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

May 13, 2011

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

SUBJECT: NINE MILE POINT NUCLEAR STATION – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT 05000220/2011010 AND 05000410/2011010

Dear Mr. Belcher:

On April 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Nine Mile Point Nuclear Station Units 1 and 2, using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on April 29, 2011, with you and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Nine Mile Point Nuclear Station to respond to extraordinary consequences similar to those that have recently occurred at the Japanese Fukushima Daiichi Nuclear Station. The results from this inspection, along with the results from this inspection performed at other operating commercial nuclear plants in the United States will be used to evaluate the United States nuclear industry's readiness to safely respond to similar events. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report. You are not required to respond to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

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 05000220/2011010 and 05000410/2011010

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

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| Docket No.: | 50-220, 50-410 |
| License No.: | DPR-63, NPF-69 |
| Report No: | 05000220/2011010; 05000410/2011010 |
| Licensee: | Nine Mile Point Nuclear Station, LLC (NMPNS) |
| Facility: | Nine Mile Point, Units 1 and 2 |
| Location: | Oswego, NY |
| Dates: | April 6 through April 29, 2011 |
| Inspectors: | D. Dempsey, Resident Inspector |
| Approved by: | Lawrence T. Doerflein, Chief<br>Engineering Branch 2<br>Division of Reactor Safety |

## SUMMARY OF FINDINGS

IR 05000220/2011010 and 05000410/2011010; 04/063/2011 – 04/29/2011; Nine Mile Point, Units 1 and 2; Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced Temporary Instruction (TI) inspection. The inspection was conducted by a resident inspector. 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.

## INSPECTION SCOPE

The intent of the TI is to provide a broad overview of the industry's preparedness for events that may exceed the current design basis for a plant. The focus of the TI was on (1) assessing the licensee's capability to mitigate consequences from large fires or explosions on site, (2) assessing the licensee's capability to mitigate station blackout (SBO) conditions, (3) assessing the licensee's capability to mitigate internal and external flooding events accounted for by the station's design, and (4) assessing the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific followup inspection will be performed at a later date.

## INSPECTION RESULTS

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report.

| 03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to: | |
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| Licensee Action | Describe what the licensee did to test or inspect equipment. |
| a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.<br><br>This review should be done for a reasonable sample of mitigating strategies/equipment. | NMPNS tested portable equipment credited to support Security Order Section B.5.b or severe accident mitigation guidelines (SAMG), and verified that preventive maintenance tasks were current. Required equipment inventories were walked down and verified. The B.5.b and SAMG procedures were verified to be current and appropriately staged.<br><br>Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).<br><br>The inspector verified through walkdowns and document reviews that installed and portable equipment designed or staged to implement mitigation strategies was operable and procedures were workable. The types of equipment examined included fire water pumps and piping hose stations; portable pumps, fittings, hoses, adapters, and tools; portable direct current/alternating current power supplies and generators; radios and communications devices; gas bottles and regulators; and, equipment lockers. The inspector also evaluated the staging areas of B.5.b equipment in terms of availability and survivability in case of loss of large station areas. The reviews and walkdowns included equipment credited in emergency operating procedures (EOPs), SAMGs, and extreme damage mitigating guidelines (EDMG).<br><br>Documents reviewed are listed in the Attachment to this report. |

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| | | Discuss general results including corrective actions by licensee. |
| | | The licensee did not identify any significant deficiencies. Enhancements and minor deficiencies such as missing labels, fittings, or tools were captured in the corrective action program and promptly corrected. The condition reports (CR) are listed in the supplement of this report.<br><br>Based on the reviews conducted, the inspector concluded that the equipment was available and functional. |
| Licensee Action | | Describe the licensee's actions to verify that procedures are in place and can be executed (e.g. walkdowns, demonstrations, tests, etc.) |
| b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.<br><br>This review should be done for a reasonable sample of mitigating strategies/equipment. | | NMPNS reviewed B.5.b procedures, EDMG and severe accident procedures (SAP) to identify all referenced implementing procedures, including emergency and normal operating procedure attachments and damage repair procedures. All of the procedures were walked down by operators and engineers focusing on ability to execute without normal electrical or motive power. Comments and recommendations were captured in the corrective action program. |
| | | Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended. |
| | | The inspector reviewed NMPNS walkdown results and walked down several damage repair and abnormal procedures involving installation of alternate water sources to the reactor coolant, primary containment, and fire systems; containment venting strategies, and portable power supplies. The inspector assessed the adequacy and completeness of the procedures, staging and compatibility of equipment, and the practicality of the operator actions directed by the procedures. Based on these reviews, the inspector concluded the procedures were in place and executable. |

