



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

July 27, 2009

Mr. Sam Belcher  
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 INTEGRATED INSPECTION  
REPORT 05000220/2009003 AND 05000410/2009003**

Dear Mr. Belcher:

On June 30, 2009, 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 July 10, 2009, with you and 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents one self-revealing finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it is entered into your corrective action program, the NRC is treating the finding as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at Nine Mile Point Nuclear Station. In addition, if you disagree with the characterization of any finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Senior Resident Inspector at Nine Mile Point Nuclear Station. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

S. Belcher

2

In accordance with 10 CFR Part 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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Glenn T. Dentel, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

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

Enclosure: Inspection Report 05000220/2009003 and 05000410/2009003  
w/Attachment: Supplemental Information

cc w/encl:

M. Wallace, Vice - Chairman, Constellation Energy  
H. Barron, President, CEO & Chief Nuclear Officer, Constellation Energy Nuclear Group  
C. Fleming, Esquire, Senior Counsel, Nuclear Generation, Constellation Energy Group, LLC  
M. Wetterhahn, Esquire, Winston & Strawn  
T. Syrell, Director, Licensing, Nine Mile Point Nuclear Station  
F. Murray, President and CEO, New York State Energy Research and Development Authority  
A. Peterson, SLO Designee, New York State Energy Research and Development Authority  
P. Eddy, New York State Department of Public Service  
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law  
Supervisor, Town of Scriba  
P. Church, Oswego County Administrator  
T. Judson, Central NY Citizens Awareness Network  
D. Katz, Citizens Awareness Network  
G. Detter, Manager, Nuclear Safety and Security, Constellation Energy

S. Belcher

2

In accordance with 10 CFR Part 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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Glenn T. Dentel, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

**DISTRIBUTION:** S. Collins, RA M. Dapas, DRA G. Dentel, DRP  
J. Hawkins, DRP S. Hansell, DRS L. Trocine, OEDO R. Nelson, NRR  
M. Kowal, NRR R. Guzman, NRR D. Pickett, NRR D. Bearde, DRP  
E. Knutson, DRP D. Dempsey, DRP K. Kolek, DRP N. Perry, DRP  
Region I Docket Room (with concurrences)  
[RoPreports@nrc.gov](mailto:RoPreports@nrc.gov)

**SUNSI Review Complete:** \_\_\_\_ (Reviewer's Initials)

DOCUMENT NAME: G:\DRP\BRANCH1\NINE\_MILE\_POINT\REPORTS\2009 - 2010 INSPECTION REPORTS\IR 2009-003\NMP FINAL IR 2009-003.DOC

**ML092080558**

After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RI/DRP		RI/DRP		RI/DRP
NAME	EKnutson/nsp for		NPerry/nsp		GDentel/gtd
DATE	07/21/09		07/21/09		07/27/09

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-220, 50-410

License No.: DPR-63, NPF-69

Report No.: 05000220/2009003; 05000410/2009003

Licensee: Nine Mile Point Nuclear Station, LLC (NMPNS)

Facility: Nine Mile Point, Units 1 and 2

Location: Oswego, NY

Dates: April 1 through June 30, 2009

Inspectors: E. Knutson, Senior Resident Inspector  
D. Dempsey, Resident Inspector  
P. Kaufman, Senior Reactor Inspector

Approved By: Glenn T. Dentel, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

## TABLE OF CONTENTS

SUMMARY OF FINDINGS .....	3
REPORT DETAILS.....	4
1. REACTOR SAFETY .....	4
1R01 Adverse Weather Protection .....	4
1R04 Equipment Alignment.....	5
1R05 Fire Protection .....	6
1R08 Inservice Inspection Activities .....	7
1R11 Licensed Operator Requalification Program .....	9
1R12 Maintenance Effectiveness .....	10
1R13 Maintenance Risk Assessments and Emergent Work Control .....	10
1R15 Operability Evaluations .....	11
1R18 Plant Modifications.....	12
1R19 Post-Maintenance Testing .....	12
1R20 Refueling and Other Outage Activities .....	14
1R22 Surveillance Testing.....	16
1EP6 Drill Evaluation .....	17
4. OTHER ACTIVITIES .....	17
4OA1 Performance Indicator Verification .....	17
4OA2 Identification and Resolution of Problems .....	18
4OA3 Followup of Events and Notices of Enforcement Discretion .....	20
4OA5 Other Activities.....	20
4OA6 Meetings .....	21
ATTACHMENT: SUPPLEMENTAL INFORMATION .....	21
SUPPLEMENTAL INFORMATION .....	A-1
KEY POINTS OF CONTACT .....	A-1
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED .....	A-1
LIST OF DOCUMENTS REVIEWED .....	A-2
LIST OF ACRONYMS .....	A-6

## SUMMARY OF FINDINGS

IR 05000220/2009003, 05000410/2009003; 04/01/2009 - 06/30/2009; Nine Mile Point Nuclear Station, Units 1 and 2; Refueling and Other Outage Activities.

The report covered a three-month period of inspection by resident inspectors and an announced inspection performed by a regional inspector. One Green finding, which was a non-cited violation (NCV), was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process (SDP)." The cross cutting aspect for the finding was determined using IMC 0305, "Operating Reactor Assessment Program." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. 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.

### Cornerstone: Initiating Events

- Green. A self-revealing non-cited violation (NCV) of Technical Specification (TS) 6.4, "Procedures," was identified when operators did not follow the operating procedure when placing the Unit 1 second stage main steam reheaters in service during plant power ascension. The resultant uneven turbine heating caused an increase in turbine vibrations that led the control room operators to rapidly reduce power and trip the turbine, which, in turn, cause an automatic initiation of the high pressure coolant injection (HPCI) system. As corrective action, the operating procedure was revised to provide improved guidance on placing the second stage main steam reheaters in service. This issue was entered into the corrective action program (CAP) as condition report (CR) 2009-2238.

The finding was more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding is of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and did not screen as potentially risk significant due to external events. The finding had a cross-cutting aspect in the area of Human Performance, Work Practices, because the operators did not follow the procedure for placing the second stage main steam reheaters in service (H.4.b per IMC 0305). (Section 1R20)

### Other Findings

None.

## REPORT DETAILS

### Summary of Plant Status

Nine Mile Point Unit 1 began the inspection period in refueling outage (RFO) 20, which began on March 21. On April 8, operators commenced plant startup and the generator was paralleled to the grid the following day. On April 10, operators performed a rapid power reduction from 44 percent rated thermal power (RTP) and tripped the turbine at approximately 28 percent RTP due to high turbine vibrations. The problem was corrected and the unit was returned to the grid later that day. Power was maintained at less than full RTP for several days to support post-modification testing of the reactor feedwater system, and was increased to full RTP on April 15. On May 14, power was reduced to 94 percent to secure reactor recirculation pump (RRP) 11 for emergent maintenance on its associated motor-generator. Power was returned to full RTP later that day. On May 29, power was reduced to 70 percent for a control rod pattern exchange, control rod stroke timing and adjustment, turbine valve testing, and to restore RRP 11 to service. Power was returned to full RTP the following day and remained there for the rest of the inspection period.

