

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION I 475 ALLENDALE ROAD KING OF PRUSSIA, PA 19406-1415

November 10, 2010

Mr. Sam Belcher Vice President Nine Mile Point Nine Mile Point Nuclear Station, LLC P.O. Box 63 Lycoming, NY 13093-0063

# SUBJECT: NINE MILE POINT NUCLEAR STATION – NRC EVALUATION OF CHANGES, TESTS, OR EXPERIMENTS AND PERMANENT MODIFICATIONS TEAM INSPECTION REPORT 05000220/2010007 AND 05000410/2010007

Dear Mr. Belcher:

On October 1, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Nine Mile Point Nuclear Station, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on October 1, 2010, with Mr. Thomas Lynch, Plant General Manager, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. In conducting the inspection, the team reviewed selected procedures, calculations and records, observed activities, and interviewed station personnel.

Based on the results of this inspection, no findings were identified.

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

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Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000220/2010007 and 05000410/2010007 w/Attachment: Supplemental Information

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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.:	05000220/2010007; 05000410/20100007
Licensee:	Nine Mile Point Nuclear Station, LLC (NMPNS)
Facility:	Nine Mile Point, Units 1 and 2
Location:	Oswego, New York
Inspection Period:	September 13 through October 1, 2010
Inspectors:	<ul> <li>M. Balazik, Reactor Inspector, Division of Reactor Safety (DRS), Team Leader</li> <li>K. Young, Senior Reactor Inspector, DRS</li> <li>S. Ibarrola, Reactor Inspector, DRS</li> <li>C. Williams, Reactor Inspector, DRS (in-training)</li> </ul>
Approved By:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

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# SUMMARY OF FINDINGS

IR 05000220/2010007, 05000410/2010007; 09/13/2010 – 10/01/2010; Nine Mile Point Nuclear Station, Units 1 and 2; Engineering Specialist Plant Modifications Inspection.

This report covers a two week on-site inspection period of the evaluations of changes, tests, or experiments and permanent plant modifications. The inspection was conducted by three region based engineering inspectors and one inspector in training. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

No findings were identified.

#### **REPORT DETAILS**

#### 1. REACTOR SAFETY

## Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

# 1R17 <u>Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications</u> (IP 71111.17)

# .1 <u>Evaluations of Changes, Tests, or Experiments</u> (32 samples)

# a. Inspection Scope

The team reviewed two safety evaluations to determine whether the changes to the facility or procedures, as described in the Updated Final Safety Analysis Report (UFSAR), had been reviewed and documented in accordance with 10 CFR 50.59 requirements. In addition, the team evaluated whether Constellation had been required to obtain NRC approval prior to implementing the changes. The team interviewed plant staff and reviewed supporting information including calculations, analyses, design change documentation, procedures, the UFSAR, the Technical Specifications (TSs), and plant drawings to assess the adequacy of the safety evaluations. The team compared the safety evaluations and supporting documents to the guidance and methods provided in Nuclear Energy Institute (NEI) 96-07, "Guidelines for 10 CFR 50.59 Evaluations," as endorsed by NRC Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," to determine the adequacy of the safety evaluations.

The team also reviewed a sample of thirty 10 CFR 50.59 screenings for which Constellation had concluded that no safety evaluation was required. These reviews were performed to assess whether Constellation's threshold for performing safety evaluations was consistent with 10 CFR 50.59. The sample included design changes, calculations, and procedure changes.

The team reviewed the safety evaluations that Constellation had performed and approved during the time period covered by this inspection (i.e., since the last modifications inspection) not previously reviewed by NRC inspectors. The screenings and applicability determinations were selected based on the safety significance, risk significance, and complexity of the change to the facility.

In addition, the team compared Constellation's administrative procedures used to control the screening, preparation, review, and approval of safety evaluations to the guidance in NEI 96-07 to determine whether those procedures adequately implemented the requirements of 10 CFR 50.59. The reviewed safety evaluations and screenings are listed in the attachment.

#### b. Findings

No findings were identified.

