



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

May 13, 2011

Mr. Mark A. Schimmel  
Site Vice President  
Prairie Island Nuclear Generating Plant  
Northern States Power Company, Minnesota  
1717 Wakonade Drive East  
Welch, MN 55089

**SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1  
AND 2 - NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION  
REPORT 05000282/2011009; 05000306/2011009**

Dear Mr. Schimmel:

On April 29, 2011, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Prairie Island Nuclear Generating Plant, 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 Prairie Island Nuclear Generating Plant 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 U.S. 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.

M. Schimmel

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Sincerely,

**/RA/**

John B. Giessner, Chief  
Branch 4  
Division of Reactor Projects

Docket Nos. 50-285; 50-306; 72-010  
License Nos. DPR-42; DPR-60; SNM-2506

Enclosure: Inspection Report 05000282/2011009; 05000306/2011009

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-282; 50-306; 72-010

License Nos: DPR-42; DPR-60; SNM-2506

Report No: 05000282/2011009; 05000306/2011009

Licensee: Northern States Power Company, Minnesota

Facility: Prairie Island Nuclear Generating Plant, Units 1 and 2

Location: Welch, MN

Dates: March 23, 2011, through April 29, 2011

Inspectors: K. Stoedter, Senior Resident Inspector  
P. Zurawski, Resident Inspector  
S. Lynch, Nuclear Safety Professional Development  
Program Participant (observer)

Approved by: John B. Giessner, Chief  
Branch 4  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

05000282/2011009; 05000306/2011009; 03/23/2011 – 04/29/2011; Prairie Island Nuclear Generating Plant, 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 inspection. The inspection was conducted by resident inspectors. 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 walk downs 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 follow-up 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:

<b>Licensee Action</b>	<b>Describe what the licensee did to test or inspect equipment.</b>
<p>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.</p>	<p>The licensee identified equipment (active and passive) utilized for implementation of B.5.b actions and Severe Accident Management Guidelines (SAMGs). Permanent plant equipment (i.e., in situ equipment) was not considered within the scope of this inspection since it was normally in service, subjected to maintenance and surveillance activities, and/or checked on operator rounds. The licensee identified surveillances/tests and performance frequencies for the identified equipment and reviewed the most recent results. All active equipment within the scope defined above was retested. Passive equipment within the scope was inspected and inventoried using existing procedures.</p>
<p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<b>Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).</b>
	<p>The licensee’s actions discussed above were completed prior to the issuance of NRC TI 2515/183. The inspectors assessed the adequacy of the licensee’s actions and capabilities by reviewing the licensee’s activities. This review consisted of reviewing the results of equipment testing activities to ensure B.5.b and SAMG-related equipment could perform as required. The inspectors also independently walked down and inspected major B.5.b and SAMG contingency response equipment staged throughout the site.</p>
	<b>Discuss general results including corrective actions by licensee.</b>
	<p>The licensee had only one piece of SAMG-related equipment that was not considered in situ plant equipment. Both the licensee and the inspectors verified that this piece of equipment was in good material condition and in the designated storage location. All designated B.5.b equipment (active and passive) was verified by the licensee and the inspectors to be in the proceduralized storage location. Minimum equipment inventories were also verified to be met. The licensee performed surveillance and/or preventive maintenance activities on specific passive equipment to verify that the equipment was ready for use.</p>
	<p>The licensee performed flow verification testing on the B.5.b pump to ensure that pump could supply required flows. The inspectors verified that the pump remained able to provide</p>

	<p>flow commensurate with the B.5.b strategies. Some minor equipment enhancements were identified by the licensee and entered into the corrective action program (CAP). Specific CAP documents are listed in the List of Documents Reviewed section of this report.</p>
<p><b>Licensee Action</b></p>	<p><b>Describe the licensee’s actions to verify that procedures are in place and can be executed (e.g. walkdowns, demonstrations, tests, etc.)</b></p>
<p>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.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee formed a response team to evaluate whether B.5.b and SAMG-related procedures were in place and executable. The licensee’s response team reviewed industry B.5.b and SAMG guidance, and performed a combination of walkdown and table top reviews, to validate that procedures for implementing the strategies associated with B.5.b and 10 CFR 50.54(hh) were in place and could be executed. The event response team also used a series of simulator scenarios plus a detailed table top review to evaluate the availability and execution of SAMG procedures.</p> <p><b>Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.</b></p> <p>A majority of the licensee’s actions in this area were completed prior to the issuance of TI 2515/183. The inspectors observed portions of the licensee’s SAMG table top review to assess whether the SAMG procedures were executable. The inspectors also assessed the licensee’s execution capabilities by conducting a review of the licensee’s walkdown activities. Based upon the results of a previous B.5.b inspection, the inspectors chose several B.5.b procedures for review. In each case, the inspectors performed an independent, in-plant walkdown to ensure that appropriate equipment was available, the procedure could be executed as written, and that previous NRC identified issues with the strategies had been corrected. The inspectors used the results of their independent review to verify the licensee’s conclusions.</p>

