U.S. NUCLEAR REGULATORY COMMISSION

REGION I

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Report No:	50-410/98-12
Licensee:	Niagara Mohawk Power Corporation
Facility:	Nine Mile Point Unit 2
Location:	Oswego, New York
Dates:	June 15 - 19, 1998
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EXECUTIVE SUMMARY

Nine Mile Point 2 Nuclear Power Plant
Inspection Report No. 50-410/98-12

This inspection reviewed implementation of 10 CFR 50.65, the maintenance rule.

MAINTENANCE

- The licensee's approach to performing risk ranking of structures, systems and components (SSCs) for the Maintenance Rule (MR) was acceptable. Performance criteria for reliability and unavailability was commensurate with the assumptions in the enhanced probabilistic risk assessment (PRA) model for the sampled systems. Decisions by the expert panel, regarding performance criteria, and their knowledge of online and shutdown risk assessment were appropriate to effectively implement the requirements of the maintenance rule.

- SSC performance criteria for reliability and unavailability were conservatively established, and were directly related to the failure rates assumed in the PRA. Appropriate corrective actions were taken when an SSC failed to meet its goal, performance criteria, or experienced a functional failure. The condition monitoring program, for structures, was good and the overall material condition of the SSCs walked down was good.

- The licensee's SSC scoping, function identification, and system boundary descriptions were acceptable. However, the licensee added 13 SSCs to the MR scope after the required implementation date of July 10, 1996. The licensee was credited with identifying and correcting a violation of 10 CFR 50.65.

- The periodic assessment was timely and adequate.

- The licensee's approach to balancing unavailability and reliability adequately contributes to preventing failures of SSCs while minimizing unavailability as required by the MR.

- The licensee's systematic approach to the development of the risk monitor from the enhanced PRA model was considered a strength. The team concluded that integrating the individual plant examination of external events (IPEEE) and containment functions into the current PRA model made it a comprehensive risk evaluation tool.

- The licensee used appropriate administrative controls for the conduct of on-line maintenance. A review of completed and planned on-line work activities identified thorough risk assessments for the activities reviewed. Responsible work control staff interviewed demonstrated good knowledge and use of the risk assessment computer software.

- System engineers and operations department personnel were knowledgeable of the MR, and their associated duties and responsibilities were adequate to ensure it's implementation.

- The licensee's self assessment, provided substantial improvements to the MR program. An aggressive program was in place to continue self monitoring by the licensee.

Report Details

M1 Conduct of Maintenance (62706)

M1.1 Risk Ranking and Expert Panel

a. Inspection Scope (62706)

Paragraph (a)(1) of the maintenance rule (MR) requires that goals be commensurate with safety. Implementation of the MR using the guidance contained in NUMARC 93-01 requires that safety be taken into account when setting performance criteria and monitoring for structures, systems and components (SSCs) under (a)(2) of the rule. This safety consideration is used to determine if the SSCs functions should be monitored at the train or plant level. The inspectors reviewed the methods that the licensee established for making these safety determinations. Safety determinations and calculations for plant SSCs, made by the licensee, were also reviewed. The inspection team also reviewed the licensee's expert panel process and documentation associated with the decisions they made.

b. Observations and Findings

Risk Determination Methodology

Determining the risk significance of structures, systems, and components (SSCs), within the scope of the maintenance rule, was delineated in procedure N2-MRM-REL-0104, Rev.5, dated 6/9/98. This process was based on an enhanced PRA model developed for the individual plant examination (IPE), dated July, 1992, which also included external event models from the licensee's IPEEE, dated June, 1995. This model is a linked-event tree model developed using the computer software program RISKMAN. The calculated core damage frequency (CDF) from internal events was 3.1E-5, additional contribution to the CDF for external events included less than 1.0E-6 from seismic hazards, approximately 1.0E-6 from fires, and less than 1.0E-6 for other external hazards. A Level 2 PRA was also used to establish containment performance goals. Two hundred twenty-nine maintenance rule functions were modeled in the PRA, of those, one hundred twenty-six were of safety significance. Importance measures for establishing risk significance of a function included a risk achievement worth (RAW) of greater than 2, a risk reduction worth of less than 0.995, and for containment performance, a large early release fraction (LERF) valued at less than 0.995. Both generic and plant-specific data for component failures, unavailabilities, and initiating event frequencies were used in the PRA calculations. If an SSC function satisfied any one of these measures, it was considered to be high risk significant. A truncation level of 1.0E-11 was used to quantify the PRA results used for risk ranking. This truncation value was 6 orders of magnitude less than the overall CDF estimates, which was considered reasonable to ensure that no risk significant SSC function would be omitted from the risk ranking process.