Nine Mile Point Unit 2 began the inspection period at full RTP. On May 12, power was reduced to 65 percent to swap operating reactor feedwater pumps (RFPs) due to excessive pump seal leakage from the 'A' RFP. Power was returned to full RTP later that day. On June 3, power was reduced to 65 percent to swap operating RFPs and perform a control rod pattern exchange. Power was returned to full RTP the following day. On June 5, power was reduced to 84 percent for control rod stroke timing adjustments, single rod scram time testing, and turbine valve testing. Power was returned to full RTP the following day and remained there for the rest of the inspection period.

### 1. REACTOR SAFETY

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

#### 1R01 Adverse Weather Protection (71111.01)

#### .1 Readiness of Offsite and Alternate AC Power Systems (One sample)

#### a. Inspection Scope

The inspectors verified that plant features and procedures for operation, and continued availability of offsite and alternate alternating current (AC) power systems for Unit 1 and Unit 2 during adverse weather are appropriate. The inspectors reviewed Operations Administrative Procedure S-ODP-OPS-0112, "Off-Site Power Operations and Interface," to ensure that appropriate information is exchanged between NMPNS and the transmission system operator when issues arise that could impact the offsite power system. The inspectors also verified that NMPNS procedures address measures to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system prior to and during adverse weather conditions.

b. Findings

No findings of significance were identified.

.2 Readiness for Seasonal Extreme Weather Conditions (Two samples)

a. Inspection Scope

The inspectors verified the seasonal readiness for Unit 1 and Unit 2 in accordance with NMPNS procedure NAI-PSH-11, "Seasonal Readiness Program." The inspectors reviewed and verified completion of the operations department hot weather preparation checklists contained in procedures N1-OP-64 and N2-OP-102, "Meteorological Monitoring," for Units 1 and 2, respectively. The inspectors reviewed the procedural limits and actions associated with elevated lake temperature and walked down selected areas of the plants to assess the effectiveness of the ventilation systems. In addition, the inspectors performed partial system walkdowns of the following systems that could be susceptible to, or exacerbate, the effects of hot weather:

- Unit 1 service water (SW) system;
- Unit 1 control room emergency ventilation system;
- Unit 2 control building chilled water system; and
- Unit 2 turbine building chilled water (lithium bromide) system.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial System Walkdown (71111.04Q - Four samples)

a. Inspection Scope

The inspectors performed partial system walkdowns to verify risk-significant systems were properly aligned for operation. The inspectors verified the operability and alignment of these risk-significant systems while their redundant trains or systems were inoperable or out of service for maintenance. The inspectors compared system lineups to system operating procedures, system drawings, and the applicable chapters in the updated final safety analysis report (UFSAR). The inspectors verified the operability of critical system components by observing component material condition during the system walkdown.

The following plant system alignments were reviewed:

- Unit 1 core spray system 121 due to the reduced availability of the other Unit 1 core spray system during the outage;
- Unit 1 containment spray system 12 (121 and 122) due to the reduced availability of containment spray system 11 during the overhaul of containment spray raw water system pump 112;

- Unit 2 Division 2 emergency diesel generator (EDG) due to increased risk significance during maintenance on the Division 1 control room chiller; and
- Unit 2 'A' residual heat removal system due to increased risk significance during maintenance on the low pressure core spray (LPCS) system.

b. Findings

No findings of significance were identified.

.2 Complete System Walkdown (71111.04S - One sample)

a. Inspection Scope

The inspectors performed a complete walkdown of the Unit 1 liquid poison system to identify discrepancies between the existing equipment configuration and that specified in the design documents. During the walkdown, system drawings and operating procedures were used to determine the proper equipment alignment and operational status. The inspectors reviewed the open maintenance work orders (WOs) that could affect the ability of the system to perform its functions. Documentation associated with temporary modifications, operator workarounds, and items tracked by plant engineering were also reviewed to assess their collective impact on system operation. In addition, the inspectors reviewed the CR database to verify that equipment alignment problems were being identified and appropriately resolved.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)

Routine Resident Inspector Tours (71111.05Q - Six samples)

a. Inspection Scope

The inspectors toured areas important to reactor safety to evaluate the station's control of transient combustibles and ignition sources, and to examine the material condition, operational status, and operational lineup of fire protection systems including detection, suppression, and fire barriers. The inspectors evaluated fire protection attributes using the criteria contained in Unit 1 UFSAR Appendix 10A, "Fire Hazards Analysis," and Unit 2 procedure N2-FPI-PFP-0201, "Unit 2 Pre-Fire Plans." The areas inspected included:

- Unit 1 reactor building (RB) 298 foot elevation;
- Unit 1 vital switchgear rooms 102 and 103;
- Unit 1 turbine building 261 foot elevation;
- Unit 2 RB 261 foot elevation;
- Unit 2 Division 3 EDG room; and
- Unit 2 Division 3 switchgear room.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection Activities (71111.08 - One sample)

a. Inspection Scope

The purpose of this inspection was to assess the effectiveness of the licensee's inservice inspection (ISI) program for monitoring degradation of the reactor coolant system (RCS) boundary, risk significant piping system boundaries, and the containment boundary for Unit 1. The inspectors assessed the ISI activities using the criteria specified in the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, and applicable NRC Regulatory Requirements. The inspectors selected a sample of non-destructive examination (NDE) activities from the Unit 1 ISI plan for the 2009 outage for observation, documentation review, and evaluation for compliance with the requirements of the Nine Mile Point Unit 1 Risk-Informed ISI Program and ASME Section XI. A sample of activities associated with the repair/replacement of safety related pressure boundary components was also reviewed. The sample selection was based on the inspection procedure objectives, risk significance, availability, and specifically on components and systems where degradation would result in a significant challenge to the integrity of pressure boundary components.

NDE activities were reviewed by the inspectors to verify that the activities were evaluated and dispositioned in accordance with ASME Boiler and Pressure Vessel Code, 1998 Edition, with Addenda of Section XI, relevant ASME Code Cases, selected relief requests, 10CFR Part 50.55a, Nine Mile Point Unit 1 Risk-Informed Inservice Inspection Program, and the Boiling Water Reactor Vessel Internals Program requirements. The review included calibration, set-up, examination techniques, and data analysis.

The inspectors reviewed NDE examination data records, in-process examinations, and deficiency reports. NDE personnel responsible for examination, data collection, data review, interpretation, analysis, and evaluation of the inspection results, were also interviewed to evaluate the technician skills and performance, test equipment capabilities, and examination techniques, and to verify that the examinations met the requirements of ASME Section XI and the Nine Mile Point Unit 1 Risk-Informed ISI Program. The inspectors remotely observed a sample of in vessel visual inspection enhanced visual test (EVT-1) and visual test (VT-3) examinations of the steam dryer and core spray header loop piping welds P7U4, P6U3, and P6U3A, automated ultrasonic testing (UT) examination of reactor pressure vessel (RPV) recirculation nozzle N1A and N1B dissimilar metal (DM) welds, automated UT examination of RPV ring 3 longitudinal weld RV-WD-133, and reviewed examination data records for the examinations observed. The inspectors also performed document reviews of automated UT examination data records for RPV N2D recirculation nozzle DM weld, which was re-examined during the 2009 outage because of an indication identified during the 2007 outage, and manual UT examination data records of control rod drive system pipe weld 44.1-WD-011.

