit 2 reactor building closed loop cooling systems; the Unit 1 control room heating, ventilation, and air-conditioning system; the Unit 2 control building chilled water system; the heat exchanger jacket water cooling portions of the Unit 1 emergency diesel generator system; the Unit 2 standby diesel generator protection system; and, a portion of the Unit 1 turbine building closed loop cooling system. The program activities included chemistry monitoring, surveillance testing, and component inspections.

The closed-cycle cooling water system program consists of existing station programs that will, after enhancement, be generally implemented in a manner consistent with the 2001 version of NUREG-1801 "Generic Aging Lessons Learned" (GALL), Section

XI.M21. The applicant noted an exception from the GALL involving the use of demineralized water in lieu of water chemically treated with corrosion inhibitors in all in-scope systems, except for the emergency diesel generator (EDG) jacket water cooling systems. The EDG jacket water corrosion inhibitor concentrations are in accordance with vendor recommendations in lieu of the Electric Power Research Institute (EPRI) guidance referenced in the GALL. In addition, the inspectors identified that neither the bases document nor the application identified the use of oxygen injection to inhibit corrosion in reactor building closed loop cooling system as an exception to the GALL.

The inspectors selected the Unit 1 closed-cycle cooling water system for a detailed review. The inspectors reviewed the bases document for the system and noted that NMPNS plans to enhance the existing maintenance, chemistry, surveillance testing and administrative processes and procedures to implement the system aging management program. In particular, the applicant plans to use functional surveillance testing and inspections to verify that loss of material due to corrosion has not negated the heat removal capability of these systems. An ultrasonic wall thickness testing program has been developed for system piping below 4 inches in diameter and an expansion of the program to larger bore piping is planned for system piping that is not subject to inspection under another program. The closed-cycle cooling water system bases document indicated the water chemistry would be periodically sampled.

The inspectors identified some exceptions to the GALL report that had not been identified in the license renewal application. For example, the inspectors noted that acceptance criteria and tolerances were not established based on system design parameters and functions as specified in the GALL for some of the system implementing programs and procedures. Specifically, criteria were not established to identify the acceptable limits for key parameters (cracking, loss of material, and loss of heat transfer) that the closed-cycle cooling water system program was designed to manage. The applicant initiated DER 2005-848 to document this issue and ensure that it was addressed for all aging management programs during the implementation phase of the NMPNS license renewal project.

Additionally, the system bases document stated that station programs and procedures would require enhancement to formalize eddy current inspection and direct inspections for heat transfer surface fouling and for loss of material. The GALL specifies performing tests to verify heat removal capability. Neither the closed-cycle cooling water system program bases document nor the application identified that inspections are planned in lieu of testing to verify heat removal capability.

The inspectors concluded the NMPNS bases documents and implementing procedures were not complete and up-to-date. The bases documents are expected to be revised as part of the resolution of deficiency reports NM-2004-5741 and NM-2004-5118. Based on the noted exceptions to the GALL that were not identified in the license renewal application along with the program document and implementing procedure problems discussed above, the inspectors were unable to complete their assessment of this program.

Open-Cycle Cooling Water System Program

The Open-Cycle Cooling Water System (OCCWS) Program is an existing program that manages aging of components exposed to raw, untreated water. The program activities included:

(a) surveillance and control of biofouling (including biocide injection);

(b) verification of heat transfer capabilities for components cooled by the service water system;

(c) inspection and maintenance;

(d) walkdown inspections; and,

(e) review of maintenance, operating and training practices and procedures.

Inspections could include visual, ultrasonic testing, and eddy current testing methods. The OCCWS is based on the recommendations of GL 89-13. The OCCWS Program includes checking for erosion-corrosion of system components. The inspectors noted that the Unit 1 service water systems erosion-corrosion review program document was administratively outdated. The applicant initiated DER 2005-841 to address this problem.

The applicant had previously identified program weaknesses in DERs NM-2004-5028 and NM-2004-5135 that are scheduled for resolution within the next year. The OCCWS program bases document does not credit eddy current testing to detect aging effects and eddy current testing did not appear to be a GL 89-13 Program commitment. Although not credited by the OCCWS Program as an enhancement to existing plant programs, applicant personnel indicated that a preventive maintenance program optimization process was in the process of adding periodic eddy current testing to the preventive maintenance activities performed on some plant heat exchangers. These preventive maintenance program enhancements were being accomplished in conjunction with the heat exchanger program administrative instruction (GAI-REL-04). Plans to credit eddy current testing in the license renewal basis document and the application were documented in an NRC license renewal request for additional information (LRI-RAI)-110.

The applicant plans to use functional surveillance testing and inspections as part of the OCCWS program to indirectly verify that loss of material due to corrosion has not negated the heat removal capability of the applicable systems. The inspectors noted that DER-NM-2002-4792 required that the reference heat transfer rate criteria for a heat exchanger thermal performance test be increased and also required a plant modification to replace a temperature control valve (TCV-70-137). The inspectors noted that the DER had been closed out, but also noted that a thermal test performance procedure provided did not appear to have been updated to include the new acceptance criteria. The failure to complete the corrective actions adversely impacted the ability of the

OCCWS Program to manage the effects of aging during the period of extended operation. Therefore, the inspectors were unable to complete the OCCWS program assessment.

Systems Walkdown Program

The systems walkdown program (SWP) is an existing program requiring enhancement to manage the aging effects for accessible external surfaces of selected systems and structures. The SWP is credited with managing the loss of material from external surfaces (aging effect) of pumps, valves, piping, bolts, heat exchangers, tanks, expansion joints, electrical penetrations, electrical enclosures and cabinets, HVAC components, and other carbon steel components. Program activities include system engineer walkdowns (i.e., field evaluations of system components to assess system performance and material condition), evaluation of inspection results, and appropriate corrective actions.