#### .2 <u>Permanent Plant Modifications</u> (13 samples)

# .2.1 Unit 2, Replacement of Residual Heat Removal System (RHS) Vent and Drain Valves

#### a. <u>Inspection Scope</u>

The team reviewed a modification (Engineering Change Package (ECP) 10-000021) that replaced vent valves (2RHS\*V211 and 2RHS\*V212) and drain valves (2RHS\*V218 and 2RHS\*V219) on RHS system piping. Valves 2RHS\*V211 and 2RHS\*V212 are installed as double isolation valves for venting purposes only. Valves 2RHS\*V218 and 2RHS\*V219 are installed as double isolation valves for draining purposes. The valves also provide a test connection to pressurize a portion of the RHS piping (2-RHS-012-125-1) for check valve 2RHS\*V16C surveillance testing. The modification was implemented because the original valves were leaking by and obsolete. The replacement valves were bellows globe valves that were readily available. The new valves were needed to mitigate leak by and increase the efficiency of surveillance testing of check valve 2RHS\*V16C.

The team conducted the review to ensure that the design bases, licensing bases, and performance capability of the RHS system had not been degraded by the modification. The team reviewed Constellation's installation work orders, which included review of the adequacy of the post-modification testing results. The team interviewed the engineering staff regarding the design, installation, and testing of the new valves to assess the adequacy of the modification. The team reviewed various documents to determine if the installation of the new valves was accomplished in accordance with design assumptions and if the performance of the valves was acceptable. The team also confirmed that surveillance tests, operational procedures, and drawings had been appropriately updated to reflect the design change. The team reviewed condition reports (CRs), RHS system health reports, and completed surveillance procedures to determine if reliability or performance issues resulted from the modification. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

# .2.2 Unit 1, Replacement of Undervoltage Relays for the Electromagnetic Relief Valves (ERVs)

# a. Inspection Scope

The team reviewed a modification (ECP-EC20090061) that replaced obsolete undervoltage relays (RLY-01-102A/27, RLY-01-102B/27, RLY-01-102C/27, RLY-01-102D/27, RLY-01-102E/27, RLY-01-102F/27) with an equivalent model in the automatic depressurization system (ADS)/ERV system circuits. The function of the relays is to provide alarm and indication in the control room of an undervoltage condition

for the ERVs. The modification was implemented because the original undervoltage relays were obsolete.

The team conducted the review to ensure that the design bases, licensing bases, and performance capability of the ADS/ERV undervoltage system circuits had not been adversely affected by the modification. The team reviewed Constellation's installation work orders, which included review of the adequacy of the post-modification testing results. The team interviewed the engineering staff regarding the design, installation, calibration, and testing of the new relays to assess the adequacy of the modification. The team reviewed various documents to ensure the new relays were installed in accordance with design assumptions and instructions. The team also confirmed that surveillance tests, operational procedures, and drawings had been appropriately updated to reflect the design change. The team reviewed CRs, ADS/ERV system health reports, and completed surveillance procedures to determine if reliability or performance issues resulted from the modification. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

- .2.3 <u>Unit 2, Replacement of Crossover Valve (2EGA\*V27) for the Emergency Diesel</u> <u>Generator (EDG) Air Start Receiver Tanks</u>
- a. Inspection Scope

The team reviewed a modification (ECP-EC20080001) that replaced the crossover valve (2EGA\*V27) for the EDG (2EGS\*EG3) air start receiver tanks. Valve 2EGA\*V27 is a manually operated crossover piping isolation gate valve that provides the capability to charge the air receiver tanks from either of the two air compressors for EDG starting capability. The modification was implemented because the original valve was difficult to turn during performance of surveillance procedures and was leaking past the valve seats, causing a potential loss of air receiver tank capacity. The original valve had a long delivery time which caused the licensee to evaluate an alternate valve design for the stated application. The new valve was needed to enhance surveillance efficiency and mitigate potential air leakage in the EDG air start system.