Shutdown risk was determined qualitatively using the outage safety assessment guidelines of NUMARC 91-06, "Guidelines for Industry Actions to Assess Shutdown Management", 12/91. Control of critical shutdown functions were contained in procedure NIP-OUT-01, "Shutdown Safety", Rev.3, dated 3/31/98. Discussions with the licensee indicated that they planned to develop a shutdown risk model in the future.

A sample of SSCs that were classified as non-risk significant were reviewed by the team, along with the basis for their classification. These functions included seismic monitoring, which does not require entry into EOP, the main turbine Electric/hydraulic Control, which was reclassified as risk significant due to interface with the reactor protection system, and spent fuel pool cooling, which was also reclassified as risk significant since it was used as an alternate injection source for accident mitigation. The licensee determined that only the main steam line flow restrictors were inherently reliable, which was reasonable since they have no moving components and are part of the main steam piping. Three SSCs were evaluated and determined to be allowed to "Run-to-Failure" by the licensee. These were the spent fuel pool skimmer surge tank, process radiation monitor sample pumps and the reactor manual control transponder cards. The team reviewed the basis for the transponder cards and determined that loss of function resulted in loss of manual positioning of individual control rods and is not associated with the scram function. These determinations were adequate to the inspection team.

During the inspection, the team noted that although the control rod drive (CRD) hydraulic system had been identified as highly risk significant, the CRD pumps were not. Licensee representatives were questioned about this, since the CRD pumps supply cooling water to the recirculating pump seals and seal failure would be a small LOCA, which was a high frequency initiating event in the PRA. Licensee response to this issue indicated that CRD water was used for seal purging and closed loop cooling for seal cooling, therefore, loss of CRD water alone would not fail the recirculating pump seals. Since the pumps are not used as a primary mitigation scheme for accident mitigation, the team felt that the licensee's classification of the CRD pumps was appropriate.

Performance Criteria

Determining the performance criteria of SSCs, within the scope of the maintenance rule, was documented in procedure N2-MRM-REL-0105, Rev.5, dated 6/9/98. The inspection team reviewed performance criteria for selected systems to determine if the licensee had adequately set performance criteria under (a)(2) of the maintenance rule consistent with the assumptions used to establish the safety significance. Section 9.3.2 of NUMARC 93-01 recommends that risk significant SSC performance criteria be set to assure that the availability and reliability assumptions used in the risk determining analysis (i.e. PRA) are maintained. The licensee's program used reliability performance criteria that counted functional failures (FFs) at the system and train levels, which was consistent with the modeling in the PRA. Failures were assessed to determine if the system or train level functions were affected, but not necessarily if they were maintenance preventable. Mean failure

rates for the probability distributions (Binomial distribution for standby systems and Poisson distribution for continuously operating systems) were based on a reasonable estimate of SSC demands and accumulated operational time over the monitoring interval of twenty-four months. A 90% cumulative probability (confidence level) was chosen as the target threshold for poor performance due to an excessive number of functional failures. This value bounded the majority of expected failures, which translated to a criteria on FFs, that varied from 1 to 5 per 24 month interval at the system or train level for most risk-significant SSCs. It was also noted that the licensee had performed sensitivity analyses to evaluate the impact of actual reliability performance data from periodic assessment on the overall plant CDF value. Results showed that the increase in CDF value was within allowable limits per the EPRI PSA Application Guide when the reliability values for all risk-significant SSCs were set to the actual performance data obtained from periodic assessment. The respective system engineers, who are responsible for establishing the performance criteria for unavailability and reliability of the in-scope SSCs, use this information to establish performance criteria, subject to concurrence by the expert panel. System functions examined by the inspection team dealing with the main steam system and RCIC were found to have criteria established that was conservative from a performance perspective. Therefore, this approach was considered adequate.