Although the SWP is not described in the GALL, the program was evaluated against the ten (10) elements described in Appendix A of NUREG-1800. At the time of this inspection, the SWP had not been revised to include the enhanced detail provided by NMPNS in response to requests for additional information from the NRC staff. The bases documents are expected to be revised as part of the resolution of DERs NM-2004-5741 and NM-2004-5118. NMPNS has begun to revise and enhance their current procedure (S-TDP-REL-0101) for performing system walkdowns to incorporate license renewal and aging management requirements. The applicant initiated DER NM-2005-787 to document that administrative controls for implementing periodicity have not been implemented and developed training change order ENG-2003-71 to develop training to identify and detect aging using EPRI guidance.

The SWP is credited with managing aging of electrical penetrations, electrical enclosures and cabinets, and structures. However, the inspectors determined that the SWP did not appear to have been intended to provide for aging management of structures or electrical systems. The applicant initiated DER-NM-2005-842 to document this issue. Based on the number of outstanding items, the inspectors were unable to complete their review of this program.

Water Chemistry Control Program

The water chemistry control program is an existing program credited with managing the aging effects in the reactor vessel and internals and connected primary systems, as well as the condensate and feedwater systems at both Units. The aging effects are managed by the monitoring and control of system chemistry to minimize the effects of corrosion and crack initiation in system materials. The water chemistry program conforms to the guidelines in the boiling water reactor vessel and internals project (BWRVIP-29) and EPRI TR-103515. The inspectors reviewed the chemistry procedures and the sampling results for both Units and confirmed that the requirements of BWRVIP-29 and EPRI TR-103515 were being followed.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an aging management program (AMP). The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the systems, structure and components (SSCs) will be maintained through the period of extended operation.

Flow-Accelerated Corrosion Program

The flow-accelerated corrosion program is an existing program modified for the purpose of aging management. The program is credited with managing the erosion and corrosion aging effects in high-energy carbon and low alloy steel piping systems at both Units. The aging effects are managed by identifying erosion and corrosion inside affected system piping and by predicting wear rates to support the proactive replacement of system piping. Additionally, the program provides for periodic system reviews and visual inspections during component disassembly for repair or replacement.

The inspectors reviewed selected portions of the condensate, feedwater and main steam systems which are subject to erosion and corrosion and determined that the program was monitoring the appropriate portions of these systems. The inspectors also reviewed the piping ultrasonic testing wall thickness results from previous inspections and reviewed the CHECKWORKS computer analysis of the future wall thickness forecasts. The inspectors noted that in all instances where pre-emptive piping replacement was accomplished, the replacement piping material used was more resistant to erosion and corrosion than the original piping material.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an AMP. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation.

Boraflex Monitoring Program

The boraflex monitoring program is an existing program credited with managing the aging effects in the Boraflex spent fuel storage racks in both Units. The aging effects are managed by periodic monitoring of representative samples of the Boraflex material and through sampling of the spent fuel pool silica concentrations. The data from these monitoring programs are then used to verify that the required 5% sub-criticality margin is maintained in both spent fuel pools. The inspectors reviewed the operation of the spent fuel pool cooling systems and the records of silica sampling and past inspection reports from Boraflex coupon examinations. Based upon this review, the inspector, concluded that the licensee had implemented an appropriate program for managing the aging of the Boraflex material in the spent fuel racks.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation

Compressed Air Monitoring Program (Unit 1only)

The compressed air monitoring program (Unit 1) is an existing program modified to manage the aging effects in Unit 1 compressed air systems. The aging effects are managed by periodic maintenance and inspection of the system compressors and air dryers and by inspections of the exterior system piping. The inspectors reviewed the results of the maintenance and inspection procedures completed on the system compressors and air dryers. The inspectors noted that the external piping inspections were not sufficient to monitor the internal condition of the system piping. Thus, the licensee has committed to develop an additional program feature to monitor the internal condition of the system piping before the period of extended operation.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation

BWR Vessel Internals Program

The BWR vessel internals program is an existing program credited with managing the material and crack growth aging affects in reactor vessel internal systems. The aging effects are managed by material inspections and by controlling the reactor water chemistry. The inspectors reviewed the inspection program for the reactor vessel internals in both Units. The inspectors reviewed the records of past inspections and numerous DERs which had been generated to document the reporting and evaluation of past inspection results. The licensee's reactor vessel internals inspection program is based upon the BWRVIP program documents. All of the BWRVIP reports, except BWRVIP-76, have been approved by the NRC for the aging management of BWR reactor vessel internals.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation

Torus Monitoring Program (Unit 1 only)

The torus monitoring program is an existing program credited with managing the degradation of the torus wall thickness aging effects. The aging effects are managed by periodically measuring the wall thickness and by comparing the results to predicted values developed from past thickness measurements.

The inspectors reviewed the data collected during the last set of torus wall measurements and the projections for future wall thickness measurements. The present thickness measurements and the present corrosion rates predict that the torus wall thickness will remain above the minimum thickness through the period of extended operation. The program commits the licensee to measuring the torus wall thickness for each outage and recalculating the time to reach minimum wall thickness.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation.

Non-Environmentally Qualified (EQ) Electrical Cables and Connections Program

The non-EQ electrical cables and connections program is a new program credited with managing the aging effects of in-scope cables and connections that are not subject to the environmental qualification requirements of 10 CFR 50.49. The aging effects result from exposure to adverse localized environments caused by heat, radiation, and moisture. Connections include connectors, splices, electrical penetration assembly pigtails, terminal blocks, and fuse blocks.

The aging effects will be managed by inspecting a representative sample of cables and connections for jacket surface anomalies in each identified adverse localized environment every ten years. If unacceptable anomalies are identified, the inspection sample will be expanded and corrective actions will be implemented. The team reviewed program bases documents, DERs, and industry guidance. The inspectors also conducted interviews and performed walkdowns with plant personnel. The inspector noted that the program documentation, procedures and standards that would be used to implement this program were not complete. Therefore, the inspectors were unable to complete the assessment of this program.

Non-EQ Fuse Holder Inspection Program

The non-EQ fuse holder inspection program is a new program credited with managing the aging effects of fuse holder metallic clamps at Nine Mile Point Nuclear Station and that is not subject to the environmental qualification requirements of 10 CFR 50.49. The aging effects result from exposure to environmental stressors such as radiation,

moisture, fatigue, mechanical stress, vibration, electrical transients, oxidation, corrosion, thermal cycling, and chemical contamination.