The inspectors visually examined the condition of accessible portions of the containment, including the drywell liner, for corrosion, mechanical damage, and other degradation

Enclosure

mechanisms during the 2009 outage. Manual UT thickness examinations of the drywell liner were taken as part of ASME Section XI, Subsection IWE, with a formalized continuing monitoring program, "Drywell Supplemental Inspection Program," under the Aging Management Program. Review and evaluation of the drywell thickness UT examinations will be documented in NRC License Renewal Commitments inspection report 05000220/2009007. The inspectors also verified the ability of the contractors to identify and characterize observed indications, and that identified deficient conditions were being adequately entered into the CAP.

To verify the suitability of materials, welding activities performed, applicable NDE performed, and that ISI implementing procedures were in accordance with the ASME code requirements, the inspectors reviewed the work scope, activity sequence, weld filler metal selection, welding procedure, NDE tests, acceptance criteria, and post work testing for WO 07-03643-00. This work order repaired two eroded areas due to steam cuts in the Unit 1 RPV flange that exceeded the 5 mils acceptance depth and extended into the sealing surface of the RPV flange.

The inspectors examined disposition for continued operation, without repair or rework, of non-conforming conditions indications identified during the 2009 outage ISI activities. Specifically, the inspector reviewed the following:

#### Unit 1 Recirculation System Nozzle N1A and N1B Indications

While performing automated UT examinations of the N1A and N1B recirculation safe-end-to-nozzles, a total of five axial indications were identified; two indications were in the N1A, and three were in the N1B safe-end-to nozzle weld. The N1 nozzle welds have not been mechanical stress improved at Unit 1. All five of the indications were similar in length and depth, oriented axially, located on the safe-end side, and were classified as planar flaws. The indications were very straight and consistent along their lengths, which is uncharacteristic of stress corrosion cracking type flaws. All of the indications had nearly identical characteristics and were inside diameter connected flaws, located in base material, started at the weld root, extended out away from the weld and outside the heat affected zone of the DM weld.

A review of previous examination data from 1999, which was not a performance demonstration initiative qualified examination, revealed no change in the N1B nozzle indications between 1999 and the 2009 examination data. NMPNS was unsuccessful in reviewing the optical disk containing the 1999 automated UT examination data for the N1A nozzle during this inspection. Work performed during the safe-end replacement in 1982 may have contributed to the origin of all five indications, given their location near the edge of the weld prep. Work performed during the safe-end replacement may have resulted in multiple geometric reflectors in this area that are similar in nature.

Electric Power Research Institute (EPRI) personnel conducted an independent third party review for N1A and N1B DM weld automated UT data examination scans, and determined that the indications appeared to be fabrication related and were not service induced flaws. NMPNS concluded that the indications were planar flaws and that all five indications were considered acceptable in accordance with the 1989 Edition of ASME Section XI, Table IWB-3514-2. The inspectors reviewed the automated UT examination scan data and the

EPRI report to verify that the indications were evaluated, characterized, and dispositioned in accordance with ASME Section XI. A teleconference was held between NMPNS and the NRC on April 6, 2009, to discuss the identified flaws in the N1A and N1B nozzles and the proposed inspection schedule/plans of the N1D nozzle DM weld, since it was not examined during the 2009 outage as originally planned and scheduled. In order to verify that the proposed future corrective actions for examination of the N1D nozzle DM weld were adequate, the inspector reviewed CR 2009-2130.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

Quarterly Review (71111.11Q - Two samples)

a. Inspection Scope

The inspectors evaluated two simulator scenarios in the licensed operator requalification training (LORT) program. The inspectors assessed the clarity and effectiveness of communications, the implementation of appropriate actions in response to alarms, the performance of timely control board operation, and the oversight and direction provided by the shift manager. During the scenario, the inspectors also compared simulator performance with actual plant performance in the control room. The following scenarios were observed:

- On June 16, 2009, the inspectors observed Unit 1 LORT to assess operator and instructor performance during a scenario involving a reactor pressure control system failure, a seismic event, and an unisolable reactor water cleanup (RWCU) system leak outside of the primary containment. The inspectors evaluated the performance of risk significant operator actions including the use of special operating procedures (SOPs) and emergency operating procedures (EOPs).
- On May 22, 2009, the inspectors observed Unit 2 LORT to assess operator and instructor performance during a scenario involving loss of a primary reactor building closed loop cooling system pump with failure of the standby pump to automatically start, high radiation in the reactor building as indicated by reactor building ventilation radiation monitor alarms, an automatic isolation of the RWCU system on high area temperature with failure of the reactor core isolation cooling system to also isolate, and a scram with failure of multiple control rods to insert. The inspectors evaluated the performance of risk significant operator actions including the use of SOPs and EOPs.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12 - Three samples)a. Inspection Scope

The inspectors reviewed performance-based problems, and the performance and condition history of selected systems to assess the effectiveness of the maintenance program. The inspectors reviewed the systems to ensure that the station's review focused on proper maintenance rule scoping in accordance with 10 CFR Part 50.65, characterization of reliability issues, tracking system and component unavailability, and 10 CFR Part 50.65 (a)(1) and (a)(2) classification. In addition, the inspectors reviewed the site's ability to identify and address common cause failures, and to trend key parameters. The following maintenance rule inspection samples were reviewed:

- Unit 1 containment spray system due to raw water pump performance issues;
- Unit 2 reactor protection system due to historic spurious trips of the electrical protection assemblies that result in unalarmed (silent) half scrams; and
- Unit 2 high pressure core spray system due to its high risk significance.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - Six samples)a. Inspection Scope

The inspectors evaluated the effectiveness of the maintenance risk assessments required by 10 CFR Part 50.65 (a)(4). The inspectors reviewed equipment logs, work schedules, and performed plant tours to verify that actual plant configuration matched the assessed configuration. Additionally, the inspectors verified that risk management actions for both planned and emergent work were consistent with those described in station procedures. The inspectors reviewed risk assessments for the activities listed below.

Unit 1

- Week of April 27, that included core spray loop 112 and 122 quarterly surveillances, control rod drive system pump quarterly surveillances, liquid poison systems 11 and 12 monthly and quarterly surveillances, main steam isolation valve and feedwater isolation valve partial stroke quarterly surveillances, and a planned three day outage of one of the two 115 kilovolt (KV) supply lines (Line 1) to support off-site maintenance.
- Week of May 11, that included channel 11 reactor recirculation flow loop and flow converter calibrations, high pressure coolant injection system 11 relay calibrations, instrument testing and motor testing, uninterruptible power supply 162 relay calibrations, EDG raw water system quarterly surveillance, replacement of control room ventilation fan 12, and a power reduction to 94 percent to remove RRP 11 from service for emergent maintenance on its associated motor-generator.