The team conducted the review to ensure that the design bases, licensing bases, and the performance capability of the EDG air start system had not been adversely affected by the modification. The team reviewed Constellation's installation work orders, which included review of the adequacy of the post-modification testing results. The team interviewed the engineering staff regarding the design, installation, and testing of the new valve to assess the adequacy of the modification. The team walked down the accessible portions of the new equipment to determine material condition of the system and ensure the valve was installed in accordance with design assumptions and instructions. The team also confirmed that surveillance tests, operational procedures, and drawings had been appropriately updated to reflect the design change. The team

reviewed CRs, the EDG system health reports, and completed surveillance procedures to determine if reliability or performance issues resulted from the modification. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

#### b. Findings

No findings were identified.

#### .2.4 Unit 2, Replacement of Degraded Voltage Relays for 4.16kV Emergency Switchgear

#### a. Inspection Scope

The team reviewed a modification (ECP-10-000004) that replaced degraded voltage relays for the 4.16kV emergency switchgear buses (2ENS\*SWG101, 2ENS\*SWG102, and 2ENS\*SWG103). The 4.16kV emergency switchgear degraded voltage relays provide protection against degraded voltage conditions for safety-related loads connected to the associated emergency buses. The modification was implemented to provide upgraded relays with higher accuracy and reduced bandwidth between the set point and reset point. This provided additional margin to the minimum 4.16kV emergency bus running voltage requirement when supplied via offsite power during accident loading conditions. The modification did not change any protective relay setpoints, the minimum required offsite power voltage level, or the post-contingency alarm value. The upgraded high accuracy relays restored system margin and increased relay calibration efficiency.

The team conducted the review to ensure that the design bases, licensing bases, and performance capability of the 4.16kV emergency buses had not been adversely affected by the modification. The team reviewed Constellation's installation work orders, which included review of the adequacy of the post-modification testing results. The team interviewed the engineering staff regarding the design, installation, calibration, and testing of the new degraded voltage relays to assess the adequacy of the modification. The team walked down the accessible portions of the 4.16kV emergency buses to evaluate the material condition of the 4.16 kV systems and ensure the new relays were installed in accordance with design assumptions and instructions. The team also confirmed that surveillance tests, operational procedures, and drawings had been appropriately updated to reflect the design change. The team reviewed CRs, 4.16kV system health reports, and completed surveillance procedures to determine if reliability or performance issues resulted from the modification. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

#### b. Findings

No findings were identified.

#### .2.5 Unit 2, Seal Replacement for 'A' Main Feedwater Pump

# a. Inspection Scope

The team reviewed a modification (ECP-09-000512) that replaced the shaft seals of the 'A' main feedwater pump (2FWS-P1A). Constellation implemented this modification to correct excessive leakage and short service life of the original shaft seals. This modification was incorporated with several other modifications to address pump vibration issues and Extended Power Uprate (EPU) conditions. In addition, the modification evaluated and adjusted seal injection cooling flowrate. Vent valves were also installed on the seal injection lines to allow air removal during system startup.

The team conducted the review to verify that the design bases and performance capability of the 'A' main feedwater pump had not been adversely affected by the modification. The team reviewed associated drawings, procedures, and calculations to ensure they had been properly updated to incorporate the changes associated with the shaft seals. The team interviewed the responsible design engineer to understand the implementation of the modification and subsequent system performance. The team reviewed the post-modification test plan and results to ensure appropriate acceptance criteria had been established and met. The team also verified that maintenance personnel were appropriately trained on the replacement of the new seals. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. <u>Findings</u>

No findings were identified.

#### .2.6 Unit 2, Gaseous Effluent Monitoring System (GEMS) Replacement

#### a. Inspection Scope

The team reviewed a modification (N1-07-004) that removed the GEMS and replaced it with a wide range gaseous monitoring system. This change was performed because of repeat functional failures and the original equipment vendors and manufacturers no longer supported the original system or its major sub-components.

The team conducted the review to verify that the design bases and performance capability of the system had not been adversely affected by the modification. The team discussed the modification and design basis with system engineers and maintenance personnel to assess the capability of the new system to measure, evaluate, and report radioactivity in gaseous effluents during normal operating and accident conditions. The team verified that the new system would continue to meet Regulatory Guide (RG) 1.97 requirements and comply with NUREG-0737. Finally, the team walked down the sample skids and their associated piping and the control room interface unit to assess the system configuration. The 10 CFR 50.59 screening determination associated with this

modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

#### b. Findings

No findings were identified.