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>Operations personnel walked down each of the procedures used following a severe accident or B.5.b event to ensure that each action could be performed. No deficiencies were identified. However, enhancements such as the staging of bolt cutters and possible plant modifications to ease procedure execution were identified and documented in the CAP. During the performance of SAMG table top activities, the licensee identified an area for improvement regarding SAMG-related training. Specifically, the licensee identified that SAMG-related continuing training had not been provided to the necessary emergency response organization (ERO) members. The inspectors verified that the initial and continuing training program for all on-shift operations personnel included SAMG and B.5.b-related training. The inspectors also verified that all licensed and non-licensed operators qualified to stand watch had completed B.5.b and SAMG training. The licensee also completed a SAMG-related emergency drill every six years. The lack of SAMG continuing training for other ERO members resulted in extending the amount of time specific ERO members needed to implement the SAMG procedures. However, the SAMG procedures remained executable.</p> <p>The licensee documented this issue in their CAP. All CAP document numbers initiated as part of this review are provided in the List of Documents Reviewed section of this report.</p>
<b>Licensee Action</b>	<p><b>Describe the licensee’s actions and conclusions regarding training and qualifications of operators and support staff.</b></p>
<p>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).</p>	<p>The licensee identified operator training/qualification requirements associated with the implementation of B.5.b or SAMG strategies. The licensee documented that operator training requirements were current and identified those operators with qualification requirements that were not current due to medical restrictions. The licensee also identified the B.5.b and SAMG training/qualification requirements for applicable ERO command and support staff and verified training requirements were current.</p> <p><b>Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.</b></p> <p>The licensee’s actions as discussed above were completed prior to the issuance of NRC TI 2515/183. The inspectors assessed the licensee’s training and qualification activities by conducting a review of training and qualification materials and records related to B.5.b and SAMG event response.</p>

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>The licensee reviewed the training program descriptions for all licensed and non-licensed operations personnel and determined that B.5.b and SAMG-related training was provided as part of the operations initial and continuing training programs. The licensee reviewed training qualification dates contained in their learning management system and verified that all operators qualified to stand watch had received the training required by the operator continuing training program within the specified frequency. The licensee confirmed that all operations personnel verify their qualifications prior to assuming an on-shift position. The training requirements, qualifications, and associated records needed for ERO command and support staff were also reviewed. While all ERO personnel had completed required training, the licensee identified that no training requirement existed to ensure that ERO personnel received continuing training on SAMG procedures on a specified frequency (see Section 03.01b above). This issue was documented in the licensee's CAP. The licensee was implementing activities to develop continuing training for SAMG decision makers and evaluators at the conclusion of this inspection.</p>
<p><b>Licensee Action</b></p>	<p><b>Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.</b></p>
<p>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.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee identified all applicable contracts and agreements committed to be in place for the mitigation of a B.5.b related event. The licensee verified that the contracts and agreements were current and documented whether or not the contracts/agreements were capable of meeting the mitigation strategy.</p> <p><b>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).</b></p> <p>The licensee's actions as discussed above were completed prior to the issuance of NRC TI 2515/183. The inspectors assessed the licensee's capabilities by conducting an independent review of the agreements and contracts. The inspectors' determined that the agreements and contracts were current and adequate for meeting the licensee's mitigation strategy.</p>



	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>The licensee reviewed all contracts and agreements to ensure that the documents were current and that all required equipment covered by these documents remained available. An additional agreement was in place with the National Guard should an event extend beyond the capabilities of the agreed upon resources and/or local and state government.</p>
<p><b>Licensee Action</b></p>	<p><b>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.</b></p>
<p>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.</p>	<p>CAP 1276003 – Re-Evaluate Continuing Training Requirements for SAMG Training  CAP 1276437 – EDMG Portable Pump and Tow Vehicle Stuck in Mud  CAP 1276441 – EDMG Portable Fire Pump Priming Issues during TP-1423  CAP 1276445 – EDMG Portable Fire Pump Suction Gauge not Functioning  CAP 1276645 - Desired Equipment and Possible Modifications to Enhance SAMG Implementation  CAP 1277505 – Enhancements to SAMG Procedures  CAP 1276723 – Type on Equipment Availability Check Figure  CAP 1277744 – Enhancement to SAMG Diagnostic Flow Chart  CAP 1278970 – No Plywood Mats Available for use if Equipment Placed on Soft Ground</p> <p>The inspectors reviewed each CAP for potential impact to the licensee’s mitigation strategies. No significant impacts were identified. While the inspectors were concerned regarding the licensee’s lack of SAMG continuing training for ERO personnel, the inspectors observed portions of the licensee’s SAMG table top activities and verified that currently qualified ERO staff members (SAMG decision makers and evaluators) were able to execute the SAMG procedures.</p>

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:	
<b>Licensee Action</b>	<b>Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event.</b>
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	<p>Following an SBO event, Prairie Island procedures direct operations personnel to provide alternate AC to the SBO unit via the opposite unit's emergency diesel generators (EDG). As a result, there was no temporary or staged equipment needed to respond to an SBO event. The licensee reviewed recent EDG test results to verify that each EDG had been adequately tested. The licensee also performed a review of test results and calculations to determine that each EDG had the capacity to provide alternate AC during an SBO event. The licensee reviewed the electrical distribution system to ensure that alternate AC could be aligned to the SBO unit within required timeframe. Condensate and EDG fuel oil inventories were reviewed to verify that adequate inventories were maintained. Various plant support systems were also reviewed to ensure that power would be available to this equipment following the alignment of alternate AC. Operations personnel performed walkdowns of procedures used to respond to an SBO event to ensure that the procedures were adequate and executable. The licensee also conducted a review of open CAP items for potential SBO equipment impact.</p> <p><b>Describe inspector actions to verify equipment is available and useable.</b></p> <p>The inspectors assessed the licensee's capability to mitigate SBO conditions by conducting a review of the licensee's activities. The inspectors selected a sample of equipment utilized for mitigation of a SBO and conducted independent walkdowns of that equipment to verify that the equipment was properly aligned. The sample of equipment selected by the inspectors included, but was not limited to, EDGs and auxiliaries. The inspectors also observed recent surveillance testing (including a 24 hour load test) on two EDGs to ensure that this equipment was able to perform its safety function.</p>