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| | | Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. |
| | | NMPNS did not identify any deficiencies that could have prevented a procedure from being executed. Minor issues such as labeling deficiencies or incorrectly staged or missing equipment were captured in the corrective action program and corrected. In some cases, alternate and easier means of implementing the guidelines and procedures were identified and adopted. CRs associated with this item are listed in the Attachment to this report.<br><br>Based on the reviews conducted, the inspector concluded that the procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. |
| Licensee Action | | Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff. |
| c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh). | | NMPNS reviewed and verified operator training for the commitments made under Security Order Section B.5.b. Operators are trained as emergency response organization (ERO) team members and on SAMGs and EDMGs. NMPNS also reviewed the ERO job qualification matrix and fire brigade qualification records and verified that all were current. |
| | | Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff. |

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| | | The inspector reviewed initial qualification and periodic re-qualification lesson plans and training records to verify that training for personnel tasked with implementing the B.5.b mitigating strategies, SAMGs, and EDMGs was up to date. The inspector concluded that the B.5.b training provided by NMPNS was appropriate and consistent with industry guidelines. Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. |
| | | No deficiencies were identified by NMPNS. Based on the reviews conducted, the inspector concluded that the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and SAMGs as required by 10 CFR 50.54 (hh). |
| Licensee Action | | Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place. |
| d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.<br><br>This review should be done for a reasonable sample of mitigating strategies/equipment. | | NMPNS verified that agreements from municipal fire departments and other commitments for various pieces of support equipment required to implement the strategies were in place and current. Additionally, NMPNS reviewed current interface agreements for support and contracts with suppliers and vendors to ensure that they were capable of meeting the conditions needed to mitigate the consequences of loss of a larger area of the plant. |
| | | For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current). |
| | | The inspector verified that NMPNS had current letters of agreement with off-site entities to provide assistance in mitigation strategies. The inspector verified that equipment with adequate lifting |

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| | | capacity to facilitate spray cooling into the spent fuel pool (SFP) and/or with capacity to charge the site fire headers for water makeup to the SFP was available. Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. |
| | | No deficiencies were identified by NMPNS. Based on the reviews conducted, the inspector concluded that the agreements and contracts were in place and were appropriate for the strategies evaluated. |
| Licensee Action | | Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy. |
| e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted. | | CRs for items identified by NMPNS are listed in the Attachment of this report. The inspector determined that none of the CRs describe problems that would have adversely impacted the capability to implement mitigating strategies. |

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| 03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to: | | |
| Licensee Action | | Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event. |
| a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained. | | NMPNS reviewed the SBO engineering evaluations and procedure basis documents and conducted walkdowns of all onsite SBO-related equipment to ensure that it was adequate, properly staged, tested, and maintained. Special equipment is stored in designated locations and inventoried during quarterly audits. Permanent plant equipment is tested in accordance with surveillance procedures. Other equipment described in damage repair procedures was verified to be functional. |
| | | Describe inspector actions to verify equipment is available and useable. |
| | | The inspectors reviewed the results of NMPNS activities and walked down the SBO procedures and equipment, including the station batteries and switchgear and the emergency diesel generators (EDG). Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. |

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| | | No deficiencies were identified by NMPNS. During its reviews NMPNS identified and implemented procedure enhancements, and verified that time-critical actions could be completed as required. CRs were initiated where appropriate and are listed in the Attachment of this report. Based on his review of NMPNS activities and independent walkdowns, the inspector concluded that NMPNS's reviews verified that SBO equipment was ready to respond to a SBO condition. |
| Licensee Action | | Describe the licensee's actions to verify the capability to mitigate an SBO event. |
| b. Demonstrate through walkdowns that procedures for response to an SBO are executable. | | NMPNS conducted walkdowns of its SBO procedures to verify they could be executed as written. NMPNS also audited all applicable procedures located in the main control room, the technical support center, and the emergency off-site facility. All documents were in place and current. |
| | | Describe inspector actions to assess whether procedures were in place and could be used as intended. |
| | | The inspector reviewed NMPNS's actions as documented in response to the industry guidance regarding followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event. The inspector independently walked down N1-SOP-33A.2, "Station Blackout," at Unit 1 in the field and on the Unit 1 simulator, and portions of N2-SOP-01, "Station Blackout Procedure," at Unit 2. Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. |
| | | No deficiencies were identified by NMPNS. Based on his review of NMPNS activities and independent procedure walkdowns, the inspector concluded that the SBO procedures were adequate to respond to a SBO condition. |