- Week of May 25, that included rebuild of RRP 11 motor-generator after rotor maintenance, a two day maintenance period for the diesel driven fire pump, and a planned power reduction to 65 percent for a control rod sequence exchange, control rod stroke timing and adjustment, turbine valve testing and to restore 11 RRP to service.

### Unit 2

- Week of May 11, that included Division 1 automatic depressurization system (ADS) logic timer initiation circuit quarterly surveillance, Division 1 EDG monthly surveillance, an extended maintenance period for the Division 1 control room chiller, SW fore bay cleaning, SW pump 'A' restoration after a rebuild of the pump casing, Division 1 SW system quarterly surveillance, and an unplanned power reduction to 65 percent to swap RFPs due to excessive pump seal leakage from the 'A' RFP.
- Week of June 1, that included SW fore bay cleaning, Division 2 EDG monthly surveillance, Division 2 SW pump curve verification testing, Division 2 ADS timer surveillance, a power reduction to 65 percent for a control rod pattern exchange and to swap RFPs due to excessive pump seal leakage from the 'C' RFP, a power reduction to 85 percent for control rod stroke timing adjustments, single rod scram time testing, turbine valve testing, and emergent maintenance to troubleshoot a high temperature electrical connection on a motor operated SW system cross-connect valve.
- Week of June 15, that included a one day maintenance period for the LPCS system for pump motor inspection and testing, LPCS system quarterly surveillance, rebuild of the 'F' SW pump, 'B' standby liquid control system quarterly surveillance, emergent maintenance to troubleshoot moisture in the 'B' instrument air dryer, troubleshoot a power supply problem with the 'C' main transformer cooling system, and an emergent plant configuration change to place the standby steam jet air ejector (SJAE) in service due to a SW leak from the in-service SJAE intercooler.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 - Six samples)

a. Inspection Scope

The inspectors evaluated the acceptability of operability evaluations, the use and control of compensatory measures, and compliance with technical specifications (TSs). The evaluations were reviewed using criteria specified in NRC Regulatory Issue Summary 2005-20, "Revision to Guidance Formerly Contained in NRC Generic Letter 91-18, 'Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability'," and Inspection Manual Part 9900, "Operability Determinations and Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety." The inspectors' review included verification that the operability determinations were made as specified by

Procedure CNG-OP-1.01-1002, "Conduct of Operability Determinations / Functionality Assessments." The technical adequacy of the determinations was reviewed and compared to the TSs, UFSAR, and associated design basis documents (DBDs). The following evaluations were reviewed:

- CR 2009-2745 concerning the effect of spurious alarms on the operability of the acoustic monitor for Unit 1 head safety valve 01-119B; given that the other instrument for detecting actuation of 01-119B had been previously declared inoperable, along with the inaccessibility of both instrument detectors during power operations, an inoperable acoustic monitor would have led to a TS-required plant shutdown;
- CR 2009-3058 concerning cable splices in the 4160 volt motor supply lines to the Unit 2 high pressure core spray pump that were not environmentally qualified;
- CR 2009-3084 concerning use of a non-conservative scaling factor for the Unit 2 wide range gas monitoring system on information that could be used in making emergency action level classifications;
- CR 2009-3135 concerning the Unit 2 'A' SW pump inboard bearing that experienced a rapid temperature increase to 175 degrees Fahrenheit and then decreased back to the expected temperature range over the period of an hour;
- CR-2009-3180 concerning degraded packing on Unit 1 containment spray raw water pump 112; and
- CR 2009-3483 concerning the acceptability of low flow from the Unit 2 'B' standby liquid control system pump during quarterly surveillance testing, based on reevaluation of the test equipment's precision in that specific application.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18 - One sample)

a. Inspection Scope

The inspectors reviewed Unit 1 permanent plant modification, Design Change EC 2008-0032-000, "Replace 13 Instrument Air Compressor." The purpose of this change was to replace the existing obsolete reciprocating compressor with a new rotary screw unit. The inspectors reviewed the associated 10 CFR Part 50.59 screening against instrument air system design basis information, including the UFSAR and TS. The inspectors verified that post-installation tests were adequate and that NMPNS controlled the modification in accordance with station procedures.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - Eight samples)

a. Inspection Scope

The inspectors reviewed the post maintenance tests (PMTs) listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure were consistent with information in the applicable licensing basis and/or DBDs, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data, to verify that the test results adequately demonstrated restoration of the affected safety functions.

- Unit 1, N1-ST-R30, "Reactor Pressure Vessel and ASME Class 1 System Leakage Test," performed as PMT for vessel reassembly and various other component maintenance performed during RFO20.
- Unit 1, action request (ACR) 09-01906 to replace the core spray topping pump 112 discharge relief valve after it failed during troubleshooting of core spray topping pump 112 low differential pressure. The PMT was to verify valve seat and system tightness during the performance of N1-ST-Q1C, "CS [Core Spray] 112 Pump and Valve Operability Test."
- Unit 1, N1-ST-C2, "Solenoid-Actuated Pressure Relief Valves Operability and Flow Verification Test," performed as PMT for electromatic relief valves that were replaced during RFO20.
- Unit 1, N1-MFT-104, "Modification Test for Mod N1-06-023, FCV 29-134 Actuator," performed as post-modification testing for design change N1-06-023, "Upgrade Actuator FCV 29-134," which installed a new actuator and control system for the feedwater pump 13 flow control valve.
- Unit 1, N1-MFT-106, "Modification Test for Mod N1-06-004, 13 Feedwater Pump, Gear Set, and Clutch," performed as post-modification testing for design change N1-06-004, "Feedwater Pump 100% Capacity," which increased the capacity of feedwater pump 13.
- Unit 1, WO 09-02521-00 that rebuilt containment spray raw water pump 112. The PMT was to verify pump operability during performance of N1-ST-Q6C, "Containment Spray Loop 112 Quarterly Operability Test."
- Unit 2, WO 08-12072-00 that installed a new gear set in control building chiller 2HVK\*CHL1A per design change package N2-07-008, "Control Room Chiller Gear Set Replacement." The PMT was to demonstrate chiller operability in accordance with N2-MMP-HVK-131, "HVK Chiller Corrective Maintenance," and N2-TSP-HVK-2Y001, "Control Building Chiller Performance Test."
- Unit 2, WO 08-17866-00 that rebuilt the 'A' SW pump. The PMT was to verify pump operability during performance of N2-OSP-SWP-Q002, "Service Water Pump and Valve Operability Test," and N2-OSP-SWP-@001, "Service Water Pump Curve Validation Test."

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities (71111.20 - One sample)

a. Inspection Scope

The inspectors observed and/or reviewed the following Unit 1 RFO activities to verify that operability requirements were met and that risk, industry experience, and previous site-specific problems were considered.