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>In general, the licensee’s reviews verified that SBO equipment was ready to respond to a SBO condition. During their CAP review, however, the licensee noted multiple previously identified equipment issues on SBO support equipment which were not yet corrected. The inspectors were aware of each equipment issue identified by the licensee. The licensee had previously evaluated each condition using their prompt and immediate operability program. Functionality/Operability of the equipment was maintained in all cases. However, some cases required the implementation of compensatory measures. The inspectors reviewed each of the previously identified issues and determined that they would not prevent the licensee from responding to an SBO event. Corrective action program document numbers for each of the previously identified equipment issues are provided in the List of Documents Reviewed section of this report.</p>
<p><b>Licensee Action</b></p> <p>b. Demonstrate through walkdowns that procedures for response to an SBO are executable.</p>	<p><b>Describe the licensee’s actions to verify the capability to mitigate an SBO event.</b></p> <p>The licensee conducted walkthroughs of SBO-related procedures with operations personnel to ensure the procedures were able to be executed without difficulty. In addition, the licensee performed several simulator scenarios using SBO-related procedures during the development of a risk assessment for one of the previously identified equipment issues.</p> <p><b>Describe inspector actions to assess whether procedures were in place and could be used as intended.</b></p> <p>The inspectors assessed the licensee’s capabilities by conducting a review of the licensee’s walk through activities. The inspectors selected several sections of procedures walked through by the licensee and performed an independent review to verify the licensee’s conclusions. The inspectors also observed several of the licensee’s simulator scenarios. Through these simulator observations, the inspectors concluded that the SBO-related procedures utilized had been in place for some time and were fully executable.</p> <p><b>Discuss general results including corrective actions by licensee.</b></p> <p>The licensee concluded that all procedures used to respond to an SBO event were executable. One CAP document was written regarding the need to evaluate whether some equipment should be labeled as emergency use only. However, this did not impact the licensee’s ability to execute the SBO procedures. The CAP document number for this issue is provided in the List of Documents Reviewed section of this report.</p>

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.	
<b>Licensee Action</b>	<b>Describe the licensee’s actions to verify the capability to mitigate existing design basis flooding events.</b>
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	The licensee reviewed the design and licensing bases for both internal and external flooding. Licensee actions included reviewing flooding related procedures and identifying equipment and penetration seals utilized/required for flood mitigation. The licensee walked down flooding related equipment to ensure it was adequate and properly staged. Flood related doors, bulk heads, barriers, penetration seals and equipment were identified. The licensee verified that this equipment was routinely inspected for functionality. Where routine inspections were not performed or could not be relied upon to ensure functionality, the licensee performed walkdowns and inspections to ensure that the components were functional. The licensee had also installed several in-plant modifications to address internal flooding vulnerabilities within the turbine building. The licensee verified that these modifications remained in good condition and provided appropriate protection during a flooding event.
	<b>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</b>
	The inspectors assessed the licensee’s capabilities to mitigate flooding by conducting a review of the licensee’s walkdown activities. In several instances, these reviews involved the inspectors accompanying licensee personnel during their walkdowns. The inspectors also conducted independent walkdowns of selected flood mitigation equipment as part of the overall assessment of the licensee’s flood mitigating capabilities. Licensee flood mitigation procedures were reviewed to verify usability. The inspector’s conclusions aligned with the results obtained by the licensee.
	<b>Discuss general results including corrective actions by licensee.</b>
	The licensee’s verification of flood mitigation capability consisted of procedure reviews and walk downs to verify that the systems, structures, and components (SSCs) were present, periodically tested, and in acceptable condition. All design features, such as flood barriers, were present and in good condition with exceptions documented in the licensee’s corrective action system. The licensee initiated several CAPs to document degraded seals. For these instances, the licensee’s assessment of operability, which was reviewed by the inspectors,

	<p>determined that the missing seal did not have any significant adverse impact on flood mitigation capability.</p> <p>The licensee used plant specific design information to determine doors, barriers, and penetration seals that were required to remain functional to mitigate a flooding event. The licensee's reviews confirmed that all flood doors were inspected as part of a routine maintenance program. The licensee walked down other flood barriers and identified some internal flooding discharge paths that were not consistent with calculations/evaluations of record. The licensee evaluated these inconsistencies and determined that no operability issue existed. Independent assessment by the inspectors concluded similar results. Previous to this inspection, the licensee identified two additional flood barrier doors which had bottom seals that functioned intermittently. The licensee had previously established compensatory measures for each of these doors. Inspector review confirmed compensatory measures remained in place as of the date of this inspection. Additionally, the licensee identified a flood barrier penetration seal with a loose boot clamp. The licensee implemented actions to correct the problem by tightening the clamp. Other minor issues were noted by the licensee as part of the walkdown activities. A list of items placed in the corrective action system is provided in the List of Documents Reviewed section of this inspection report.</p>
<p>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.</p>	
<p><b>Licensee Action</b></p>	<p><b>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.</b></p>
<p>a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>The licensee identified equipment utilized/required for mitigation of fire and flood events. Industry seismic experts conducted walkdowns of fire and flood mitigating SSCs to determine whether this equipment would remain available following a safe shutdown earthquake. Seismic vulnerabilities, including storage locations, were identified, along with mitigating strategies for equipment that was not seismically qualified.</p>