Expert Panel

Expert panel responsibilities and requirements are contained in procedure NIP-REL-01, Rev.4, "Maintenance Rule", dated 3/12/98. It was determined that the licensee had established an expert panel in accordance with the guidance provided in NUMARC 93-01. The expert panel's responsibilities included review of the MR scope, risk significance of SSCs, and performance criteria selection. A quorum was defined as; one representative from operations, maintenance, systems engineering, and engineering analysis (PRA) present. The MR Coordinator acts as the non-voting chairperson for the panel. Primary voting members encompassed a minimum of 5 years plant experience on NMP2 with two members holding an SRO certification.

The minutes for five panel meetings (98-23 thru 98-27) were reviewed and team members observed panel deliberations for one panel meeting conducted during the onsite inspection week. Team review of the minutes considered the deliberations to be thorough and adequately addressed issues involved in maintenance rule implementation. Panel decisions involving determination of risk ranking and performance criteria were appropriate.

c. Conclusions

The licensee's approach to performing risk ranking of SSCs for the MR was acceptable. Performance criteria for reliability and unavailability was commensurate with the assumptions in the enhanced PRA model for the sampled systems. Decisions by the expert panel, regarding performance criteria and their knowledge of online and shutdown risk assessment were appropriate to effectively implement the requirements of the MR.

M1.2 Goal Setting and Monitoring (a)(1), Preventive Maintenance (a)(2)

a. Inspection Scope (62706)

The team reviewed Nine Mile Point 2 (NMP2) program documents in order to evaluate the process established to set goals and monitor under (a)(1) and to verify that preventive maintenance had been demonstrated to be effective for systems, structures and components (SSCs) under (a)(2) of the MR. The in-depth vertical slice assessment on each SSC included a verification that goals and performance criteria were established in accordance with safety, industry-wide operation experience was taken into consideration, appropriate monitoring and trending were being performed, and that corrective actions were taken when a SSC failed to meet its goal, performance criteria, or experienced a functional failure (FF). The team also discussed the program and performed system walkdowns to assess SSC material condition with the responsible system engineer (SE). Deep vertical slice assessments were performed on the following SSCs:

- PASS, (a)(1)
- Reactor Recirculation, (a)(1)
- Alternate Decay Heat Removal, (a)(1)
- Reactor Protection System EPA's, (a)(1)
- Instrument Air, (a)(1)
- Neutron Monitoring, (a)(1)
- DC Power Systems, (a)(2)
- Emergency Diesel Generators, (a)(2)
- Structures, (a)(2)
- Service Water, (a)(2)
- Main Steam, (a)(2)
- High Pressure Core Spray, (a)(2)
- Low Pressure Core Spray, (a)(2)

b. Observations and Findings

The team determined that reliability and availability performance criteria were appropriately established based on both the PRA data and actual historical performance. In addition, the performance criteria and goal setting for all systems reviewed were adequate.

The team reviewed goals and corrective actions established by the licensee for identified (a)(1) SSCs and found them to be acceptable. Each of the SSC functional failures reviewed were known and understood by the responsible SE, had been suitably captured in the deficiency event report (DER) program, and appropriate corrective actions were instituted. The team also discussed the program and performed a system walkdown to assess SSC material condition with the responsible system engineer. No significant problems were noted.

In addition, the team reviewed the structural monitoring program and determined that the program was good and acceptably implemented. During plant tours several members of the team inspected selected structures including tanks, supports, seismic wall, and foundations. No discrepancies were noted.

c. Conclusions

SSC performance criteria for reliability and unavailability were conservatively established, and were directly related to the failure rates assumed in the PRA. Appropriate corrective actions were taken when an SSC failed to meet its goal, performance criteria, or experienced a functional failure. The condition monitoring program for structures was good and the overall material condition of the SSCs inspected was good.

M1.3 Structures, Systems, and Components (SSCs) included within the Scope of the Rule

a. Inspection Scope (62706)

The team reviewed scoping documentation which included the NMP2's Updated Safety Analysis Report (UFSAR), Emergency Operating Procedures (EOPs), and individual SSC basis documents which identified system boundaries to determine if the appropriate SSCs were included within the licensee's MR program.

b. Observations and Findings

The licensee's Maintenance Rule Procedures S-MRM-REL-0101 and N2-MRM-REL-0104, 0105 identified the methodology for selecting SSCs and SSC functions that should be included within the scope of the rule. The licensee identified 497 of 604 individual SSC\Functions were within MR scope. The team also verified that adequate technical justification was provided for those SSCs and/or functions excluded from scope of the MR.