- The inspectors reviewed the outage schedule and procedures, and verified that TS-required safety system availability was maintained and shutdown risk was minimized. The inspectors verified that, when specified by NMPNS procedure NIP-OUT-01, "Shutdown Safety," contingency plans existed for restoring key safety functions.
- Through plant tours, the inspectors verified that NMPNS maintained and adequately protected electrical power supplies to safety related equipment and that TS requirements were met.
- The inspectors verified proper alignment and operation of shutdown cooling and other decay heat removal systems. The verification also included reactor cavity and fuel pool makeup paths and water sources, and administrative control of drain down paths.
- The inspectors verified that requirements for refueling operations were met through refuel bridge observations, control room panel walkdowns, and discussions with Operations Department personnel.
- Before the drywell was closed from general access for startup, the inspectors performed an "as-left" walkdown to identify evidence of RCS leakage and verify the condition of drywell coatings, structures, valves, piping, supports, and other equipment in areas where maintenance was completed. The inspectors also verified that no debris was left in the drywell that could affect the performance of the emergency core cooling system suction strainers.
- The inspectors observed portions of the reactor startup following the outage, and verified through plant walkdowns, control room observations, and surveillance test reviews that safety related equipment specified for mode change was operable.

b. Findings

Introduction. A self-revealing Green NCV of TS 6.4, "Procedures," was identified on April 10, 2009, when operators did not follow the operating procedure when placing the Unit 1 second stage main steam reheaters in service during plant power ascension. The resultant uneven turbine heating caused an increase in turbine vibrations that led the control room operators to rapidly reduce power and trip the turbine, which, in turn, caused an automatic initiation of the high pressure coolant injection (HPCI) system.

Description. On April 10, 2009, power ascension was in progress following startup from the Unit 1 refueling outage. At 44 percent reactor power, operators noted increasing vibrations on one of the turbine main journal bearings. Approximately 30 minutes later, the turbine bearing vibrations reached the alarm setpoint of 10 one-thousandths of an inch (mils). The applicable alarm response procedure states that the turbine must be tripped if either: (a) vibrations are not reduced to less than 10 mils in 15 minutes; or (b) vibrations reach 12 mils. Operators commenced a rapid power reduction in preparation for tripping the turbine. Turbine bearing vibrations continued to rise and, at 28 percent reactor power, operators tripped the turbine. This action did not cause a reactor scram because power was below the generator load rejection scram setpoint. The HPCI system automatically initiated as designed following the turbine trip and was immediately reset by the operators, since an off-normal condition that required its use did not exist. The turbine vibration issue was entered into the corrective action program as CR 2009-2238.

NMPNS determined that the cause of increased turbine vibrations had been a turbine rub that had developed while placing the second stage main steam reheaters in service. Operating procedure N1-OP-41, "Reheaters and Moisture Separators," Revision 12, Section E, "Startup," step 4.3.3 states that the second stage reheat tube temperatures are to be raised at a maximum rate of 3 degrees Fahrenheit per minute (3F/min). However, the operators had utilized an average heatup rate of 3F/min, and had exceeded the maximum allowable rate on several occasions. The resultant uneven heating of rotating and stationary elements within the turbine had led to the development of a turbine rub, which translated to increased turbine vibrations. As corrective action, the operating procedure was revised to provide improved guidance on placing the second stage main steam reheaters in service.

Analysis. The inspectors determined that NMPNS's failure to operate the main steam reheat system in accordance with the applicable procedure was a performance deficiency. The finding was more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the finding is similar to example 4.b in Appendix E of Inspection Manual Chapter 0612, in that it resulted in a power reduction, turbine trip and initiation of the HPCI system. The inspectors evaluated the significance of this finding using IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The finding is of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and did not screen as potentially risk significant due to external events. The finding had a cross-cutting aspect in the area of Human Performance, Work Practices, because the operators did not follow the procedure for placing the second stage main steam reheaters in service (H.4.b per IMC 0305). (Section 1R20)

Enforcement. TS 6.4, "Procedures," states, in part, "Written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1972 and cover . . . the applicable procedures recommended in Regulatory Guide 1.33, Appendix A, November 3, 1972 . . ." ANSI N18.7-1972, Section 5.1.2, "Procedure Adherence," states, in part, "Procedures shall be followed . . ." Regulatory Guide 1.33 [at

that time, Safety Guide 33], Appendix A, November 3, 1972, Item D, "Procedures for Startup, Operation, and Shutdown of Safety-Related BWR Systems," lists the main steam system (reactor vessel to turbine) as one of the applicable systems. NMPNS Operating Procedure N1-OP-41, "Reheaters and Moisture Separators," Revision 12, Section E, "Startup," step 4.3.3 states that the second stage reheater tube temperatures are to be raised at a maximum rate of 3F/min.

Contrary to the above, on April 10, 2009, operators did not correctly follow Operating Procedure N1-OP-41. As a result, actual heatup rates in excess of 3F/min occurred, which led to uneven heating and the development of a turbine rub. The resultant increase in turbine vibrations led the control room operators to rapidly reduce power and trip the turbine, which, in turn, caused an automatic initiation of the HPCI system. Because this violation was of very low safety significance and was entered into the CAP as CR 2009-2238, this violation is being treated as an NCV, consistent with the NRC Enforcement Policy. **(NCV 05000220/2009003-01, Failure to Follow Startup Procedure for Second Stage Reheaters Leads to Turbine Trip)**

1R22 Surveillance Testing (71111.22 - Eight samples)

a. Inspection Scope

The inspectors witnessed performance of and/or reviewed test data for risk-significant surveillance tests (STs) to assess whether the components and systems tested satisfied design and licensing basis requirements. The inspectors verified that test acceptance criteria were clear, demonstrated operational readiness and were consistent with the DBDs; that test instrumentation had current calibrations and the range and accuracy for the application; and that tests were performed, as written, with applicable prerequisites satisfied. Upon test completion, the inspectors verified that equipment was returned to the status specified to perform its safety function.

The following STs were reviewed:

- N1-ST-R10, "Drywell to Torus Leak Rate Test," Rev. 01500;
- N1-ST-V14, "Service Water Check Valve and Emergency Service Water Pump and Check Valve Test," Rev. 00600;
- N1-ST-C4, "Containment Spray Air Flow for Spray Headers and Nozzles Test," Rev. 08;
- N1-ST-V7, "Reactor Building Closed Loop Cooling System Pump and Valve Operability Test," Rev. 00100;
- N1-ISP-201-022, "Drywell Water Leak Detection System Instrument Channel Test", Rev. 03;
- N2-OSP-RSS-R007, "RCIC Remote Shutdown Panel Operational Test," Rev. 02;
- N2-ISP-ADS-Q003, "Quarterly Functional Test and Calibration of the ADS [Automatic Depressurization System] Logic Timer Initiation Circuits," for Division 1, Rev. 00300; and
- N2-OSP-CSL-Q@002, "LPCS Pump and Valve Operability and System Integrity Test," Rev. 05.