	<p><b>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</b></p> <p>The inspectors conducted walkdowns, both independently and in conjunction with licensee personnel, of important SSCs needed to mitigate fire and flood events to identify the potential that the SSC's function could be lost during a seismic event. This equipment included, but was not limited to:</p> <ul style="list-style-type: none"> <li>• all major B.5.b contingency response equipment;</li> <li>• all installed fire protection and suppression equipment in the turbine building;</li> <li>• the installed diesel and electric fire pumps and their controls; and</li> <li>• water tight doors, roof hatches and floor plugs at the plant screenhouse.</li> </ul> <p>The results of the inspectors' reviews aligned with the licensee's conclusions that there were a number of seismic vulnerabilities that potentially need to be addressed, as described below.</p> <p><b>Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.</b></p> <p>Seismically qualified SSCs normally consist of safety-related equipment that has been formally qualified to function during and after a design basis earthquake. The licensee's reviews for this issue determined that nonsafety-related SSCs, in general, were not considered to be either seismically qualified or seismically rugged due to a wide variety of issues. A majority of installed sump pumps and flooding detectors were not designed as seismically qualified and have not been evaluated as being seismically rugged. However, a majority of the sump pumps and flooding detectors were not relied upon following a seismic/flooding event. Similarly, the vast majority of the fire protection system was not designed to be seismically qualified and could not be considered seismically rugged. Firefighting equipment staged to respond to B.5.b events was not stowed in seismically qualified buildings and locations, as a seismic event and B.5.b event have never been assumed to occur concurrently.</p> <p>The licensee's reviews identified instances where response capability could be enhanced. These included reviewing the locations of portable equipment and reviewing the need for supplemental portable equipment to compensate for the possible loss of much of the fire protection system.</p>
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	<p>Further, reviews by the licensee identified that in the event of a postulated earthquake equipment may not function properly due to loss of essential power or being subjected to physical displacement. The existing mitigation strategy was considered presently sufficient by the licensee. Further mitigation strategies may be developed and implemented following a review of industry lessons learned from the Fukushima Daiichi event. The licensee entered the issues identified into their CAP as CAPs 1280101 and 1280380; INPO ER L1 11-1: Recommendation 4 Vulnerabilities and Enhancements.</p>
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## Meetings

### .1 Exit Meeting

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



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

M. Schimmel, Site Vice President  
K. Davison, Plant Manager  
T. Roddey, Site Engineering Director  
J. Anderson, Regulatory Affairs Manager  
C. Bough, Chemistry and Environmental Manager  
B. Boyer, Radiation Protection Manager  
K. DeFusco, Emergency Preparedness Manager  
D. Goble, Safety and Human Performance Manager  
J. Hamilton, Security Manager  
J. Lash, Nuclear Oversight Manager  
M. Milly, Maintenance Manager  
J. Muth, Operations Manager  
S. Northard, Performance Improvement Manager  
K. Peterson, Business Support Manager  
A. Pullam, Training Manager  
R. Womack, Production Planning Manager (Acting)

#### Nuclear Regulatory Commission

J. Giessner, Chief, Reactor Projects Branch 4  
T. Wengert, Project Manager, NRR

## 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

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CAP 1276003	Re-Evaluate Continuing Training Requirements for SAMG Training	March 18, 2011
CAP 1276437	EDMG Portable Pump and Tow Vehicle Stuck in Mud	March 20, 2011
CAP 1276441	EDMG Portable Fire Pump Priming Issues during TP-1423	March 20, 2011
CAP 1276445	EDMG Portable Fire Pump Suction Gauge not Functioning	March 20, 2011
CAP 1276645	Desired Equipment and Possible Modifications to Enhance SAMG Implementation	March 22, 2011
CAP 1277505	Enhancements to SAMG Procedures	March 26, 2011
CAP 1276723	Typo on Equipment Availability Check Figure	March 22, 2011
CAP 1277744	Enhancement to SAMG Diagnostic Flow Chart	March 28, 2011
CAP 1278970	No Plywood Mats Available for use if Equipment Placed on Soft Ground	April 4, 2011
TP 1422	Quarterly EDMG Equipment Inventory	March 20, 2011
TP 1423	Portable Diesel Fire Pump Testing	March 20, 2011
SP 1183.2	Monthly Fire Extinguisher and Hose Station Inspection	March 11, 2011
SP 1664	Monthly Fire Fighting Equipment Check	March 24, 2011
EDMG-1	Guideline Response to a Loss of Normal Plant Command and Control	Revision 2
EDMG-2	Guideline for Damage Mitigation Strategies	Revision 3
SEG P9160S-001	SAMG Technical Support Center Walkthrough	March 21, 2011
1(2)SACRG-1	Severe Accident Control Room Guideline 1	Revision 0