The aging effects are planned to be managed by monitoring the condition of all in-scope fuse holder metallic clamps subject to the applicable environmental stressors every ten years. This condition monitoring is planned to be achieved by thermography, contact resistance testing, or other appropriate proven testing method. The team reviewed program bases documents, DERs, and industry guidance. The inspectors also conducted interviews and performed walkdowns with plant personnel.

In the applicant's response to RAI 3.6.2.C-3, dated December 10, 2004, the applicant narrowed the extent of the program to inspect only those fuse holders located in adverse localized environments of heat and radiation. The applicant did this with reference to Interim Staff Guidance ISG-5 that states, "Fuse holders, are considered as electrical connections and, thus, are subject to GALL XI.E1...requirements." GALL XI.E1, which describes the non-EQ cables and connections program, require only inspections in adverse localized environments due to heat, radiation, and moisture. As a result the applicant excluded inspection of fuse holder metallic clamps that were subject to the additional stressor environments identified by ISG-5. The applicant will expand the program to again include inspection of all in-scope fuse holder metallic clamps that are subjected to the additional environmental stressors of oxidation, moisture, vibration, thermal cycling, electrical transients, mechanical stress, fatigue, corrosion, and chemical contamination.

It was not apparent to the inspectors how the applicant will determine which environmental stressors, referred to in ISG-5, are applicable. It was also unclear to the inspectors what criteria would be used by the applicant to inspect those fuse holders that are subjected to the applicable environmental stressors, once identified. The inspectors concluded that the applicant is still in the conceptual phase of development for this new program. As such, there is not enough information at this time to provide reasonable assurance the effects of aging will be adequately managed and the intended function of the in-scope fuse holders will be maintained through the period of extended information.

BWR Penetrations Program

The BWR penetrations' program is an existing program that is incorporated into the BWR Vessel Internals Program (BWRVIP). The BWR penetrations' program is credited with managing the crack initiation and growth aging effects in BWR penetrations by implementing chemistry controls to minimize inter-granular stress corrosion cracking.

The aging effects are managed through augmented inspection, flaw evaluation, and repair as necessary in conformance with the NRC approved guidelines of BWRVIP-49 and BWRVIP-27. The inspectors reviewed BWR penetrations' inspection results, BWR penetrations' inspection schedules, BWRVIP documents, nuclear engineering reports, and DERs. The team also conducted interviews with plant personnel. Inspection results and DERs documented the applicant's ability to identify and evaluate BWR penetrations'

flaws. The penetration schedules and scope were consistent with the guidelines of BWRVIP-49 and BWRVIP-27.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by the BWR penetrations' program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the BWR penetrations will be maintained through the period of extended operation.

Fire Protection Program

The fire protection program is an existing program credited with managing the fire barrier aging effects in fire protection systems. The aging effects are managed by periodic inspection of fire barrier penetration seals, fire barrier walls, ceilings, and floors, and all fire rated doors. The program is credited with managing loss of material aging effects in fuel oil lines of the diesel driven fire pump through periodic testing of the pump. This aging management program will also manage the aging effects of in-scope carbon dioxide and halon suppression systems once enhancements are made to periodically inspect these systems. The inspectors reviewed the fire protection program as well as supporting documents to verify the effectiveness of the fire protection program. The inspectors also conducted interviews and performed walkdowns of various fire protection systems with plant personnel.

The team identified an exception to the GALL in that Nine Mile Point Nuclear Station measures fire door frame clearances every three months and the GALL specifies inspecting these door clearances every two months. The applicant has agreed to clarify this practice as an exception to the GALL requirements in their next license renewal supplement.

The inspectors concluded the applicant had conducted adequate evaluations as well as industry experience and historical reviews to determine aging effects managed by the fire protection program. The applicant has provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the fire protection systems will be maintained through the period of extended operation.

Fire Water System Program

The fire water system program is an existing program modified for the purpose of aging management credited with managing the loss of material and biofouling aging effects in fire water systems in Nine Mile Point Station. The aging effects are managed by periodic maintenance, testing, and inspection of system piping and components in accordance with codes and standards.

The team reviewed program bases documents, completed testing and maintenance procedures, DERs, design documents, and industry guidance. The inspectors also

conducted interviews and performed walkdowns of the fire water system with plant personnel. A large part of the fire water system is maintained in a pressurized state which provides the applicant with constant system integrity status. The piping internals are routinely inspected at various locations throughout the system for loss of material and biofouling. Enhancements the applicant has committed to include ultrasonic wall thickness testing at representative points in the system of above grade piping, as well as inspections of below grade piping, on the basis of opportunity, in accordance with the buried piping and tanks program.

The inspectors concluded the applicant had conducted adequate evaluations, as well as industry experience and historical reviews to determine aging effects managed by the fire water system program. The applicant has provided or is planning to provide adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the fire water system will be maintained through the period of extended operation.

Overhead Heavy Load and Light Load Handling Systems

The overhead heavy load and light load handling systems program (crane inspection program) is an existing program that will be modified to be consistent with the requirements of NUREG-1801, Section XI.M23. The program manages loss of material due to corrosion of cranes. Program activities include periodic maintenance and pre-operational equipment inspections. The crane inspection activities are based on the applicable industry standards and NUREG-0612 guidance.

The inspectors reviewed the program described in the Program Attribute Assessment document. The crane inspection program at NMP is implemented through existing plant maintenance procedures, and are monitored in accordance with the maintenance rule requirements prescribed by 10 CFR 50.65. The inspectors also reviewed the maintenance rule implementing procedures and the inspection results to determine the effectiveness and relevance of the maintenance rule program to the aging management program. The inspectors observed that the program attributes were consistent with the GALL. Also, the team noted that the inspections have not identified any corrosion or material fatigue related degradation. Crane rails and other structural components of the crane are visually inspected on a routine basis for degradation, and functional tests are performed to assure their integrity.

The inspectors concluded the applicant had conducted adequate evaluations, as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation.