The team determined that the licensee's SSC scoping, SSC function identification, and system boundary descriptions were adequate with the following exception; the licensee added 13 SSCs to the scope of the rule after initial MR implementation on July 10, 1996, which was a violation of 10 CFR 50.65(b). Based on enforcement actions of the 1996 inspection, on unit 1, and the completed corrected actions, that include instituting one MR program for both units, this licensee identified and corrected violation is being treated as a Non Cited Violation consistent with Section VII.B.1 of the Enforcement Policy. **(NCV-50-410/98-12-01)**

c. Conclusions

The licensee's SSC scoping, function identification, and system boundary descriptions were acceptable. However, the licensee added 13 SSCs to the MR scope after the required implementation date of July 10, 1996. The licensee was credited with identifying and correcting a violation of 10 CFR 50.65.

M1.4 Periodic Evaluation (a)(3)

a. Inspection Scope (62706)

Paragraph (a)(3) of the rule requires that performance and condition monitoring activities and associated goals and preventive maintenance activities are evaluated at least once every refueling cycle, but, not to exceed 24 months. This evaluation should take into account industry-wide operating experience. The team reviewed Nine Mile Point's Maintenance Rule Periodic Assessment, July 10, 1996 through April 1, 1998," eight Maintenance Rule Quarterly Reports (96 Quarter 2 - 98 Quarter 1), and one Category (a)(1) Summary Report dated June 12, 1998.

b. Observations and Findings

The periodic assessment was performed in accordance with licensee Procedure S-MRM-REL-0101 and was completed within the refueling cycle and without exceeding the 24-month time period. The executive summary section of the periodic assessment summarized the licensee's progress in implementing the MR. This progress summary also documented several observations of the program's implementation and developed recommendations to correct the issues described in each observation. Furthermore, the periodic assessment tracked unavailability hours for all SSC functions within the scope of the MR. A matrix of the plant level performance criteria was included. This matrix showed the number of scrams, number of safety system actuations, number of repeat maintenance preventable functional failures (MPFFs), and unplanned capability loss factor for the assessment period. Also, the report summarized design changes, and changes in risk significance categorization of SSCs during the period. The report provided detailed information of the (a)(1) SSCs including: SSC goal setting with due dates; an action plan that describes the use of industry operating experience; adjustments to preventive maintenance activities; and the reason for entrance into the (a)(1) category.

A review of S-MRM-REL-0101, section 3.7, "Periodic Maintenance Effectiveness Assessments", and NIP-ECA-01, "Deviation/Event Report" Section 3.8, "Determining Applicability for Operating Experience" showed that ample directions were in place to assess and implement industry experience into the Maintenance Rule.

c. Conclusions

The periodic assessment was timely and adequate.

M1.5 Balancing Reliability and Unavailability (a)(3)

a. Inspection Scope (62706)

Paragraph (a)(3) of the MR requires that adjustments be made where necessary to assure that the objective of preventing failures through the performance of preventive maintenance is appropriately balanced against the objective of minimizing unavailability due to monitoring or preventive maintenance. The team reviewed the licensee's Maintenance Rule Quarterly Reports and monthly Category (a)(1) Summary Reports.

b. Observations and Findings

The licensee balanced unavailability and reliability by analyzing system performance against its unavailability and functional failure performance criteria. The licensee considers a SSC that performs within the established criteria as meeting the requirements for balancing unavailability and reliability. The team found this method acceptable (see section M1.1). If however, the performance criteria are not met, the licensee does evaluate whether a balance is being maintained. System Engineers (SE's) evaluate potential changes to the preventative maintenance (PM) program for frequency and procedural changes in order to combine PM activities to reduce overall unavailability time. The SE's also take into account non-intrusive maintenance activities that do not contribute to unavailability and the necessity of modifying performance criteria regarding the unavailability and reliability accounting. The monthly "Summary of Category (a)(1) SSCs" report and the "Maintenance Rule Quarterly Reports" adequately document the balancing activities by describing a maintenance action plan for each (a)(1) systems.

c. Conclusions

The licensee's approach to balancing unavailability and reliability adequately contributes to preventing failures of SSCs, while minimizing unavailability as required by the MR.