1(2)SAG-1	Inject into the Steam Generators	Revision 2
1(2)SAG-2	Depressurize the Reactor Coolant System	Revision 1
1(2)SAG-3	Inject into the Reactor Coolant System	Revision 1
1(2)SAG-4	Inject into Containment	Revision 0
1(2)SAG-5	Reduce Fission Product Releases	Revision 0
1(2)SAG-6	Control Containment Conditions	Revision 0
1(2)SAG-7	Reduce Containment Hydrogen	Revision 0
1(2)SCG-1	Mitigate Fission Product Releases	Revision 0
1(2)SCG-2	Depressurize Containment	Revision 0
1(2)SCG-3	Control Hydrogen Flammability	Revision 0
1(2)SCG-4	Control Containment Vacuum	Revision 0
1(2)SAEG-1	TSC Long Term Monitoring	Revision 0
1(2)SAEG-2	Unit 1 SAMG Termination	Revision 0
1(2)CA-1	RCS Injection to Recover Core	Revision 0
1(2)CA-2	Injection Rate for Long Term Decay Heat Removal	Revision 0
1(2)CA-3	Hydrogen Flammability in Containment	Revision 1
1(2)CA-4	Volumetric Release Rate from Containment	Revision 0
1(2)CA-5	Containment Water Level and Volume	Revision 0
1(2)CA-6	RWST Gravity Drain	Revision 0
1(2)CA-7	Hydrogen Impact when Depressurizing Containment	Revision 0
FL-LOR-TPD	Fleet Licensed Operator Requalification Training Program Description	Revision 2
FL-ILT	Initial License Training	December 9, 2010
PI-OPS-ILT	Prairie Island Initial License Training	Revision 10
P7480-002	SAMG Executive Volume for the Control Room Lesson Plan	Revision 0

P7480L-004	Severe Accident Control Room Guideline for Transients After TSC is Functional Lesson Plan	Revision 0
P7482L-001	SAMG Executive Volume for the TSC Lesson Plan	Revision 0
P7482L-003	SAMG Instrumentation Lesson Plan	Revision 0
P7482L-004	SACRG-1 and 2 for the Technical Support Center	Revision 0
P9110L-0802	EDGM and SAMG Review	Revision 0
PI-NLO	Prairie Island Nuclear Generating Plant Non-Licensed Operator Training Program Description	Revision 19
PI-P7480L-005	Extensive Damage Mitigation Guideline Phase 2 and 3	Revision 0
P8450L-002	Goodwin Portable Diesel-Driven Water Pump	Revision 0
PI-P8410L-0403	Extensive Damage Mitigation Guidelines	Revision 0

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

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CAP 1174370	No Tornado Protection of CC Piping for 122 Spent Fuel Pool Heat Exchanger	March 23, 2009
CAP 1214553	Inadequate Design Basis for Battery Load Profile/Duty Cycle	January 20, 2010
CAP 1233935	Potential Common Mode Failure of Unit 2 Fuel Oil Transfer Pumps	May 21, 2010
CAP 1234078	Possible Non-Conservative Assumption in ENG-ME-066	May 23, 2010
CAP 1238842	CDBI 2010 Prep SP1083 Revised without Proper 50.59 Evaluation	June 24, 2010
CAP 1248977	12 AFW Pump Unit Cooler Leaking	September 9, 2010
CAP 1250561	Battery Chargers may Stop Operating if Undervoltage Setpoint is Reached	September 21, 2010
CAP 1263345	Operability Recommendation 1233935-01 Diesel Fuel Oil Needs Improvement	December 17, 2010
CAP 1265904	Battery Room Heatup did not Consider Historical Information	January 11, 2011
CAP 1266815	Extent of Condition on Room Heat Up Issues	January 18, 2011
CAP 1270101	Questions regarding Operability Recommendation 1263345-01	February 9, 2011
CAP 1270104	Non-Conservative Assumption in Unit 1 Battery Calculations	February 9, 2011

CAP 1271778	Items need to be Analyzed for SP 1039 Tornado Hazards	February 20, 2011
CAP 1271871	Items Identified in SP 1039 Areas 1 and 2 Removed/Secured	February 21, 2011
CAP 1277162	Battery Charger Significance Determination Process Identified other Lockup Scenarios	March 24, 2011
CAP 1277409	Valves not Easily Accessible	March 25, 2011
CAP 1278211	Consider Labeling Equipment as Emergency Use Only	March 30, 2011
NUMARC 87-00	Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors	August 1991
Regulatory Guide 1.155	Station Blackout	August 1988
NRC Letter	Safety Evaluation of the Prairie Island Nuclear Generating Plant Units 1 and 2; Station Blackout Rule 10 CFR 50.63	Sept. 18, 1990
Section 8	Prairie Island Updated Safety Analysis Report	Revision 32P
ENG-EE-045	Diesel Generator Steady State Loading for a LOOP Coincident with an SBO	Revision 5
1(2)ECA-0.0	Loss of All Safeguards AC Power	Revision 20
SP 1(2)001B	Unit 1(2) Control Room Log Modes 1 and 2	Revision 15
SP 1187	Weekly Battery Inspection	Revision 27
SP 1039	Tornado Hazard Site Inspection	March 20, 2011
AB-2	Tornado/Severe Thunderstorm/High Winds	Revision 35
1(2)C20.5	Unit 1(2) – 4.16 kV System	Revision 15/20
2C20.5 AOP1	Re-Energizing 4.16 kV Bus 25	Revision 11
2C20.5 AOP4	Re-Energizing 4.16 kV Bus 25 via Bustie Breaker	Revision 4
SP 1322	Safeguards Buses Weekly Inspection	March 23, 2011
SP 2322	Safeguards Buses Weekly Inspection	March 22, 2011
SP 1093	D1 Diesel Generator Monthly Slow Start Test	March 14, 2011
SP 1295	D1 Diesel Generator 6 Month Fast Start Test	March 14, 2011
SP 1334	D1 Diesel Generator 18 Month 24 Hour Load Test	January 14, 2010
SP 1305	D2 Diesel Generator Monthly Slow Start Test	February 28, 2011
SP 1307	D2 Diesel Generator 6 Month Fast Start Test	Sept. 22, 2010