Selective Leaching of Materials Program

The selective leaching of materials program is a new program that is credited with managing the effects of aging in components that are susceptible to selective leaching. This program is a part of the “one time” inspection program discussed in Section B2.1.21 of the application. The program covers the aging management of potentially susceptible components, such as valve bodies, valve bonnets, pump casings, and heat exchanger components in plant systems.

The inspectors reviewed the program described in the Program Attribute Assessment document, License Renewal Application, Section B2.1.21, and the draft maintenance/inspection procedure. The inspectors observed that the scope of the procedure identified areas, commodities, and components that require aging management review for one time inspection. The selective leaching of materials program includes the detection of loss of material and/or mechanical integrity due to selective leaching on internal surfaces of components made of gray cast iron, bronze, or brass that are exposed to raw water, treated water, or brackish water. The draft procedure appeared to be consistent with Section XI.M33 of the Generic Aging Lesson Learned (GALL) Report.

The inspectors concluded the applicant had conducted adequate evaluations, as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation.

Structural Monitoring and Masonry Wall Program

The structural monitoring and masonry wall program is an existing program credited with managing the aging effects in structures, including masonry walls. The masonry walls program is a part of a comprehensive ‘Structural Monitoring Program’ that upon enhancement will be consistent with GALL Report, Section XI.S6, ”Structural Monitoring Program,” and Section XI.S5, “Masonry Walls Program.”

The team reviewed the License Renewal Application, Sections B2.1.27 and B2.1.28, and the program Attribute Assessment document. The team observed that the structural monitoring, including masonry walls, are covered by the 10 CFR 50.65, Maintenance Rule. The NRC Regulatory Guide 1.160, Rev.2, and NUMARC 93-01, Rev. 2, provide guidance for an acceptable structural monitoring, including masonry walls, program. Also, NRC Bulletin 80-11, “Masonry Wall Design, NRC Information Notice 87-67, “Lessons Learned from Regional Inspections of Licensee Actions in Response to IE Bulletin 80-11” provide an acceptable basis for a masonry wall program. The team noted that the program, as detailed and discussed in the MR implementing procedures for Structural/Masonry Wall Program, was consistent with the GALL Report. The current program implemented for satisfying MR covers safety-related structures. However, a planned enhancement will include masonry fire walls in turbine buildings and

screen houses in both Units. The team reviewed the historical monitoring and maintenance inspection results to determine the effectiveness of the existing program.

The inspectors concluded the applicant had conducted adequate evaluations, as well as industry experience and historical reviews to determine aging effects managed by an AMP program. The applicant provided adequate guidance to ensure aging effects are appropriately managed. Thus, there is reasonable assurance the effects of aging will be adequately managed and the intended function of the SSCs will be maintained through the period of extended operation.

SUMMARY

Based on the information provided, the inspectors were unable confirm the adequacy of the scoping of non safety-related systems, structures, or components whose failure would affect the ability of a safety-related system to perform its safety function.

Additionally, the inspectors were unable to confirm that several of the proposed aging management programs could reasonably manage the effects of aging. Specifically, these program guidance documents contained undocumented variances from the GALL, or incomplete technical standards and requirements that prevented the inspectors from completing their review. The programs reviewed during this inspection that will require additional inspection included:

- Closed and Open Cycle Cooling
- Systems Walkdown Program
- Non-Environmentally Qualified Electrical Cables and Connectors Program
- Non-Environmentally Qualified Fuse Holder Program

Based on the number of open issues associated with this inspection, these results are considered interim and will be reviewed during an additional follow-up inspection of this application.

ATTACHMENT: SUPPLEMENTAL INFORMATION

ATTACHMENT 1

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel:

M. Flaherty, Fleet Licensing Manager
S. Leonard, NMP Licensing
J. Dosa, Principle Engineer
D. Shaw, Supervisor Licensing
G. Wrobel, Ginna Licensing
D. Wilson, Ginna Licensing
B. Holston, Manager NMP Engineering
P. Mazzaferro, NMP Site Lead License Renewal
M. Fallin, NMP Anapolis Lead

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Aging Management Programs

NMP2-BFX-001, Spent Fuel Rack Boraflex Degradation Monitoring Program, Revision 0, July 1997
Program Attribute Assessment Unit 1 Compressed Air Monitoring Program, Revision 1, 10/14/04
NDD-VIP, Revision 3; 11/1/04; Reactor Vessel And Internals Program (VIP)
ECPN 2002, Revision 8, 2/19/04, NMP2 Flow-Accelerated Corrosion Program Carbon Steel Piping Review Plan High Energy Systems
Unit 2 Boraflex Monitoring Program Attribute Assessment, Revision 1, 8/5/04

NMP1 Torus Corrosion Monitoring Program (CPR-N1-T-001, Revision 3, 4/01), 4/24/01
N1-MPM-201-001, Revision 2, Torus Corrosion Monitoring Program
Torus Corrosion Monitoring Program Attribute Assessment, Revision 0, ½7/04
NMP1 Water Chemistry Program Attribute Assessment, Revision 3, 11/4/04

Audits and Self-Assessments

ECPR-N1-HE-01, Revision 0, 2/5/92; NMP1 Carbon Steel and Low Alloy Piping Systems High Energy Erosion Corrosion (E/C) Review Process
ECPR-N2-HE-03, Revision 0, 7/26/90; NMP2 Carbon Steel and Low Alloy Piping Systems High Energy Erosion Corrosion (E/C) Review Process
EPCN 2002, Revision 8, 2/19/04; NMP2 Flow Accelerated Corrosion Program Carbon Steel Piping Review Plan High Energy Systems
EPCN N1-HE-001, Revision 5, 11/17/00; NMP1 Erosion/Corrosion Program Carbon Steel Piping Review Plan High Energy Systems