# .2.7 Unit 1, Flow Control Valve FCV-29-134 Actuator Upgrade

#### a. Inspection Scope

The team reviewed a modification (N1-06-023) that installed a new actuator and controller on the 13 feedwater pump flow control valve (FCV-29-134). Constellation implemented this modification to increase the reliability of the feedwater system and avoid forced outages that have resulted from past failures. The modification included installing a new robust actuator and a dual, redundant actuator control system with automatic swap-over to the back-up controller.

The team conducted the review to ensure that the design bases and performance capability of the feedwater system had not been adversely affected by the modification. The team reviewed the associated design change package and conducted interviews with design and system engineers regarding the design, installation, and testing of the valve actuator to assess the adequacy of the modification. The team reviewed associated drawings and surveillance procedures to ensure they had been properly updated to incorporate the changes to the FCV-29-134 actuator. In addition, post-modification testing was reviewed to verify proper operation of the valve and actuator. The team also walked down the new valve actuator and associated components to assess the system configuration. Finally, the 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

# .2.8 Unit 2, Shroud Head Bolt Calculation

#### a. Inspection Scope

The team reviewed a change to the shroud head bolt calculation (ECP-09-000131) performed by Constellation to evaluate operation with fewer than 36 shroud head bolts functional. Over the past several outages, two bolts were considered non-functional and five bolts have degraded. To ensure the design margin was not surpassed prior to replacement of the degraded bolts, calculation MS-4374 was updated. Constellation's calculation revision and associated analysis determined that 25 shroud head bolts were sufficient to prevent the moisture separator from separating from the shroud during normal operating and upset conditions. This was determined by calculating the thermal

and mechanical pre-load developed in the bolts and offsetting it with the pressure load during normal operating and upset conditions.

The team evaluated the calculation revision to confirm that the system's design bases, licensing bases, and performance capability would not be affected by the change. The team reviewed the calculation and associated analysis to verify the assumptions used in the calculation were valid, including ensuring the evaluation of possible effects from EPU. The team reviewed procedures used to assemble and disassemble the reactor head, particularly those sections that verified the configuration of the shroud head bolts, and implemented torque and spacing requirements. The team also interviewed design engineers to review the calculation assumptions, applicable operating procedures, and the calculation's methodology to verify their adequacy. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

#### .2.9 Unit 1, Scram Solenoid Pilot Valve Replacement

a. Inspection Scope

The team reviewed a modification (N1-08-051) that replaced all of the scram solenoid pilot valves. Constellation replaced the existing solenoid operated valves (SOV) due to environmental qualification requirements. The replacement dual unit valve provides the same function as two of the original SOVs with an extended qualified operating life. The team evaluated the change to confirm that the design bases, licensing bases, and performance capability of the safety related structures, systems, and components (SSCs) would not be affected by the change.

The team reviewed associated drawings, calculations, and maintenance procedures to ensure they had been properly updated to incorporate the changes to the control rod drive system. The team also discussed the modification and system design basis with design engineers to assess the adequacy of the modification. The team also walked down the new piping and valves to assess the system configuration and material condition. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

# 2.10 Unit 2, Replacement of 'A' Main Feedwater Pump Impeller (2FWS-P1A)

# a. Inspection Scope

The team reviewed a modification (ECP-EC20090084) that replaced the impeller on the 'A' main feedwater pump (2FWS-P1A). Constellation implemented this modification to assist in achieving the hydraulic performance associated with EPU and to eliminate an undesirable resonance frequency associated with the current 5-vane impeller. The resonance frequency contributed to elevated axial vibration levels of the pump which lead to degraded seal performance. The modification replaced the 5-vane impeller with a 7-vane impeller. A separate modification will upgrade the pump gear set to increase the operating speed of the pump to achieve additional head and flow for EPU conditions.