M1.6 Plant Safety Assessments Before Taking Equipment Out of Service

a. Inspection Scope (62706)

Paragraph (a)(3) of the MR states that the total impact on plant safety should be taken into account before taking equipment out of service for monitoring or preventive maintenance. The team reviewed the licensee's procedures and discussed the process with the MR coordinator, the key component (EPIC) coordinator, and work week supervisors. Two risk calculations were also reviewed, one that was requested by the inspection team and one that was required for performing on-line maintenance in the switchyard.

b. Observations and Findings

Two months of control room logs were reviewed by the inspection team to identify any potential risk-significant configurations that May have occurred. One potential configuration was identified, involving service water components and the reactor protection system. The licensee was requested to perform a CDF calculation of this configuration using the risk monitor developed from the enhanced PRA model. The team review of the calculation showed CDF increases where redundancy of risk-significant equipment was removed from service and correspondingly, CDF decreases when returned to service. These CDF increases were not above the safety significance criteria requiring additional assessment or compensatory measures.

A review of SAS-97-005, Rev.6, "Risk Assessment of Scheduled Maintenance Activities Involving 115Kv AC Supply Line 6", dated 9/23/97 was also performed by the team. The plant configuration created made the plant more susceptible to a loss of offsite power, since it would render the Division II switchgear unavailable. Results of the analysis showed that having the Division II emergency diesel generator operating throughout the maintenance activity, and by precluding emergent work on certain SSCs identified to be risk significant, the risk increase was acceptable. The team agreed with the licensee's conclusions.

c. Conclusions

The licensee's systematic approach to the development of the risk monitor from the enhanced PRA model was considered a strength. The team concluded that integrating the individual plant examination of external events (IPEEE) and containment functions into the current PRA model made it a very comprehensive risk evaluation tool.

M1.7 Review of On-Line Maintenance

a. Inspection Scope (62706,62707,and Temporary Instruction 2515/126)

The team examined the procedural controls and implementation of on-line maintenance activities.

b. Observations and Findings

The licensee conducted on-line maintenance activities in accordance with Generation Administrative Procedure GAP-PSH-03, "Control of On-Line Work Activities," and Operations Administrative Procedure N2-ODP-PSH-0301, "Review of Weekly Work Schedules," in concert with the station procedures for work control, planning, scheduling, and tagging. The inspector reviewed a sampling of completed and planned on-line maintenance and discussed implementation of these work activities with the responsible Work Week Managers (WWMs) and work control supervisors. The inspector determined that risk significance of all planned on-line maintenance was minimized via the pre-established cyclic and quarterly work

schedules. Specifically, the on-line surveillance testing and preventive maintenance activities were scheduled by grouping divisional safety-related systems and components into four "rolling" work weeks (Division I, II, III, and a non-divisional week). This approach helps to ensure redundant trains/systems are not subject to unavailability during the same work week, or if emergent work items impact redundant trains they can be readily identified and assessed for risk significance.

In developing weekly work schedules, the WWMs are required to implement the "safety monitor" (a risk assessment computer software program) to develop a specific Core Damage Frequency (CDF) value for each day. The WWMs are obligated to ensure that the calculated CDF value remains below an acceptable risk level. The inspector verified that the risk significance of the on-line maintenance reviewed was within acceptable limits and determined that the WWMs were very familiar with the "safety monitor" software applications. The inspector reviewed the safety and availability assessment (dated September 23, 1997) for the 115kV supply line No. 6 outage conducted in the Fall of 1997. The inspector found that the risk assessment prepared by the licensee was comprehensive and concise (also reference Section M1.6 of this report). In addition to the analytical modeling and numerical results, the assessment provided recommendations to minimize the risk of this evolution and provided contingencies in the event of certain circumstances (i.e., loss of service water, station blackout).

c. Conclusions

The licensee used appropriate administrative controls for the conduct of on-line maintenance. A review of completed and planned on-line work activities identified thorough risk assessments for the activities reviewed. Responsible work control staff interviewed demonstrated good knowledge and use of the risk assessment computer software.

M2 Engineering Support of Facilities and UFSAR Commitment Review (62706)

The inspection team reviewed and compared plant practices, procedures, and parameters to the UFSAR descriptions. Additionally, the team reviewed and compared SSC descriptions and design functions to those described in the UFSAR. and identified no discrepancies with the UFSAR.