Calculations

SO-TORUS-M008, Revision 4, 7/21/97; Reduction In CO Loading NMP1 Torus
S18.8-94-M001, Revision 0; NMP1 Instrument Air System
S22.4WW198STAT09, Torus Corrosion Coupon: RFO-17, 11/3/03
S22.4WW198STAT01, Torus Wall Thinning Trending Analysis, Revision 13, 9/30/03
S22.4WW198STAT04, Torus Wall Thinning Trending Analysis, Revision 18, 2/27/05
S11-14-M002, 2/11/92, Vibration System 14 & 23
S13-65M001, Revision 0, 3/28/03

Corrective Action Reports (DERs)

DER-NM-1992-1345	DER-NM-2004-125	DER-NM-2003-1548
DER-NM-1992-3287	DER-NM-2004-374	DER-NM-2002-1713
DER-NM-1992-3964	DER-NM-2002-3270	DER-NM-2002-3213
DER-NM-1993-2250	DER-NM-2002-4223	DER-NM-2001-2546
DER-NM-1996-1943	DER-NM-2005-933	DER-NM-2001-1433
DER-NM-1997-3027	DER-NM-2001-1888	DER-NM-1991-373
DER-NM-1998-3594	DER-NM-2002-1711	DER-NM-1994-400
DER-NM-1999-770	DER-NM-2002-1712	DER-NM-1994-1918
DER-NM-1999-1454	DER-NM-2005-224	DER-NM-1998-1956
DER-NM-1999-4047	DER-NM-2005-314	DER-NM-2002-4605
DER-NM-2000-1184	DER-NM-2005-708	DER-NM-2003-3879
DER-NM-2000-1491	DER-NM-2002-4164	DER-NM-1995-1316
DER-NM-2004-1810	DER-NM-2004-4107	DER-NM-1995-1346
DER-NM-2002-5409	DER-NM-2004-4055	DER-NM-1995-1350
DER-NM-2003-1468	DER-NM-2004-3658	DER-NM-2001-62
DER-NM-2004-5065	DER-NM-2004-2174	DER-NM-2001-461
DER-NM-2004-3889	DER-NM-2004-751	DER-NM-2003-1319
DER-NM-2004-3425	DER-NM-2004-884	DER-NM-2004-5741
DER-NM-2004-1663	DER-NM-2003-915	DER-NM-2001-5745

DER-NM-2003-1055
DER-C-2001-1377
DER-1995-1992
DER NM-2004-5741
DER NM-2004-5118
DER NM-2003-4116
DER NM-2005-613
DER NM-2005-635
DER NM-2005-650
DER NM-2005-654
DER NM-2005-671
DER NM-2005-674
DER NM-2005-840
DER NM-2005-843
DER NM-2005-844
DER NM-2005-867

Drawings

LR-18011-C, Sheet 1, Revision 0, 7/21/79; Breathing and Service Air Systems P&I Diagram
LR-18011-C, Sheet 2, Revision 0, 5/12/04; Instrument Air Systems P&I Diagram
LR-18011-C, Sheet 3, Revision 0, 5/12/04; Reactor Building Instrument Air Systems P&I Diagram
LR-18011-C, Sheet 4, Revision 0, 5/12/04; Instrument Air Systems P&I Diagram Instrument Air Dryers 94-168, 94-169
LR-18011-C, Sheet 5, Revision 0, 5/13/93; Turbine Building Instrument Air Systems P&I Diagram
LR-18011-C, Sheet 6, Revision 0, 2/22/95; Turbine Auxiliary Extension Building And Screen And Pump House Instrument Air Systems P&I Diagram
B-18042-C, Sheet 001, Revision 23, 2/5/03; City Water Piping P&I Diagram
B-18042-C, Sheet 002, Revision 1, 10/24/02; City Water Piping P&I Diagram
PID-50-3, Sheet 001, Revision 3, 4/11/97; Piping & Instrumentation Diagram Domestic Water
PID-50A-25, Revision 25, 8/28/02; Piping & Instrumentation Diagram Domestic Water
PID-50B-20, Revision 20, 5/10/01; Piping & Instrumentation Diagram Domestic Water
Neil PXX-083, Sheet 3 of 3, Revision 0, 4/02; Nuclear Electric Insurers Limited, General Arrangement Insurance Plan
Neil PXX-083, Sheet 1 of 3, Revision 0, 4/02; Nuclear Electric Insurers Limited, General Arrangement Insurance Plan
Neil PXX-083, Sheet 2 of 3, Revision 0, 4/02; Nuclear Electric Insurers Limited, General Arrangement Insurance Plan
PID-104B-11, Revision 11, 8/12/98; Piping & Instrumentation Diagram Standby Diesel Generator System
D-81-89, Revision 7, 5/18/82; Standby Diesel Gen. Fuel Oil Stor. Tank
D-78-158, Revision 12, 7/20/82; Miscellaneous Details, Niagara Mohawk/Stone & Webster
D-78-157, Revision 7, 5/18/80; Standby Diesel Gen, Fuel Oil Stor. Tank Niagara Mohawk/Stone & Webster

C-78-114, Revision 2, 6/1/80; Internal Ladder Details, Niagara Mohawk/Stone & Webster
12177-EM-13C, Revision 6, 8/4/85; Machine Location Section Standby Diesel Gen. Bldg.
12177-EM-13B, Revision 5, 8/4/85; Machine Location Plans & Section Standby Diesel Gen. Bldg.
C-18002-C, Sheet 1, Revision 35, 5/19/95; Steam Flow, Main Steam & High Pressure Turbine P & I Diagram
C-18002-C, Sheet 2, Revision 20, 8/23/93; Steam Flow, Main Steam & High Pressure Turbine P & I Diagram
C-18002-C, Sheet 3, Revision 12, 7/9/94; Steam Flow, Main Steam & High Pressure Turbine P & I Diagram
C-18003-C, Revision 36, 5/1/94; Condensate Flow P & I Diagram
C-18004-C, Revision 13, 7/13/94; Feedwater Flow Low Pressure P & I Diagram
C-18005-C, Sheet 1, Revision 27, 5/2/93; Feedwater Flow High Pressure P & I Diagram
C-18005-C, Sheet 2, Revision 25, 5/9/94; Feedwater Flow High Pressure P & I Diagram
C-18017-C, Revision 46, 8/11/94; Emergency Cooling System P & I Diagram
PID-1B-7, Revision 7, 9/18/00; Piping & Instrumentation Diagram Main Steam
PID-1C-6, Revision 6, 7/28/95; Piping & Instrumentation Diagram Main Steam
PID-1E-15, Revision 15, 4/11/02; Piping & Instrumentation Diagram Main Steam
12177-PID-1D-5, Revision 5, 3/3/040; Piping & Instrumentation Diagram Main Steam
PID-6A-21, Revision 21, 4/15/02; Piping & Instrumentation Diagram Feedwater System
PID-6B-23, Revision 23, 11/4/02; Piping & Instrumentation Diagram Feedwater System
12177-PID-8A-7, Revision 7, 5/10/94; Feedwater Heaters & Extraction Steam Systems
PID-35C-25, Revision 25, 12/17/02; Piping & Instrumentation Diagram Reactor Core Isolation Cooling
PID-37B-20, Revision 20, 4/1/02; Piping & Instrumentation Diagram Reactor Water Cleanup System
PID-37C-17, Revision 17, 4/30/03; Piping & Instrumentation Diagram Reactor Water Cleanup System