The team's review was performed to verify that the design and licensing bases and performance capability of the 2FWS-P1A had not been degraded by the modification. Since only 2FWS-P1A was modified, the team also reviewed Constellation's analysis of pump interaction with the existing feedwater pumps, 2FWS-P1B, and 2FWS-P1C to ensure a strong/weak pump interaction did not exist. The team reviewed pump performance parameters, such as net positive suction head, pump flowrate, and electrical requirements to verify that system performance was not adversely affected by the modification. In addition, post-modification testing was reviewed to verify proper operation of 2FWS-P1A. The team reviewed drawings, procedures, and training documents to ensure that they were properly updated. The team also discussed the modification and design basis with design engineers to assess the adequacy of the modification. The 10 CFR 50.59 screening determination associated with this modification was also reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

# b. Findings

No findings were identified.

#### 2.11 Unit 1, Diesel Fuel Storage Tank Unusable Volume

#### a. Inspection Scope

The team reviewed a modification (ECP-09-000215) that revised the calculation of the unusable volume of the Unit 1 diesel fuel oil storage tanks. The modification was implemented to calculate the amount of diesel fuel oil required to prevent fuel oil transfer pump vortexing and determine if the diesel fuel oil storage tank low level alarms provided sufficient volume to satisfy the Technical Specifications limits and account for the revised unusable volume.

The team assessed whether the modification was consistent with assumptions in the design and licensing bases. The team reviewed the associated revision to the calculation, operating procedures, and surveillance testing procedures to assess their adequacy, and discussed the calculation with the responsible design engineer to verify the assumptions were appropriate. The team conducted a walkdown of the EDG

enclosures and the fuel oil storage and transfer system to assess the material condition. Additionally, the 10 CFR 50.59 screen associated with this modification was reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. <u>Findings</u>

No findings were identified.

# .2.12 <u>Unit 2, Increase Standby Liquid Control System (SLS) Design Pressure and Upgrade</u> <u>Capacity of SLS Pumps</u>

a. <u>Inspection Scope</u>

The team reviewed a modification (ECP-09-000540) that increased the design pressure of the SLS discharge piping, associated discharge piping relief valve setpoints (2SLS\*RV2A/RV2B), and capacity of the SLS pumps (2SLS\*P1A/P1B). The modification was implemented to increase SLS pump flowrate to ensure minimum flow Technical Specification requirements were satisfied as well as improve operating margin between the pump discharge pressure and relief valve setpoints.

The team assessed whether the modification was consistent with assumptions in the design and licensing bases. The team reviewed calculations that determined the adequacy of the pressure and flow increases and all post modification testing completed on the SLS pumps and associated relief valves. The team interviewed the system and design engineers, and conducted a walkdown of the SLS system to determine if the material condition and performance of the system was acceptable and in accordance with design assumptions as well as to verify the adequacy of drawings. The team reviewed applicable documents to ensure they were updated to incorporate the new design parameters. Additionally, the 10 CFR 50.59 screen associated with the modification was reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

# .2.13 <u>Unit 2, Addition of New RHS and Low Pressure Core Spray (CSL) Pressure Pump</u> <u>Recirculation Lines</u>

a. Inspection Scope

The team reviewed a modification (ECP-09-000191) that added new recirculation lines to the RHS and CSL system pressure pumps to route the pressure pump discharge to the suppression pool. The modification was implemented to eliminate the source of gas accumulation in the RHS and CSL pump suction lines in response to NRC Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems."

The team assessed whether the modification was consistent with assumptions in the design and licensing bases. The team reviewed the modification to ensure system and pump design parameters were not adversely affected by the addition of the new pressure pump recirculation lines. The team reviewed the post modification testing completed on the pressure pumps and the additional piping to ensure system performance was not adversely affected by the modification. Additionally, the team assessed the testing conducted at the RHS and CSL pump suctions after the modification was completed to ensure the source of gas accumulation was eliminated. The team verified that procedures, testing, and drawings were updated to incorporate the new pressure pump recirculation lines and associated valves. The team conducted a walkdown of the RHS and CSL pressure pump recirculation piping to assess the material condition and to verify the adequacy of drawings. Additionally, the 10 CFR 50.59 screen associated with the modification was reviewed as described in section 1R17.1 of this report. The documents reviewed are listed in the attachment.

b. Findings

No findings were identified.