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| 03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional. | |
| Licensee Action | Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events. |
| a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained. | NMPNS conducted walkdowns and inspections of all required materials and equipment necessary to mitigate an internal or external flood to ensure that they were adequate. NMPNS also considered the potential that equipments functions could be lost during a seismic event appropriate for the site. NMPNS documented the areas inspected, procedures and surveillances/preventive maintenance reviewed, and permanent or portable mitigating equipment identified in accordance with the industry guidance. |
| | Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended. |
| | The inspector reviewed NMPNS external and internal flood design documents and independently walked down flood protection features associated with the EDGs and emergency switchgear. The inspector also reviewed the design qualification and installation of a sample of flood seals, and flood-related CRs. Documents reviewed are listed in the Attachment to this report. |
| | Discuss general results including corrective actions by licensee. |

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| | | The inspector concluded that all required materials are adequate and properly staged, tested, and maintained to respond to an internal or external flood within the NMPNS design basis.<br><br>While no operability or significant concerns were identified, NMPNS identified minor building sump and barrier discrepancies and initiated CRs appropriately. The CRs are listed in the Attachment to this report. The inspector reviewed the associated CRs and determined that the licensee's initial responses, including their assessment and prioritization, were appropriate. |

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| 03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections. | | |
| Licensee Action | | Describe the licensee's actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies. |
| a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained. | | NMPNS utilized industry guidance to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies. The guidelines were established to govern the conduct of walkdowns and inspections of the equipment. NMPNS walked down systems and components and documented the results in an internal report. |
| | | Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended. |

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| | | The inspector reviewed the scope of NMPNS's assessments and the results of its walkdowns. The inspector also walked down a sample of risk significant areas of the plant to assess beyond design basis seismic and flooding vulnerabilities, including the EDGs, containment spray, station batteries, emergency condensers, reactor core isolation cooling (RCIC) system, and the diesel fire pumps. The inspector also reviewed design basis flooding documents. The inspector determined that the licensee meets the current licensing and design bases for B.5.b, fire protection, and flooding. Documents reviewed are listed in the Attachment to this report. |
| | | Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews. |
| | | The inspector concluded that NMPNS's reviews were comprehensive. In reviewing beyond design basis fire or flooding and seismic interactions, NMPNS identified and documented vulnerabilities for additional review and evaluation. The vulnerabilities primarily involved the seismicity of fire suppression systems, and flood detection and building drain systems. CRs were initiated to track further actions. The CRs are listed in the Attachment to this report. |

## Meetings

### 4OA6 Exit Meeting

The inspectors presented the inspection results to Mr. Sam Belcher and other members of NMPNS management at the conclusion of the inspection on April 29, 2011. The inspectors asked NMPNS whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## SUPPLEMENTAL INFORMATION

## KEY POINTS OF CONTACT

Licensee

S. Belcher, Vice President
F. Payne, Unit 1 General Supervisor Operations
J. Kaminski, Director Emergency Preparedness
M. Eron, General Supervisor System Engineering

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### 03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events

Procedures:

EPIP-EPP-32, Resource and Communications Contingency Guidelines, Rev. 00800
EPMP-EPP-02, Emergency Equipment Inventories and Checklists, Rev. 04000
N1-DRP-GEN-001, Fire Zones T2A and T2D Turbine Building Detectors DA-2013S, DA-2013N, and DA-2031, Rev. 00500
N1-DRP-GEN-002, Emergency Damage Repair Turbine Building West Zone T2B Detector Zones DA-2051W, DA-2022N, and DA-2022S, Rev. 00800
N1-DRP-GEN-003, Emergency Damage Repair Fire Zone C1 Detector Zones DX-3011A and DX-3011B, Rev. 00700
N1-DRP-GEN-004, Emergency Damage Repair for Fire Zones C2 and C3, Rev. 00800
N1-DRP-GEN-005, Emergency Damage Repair Fire Area 5 Turbine Building, Rev. 06
N1-DRP-OPS-001, Emergency Damage Repair, Rev. 00700
N1-EOP-1, NMP1 EOP Support Procedure, Rev. 01000
N1-EOP-3.1, Alternate Control Rod Insertion, Rev. 01000
N1-EOP-3.2, Alternate Boron Injection, Rev. 00400
N1-EOP-4.1, Primary Containment Control, Rev. 00600
N1-OP-17, Makeup Demineralizer System, Rev. 01301
N1-OP-21A, Fire Protection System – Water, Rev. 01400
N1-PM-011, B.5.b Pump preventive Maintenance Procedure, Rev. 00502
N1-PM-Q6, Periodic Review of In-Plant Tools and Equipment Required by EOPs, Rev. 00301
N1-SAP-1, Primary Containment Flooding, Rev. 00600
N1-SAP-2, RPV, Containment, and Radioactivity Release Control, Rev. 00600