This represented a total of eight inspection samples, of which two were Routine Surveillances, five were In-Service Testing, and one was a Reactor Coolant System Leakage Detection Surveillance as defined by Inspection Procedure 71111.22.

b. Findings

No findings of significance were identified.

**Cornerstone: Emergency Preparedness**

1EP6 Drill Evaluation (71114.06 - One sample)

a. Inspection Scope

The inspectors observed control room operator emergency plan response actions during the Unit 1 evaluated LORT scenario on June 16, 2009. The inspectors verified that emergency classification declarations and notifications were completed in accordance with 10 CFR Part 50.72, 10 CFR Part 50 Appendix E, and emergency plan implementing procedures.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator Verification (71151 - Four samples)

a. Inspection Scope

The inspectors sampled NMPNS submittals for the performance indicators (PIs) listed below. To verify the accuracy of the PI data reported during that period, the PI definition guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 5, was used to verify the basis in reporting for each data element.

Cornerstone: Barrier Integrity

The inspectors reviewed operator logs, plant computer data, and daily sampling and surveillance procedure results to verify the accuracy of NMPNS's reported RCS PIs from April 2008 to March 2009.

- Unit 1 RCS leak rate;
- Unit 1 RCS specific activity;
- Unit 2 RCS leak rate; and
- Unit 2 RCS specific activity.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152 - Two samples)

.1 Review of Items Entered into the CAP

a. Inspection Scope

As specified by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into NMPNS's CAP. In accordance with the baseline inspection procedures, the inspectors also identified selected CAP items across the initiating events, mitigating systems, and barrier integrity cornerstones for additional follow-up and review. The inspectors assessed the threshold for problem identification, the adequacy of the cause analyses, extent of condition review, operability determinations, and the timeliness of the specified corrective actions.

Additionally, the inspectors reviewed a sample of examination reports and CRs initiated during ISI examinations to evaluate the licensee's effectiveness in the identification and resolution of problems. The inspector reviewed CRs which identified flaws and other nonconforming conditions. The inspector verified that the nonconforming conditions identified were reported, characterized, and entered into the CAP.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Review to Identify Trends

a. Inspection Scope

As specified by Inspection Procedure 71152, "Identification and Resolution of Problems," the inspectors reviewed NMPNS's CAP and associated documents to identify trends that could indicate significant safety issues. The inspectors' review focused on repetitive equipment and corrective maintenance issues but also considered the results of daily inspector CAP item screening. The review included issues documented outside the normal CAP in system health reports, quality performance and assurance assessment reports, and the unit significant issues lists. The inspectors' review considered the six month period of January 2009 through June 2009.

b. Findings

No findings or observations of significance were identified.

.3 Annual Sample - Review of Corrective Actions for Problems with Implementation of a Control Room Chiller Modification

a. Inspection Scope

The inspectors reviewed NMPNS's problem identification, evaluation, and resolution of problems that occurred during the implementation of design change package (DCP) N2-07-008, "Control Room Chiller Gear Set Replacement." The purpose of this design change was to improve the performance of the two divisional (safety related) control room chillers under conditions of high SW temperature (up to 84 degrees Fahrenheit). In February 2008, an attempt was made to implement the DCP for the Division 1 control room chiller; however, post-modification testing identified that the gear set that had been installed during the maintenance activity was the same style as had been previously installed. This issue was entered into the CAP as CR 2008-4422. Investigation of this issue identified that a problem also existed with the DCP installation that had previously been completed on the Division 2 control room chiller. In that case, the correct gear set had been installed, however, the full load amperage had not been adjusted as required by the DCP; consequently, it was determined that the chiller could not be considered operable if SW temperature was above 78 degrees Fahrenheit. This issue was entered into the CAP as CR 2008-5449.

NMPNS determined that the root cause for the failure to implement DCP N2-07-008 was a "faulty mental model" of the scope of the design change; failure to follow established work order preparation guidelines resulted in the Planning Department's failure to incorporate critical information from the design change documentation into the applicable work orders. A contributing cause was determined to be ineffective supervisory review of work orders; although the existing guidance for Planning Supervisors was deemed to be adequate, it had not been followed. An additional contributing cause was determined to be ineffective understanding and use of design change documentation by maintenance personnel.

As corrective action, NMPNS implemented a new procedure, CNG-CM-1.01-1003, "Design Engineering and Configuration Control." This procedure increased the responsibilities of engineering department personnel for oversight of the modification installation process to ensure that design installation and testing instructions are properly incorporated into the work package and work orders. Additional corrective action included briefing of planning and maintenance personnel concerning expectations for supervisory oversight and use of documentation in the modification installation process.

In May 2009, NMPNS again performed DCP N2-07-008 for the Division 1 control room chiller. The inspectors reviewed the associated documentation and discussed the activity with plant personnel to determine the effectiveness of the corrective actions taken for the previous modification installation issues.

b. Assessment and Observations

No findings of significance were identified. The primary corrective action was to require design engineering participation in the implementation of design changes. While the existing procedures had been adequate, if properly implemented, to have prevented the gear set and full load amperage problems, this corrective action provides an additional

layer of oversight and review, and thus greater assurance that such oversights will not recur. The inspectors concluded that NMPNS's evaluation of issues associated with the implementation of DCP N2-07-008 adequately identified the root cause and that the corrective action was reasonable. This failure to properly implement the design change was a violation of minor significance that is not subject to enforcement action in accordance with the NRC's enforcement policy.

#### 4OA3 Followup of Events and Notices of Enforcement Discretion (71153 - Two samples)

##### .1 (Closed) LER 05000220/2009-001-00, Failure to Implement Required Technical Specification Actions Associated with Failed Surveillance Test

On January 26, 2009, Unit 1 main steam isolation valve (MSIV) 01-01 failed to re-open as part of a TS-required partial closure surveillance test. Following repair of an electrical contactor, the surveillance was successfully completed approximately 15 hours later. However, operators failed to address the acceptance criteria in the TS 4.2.7.c surveillance, which required that the MSIV partially close and subsequently reopen. As a result, MSIV 01-01 was not declared inoperable following its failure to re-open, and the required action of TS 3.2.7.c to place the reactor in the cold shutdown condition within ten hours was not met. NMPNS entered this issue into its CAP as CR 2009-467. Corrective actions included annotating the required procedure steps to match associated technical specification requirements, dissemination of lessons learned to operations shift crews, and additional training in the performance of operability determinations. The events detailed in this Licensee Event Report (LER) were discussed in Section 1R22 of inspection report 05000220/2009002 and resulted in an NCV. The inspectors reviewed this LER and no additional findings of significance were identified. The failure to implement the required TS actions associated with the failed surveillance constitutes a violation of minor significance that is not subject to enforcement action in accordance with the NRC's Enforcement Policy. This LER is closed.