During the reviews, the team noted that the bypass/inoperabilty annunciator function was not being maintained and tested on a consistent basis. Further review, by the team, showed that the expert panel had identified, and addressed this problem during their maintenance rule UFSAR review, although no formal preventive maintenance (PM) program had been instituted. The team determined that the testing function was properly captured and dispositioned in DER 2-95-3195 and that maintenance had been performed, although a formal program was not in place. The licensee wrote a DER to establish a formal PM program for the bypass/inoperabilty annunciators. The team reviewed the DER and found the planned corrective action acceptable.

M3 Staff Knowledge and Performance

a. Inspection Scope (62706)

The team interviewed managers, system engineers (SE), and operations department personnel to assess their understanding of the MR and their associated responsibilities.

b. Observations and Findings

Through the interviews and system walkdowns with the SE's, the team determined their system knowledge was good. Their knowledge of the MR and the implementation of the rule was acceptable.

Interviews with SROs and ROs showed they had a basic awareness of the MR and to how the rule's requirements were applied. They were less aware of PRA and risk bases for the MR, however, they knew where key information could be found and who they could contact when questions arose. A limited amount of training had been recently provided to the licensed operators. The team found this acceptable.

c. Conclusion

The system engineer and operations department personnel were knowledgeable of the MR and their associated duties and responsibilities were adequate to ensure its implementation.

M7 Quality Assurance (QA) Related to Maintenance Activities

M7.1 Self Assessment Of the Maintenance Rule Program

a. Inspection Scope (62706)

The team reviewed self assessments, performed by the licensee, in the form of quality assurance (QA) audits and surveillances to assess the effectiveness of the findings and corrective actions taken as a result of the assessments.

b. Observations and Findings

The team noted enhancements made to the MR as a result of the audits performed. The latest QA surveillance reviewed was dated May 23, 1998. The surveillance had findings in the scoping area, such as; the exclusion of some functions of components in the domestic water system, makeup water system, and the catholic protection in the main condenser. These findings were appropriately documented on DERs, as was the case in the other audits reviewed. The DER system has adequately established time constraints to insure items get resolved in a timely manner.

The team reviewed an extensive audit performed by a contractor for both units. The audit was structured much like an NRC baseline inspection of the MR, with the objective of identifying any remaining weaknesses not found during the unit 1 NRC inspection. At the same time, the audit team members were to share industry best practices with the licensee's personnel, as gathered by them from other plant examinations and MR programs. The results of the audit included in excess of 220 findings. The team reviewed the individual findings and corrective actions, and concluded that the audit results and corrective actions taken provided a substantial improvement to the maintenance rule program at Nine Mile Point.

c. Conclusion

The licensee's self assessment provided substantial improvements to the MR program. An aggressive program was in place to continue self monitoring by the licensee.

M.8 Miscellaneous Maintenance Issues

M8.1 (Closed) Escalated Enforcement Item 50-220/96-12-01: During the maintenance rule inspection conducted in October, 1996, the inspection team identified that the following SSCs were not included in the scope of the MR:

- Control Rod Indicating System
- Communications System
- Emergency Lighting
- Generator Hydrogen Cooling
- Instrument Air
- Reactor building Sumps and Drains

This team confirmed that the above systems are now in the MR program. As a result of the reviews performed by the team, during this inspection, and the MR rule improvements that resulted from the audit described in paragraph M7.1 this item is closed.

M8.2 (Closed) Unresolved Item 50-220/96-12-02: Maintenance Rule Expert Panel (MREP) effectiveness was diminished in some areas. During the Unit 1 base line MR inspection conducted in October 1996, the inspection team identified some weaknesses in the effectiveness of the Unit 1 MREP. Specifically, the inspectors identified weak documentation of risk significance decisions, the absence of guidance for the risk significance determination process, missing reviews of systems being placed in (a)(1) status, and the absence of associated goals for those (a)(1) systems. Follow-up of this issue during this inspection identified that the governing procedures for implementation of the MR at NMP are common to both units, including the MREP guidance. As documented in Deviation Event Reports (DERs) 1-96-2571, 1-97-0260, and 1-97-0257, corrective actions were taken to address the procedural weaknesses and the specific examples identified by the team to support their conclusions.