N1-ST-C1, Liquid Poison System Test using Demineralized Water with Squib Valve Plugs Removed, Rev. 01501
N2-DRP-GEN-001, Maintenance Emergency Damage Repair Procedure, Rev. 00000
N2-DRP-OPS-001, Emergency Damage Repair, Rev. 00502
N2-DRP-OPS-002, Emergency Damage Repair For Containment Venting With Division II AC Unavailable, Rev. 00100
N2-EOP-6, NMP2 EOP Support Procedure, Rev. 01300
N2-OP-31, Residual Heat Removal System, Rev. 02200
N2-OP-33, High Pressure Core Spray System, Rev. 01100
N2-OP-55, Turbine Building Ventilation, Rev. 00301
N2-OP-62, DBA Hydrogen Recombiner, Rev. 00601
N2-PM-083, SLS EOP Hydro Pump Test, Rev. 00000
N2-PM-A006, B.5.b Pump Annual Flow Test, Rev. 00300
N2-PM-Q008, Quarterly Audit of EOP Support Equipment, Rev. 04000
N2-SAP-1, Primary Containment Flooding, Rev. 00500
N2-SAP-2, RPV, Containment, and Radioactivity Release Control, Rev. 00700
N2-SOP-39, Refuel Floor Events, Rev. 00500
NMP-1.01-103, Plant Operator Training Program, Rev. 00900
NMP-TR-1.01-102, Licensed Operator Requalification Training Program, Rev. 01200
S-DRP-OPS-003, Emergency Damage Repair – Portable Pump Operation and Deployment, Rev. 00500
S-EDMG-01, Extreme Damage Mitigation Guideline - Loss of Large Area of the Station, Rev. 1
S-EDMG-02, Extreme Damage Mitigation Guideline - SFP Response - Loss of Large Area of the Station, Rev. 2

Condition Reports:

CR 2011-002006, N2-DRP-OPS-002 Section 6.6 is not Complete
CR 2011-002095, No Gated Wye Connection Staged
CR 2011-002148, Missing Fitting for Control Rod Drive Venting per EOP-3.1
CR 2011-002166, Proximity Suits Wrong Sizes and Location
CR 2011-002168, Loss of Control Over Operations Support Center Key for Damage Control Team Tool Cart
CR 2011-002178, Degraded Condition of Two Inverters for Downwind Survey Teams
CR 2011-002179, N1-EOP-4.1, Section 10 is Incomplete and does not Function as Written
CR 2011-002191, N2-EOP-6, Att 25 No Flow Path for Containment Purge in 3.15 and 3.18
CR 2011-002193, Elbow Needed on Flange for U1 SFP Makeup
CR 2011-002195, Incorrect Wrench Staged for N1-EOP-4.1
CR 2011-002199, B.5.b Pump Flow Meter does not Fit on Hoses
CR 2011-002201, Hose not Staged for U2 SFP Makeup
CR 2011-002205, Draw Bar Pin for B.5.b Pump Trailer Hitch Not Secure
CR 2011-002217, Unit 1 does not have a Detailed Contingency Procedure for Venting the Drywell High Point to Main Stack for Loss of Power and Loss of Air
CR 2011-002219, Scaffold will be Required to Complete U1 Makeup Tank Fill from SW
CR 2011-002224, B.5.b Pump Met Acceptance Criteria, But Pressure on Flow Gage was Low
CR 2011-002272, Unit 2, Emergency Response Procedures Vent Primary Containment to Secondary Containment Needs Re-evaluation
CR 2011-002275, Problems Identified with TSC and CR Satellite Phones