SP 1335	D2 Diesel Generator 18 Month 24 Hour Load Test	January 26, 2011
SP 2295	D5 Diesel Generator 6 Month Fast Start Test	December 6, 2010
SP 2334	D5 Diesel Generator 18 Month 24 Hour Load Test	August 29, 2009
SP 2305	D6 Diesel Generator Monthly Slow Start Test	March 23, 2011
SP 2307	D6 Diesel Generator 6 Month Fast Start Test	October 18, 2010
SP 2335	D6 Diesel Generator 18 Month 24 Hour Load Test	June 11, 2009

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

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CAP 1275453	Response To IER L1-11-1 Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami	April 6, 2011
CAP 1276007	Operational Decision Making for 12 DDCLP Preventive Maintenance During Flood Window	March 18, 2011
CAP 1276379	Discrepancy between TP 1539 and C25.1	March 20, 2011
CAP 1276479	Procedures Still Reference Use of Land-Lock Discharge	March 21, 2011
CAP 1276585	Piles of pallets and Debris on South Side of Protected Area	March 21, 2011
CAP1276812	Outside Satellite RCAs Inadequate	March 22, 2011
CAP 1276916	Station Flood Procedure (AB-4) Level for Shutdown challenged	March 23, 2011
CAP 1277010	SFGD CL Bay Levels Read Too High	March 23, 2011
CAP 1277180	Flooding Concerns Itemized List	March 24, 2011
CAP 1277329	Discrepancy in AB-4 Flood Procedure and USAR - 1000 Year Flood	March 25, 2011
CAP 1277778	Ensure Completion of Screens to Fine Mesh Mode	March 28, 2011
CAP 1277988	AB-4 Flood Concerns for Medium Voltage Cable Splice Vault	March 29, 2011
CAP 1278018	121 MDCLP Baseplate Drain Hole Threads Appear Inadequate	March 29, 2011
CAP 1278029	Unclear Labeling of Flood Cover for CT Pumphouse Roof	March 29, 2011
CAP 1278031	Respond to Violation Associated with Turbine Bldg Flooding	March 29, 2011
CAP 1278082	Intake Screenhouse Discharge Trough is Plugged	March 29, 2011

CAP 1278437	Unit-2 Condenser Cleaning	April 1, 2011
CAP 1278538	Deicing Pumphouse Standpipe Overflow is Discharging to River	April 1, 2011
CAP 1278562	Road to Fish Pit Covered by Water	April 1, 2011
CAP 1278970	Walkdown of AB-4 Flood	April 4, 2011
CAP 1279054	No Functional Sump Pumps In CTPH During Flood Conditions	April 4, 2011
CAP 1279198	REMP TLD changeout affected by Miss. River Flooding	April 5, 2011
CAP 1279293	SP 1333 Completed UNSAT Due to AB-4, Flooding	April 6, 2011
CAP 1279430	Unclear Direction in AB-4 for Powering Equipment after LOOP;	April 6, 2011
CAP 1279562	Underground Splice Vault Flooding Potential	April 7, 2011
CAP 1279620	AB-4 Does Not ID What Size Portable Sump Pumps are Needed	April 7, 2011
CAP 1279684	Discharge Canal Level Indication Erratic	April 8, 2011
CAP 1280421	Riverside Training Class Canceled Due To Flooding	April 13, 2011
CAP 1280473	Technical Review Pending on Internal Flooding Evaluations	April 13, 2011
CAP 1280489	Neutralization Tanks Need to be Emptied of Water	April 13, 2011
CAP 1280574	No Clear Guidance to Power Plant Equipment During LOOP	April 13, 2011
CAP 1280653	External Flood Penetrations - No Specific Discussion in PM 3586-10	April 14, 2011
CAP 1275668	AB-4 Revision 36 Update Table-1	March 16, 2011
CAP 1278027	AB-4 Flood Revision 37	March 29, 2011
CAP 1278167	AB-4, Revision 37	March 30, 2011
CAP 1280475	AB-4, Revision 37	April 13, 2011
	INPO IER L1-11-1, "Fukushima Daiichi Nuclear Station Fuel Damage Caused by Earthquake and Tsunami"	March 15, 2011
Appendix F	Prairie Island Updated Safety Analysis Report (USAR), "Probable Maximum Flood Study Mississippi River at Prairie Island, Minnesota"	Revision 4
Section 2	Prairie Island USAR "Site and Environs"	Revision 31
	Letter, A Giambusso to AV Dienhart, "Request for Additional Information Concerning a Postulated Steam Pipe Break Outside of Containment"	December 12, 1972