#### 4. OTHER ACTIVITIES

# 4OA2 Identification and Resolution of Problems (IP 71152)

a. Inspection Scope

The team reviewed a sample of CRs associated with 10 CFR 50.59 and plant modification issues to determine whether Constellation was appropriately identifying, characterizing, and correcting problems associated with these areas, and whether the planned or completed corrective actions were appropriate. In addition, the team reviewed CRs written on issues identified during the inspection to verify adequate problem identification and incorporation of the problem into the corrective action system. The CRs reviewed are listed in the attachment.

#### b. Findings

No findings were identified.

#### 4OA6 Meetings, including Exit

The team presented the inspection results to Mr. T. Lynch, Plant General Manager, and other members of Constellation's staff at an exit meeting on October 1, 2010. The team returned the proprietary information reviewed during the inspection and verified that this report does not contain proprietary information.

# ATTACHMENT

#### SUPPLEMENTAL INFORMATION

#### **KEY POINTS OF CONTACT**

### **Constellation Personnel**

S. Burns,	System Engineer
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R. Corieri, Design Engineer

S. Dhar, Design Engineer

E. Dowling, Procurement Engineer

S. Eckhard, Engineering Lead for Inspection

I. Ferrer, Design Engineer

M. Flood, Procurement Engineer

R. Glerum, System Engineer

G. Inch, Design Engineer

- P. Konu, Equipment Qualification Program Engineer
- T. Lynch, Plant General Manager
- L. McKown, System Engineer
- A. Michaud, Operations Supervisor
- V. Patel, Design Engineer
- D. Perilli, Design Engineer
- J. Prosachik, Design Engineer
- A. Scheg, System Engineer
- J. Schulz, Design Engineer
- B. Shanahan, Design Engineer
- R. Shelton, Operations Manager
- T. Shippee, System Engineer
- 1. Onippee, Oystern Engineer
- J. Snizek, I&C Maintenance Supervisor
- L. Stahl, Design Engineer

#### LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

#### None.

#### LIST OF DOCUMENTS REVIEWED

#### 10 CFR 50.59 Evaluations

SE 2007-01, NMP2 Increased Ultimate Heat Sink Temperature and SC06-01 Containment Response, Rev. 0

SE 2009-01, NMP2 Annulus Pressurization Loading, Rev. 0

10 CFR 50.59 Screened-out Evaluations

ECP-09-000083, Replace Contactor/Overloads in Starter 2EHS\*MCC201-6C and 2EHS\*MCC201-7C (Unit 2), dated 10/08/09

ECP-09-000168, Prepare a Thermal Performance Evaluation for Unit 1 EDG Cooling Water Heat Exchangers, Rev. 0

ECP-09-000212, Unit 1 Diesel Gasket Material Change, Rev. 0

ECP-09-000427, Diesel Generator Immersion Header Temperature Switch by EMD Model 40036996 has been Replaced by EMD Model 40124178 and must be Evaluated (Unit 1), Rev. 0

ECP-09-000433, NMP Unit 2 Fire Panel Improvement Project Fire Panel Replacement for Local Control Panel Upgrade 2FPM-PNL-127, dated 01/29/10

ECP-10-000256, Evaluates Replacement Motor for Safety Related MOVs in the Reactor Core Isolation Cooling and the Reactor Water Cleanup System (Unit 2), Rev. 0

ECP-10-000332, Evaluates Replacement Relay for the K1 Relay in the Voltage Regulator Circuit for the 2EGS\*EG1 (Div I) and 2EGS\*EG3 (Div II) Diesels (Unit 2), Rev. 0

ECP-10-000265, Replace Motors 2RHS\*MOV112-MOT, 2RHS\*MOV113-MOT, and 2CSH\*MOV107-MOT, Rev. 0

ECP-10-000002, Replace 2FWR-FV2A/B/C with Twelve-Inch Valves and Remote Valve Positioner, Rev. 00

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\*EC20090084-000, Replace Feedwater Pump Impellers-EPU, Rev. 3