CR 2011-002279, Problems Identified with EP Portable Radios
CR 2011-002280, N2-DRP-OPS-002, Unable to Verify Cable Length
CR 2011-002284, Missing and Degraded Labels at Unit 2
CR 2011-002286, Summary of Procedure Enhancement PCRs Written for U1
CR 2011-002288, EOP Table Missing From Some Locations at U2
CR 2011-002291, Review Training Plans to Determine if ERO Support Staff Training Warrants Improvement
CR 2011-002311, Potential Shelf Life Concerns with Various Inventories in EPMP-EPP-02
CR 2011-002312, N1-ST-C1 Test of Alternate Boron Injection Hydro Pump does not Specify a Required Pressure
CR 2011-002316, Summary of Procedure Enhancement PCRs Written for U2
CR 2011-002320, Tachometer for RCIC Black Start Procedure in N2-DRP-OPS-001 does not have a Specific Periodic Test
CR 2011-002405, Procedure Enhancements for EPIP-EPP-32
CR 2011-02426, Need Larger Hose Reel Installed

Other:

03-OPS-006-344-03-01, Lesson Plan – Special Operating Procedures N1-SOP-27.1/N2-SOP-76 External Security Threats, Rev. 0
03-OPS-006-344-03-02, Lesson Plan – S-SAP-01, Loss of a Large Area of the Station, Rev. 0
S101-EDMG00C01, Extreme Damage Mitigation Guidelines (EDMG), Rev. 0

**03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions**

Procedures:

EPMP-EPP-02, Emergency Equipment Inventories and Checklists, Rev. 04000
N1-DRP-OPS-001, Emergency Damage Repair, Rev. 00800
N1-OP-18, H.6.0, Lining Up Fire Water to Emergency Service Water Header 11, Rev. 02700
N1-OP-21, H.6.0, Diesel Fire Pump Start with No Control Power, Rev. 01400
N1-OP-30, H.3.0, Return to Normal Following Loss of 115 kV Lines, Rev. 02602
N1-OP-45, H.18.0, EDG 102 Control Room Starting following Station Blackout, Rev. 03200
N1-OP-45, H.19.0, EDG 103 Control Room Starting following Station Blackout, Rev. 03200
N1-OP-45, H.2.0, EDG Raw Water from Diesel Fire Pump, Rev. 03200
N1-OP-45, H.4.0, EDG 102 Local Starting, Rev. 03200
N1-OP-45, H.5.0, EDG 103 Local Starting, Rev. 03200
N1-OP-6, H.1.0, SFP Cooling Restoration after System Trip, Rev. 02401
N1-OP-6, H.19.0, Emergency Recovery of Spent Fuel Pool Cooling - LOCA, Rev. 02401
N1-PM-Q6, Periodic Review of In-Plant Tools and Equipment Required by EOPs, Rev. 00301
N1-SOP-18.1, Service Water Failure/Low Intake Level, Rev. 00400
N1-SOP-33A.1, Loss of 115 kV, Rev. 00200
N1-SOP-33A.2, Station Blackout, Rev. 00502
N1-SOP-6.1, Loss of SFP/Rx Cavity Level/Decay Heat Removal, Rev. 00300
N2-DRP-GEN-001, Maintenance Emergency Damage Repair Procedure, Rev. 00000
N2-DRP-OPS-001, Emergency Damage Repair, Rev. 00502
N2-DRP-OPS-002, Emergency Damage Repair for Containment Venting with Div II AC Unavailable, Rev. 00100

N2-EOP-6, Att 2, Defeating RCIC Main Turbine Trip Interlock/Steam Line Isolations, Rev. 01300
N2-EOP-6, Att 20, Defeating RPV Water Level Interlocks, Rev. 01300
N2-OP-31, H.1.0, RHR A (B, C) Fuel Pool Cooling Startup, Rev. 02200
N2-OP-37, H.5.0, Maximizing WCS System Cooling on Loss of Shutdown Cooling or to Assist Reactor Pressure, Rev. 02000
N2-PM-Q008, Quarterly Audit of EOP Support Equipment, Rev. 00400
N2-SOP-01, Station Blackout Procedure, Rev. 01102
N2-SOP-03, Loss of AC Power, Rev. 00100
N2-SOP-31, Loss of Shutdown Cooling, Rev. 00500
N2-SOP-31R, Refueling Operations Alternate Shutdown Cooling, Rev. 00700
N2-SOP-38, Loss of Spent Fuel Pool Cooling, Rev. 00700
NER-1M-025, Station Blackout Evaluation, Rev. 01
NER-1M-095, NMP1 Emergency Operating Procedures and Severe Accident Procedures Basis Document, Rev. 2
NER-2E-027, Identification of Systems and Components Required for SBO Event, Rev. 00.00
S-ODP-OPS-0112, Offsite Power Operations and Interface, Rev. 01502