Evaluations

NER-15-016, NMP1 Torus External Walkdown Results Documentation, 9/13/02
NER-10-021, Revision 0, 4/15/99; NMP1 Shroud Vertical Weld Reinspection Evaluation Guidelines
NET-113-01, Evaluation of the NMP2 Spent Fuel Racks For The General Electric 9 X 9 and 10 X 10 Fuel Types, Revision 1, 7/3/96
NET-093-04, Revision 0, 11/28/94; Effect Of Boraflex Gaps And Shrinkage On The Reactivity State Of The NMP2 Fuel Storage Racks
8202-00-0072, Revision 1, 7/92; Criticality Analysis For NMP1, Phase II Spent Fuel Storage Racks
NET-167-01, Evaluation of the NMP2 Spent Fuel Racks for the General Electric 8 X 8, 9 X 9, and 10 X 10 Fuel Types, 2/6/01
NET-212-01; Test/Inspection Report NMP1 Boraflex Surveillance Coupons S11 and S12, 4/2/03

NET-198-01; Test/Inspection Report NMP2 Short Length Boraflex Surveillance Coupon No. 3, 5/24/02
NET-110-01; Evaluation of the Nine Mile Point 1 Boraflex Spent Fuel Racks for the General Electric 9 X 9 and 10 X 10 Fuel Types, 3/26/96
NET-141-01; Test/Inspection Report NMP1 Boraflex Surveillance Coupons S7 and S8, 5/11/99
NET-167-02; Test/Inspection Report NMP1 Boraflex Surveillance Coupons S9 and S10, 5/14/02
NET-231-01; Test/Inspection Report NMP2 Full Length Boraflex Panel After 10 Years and Short Length Boraflex Surveillance Coupon No. 4, 3/18/04
NET-147-01; Test/Inspection Report NMP2 Five Year Full Length Boraflex Panel and Short Length Boraflex Surveillance Coupon No. 2, 5/18/00
SIR-03-045, Revision 0, 4/03: Evaluation of Nine Mile Point Unit 1 Top Guide
NER-1M-081, Revision 1, 5/14/04; NMP1 Top Guide Inspection and Evaluation (BWRVIP-26) and Core Plate (BWRVIP-25) Evaluation
NER-2M-081, Revision 1, 3/9/04; NMP2 BWR Vessel And Internals Project (BWRVIP) Top Guide Inspection and Evaluation (BWRVIP-26)
NER-1M-075, Revision 2, 6/24/04; NMP1 In-vessel Core Spray Annulus Piping And Sparger Inspection And Evaluation
NER-2M-074, Revision 0, 5/13/03; NMP2 BWR Vessel And Internals Project (BWRVIP) Core Spray Internals Inspection And Evaluation(s) (BWRVIP-18 and BWRVIP-48)
NRC letter dated 12/2/99; Final Safety Evaluation Of BWR Core Spray Internals Inspection And Flaw Evaluation Guidelines (BWRVIP) (TAC No. M96219)

NDE Inspection Data Sheets

NDE Report 2-2.07-04-0009, 3/31/04, NMP2
NDE Report 2-2.07-04-0010, 3/31/04, NMP2
NDE Report 2-2.07-04-0011, 3/30/04, NMP2
NDE Report 2-2.07-04-0012, 3/31/04, NMP2
NDE Report 2-2.07-04-0013, 4/1/04, NMP2
NDE Report 2-2.07-04-0014, 3/31/04, NMP2
NDE Report 2-2.07-04-0015, 3/31/04, NMP2
NDE Report 2-2.07-04-0016, 3/30/04, NMP2
NDE Report 2-2.07-04-0017, 3/30/04, NMP2
NDE Report 2-2.07-04-0018, 3/31/04, NMP2
NDE Report 2-2.07-04-0019, 3/31/04, NMP2
NDE Report 2-2.07-04-0020, 4/3/04, NMP2
NDE Report 2-2.07-04-0021, 4/3/04, NMP2
NDE Report 2-2.07-04-0022, 4/5/04, NMP2
NDE Report 2-2.07-04-0023, 4/3/04, NMP2
NDE Report 2-2.07-04-0024, 4/5/04, NMP2
NDE Report 2-2.07-04-0025, 4/3/04, NMP2
NDE Report 2-2.07-04-0046, 3/24/04, NMP2
NDE Report 2-2.07-04-0048, 3/28/04, NMP2
NDE Report 2-2.07-04-0050, 4/3/04, NMP2
NDE Report 2-2.07-04-0218, 4/9/04, NMP2
NDE Report 2-2.07-04-0223, 4/3/04, NMP2