The inspector examined revision 4 of Nuclear Interface Procedure NIP-REL-01, "Maintenance Rule," and revision 5 of Maintenance Rule Manual S-MRM-REL-0101, " Maintenance Rule," and verified that changes were incorporated to provide additional guidance to the MREP members in conducting risk significance reviews and ensuring appropriate documentation of the same. The team reviewed the Unit 2 MREP meeting minutes No. 98-022 through No. 98-027, which covered the period of May 14, 1998 to June 3, 1998, and verified that MREP risk significance determinations were appropriately documented via a standardized form. The meeting minutes also included a comprehensive narrative summary of noteworthy MREP decisions. The team also observed Unit 2 MREP meeting No. 98-028, conducted on June 8, 1998, and noted good participation by all panel members and a clear and appropriately founded decision on the MR change examined by the panel.

The team concluded that this unresolved item did not constitute a violation of regulatory requirements. The weaknesses identified during the previous MR team inspection were appropriately addressed and the observed performance by the Unit 2 MREP was consistent with station procedures and the MR. This unresolved item is closed.

M8.3 (Closed) Inspector Follow Item 50-220/96-12-03: Downgrading of risk-ranking of diesel engine fire water pump. During the unit 1 baseline inspection conducted in October 1996, the inspection team identified that the risk ranking for the diesel engine fire water pump was downgraded to non-risk significant with an insufficient basis. Follow-up of the issue during this inspection identified that the NMP1 MR expert panel re-evaluated the risk significance for the fire protection and detection function involving the diesel engine fire pump and reclassified it as risk significant.

The inspector reviewed DER 1-96-2574 disposition, part 4C, which documented the reclassification decision for the pump. Additionally, the team reviewed and verified that NMP1 maintenance rule implementing procedures N1-MRM-REL-0104 and 0105 were revised to reflect the change in risk ranking. This inspector follow item is closed

M8.4 (Closed) Inspector Follow Item 50-220/96-12-04: Review of balancing of reliability and unavailability after it is completed. The inspector reviewed "Maintenance Rule Periodic Assessment," July 10, 1996-April 1 1998 which consists of eight maintenance rule quarterly reports (reference section M1.4). The inspector verified that the MPFF's that measure SSC reliability are functional failures (FF's) as per implementing procedure N1-MRM-REL 0105, Rev 2 (June 24, 1997). As per the current program, FF's are monitored against applicable SSC's. When the established number of allowable FF's is exceeded, a maintenance rule DER is initiated to determine if (a)(1) goal setting is appropriate. The DER procedure, NIP-ECA-01, includes FF/MPFF determination guidance as well as instructions for (a)(1) goal setting. This inspector follow item is closed

M8.5 (Closed) Escalated Enforcement Issue 50-220/96-12-05: Ineffective goals and monitoring established for the (a)(1) systems (Containment nitrogen and reactor recirculation). The systems containment nitrogen and reactor recirculation were corrected as explained in the preceding paragraph M8.1. This escalated enforcement item is closed.

X1 Exit Meeting Summary

The team discussed the progress of the inspection with licensee representatives on a daily basis and presented the inspection results to members of management at the conclusion of the inspection on June 19, 1998. The licensee management acknowledged the findings presented.

The team asked whether any materials examined during the inspection should be considered proprietary. The licensee indicated that none of the materials provided to the team were proprietary information.

PARTIAL LIST OF PERSONS CONTACTED

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LIST OF INSPECTION PROCEDURES USED

IP 62706 Maintenance Rule

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-220/96-12-01	(EEI)	Failure to include a number of SSCs within the scope of the rule.
50-220/96-12-02	(URI)	The expert panel's ineffectiveness, including untimely reviews associated with (a)(1) systems.
50-220/96-12-03	(IFI)	Engineering evaluation to provide a basis for the risk ranking downgrade of the diesel fire pump.
50-220/96-12-04	(IFI)	Review of balancing of reliability and unavailability after it is completed.
50-220/96-12-05	(EEI)	Ineffective goals and monitoring established for the (a)(1) systems (Containment nitrogen and reactor recirculation).

Open/Closed

50-410/98-12-01	NCV	Licensee identified and corrected violation of 10 CFR 50.65(b) involving 13 SSCs added to the scope of the rule after initial MR implementation.