\*ECP 09-000131, Revise Shroud Head Bolt Calc MS-4374 to Remove an Additional 4 Bolts from Service, Rev. 0

\*ECP-09-000191, Addition of New RHS and CSL Pressure Pump Recirculation Line, Rev. 0

\*ECP-09-000215, Diesel Fuel Storage Tank Unusable Volume, Rev. 0

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\*ECP-09-000540, Increase SLS Design Pressure and Upgrade Capacity of SLS Pumps, Rev. 0

\*ECP-10-000004, Replace Unit 2 Degraded Voltage Relays on Emergency 4.16 kV Buses 101, 102, 103, Rev. 0

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- 125VDC-SYSTEM-CASEB, Unit 1 125V DC System Case B Battery Sizing, Rev. 4
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- A10.1-D-005, Minimum Wall Evaluation for SLS Piping Design Pressure Increase, Rev. 01
- A10.1-D-008, SLS Relief Valve Setpoint Determination 2SLS\*RV2A and 2SLS\*RV2B, Rev. 01
- A10.1-D-009, Transport Time of Solution for SLS, Rev. 0
- A10.1-D-010, Net Positive Suction Head (NPSH) Available for SLS Pumps 2SLS\*P1A and 2SLS\*P1B, Rev. 2
- A10.1-D-011, Pressure Drop Calculation for Standby Liquid Control System, Rev. 3
- A10.1-D-018, Maximum Operating Conditions and Safety Functions for Safety Related MOVs, Rev. 1
- A10.1-E-036, Verify Pump Head, NPSH, and Determine Pressure Drop across Restriction Orifice, Rev. 1
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C-18005-C, Feedwater Flow High Pressure (Flow Control Valve 29-134) P&I Diagram, Sheet 3, Rev. 7

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C-18026-C, EDG No. 102 Starting Air, Cooling Water, Lube Oil & Fuel, Sheet 1 & 2, Rev. 22

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F-45137-C, Unit 1 Equipment Enclosures Cabinets 23091-B & 23093-B Panel Layout and Device List, Sheet 1, Rev. 0
F-45137-C, Unit 1 Equipment Enclosures Cabinets 23091-B & 23093-B Panel Layout and Device List, Sheet 2, Rev. 1
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CCN 2009-000457, Reactor Feed Pump Seal Available Pressure and Flow, Rev. 0

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ECN 2009-000809, Revise Technical Manual for Installation, Operation and Maintenance Instructions of Byron Jackson Vertical Process Pumps, Rev. 1

ECN 2009-000273, Installation, Testing and Maintenance of Relays, Rev. 0

ECN-10-000021 031-A-20.00, P&ID Diagram RHR System, Rev. 0

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N1-ST-M4A, Emergency Diesel Generator 102 and PB 102 Operability Test, performed 3/29/2009, 4/20/2009, and 5/18/2009

N1-ST-M4B, Emergency Diesel Generator 103 and PB 103 Operability Test, performed 5/4/2009

N1-ST-R2, Loss of Coolant Accident and EDG Simulated Auto Initiation Test, performed 3/23/2009

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08-00718-00	C081257300	C090702809
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USAR, Nine Mile Point Unit 2, Rev. 18

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# LIST OF ACRONYMS

ADAMS	NRC Document System
ADS	Automatic Depressurization System
CFR	Code of Federal Regulations
CR	Condition Report
CSL	Low Pressure Core Spray
DRS	Division of Reactor Safety
ECP	Engineering Change Package
EDG	Emergency Diesel Generator
EPU	Extended Power Uprate
ERV	Electromagnetic Relief Valve
FCV	Flow Control Valve
GEMS	Gaseous Effluent Monitoring System
GL	Generic Letter
IP	Inspection Procedure
kV	kilovolt
MOV	Motor Operated Valve
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PARS	Publically Available Records
P&ID	Piping and Instrumentation Diagram
RG	Regulatory Guide
RHS	Residual Heat Removal System
SLS	Standby Liquid Control System
SOV	Solenoid Operated Valve
SSC	Structure, System and Components
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
USAR	Updated Safety Analysis Report