NDE Report 2-2.07-04-0049, 4/3/04, NMP2
NDE Report 2-2.07-04-0217, 4/9/04, NMP2
NDE Report 2-2.07-04-0222, 4/3/04, NMP2
NDE Report 2-2.07-04-0044, 4/3/04, NMP2
NDE Report 2-2.07-04-0045, 3/28/04, NMP2
NDE Report 2-2.07-04-0047, 3/24/04, NMP2
NDE Report 2-2.07-04-0029, 4/3/04, NMP2
NDE Report 2-2.07-04-0030, 4/3/04, NMP2
NDE Report 2-2.07-04-0031, 4/3/04, NMP2
NDE Report 2-2.07-04-0032, 4/3/04, NMP2
NDE Report 2-2.07-04-0033, 4/3/04, NMP2
NDE Report 2-2.07-04-0026, 3/30/04, NMP2
NDE Report 2-2.07-04-0027, 4/3/04, NMP2
NDE Report 2-2.07-04-0028, 3/30/04, NMP2
NDE Report 2-2.07-04-0039, 3/30/04, NMP2
NDE Report 2-2.07-04-0040, 3/29/04, NMP2
NDE Report 2-2.07-04-0041, 3/29/04, NMP2
NDE Report 2-2.07-04-0034, 4/3/04, NMP2
NDE Report 2-2.07-04-0035, 4/3/04, NMP2
NDE Report 2-2.07-04-0036, 4/3/04, NMP2
NDE Report 2-2.07-04-0037, 4/3/04, NMP2
NDE Report 2-2.07-04-0038, 4/3/04, NMP2
NDE Report 2-2.07-04-0042, 3/29/04, NMP2
NDE Report 2-2.07-04-0043, 3/31/04, NMP2

Operating Experience

OE19775
OE19741
WOE1370
OE19623
PE41228
OE19295

Requests for Additional Information

RAI B2.1.33-1
RAI B2.1.33-2
RAI B2.1.23-3
RAI B2.1.33-4
RAI B2.1.23-5

Miscellaneous

Commitment Tracking System Item 504533-23, Enhance the NMP1 Systems Walkdown Program, in accordance with LRA Sections A1.1.35 and B2.1.33 to Ensure the Applicable Aging Effects Are Discovered and Evaluated for License Renewal

Commitment Tracking System Item 504533-24, Enhance the NMP2 Systems Walkdown Program, in accordance with LRA Sections A1.1.35 and B2.1.33 to Ensure the Applicable Aging Effects Are Discovered and Evaluated for License Renewal
NMPNS License Renewal Aging Management Program (LR-AMP) Basis Document, Unit 1 and 2, Systems Walkdown Program Attribute Assessment, Revision 1, dated August 6, 2004
S-TDP-REL-0101, Systems Walkdown Program, Revision 00, dated August 17, 2004
EAI-REL-01, Conduct of System Engineers and Component Specialists/FIN Engineers, Revision 01, dated February 17, 2005
NEP-DES-03, Plant Condition Monitoring, Revision 05, dated February 8, 2003
DER NM-2004-5741, License Renewal drawings, reports and documents need to be corrected and updated before project closeout to reflect the "As-NRC-Approved," dated December 22, 2004
DER NM-2004-5118, Issues Raised as a Result of the NRC License Renewal Audit, dated November 8, 2004
DER NM-2005-787, Incomplete Adherence to Procedural Requirements of S-TDP-REL-0101, dated February 25, 2005
TCO ENG-2003-71, Develop Training for the Identification and Detection of Aging Issues, dated September 18, 2003
DER-NM-2005-842, LR AMR Inspection: LRA Credits System Walkdown Program for Components Not Covered by the Program, dated March 2, 2005 (status: unscreened)
NMP1 Open-Cycle Cooling Water System Program Attribute Assessment, Revision 1, dated October 25, 2004
ECPR-N1-SWP-001, Nine Mile Point Unit 1 Service Water Systems Erosion Corrosion Review Program, Revision 0, dated January 23, 1992
N2-TDP-REL-0104, Service Water System Problems Affecting Safety-Related Equipment Program Plan, Revision 00, dated July 8, 1994
N1-TTP-033, Reactor Building Closed Loop Cooling Heat Exchanger Performance Test, Revision 2, dated September 23, 1994
DER-NM-2002-4792, RBCLC Heat Exchanger Performance Test (N1-TTP-033) Calculations Utilize Incorrect Values for Design Heat Exchanger Shell Flow and LMTD, dated November 7, 2002 (status: closed)
DER-NM-2004-5028, N2-TDP-REL-0104 Procedure Does Not Accurately Reflect the Current Program at NMP2 to Address GL 89-13 Issues and No Equivalent Unit 1 Document Exists, dated November 2, 2004 (status: screened)
DER-NM-2004-5135, Lack of an Adequate Heat Exchanger Program has Led to Some Heat Exchangers Being Adversely Impacted by Fouling and Corrosion, dated November 8, 2004, (status: screened)
DER-NM-2005-841, LR AMR Inspection Identified that GL 89-13 Program Commitments Are Not Referenced and Associated Procedure Steps Are Not Protected As Required by the Procedure Writers Guide, dated March 2, 2005 (status: unscreened)
Response to Audit Item 85, in NMPNS Letter (NMP1L-1880), dated October 29, 2004
Commitment Tracking System Item 504533-09, Develop and Implement a One-Time Inspection Program for NMP1 Consistent with NUREG-1801, Section XI.M32, as Credited for License Renewal in LRA Sections A1.1.28 and B2.1.20.Enhance the NMP1 Systems Walkdown Program, in accordance with LRA Sections A1.1.35 and B2.1.33, to Ensure the Applicable Aging Effects Are Discovered and Evaluated for License Renewal

Commitment Tracking System Item 504533-10, Develop and Implement a One-Time Inspection Program for NMP1 Consistent with NUREG-1801, Section XI.M32, as Credited for License Renewal in LRA Sections A1.1.28 and B2.1.20.Enhance the NMP2 Systems Walkdown Program, in accordance with LRA Sections A1.1.35 and B2.1.33, to Ensure the Applicable Aging Effects Are Discovered and Evaluated for License Renewal

NMPNS License Renewal Aging Management Program (LR-AMP) Basis Document, Unit 1 and 2, One Time Inspection Program Attribute Assessment, Revision 2, dated October 25, 2004