	Prairie Island Final Safety Analysis Report (FSAR).	Amendment 31
	Supplement 1 to Safety Evaluation by the Directorate of Licensing U. S. Atomic Energy Commission in the matter of Northern States Power Company Prairie Island Units 1 & 2 Docket Nos. 50-282 & 50-306	March 21, 1973
	NRC Office of Nuclear Reactor Regulation Letter to NRC Region III, Task Interface Agreement - Evaluation of Flooding Licensing Basis at PINGP (TIA 2011-007, NRC Adams #ML110240359)	January 28, 2011
	PINGP HELB Reconstitution Project Study	Revision 0
ENG-ME-758	Evaluation of HELB Target Flow Rates in the Turbine Building	Revision 0
ENG-ME-732	Determination of HELB / Flooding Interactions in the Turbine Building	Revision 1
ENG-ME-759	GOTHIC Internal Flooding Calculation for the Turbine Building,	Revision 0
ENG-ME-448	Auxiliary Building Flooding Analysis	Revision 1
Section 6	Prairie Island USAR "Engineered Safety Features"	Revision 32P
	Letter from Skovholt (AEC) to Dienhart (NSP), Subject: "Flooding of Critical Equipment,"	August 3, 1972
	Letter from DeYoung (AEC) to Dienhart (NSP), Subject: "Plant Flooding,"	September 26, 1972
	Letter from Dienhart (NSP) to DeYoung (AEC), Subject: "30 day response to the 9/26/1972 letter,"	October 23, 1972.
86L907	Modification 86L907, "High Turbine Building Level Trip of the Circulating Water Pumps."	
AB-4	Floods	Revision 37
PINGP 195	Turbine Building Data - Unit 1	Revision 99
PINGP 196	Turbine Building Data - Unit 2	Revision 113
TP 1398	Verify Physical Inputs To Internal Flooding Evaluations	Revision 2
EC 16940	Engineering Change (EC) 16940 - Condenser Pit Fill Time due to a Random Pipe Failure	
	Letter, A Giambusso to AV Dienhart, "Clarification of Guidelines and Criteria Regarding a Postulated Break in a Pipe Carrying a High-Energy Fluid"	January 11, 1973
Generic Letter 87-11	Relaxation In Arbitrary Intermediate Pipe Rupture Requirements	June 19, 1987
USAR	Prairie Island Updated Safety Analysis Report (USAR), Appendix I, "High Energy Line Breaks Outside of Containment"	Revision 32P
OPR 1178236	Turbine Building HELB	November 1, 2009



C1-A	Unit Heatup Checklist	Revision 25
C35 AOP1	Abnormal Operating Procedure, Loss Of Pumping Capacity Or Supply Header With SI	Revision 12
C35 AOP2	Abnormal Operating Procedure, Loss Of Pumping Capacity Or Supply Header Without SI	Revision 12
C35 AOP5	Abnormal Operating Procedure, Cooling Water Leakage Outside Containment	Revision 7
5AWI 8.9.0	Internal Flooding Drainage Control	Revision 7
H36	Plant Flooding	Revision 4
C31 AOP1	Fire Protection Line Break	Revision 0
C47019	Alarm Response Procedure for Annunciator Location: 47019-0603 - AUX BLDG SUMP HI LVL	Revision 31
C47020	Alarm Response Procedure for Annunciator Location: 47020-0303 - CC AREA SUMP HI LVL	Revision 40
C47016	Alarm Response Procedure for Annunciator Location: 47016-0602 - 11 RHR PIT SUMP HI/LO LVL	Revision 41
C47016	Alarm Response Procedure for Annunciator Location: 47016-0603 - 12 RHR PIT SUMP HI/LO LVL	Revision 41
C47516	Alarm Response Procedure for Annunciator Location: 47516-0602 - 21 RHR PIT SUMP HI/LO LVL	Revision 38
C47516	Alarm Response Procedure for Annunciator Location: 47516-0603 - 22 RHR PIT SUMP HI/LO LVL	Revision 38
C47022	Alarm Response Procedure for Annunciator Location: 47022-0305 - 122 FIRE PUMP (DIESEL) RUNNING	Revision 46
C47008	Alarm Response Procedure for Annunciator Location: 47008-0606 - TURBINE ROOM SUMP HI LVL	Revision 25
C47508	Alarm Response Procedure for Annunciator Location: 47508-0606 - TURBINE ROOM SUMP HI LVL	Revision 25
C47001	Alarm Response Procedure for Annunciator Location: 47001-0102 - CDSR PIT FLOODING CHANNEL ALERT	Revision 15
C47501	Alarm Response Procedure for Annunciator Location: 47501-0104 - CDSR PIT FLOODING CHANNEL ALERT	Revision 25
C47020	Alarm Response Procedure for Annunciator Location: 47020-0104 - LOOP A COOLING WATER HI FLOW	Revision 35
C47020	Alarm Response Procedure for Annunciator Location: 47020-0105 - LOOP B COOLING WATER HI FLOW	Revision 35
C47020	Alarm Response Procedure for Annunciator Location: 47020-0204 - LOOP A COOLING WATER LO PRESS	Revision 35
C47020	Alarm Response Procedure for Annunciator Location: 47020-0205 - LOOP B COOLING WATER LO PRESS	Revision 35
C47520	Alarm Response Procedure for Annunciator Location: 47520-0103 - LOOP A COOLING WATER HI FLOW	Revision 32
C47520	Alarm Response Procedure for Annunciator Location: 47520-0104 - LOOP B COOLING WATER HI FLOW	Revision 32
C47520	Alarm Response Procedure for Annunciator Location: 47520-0203 - LOOP A COOLING WATER LO PRESS	Revision 32