Condition Reports:

CR 2011-002340, N2-SOP-3, Att. 14, Reducing Battery Loads Needs Enhancement
CR 2011-002341, Several Spare Breakers Found Closed While Walking Down N2-SOP-3
CR 2011-002658, Loss of SFP Cooling is not Referenced in N1-SOP-33A.2
CR 2011-002782, Thermocouples, Transmation Device and 150 Feet of Wire Needed to Execute SFP Temperature Monitoring in Mode 5 not Pre-Staged
CR 2011-003319, N2-DRP-OPS-002 Section 6.2, Venting during Station Blackout, is not Executable as Written
CR-2011-002708, Scaffold Needed to Line-up Fire Water to ESW Header per N1-OP-18
CR-2011-02569, N2-SOP-3 Loss of AC Power, Directs Powering down Process for Computer Equipment that is Already Powered Down

**03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design**

Procedures:

N1-FST-FPP-C001, Fire Barrier/Penetration Seal Inspection, Rev. 00800
N2-FSP-FPP-R001, Fire Rated Assemblies and Watertight Penetration Visual Inspection, Rev. 03.00
N2-OP-63, Reactor Building Drains, Rev. 00401
N2-OP-64, Turbine Building Drains, Rev. 00401
N2-WPM-Q@001, Sump Inspection, Rev. 00300
S-MMP-SDM-001, Site Doors Maintenance, Rev. 00300

Condition Reports:

CR 2010-005250, DFT-P1B (DFT-TK1A) Discharge Hose Split – Water Sprays into Sump
CR 2010-005542, 2DFT-P5H for 2DFT-SUMP2J is Running Continuously
CR 2010-005645, Brush, Debris, Trees Growing in Culvert – Greater than 10 percent Obstructed
CR 2011-001770, PM Strategy for Unit 1 Water Tight Doors Does Not Align with Unit 2
CR 2011-002778, Sump Inspection Procedure Not Performed at Required Interval
CR 2011-002984, SA-175-1 (RHR 'B' Heat Exchanger Room) Submarine Door Seal Appears to have Minor Damage
CR 2011-003522, Water Leaking from Wall North of Unit 1 Service Water Pumps
CR 2011-003526, Unplugged Conduit Hole Near Ground Level on South Wall of NMP1 Admin. Building
CR 2011-003529, Tunnel Wall between U2 Control Building and Switchgear Building has Water Leakage
CR 2011-003532, Minor Deficiency – Leakage from North Auxiliary Bay ICS/SWP Valve Room Penetration 3177
CR 2011-003536, Outfall 001 Piping Outlet Approximately 30 percent Obstructed
CR 2011-003537, Outfall 020 Piping Outlet Approximately 20 percent Obstructed

Other:

S0-Flood-F001, Internal Flooding Hazard Analysis, Rev. L

**03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events**

Condition Reports:

CR 2011-002075, Corrosion and Minor Water Leakage Evident on 2" Pipe Nipples at Fire Hose Stations in Screenhouse East
CR 2011-002881, Tracking CR for Actions Identified through use of IER Screening Process
CR 2011-002939, Due to Events Fukushima Daiichi Nuclear Power Plant, Re-evaluation of Fire Protection Program (Including Fire Brigade Training) Needs to be Addressed
CR 2011-003020, Unit 1 Turbine Sump Alarms Needs to be Reviewed for Periodic Testing Requirements
CR 2011-003495, Minor Deficiency on Pipe Saddle Support Next to BV-100-54

## LIST OF ACRONYMS USED

| | |
|---|---|
| ADAMS | Agencywide Documents Access and Management System |
| CFR | Code of Federal Regulations |
| CR | condition report |
| EDG | emergency diesel generator |
| EDMG | extreme damage mitigation guidelines |
| EOP | emergency operating procedure |
| ERO | emergency response organization |
| IP | inspection procedure |
| KV | kilovolt |
| NMPNS | Nine Mile Point Nuclear Station |
| NRC | Nuclear Regulatory Commission |
| PARS | Publically Available Records |
| RCIC | reactor core isolation cooling |
| SAMG | severe accident mitigation guidelines |
| SAP | severe accident procedure |
| SBO | station blackout |
| SFP | spent fuel pool |
| SOP | special operating procedure |
| TI | temporary instruction |