##### .2 (Closed) LER 05000220/2009-002-00, High Pressure Coolant Injection System Initiation Following a Manual Turbine Trip Due to High Turbine Bearing Vibrations

On April 10, 2009, while operating at 28 percent power, Unit 1 operators manually tripped the turbine due to rising turbine bearing vibrations. The HPCI system automatically initiated in response to the turbine trip, which was an event that is specifically reportable to the NRC under 10 CFR 50.73(a)(2)(iv)(A). This events detailed in this LER were discussed in Section 1R20 of this report. The inspectors reviewed this LER and no additional findings of significance were identified. This LER is closed.

#### 4OA5 Other Activities

##### .1 (Opened) VIO 05000220/2009003-02, Operator Failure to Obtain Senior Reactor Operator Permission Prior to Changing Reactor Power

By letter to NMPNS dated March 16, 2009, the NRC issued a Notice of Violation (NOV) associated with a reactor overpower event that occurred at Unit 1 on January 5, 2008. The NOV is discussed in this report for administrative tracking purposes.

.2 Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that the activities were consistent with NMPNS's security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security force personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status review and inspection activities.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Annual Performance Assessment Meeting

Mr. Glenn Dentel of the NRC Region I Division of Reactor Projects met with Mr. Keith Polson to discuss the results of the NRC's annual assessment of NMPNS for the year 2008. Details of the annual assessment are discussed in NRC Annual Assessment letter dated March 4, 2009.

.2 Exit Meeting

The inspectors presented the inspection results to Mr. Sam Belcher and other members of licensee management at the conclusion of the inspection on July 10, 2009. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

**ATTACHMENT: SUPPLEMENTAL INFORMATION**

**SUPPLEMENTAL INFORMATION****KEY POINTS OF CONTACT**Licensee Personnel

S. Belcher, Vice President  
 J. Yoe, Plant General Manager  
 W. Byrne, Manager, Nuclear Safety and Security  
 J. Kaminski, Director, Emergency Preparedness  
 J. Krakuszeski, Manager, Operations  
 F. Payne, Unit 1 General Supervisor Operations  
 H. Strahley, Unit 2 General Supervisor Operations  
 T. Syrell, Director, Licensing

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**Opened

05000220/2009003-02	VIO	Operator Failure to Obtain Senior Reactor Operator Permission Prior to Changing Reactor Power (Section 4OA5)
---------------------	-----	--

Opened and Closed

05000220/2009003-01	NCV	Failure to Follow Startup Procedure for Second Stage Reheaters Leads to Turbine Trip (Section 1R20)
---------------------	-----	---

Closed

05000220/2009-001-00	LER	Failure to Implement Required Technical Specification Actions Associated with Failed Surveillance Test (Section 4OA3)
05000220/2009-002-00	LER	High Pressure Coolant Injection System Initiation Following a Manual Turbine Trip Due to High Turbine Bearing Vibrations (Section 4OA3)

Discussed

None.

## LIST OF DOCUMENTS REVIEWED

### **Section 1R01: Adverse Weather Protection**

S-ODP-OPS-0112, "Off-Site Power Operations and Interface," Revision 01300  
 N1-SOP-33A.3, "Major 115 KV Grid Disturbances," Revision 01  
 N2-SOP-70, "Major Grid Disturbances," Revision 01  
 CNG-MN-4.01-1004, "On-Line T-Week Process," Revision 00000  
 NAI-PSH-11, "Seasonal Readiness Program," Revision 06  
 N1-OP-64, "Meteorological Monitoring," Revision 01  
 N2-OP-102, "Meteorological Monitoring," Revision 04  
 N1-ST-Q19, "Control Room HVAC System Operability Test," Revision 00900  
 N2-OP-53A, "Control Building Ventilation System," Revision 01000  
 N2-OP-54B, "Ventilation - Chilled Water (Lithium Bromide)," Revision 04  
 N2-VLU-01, "Walkdown Order Valve Lineup and Valve Operations," Revision 00, Attachment  
     54B, "N2-OP-54B Walkdown Valve Lineup"  
 WO 08-05649-00, "Perform Hot Weather Checklist"  
 N2-PM-A004, "Annual Removal and Installation of HVR Supply Pre-Filters," Revision 00  
 N2-PM-A001, "Annual Draining and Refilling of ACUs and Cooling Coils," Revision 00

### **Section 1R04: Equipment Alignment**

N1-OP-14, "Containment Spray System," Revision 04301  
 N1-OP-2, "Core Spray System," Revision 03101  
 N1-OP-12, "Liquid Poison System," Revision 28  
 N1-ST-C1, "Liquid Poison System Functional Test Using Demineralized Water With Squib  
     Valve Plugs Removed," Revision 01400  
 N1-ST-M1A, "Liquid Poison Pump 11 Operability Test," Revision 03  
 N1-ST-M1B, "Liquid Poison Pump 12 Operability Test," Revision 00301  
 N2-OP-100A, Standby Diesel Generators," Revision 00901  
 N2-VLU-01, "Walkdown Order Valve Lineup and Valve Operations," Revision 00, Attachment  
     100A, "N2-OP-100A Walkdown Valve Lineup"  
 N2-OP-31, "Residual Heat Removal System," Revision 18  
 N2-VLU-01, "Walkdown Order Valve Lineup and Valve Operations," Revision 00, Attachment  
     31, "N2-OP-31 Walkdown Valve Lineup"

### **Section 1R05: Fire Protection**

NMPNS Unit 1 UFSAR, Appendix 10A, "Fire Hazards Analysis"  
 NMPNS Unit 2 UFSAR, Appendix 9B, "Safe Shutdown Evaluation"  
 N1-FPI-PFP-0101, "Unit-1 Pre-Fire Plans," Revision 0  
 N2-FPI-PFP-0201, "Unit 2 Pre-Fire Plans," Revision 0

### **Section 1R08: Inservice Inspection Activities**

#### Procedures

NMP1-ISI-003, "ISI Program Third ISI Interval for NMP U1," Revision 04

NDEP-UT-6.24, "Ultrasonic Examination of Austenitic Piping Welds (Manual-Performance Demonstration Initiative)," Revision 07  
NDEP-PT-3.00, "Liquid Penetrant Examination," Revision 15  
NMPI-IWE-003, "Unit 1 Containment Inspection Program First ISI Interval," Revision 04  
CNG-FES-026, "ASME Section XI Program General Requirements," Revision 01  
CNG-FES-027, "ASME Section XI Ten-Year ISI Plan/Schedule," Revision 01  
CNG-AM-1.01-1008, "ASME Section XI In-Service Inspection Program," Revision 0  
CNG-AM-1.01-1020, "ASME Section XI Repair/Replacement Program," Revision 0