C47520	Alarm Response Procedure for Annunciator Location: 47520-0204 - LOOP B COOLING WATER LO PRESS	Revision 32
C47001	Alarm Response Procedure for Annunciator Location: 47001-0605 - SCRNHSE SUMP HI LA	Revision 15
EC 8754	Evaluate the Relay & Cable Spreading Room for Internal Flooding	
EC 8975	Evaluate the U1 4.16kV & 480V Sfgds Switchgear Compartment for Internal Flooding	
EC 9069	EC 9069, Evaluate D1/D2 Compartments for Internal Flooding	
EC 8070	Evaluate D5/D6 Compartments for Internal Flooding	
EC 9076	Evaluate the 480V Sfgds Switchgear (Bus 112 & 122) & Event Monitoring Rooms for Internal Flooding	
EC 9377	Evaluate 121 & 122 CR Chiller Rooms for Internal Flooding	
EC 9538	Engineering Change (EC) 9538, Evaluate the Control Room Compartment for Internal Flooding	
WO 352018	IC 0WL-7, Auxiliary Building and Radwaste Building Sump Level Alarm Calibration	September 11, 2008
WO 326402	IC 0WL-14, 11 RHR Pit Sump Level Switch Calibration	May 2, 2008
WO 326423	IC 0WL-15, 12 RHR Pit Sump Level Switch Calibration	June 12, 2008
WO 323413	IC 0WL-16, 21 RHR Pit Sump Level Switch Calibration	January 25, 2008
WO 326422	PMRQ 6956-01, IC 0WL-17, 22 RHR Pit Sump Level Switch Calibration	December 6, 2007.
WO 391442	IC 1MD-1, Turbine Building Sump Level Alarm Calibration	December 7, 2010.
WO 391439	IC 2MD-1, Turbine Building Sump Level Switch Calibration	December 15, 2010.
WO 290501	PE 0023-03T, Bus 23 Relay Test Trip	May 10, 2010.
WO 309081	PE 0013-10T, 4.16 kV Bus 23 Cubicle 3 21 Circulating Water Pump Electrical Maintenance Test Tripping	Revision 5
WO 389705	ICPM 1-027, Loop A Cooling Water Header Instrument Calibration	January 7, 2010.
WO 385792	ICPM 2-027, Loop B Cooling Water Header Instrument Calibration	November 24, 2009.
WO 389490	IC 0CL-1, 122 Filtered Water Strainer Differential Pressure and Cooling Water Strainer Pressure Alarm Calibration	October 1, 2010
W O 391441	IC 1MD-3, Screen House Sump Level Alarm Calibration	December 7, 2010
WO 412783	TP 1398, Verify Physical Inputs To Internal Flooding Evaluations	March 28, 2011
TP 1398	Verify Physical Inputs To Internal Flooding Evaluations	Revision 2
WO 407939	SP 1293, Inspection of Flood Control Measures	February 3, 2011

SP 1293	Inspection of Flood Control Measures	Revision 20
21-6197	Fuel Oil Storage Tank Seismic Review	October 3, 1969
CAP 1278023	Replace AB-4 Flood Tag for Baseplate Drain Cap on 12 DDCLP	March 29, 2011
CAP 1273163	AB-4 Revision 36 EC 15219	March 01, 2011
WO 409082	Possible Blown Bearing on 22 Turbine Building Sump	December 13, 2010
WO 391977	11 Condensate Pit Sump Pump Not Running	October 22, 2009
WO 419454	Repair 122 Cooling Tower Sump Pump – Won't Stop Running	April 07, 2011
WO 373749	121 Cooling Tower Pump House Sump Pump Tripped on Overload	March 09, 2009
WO 424459	Fabricate Strongback for AB-4	March 15, 2011
WR 66127	Refurbish Degraded Cooling Tower Pump House Flood Cover Eyebolts	March 30, 2011
WR 66128	Inspect D5 and D6 Loop Seal Blind Flange Connections	March 30, 2011
CAP 1279430	Unclear Direction in AB-4 for Powering Equipment after LOOP	April 06, 2011
WR 66353	Repair Cooling Tower Pumphouse Drop Area Cover Lifting Eye Hooks	April 06, 2011
WR 66098	Baseplate Drain Hole Threads Need To Be Cleaned Up	March 29, 2011
CAP 1277095	Radio Tower Backup Generator Fuel Level Less Than 40%	March 24, 2011
CAP 1275179	Flooding Response and Logistics Plan Tracking	March 14, 2011
CAP 1274249	OE31675 Inadequate Procedures to Protect Against flooding	March 08, 2011
WO 407939	SP 1293 Annual Inspection of Flood Control Measures	March 25, 2011
CAP 1260473	Technical Review Pending Internal Flooding Evaluations	April 13, 2011
CAP 1279556	Unit 1 Circulating water High Level Trip Switch – No apparent Testing	April 07, 2011
WR 66064	Hose Clamp on Flood Barrier on Sump B to 11 RHR Loose	March 26, 2011
CAP 1277847	Hose Clamp on Flood Barrier on Sump B to 11 RHR Loose	March 28, 2011
CAP 1277773	Measured Door Gaps Are Less Than Assumed in Calculation	March 28, 2011

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

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CAP 1280101	Evaluate INPO IER 11-1, Recommendation No. 4 with Respect to Fires	April 11, 2011
CAP 1280380	Evaluate INPO IER 11-1, Recommendation No. 4 with Respect to Flooding	April 12, 2011

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
ERO	Emergency Response Organization
IP	Inspection Procedure
NRC	United States Nuclear Regulatory Commission
SAMG	Severe Accident Management Guidelines
SBO	Station Blackout
SSC	Structure, System or Component
TI	Temporary Instruction

M. Schimmel

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Sincerely,

**/RA/**

John B. Giessner, Chief  
Branch 4  
Division of Reactor Projects

Docket Nos. 50-285; 50-306; 72-010  
License Nos. DPR-42; DPR-60; SNM-2506

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Letter to M. Schimmel from J. Giessner dated May 13, 2011.

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNITS 1  
AND 2 - NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION  
REPORT 05000282/2011009; 05000306/2011009

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