EPRI TR-107514, Age-Related Degradation Inspection Method and Determination

NEI 95-10, Appendix F, Industry Guidance on Revised 54.4(a)(2) Scoping Criterion (Non-Safety Affecting Safety), Revision 4

NMP License Renewal Guideline (LRG)-02, License Renewal Scoping & Screening, Revision 4

LRG-04, Aging Management Review for Electrical Commodities, Revision 2, dated September 10, 2003

NMP License Renewal Guideline, License Renewal Aging Management Review, Revision 1, February 6, 2003

NMP Unit 1, Scoping & Screening and Aging Management Review of NSR Piping, Revision 1, dated March 26, 2004

NMP Unit 2, Scoping & Screening and Aging Management Review of NSR Piping, Revision 1, dated March 26, 2004

Main Turbines and Auxiliary Systems (MT) Scoping & Screening for NMP1, dated November 27, 2005

Reheat Steam System Scoping and Screening for NMP1, dated February 24, 2003

Electric Steam Boiler (ESB) Scoping and Screening for NMP1, dated December 17, 2002

Screen and Pump House HVAC Scoping & Screening for NMP1, dated January 31, 2003

480 VAC Scoping & Screening for NMP1, dated March 25, 2004

Control Room Miscellaneous Scoping & Screening for NMP1, dated October 14, 2003

Yard (YDS) Scoping & Screening for NMP1, dated October 20, 2003

Spares System (Spares) Component Screening for NMP1, dated January 7, 2003

Unknown System (UNK) Screening for NMP1, dated November 21, 2002

Main Steam Line Isolation Valve Seals (MSI) Scoping & Screening for NMP2, Revision 1, dated February 11, 2004

Radioactive Liquid Waste (LWS) Scoping & Screening for NMP2, Revision 0, dated September 18, 2003

Radwaste Building Scoping & Screening for NMP2, Revision 3, dated March 2, 2004

Drywell Cooling (DRS) Scoping & Screening for NMP2, Revision 0, dated September 11, 2004

Service Water Chemical Treatment System (SCT) Scoping & Screening for NMP2, Revision 1, dated September 17, 2004

Turbine Main System (TMS) Scoping & Screening for NMP2, Revision 0, dated December 9, 2003

Moisture Separators and Reheat System Scoping & Screening for NMP2, dated January 31, 2003

Yard Structures Ventilation System (HVY) Scoping & Screening for NMP2, Revision 1, dated September 14, 2004

Condensate System (CNM, CNS, CND, CAN, CNO) Scoping & Screening for NMP2, Revision 0, dated September 5, 2003

Leak Detection System (LDS) Scoping & Screening for NMP2, Revision 1, dated September 14, 2004
Turbine Building Closed Loop Cooling System (CCS) Scoping & Screening for NMP2, Revision 1, dated September 17, 2004
Auxiliary Boiler System (AB) Scoping & Screening for NMP2, Revision 0, dated September 15, 2003
Extraction Steam & Feedwater Heater Drains Scoping & Screening for NMP2, dated January 31, 2003
Residual Heat Removal System (RHS) Scoping & Screening for NMP2, Revision 0, dated September 18, 2003
EPRI 1003057 License Renewal Electrical Handbook
EPRI TR-109619 Guideline for Management of Adverse Localized Environments
EPRI TR-1011223 Aging Identification and Assessment Checklist
BWRVIP-49-A Instrument Penetration Inspection and Flaw Evaluation Guidelines
BWRVIP-27-A Standby Liquid Control System/Core Plate Inspection and Flaw Evaluation Guidelines

Procedures

N1-FST-FPP-C001 rev 6 Fire Barrier/Penetration Sealing Inspection
N1-FST-FPP-D002 rev 0 Daily Fire Door Inspection
N2-FST-FPP-R001 rev 3 Fire Rated Assemblies and Watertight Penetration Visual Inspection
S-SMP-SD rev 12 Site Doors
S-TDP-REL-0101 rev 0 System Walkdown Program
NIP-FPP-01 rev 15 Fire Protection Program
N2-FST-FPE-A001 rev 1 Fire Protection Water Pre-operational Test
N1-FST-FPE-A001 rev 1 Fire Protection Equipment Annual Inspection
S-FPM-FPM-V001 rev 2 Fire Protection System Nozzle/Piping inspection
N2-FSP-FPW-R006 rev 1 Deluge Sprinkler System Piping Inspection and Functional Test
N2-FSP-FPW-3A001 rev 4 FPW System Flow Test
GAP-HSC-02 rev 13 System Cleanliness Controls

Aging Management Reports

NMP1 & NMP2 Fire Detection and Protection System AMR rev 6
NMP1 Cables and Terminations AMR rev 7
NMP2 Cables and Terminations AMR rev 7
NMP1 & NMP2 Fire Water System Program Attribute Assessment rev 0
Non-EQ Cables and Connections Program Attribute Assessment rev 7
NMP1 & NMP2 Non-EQ Fuse Holder Inspection Program Attribute Assessment rev 7
NMP1 & NMP2 Reactor Vessel Internals Program Attribute Assessment rev 0

Reports/Self-Assessments

LER 88-09 S1 Non-Functional Fire Barrier Penetrations
FSA-2004-71 Self Assessment Fire Protection Programs
NMP1-RVIP-003 rev 1 NMP1 Reactor Vessel and Internals Inspection Plan and Schedule
NER-1M-079 rev 1 Reactor Vessel Instrument Penetration and Nozzle Welds Report
NDE Report 1-2.01-03-0140 ASME XI Visual Examination
NDE Report 2-2.01-04-0192 ASME XI Visual Examination

LIST OF ACRONYMS

AMP	Aging Management Program
BWRVIP	Boiling Water Reactor Vessel Internals Program
DER	Deviation Event Report
EDG	Emergency diesel generator
GALL	Generic Aging Lessons Learned
LRA	License Renewal Application
NMPNS	Nine Mile Point Nuclear Power Station
OCCWS	Open-Cycle Cooling Water System
RAI	Request for additional information
RBCLC	Reactor building closed loop cooling
SSCs	Systems, structure and components
SWP	Systems Walkdown Program