NDE Examination Reports

1-ANP-857-09-0001, "Automated Ultrasonic Examination of N2D Nozzle to Safe-End Weld (32-WD-164)"  
1-ANP-857-09-0003, "Automated Ultrasonic Examination of N1A Nozzle to Safe-End Weld (32-WD-002)"  
1-ANP-857-09-0004, "Automated Ultrasonic Examination of N1B Nozzle to Safe-End Weld (32-WD-045)"  
1-ANP-836-09-007, "Manual Ultrasonic Examination of 3" Diameter Control Rod Drive System Pipe Weld 44.1-WD-011"  
W-1-1105-07-007, "Automated Ultrasonic Examination of N2D Safe-End to Nozzle Weld (32-WD-164)"  
ID-54 through ID-64, "Automated UT Examination of RPV Ring 3 Vertical Weld RV-WD-133"  
EPRI Report, "Results Following the Review of Dissimilar Metal Weld Data for Nozzles N1A and N1B at the Nine Mile Point Unit 1 Nuclear Station," dated April 6, 2009

Work Orders

WO 08-054653, "Perform ISI Exams During N1R20"  
WO 07-03643, "Repair Reactor Vessel Flange"

Welding Procedures

WPS-8-8-BA-102, "Manual gas tungsten arc (GTAW) and shielded metal arc (SMAW) welding of P8 to P8"

Miscellaneous

CCN 2009-000351, "S4DWSHELL225 - Evaluation of 2009 UT Inspection Data of The NMP1 Drywell Shell (CR-2009-0001767)," Revision 0  
RR-ISI-2, 3, 5, & 6, "Relief Requests for The Third 10-Year ISI Program Plan"  
Audit SPC-08-01-N, "Audit Report of Special Processes, Testing & Inspection," dated October 27, 2008  
F-45183-C, "Weld Map System 32 Reactor Recirculation System 110 Samples," Sht. 7, Revision 7

**Section 1R11: Licensed Operator Requalification Program**

N1-SOP-31.2, "Pressure Regulator Malfunctions," Revision 00100  
N1-SOP-28, "Seismic Event," Revision 02  
N1-SOP-1, "Reactor Scram," Revision 02000  
N1-EOP-2, "RPV Control," Revision 01400

N2-SOP-13, "Loss or Degraded CCP System," Revision 02  
N2-SOP-101C, "Reactor Scram," Revision 03  
N2-EOP-SC, "Secondary Containment Control," Revision 10  
N2-EOP-RPV, "RPV Control," Revision 01200  
N2-EOP-C5, "Failure to Scram," Revision 11  
N2-EOP-6, "NMP2 EOP Support Procedure," Revision 11, Attachment 10, "Maintaining/  
Restoring the Main Condenser for RPV Pressure Control"  
N2-EOP-6, "NMP2 EOP Support Procedure," Revision 11, Attachment 13, "RRCS  
Manual Initiation"

### **Section 1R12: Maintenance Effectiveness**

S-MRM-REL-0101, "Maintenance Rule," Revision 18  
S-MRM-REL-0104, "Maintenance Rule Scope," Revision 01  
S-MRM-REL-0105, "Maintenance Rule Performance Criteria," Revision 01  
NDD-REL, "Maintenance Rule," Revision 09  
NIP-REL-01, "Maintenance Rule," Revision 10  
Unit 2 System Health Report for the Reactor Protection System, Second Quarter 2009  
Maintenance Rule Scoping and Performance Criteria for the Unit 2 Reactor Protection System

### **Section 1R13: Maintenance Risk Assessments and Emergent Work Control**

CNG-OP-4.01-1000, "Integrated Risk Management," Revision 00300  
CNG-MN-4.01-1004, "On-Line T-Week Process," Revision 00000  
CNG-MN-4.01-1006, "Online Schedule Management," Revision 00001

### **Section 1R15: Operability Evaluations**

CNG-OP-1.01-1002, "Conduct of Operability Determinations / Functionality Assessments,"  
Revision 00100

### **Section 1R19: Post-Maintenance Testing**

GAP-SAT-02, "Pre/Post-Maintenance Test Requirements," Revision 28  
N1-MMP-093-116, "Containment Spray Raw Water Pump Maintenance," Revision 00201

### **Section 1R20: Refueling and Other Outage Activities**

Shutdown Safety Review Report for Unit 1 Outage N1R20  
NIP-OUT-01, "Shutdown Safety," Revision 02500  
N1-FHP-25, "General Description of Fuel Moves," Revision 02100  
CNG-MN-1.01-1001, "Foreign Material Exclusion," Revision 00300  
N1-OP-43A, "Plant Startup," 02000

### **Section 1R22: Surveillance Testing**

GAP-SAT-01, "Surveillance Test Program," Revision 16

CNG-HU-1.01-1000, "Human Performance," Revision 00300  
CNG-HU-1.01-1001, "Human Performance Tools and Verification Practices," Revision 00400  
CNG-HU-1.01-1002, "Pre-Job Briefings and Post-Job Critiques," Revision 00300  
CNG-OP-4.01-1000, "Integrated Risk Management," Revision 00300  
S13.4-70-F002, "IST Approved Pump Curves - Reactor Building Closed Loop Cooling Pumps,"  
Revision 3

**Section 40A2: Identification and Resolution of Problems**

CR 2009-4422 Category 1 Root Cause Analysis, "Design Change Package for NMP2 Control  
Building Chillers not Implemented as Intended"  
DCP N2-07-008, "Control Room Chiller Gear Set Replacement," Revision 01  
CNG-CM-1.01-1003, "Design Engineering and Configuration Control," Revision 01  
N2-TSP-HVK-2Y001, "Control Building Chiller Performance Test," Revision 06

**Condition Reports**

2007-1859	2009-1631
2008-4422	2009-1720
2008-5449	2009-1767
2009-1517	2009-2130
2009-1604	2009-2157
2009-1624	

**LIST OF ACRONYMS**

AC	alternating current
ACR	action request
ADAMS	Agencywide Documents Access and Management System
ADS	automatic depressurization system
ASME	American Society of Mechanical Engineers
CAP	corrective action program
CFR	Code of Federal Regulations
CR	condition report
DBD	design basis document
DCP	design change package
DM	dissimilar metal
EDG	emergency diesel generator
EOP	emergency operating procedure
EPRI	electric power research institute
EVT	enhanced visual test
F/min	degrees Fahrenheit per minute
HPCI	high pressure coolant injection
IMC	inspection manual chapter
ISI	inservice inspection
KV	kilovolt
LER	licensee event report
LORT	licensed operator requalification training
LPCS	low pressure core spray
MSIV	main steam isolation valve
NCV	non-cited violation
NDE	non-destructive examination
NEI	Nuclear Energy Institute
NMPNS	Nine Mile Point Nuclear Station, LLC
NOV	notice of violation
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	performance indicator
PMT	post maintenance test
RB	reactor building
RCS	reactor coolant system
RFO	refueling outage
RFP	reactor feedwater pump
RPV	reactor pressure vessel
RRP	reactor recirculation pump
RTP	rated thermal power
RWCU	reactor water cleanup
SDP	significance determination process
SJAE	steam jet air ejector
SOP	special operating procedure
ST	surveillance test

SW	service water
TS	technical specification
UFSAR	updated final safety analysis report
UT	ultrasonic test
VIO	violation
VT	visual test
WO	work order