



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

May 13, 2011

Mr. Michael Annacone  
Vice President  
Carolina Power and Light Company  
Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461-0429

**SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT - NRC TEMPORARY INSTRUCTION  
2515/183 INSPECTION REPORT NOS. 05000325, 324/2011010**

Dear Mr. Annacone:

On April 28, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Brunswick Unit 1 and 2 facilities using Temporary Instruction 2515/183, "Follow up to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on April 28, 2011, with you and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Brunswick Steam Electric 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.

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 document

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system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Randall A. Musser, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos.: 50-325, 50-324  
License Nos.: DPR-71, DPR-62

Enclosure: Inspection Report 05000325, 324/2011010

cc w/encl:

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NAME	JWorosilo	JDodson	PO'Bryan	GKolcum	AMinarik	RMusser	
DATE	05/13/2011	05/13/2011	05/12/2011	05/12/2011	05/12/2011	05/13/2011	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

cc w/encl:  
Donna B. Alexander  
Manager, Nuclear Regulatory Affairs  
(interim)  
Progress Energy  
Electronic Mail Distribution

Kelvin Henderson  
General Manager  
Nuclear Fleet Operations  
Progress Energy  
Electronic Mail Distribution

Edward L. Wills, Jr.  
Director Site Operations  
Brunswick Steam Electric Plant  
Electronic Mail Distribution

Joseph M. Frisco, Jr.  
Plant General Manager  
Brunswick Steam Electric Plant  
Progress Energy  
Electronic Mail Distribution

Joseph W. Donahue  
Vice President  
Nuclear Oversight  
Progress Energy  
Electronic Mail Distribution

Brian C. McCabe  
Manager, Nuclear Oversight  
Shearon Harris Nuclear Power Plant  
Progress Energy  
Electronic Mail Distribution

Phyllis N. Mentel  
Manager, Support Services  
Brunswick Steam Electric Plant  
Progress Energy Carolinas, Inc.  
Electronic Mail Distribution

Leonard R. Beller  
Manager, Training (acting)  
Brunswick Steam Electric Plant  
Electronic Mail Distribution

David T. Conley  
Senior Counsel  
Legal Department  
Progress Energy  
Electronic Mail Distribution

Annette H. Pope  
Supervisor, Licensing/Regulatory Programs  
Brunswick Steam Electric Plant  
Progress Energy Carolinas, Inc.  
Electronic Mail Distribution

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
Brunswick Steam Electric Plant  
U.S. NRC  
8470 River Road, SE  
Southport, NC 28461

John H. O'Neill, Jr.  
Shaw, Pittman, Potts & Trowbridge  
2300 N. Street, NW  
Washington, DC 20037-1128

Peggy Force  
Assistant Attorney General  
State of North Carolina  
P.O. Box 629  
Raleigh, NC 27602

Chairman  
North Carolina Utilities Commission  
Electronic Mail Distribution

Robert P. Gruber  
Executive Director  
Public Staff - NCUC  
4326 Mail Service Center  
Raleigh, NC 27699-4326

Brunswick County Board of Commissioners  
P.O. Box 249  
Bolivia, NC 28422

cc w/encl. (Continued next page)

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cc w/encl. (continued)  
Public Service Commission  
State of South Carolina  
P.O. Box 11649  
Columbia, SC 29211

W. Lee Cox, III  
Section Chief  
Radiation Protection Section  
N.C. Department of Environmental  
Commerce & Natural Resources  
Electronic Mail Distribution

Warren Lee  
Emergency Management Director  
New Hanover County Department of  
Emergency Management  
230 Government Center Drive  
Suite 115  
Wilmington, NC 28403

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Letter to Michael J. Annacone from Randall A. Musser dated May 13, 2011

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT - NRC TEMPORARY INSTRUCTION  
2515/183 INSPECTION REPORT NOS. 05000325, 324/2011010

Distribution w/encl:

C. Evans, RII EICS

L. Douglas, RII EICS

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R. Pascarelli, NRR

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-325, 50-324

License Nos.: DPR-71, DPR-62

Report No: 05000325, 324/2011010

Licensee: Carolina Power and Light Company

Facility: Brunswick Steam Electric Plant, Units 1 & 2

Location: 8470 River Road, SE  
Southport, NC 28461

Dates: March 24, 2011 – April 28, 2011

Inspectors: P. O'Bryan, Senior Resident Inspector  
G. Kolcum, Resident Inspector  
A. Minarik, Reactor Inspector (in training)

Approved by: R. Musser, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000325/2011010, 05000324/2011010, 03/24/2011 – 04/28/2011; Brunswick Steam Electric Plant, Units 1 & 2; Temporary Instruction 2515/183 – Follow-up to the Fukushima Daiichi Nuclear Station Fuel Damage Event

This report covers an announced Temporary Instruction inspection. The inspection was conducted by Resident inspectors and a Reactor 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 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.

Enclosure



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:

Licensee Action	<i>Describe what the licensee did to test or inspect equipment.</i>												
<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>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee determined that B.5.b equipment was functional through testing and inspection. Permanently installed equipment was walked down to verify needed support equipment is staged, available, and appropriate for completing the function. B.5.b Active Equipment was verified functional and available through the performance of the following:</p> <table border="1" data-bbox="625 797 1753 1232"> <thead> <tr> <th data-bbox="625 797 835 834">Procedure</th> <th data-bbox="835 797 1753 834">Title</th> </tr> </thead> <tbody> <tr> <td data-bbox="625 834 835 932">OPT-34.36.1.1</td> <td data-bbox="835 834 1753 932">Emergency Diesel Make-up Pump (EDMP) Functional Test</td> </tr> <tr> <td data-bbox="625 932 835 1000">OPT-52.0</td> <td data-bbox="835 932 1753 1000">B.5.b Portable Generator And DC Power Supplies Operability Check</td> </tr> <tr> <td data-bbox="625 1000 835 1068">OPT-52.1</td> <td data-bbox="835 1000 1753 1068">B.5.b Portable Air Manifold And Hoses Operability Check</td> </tr> <tr> <td data-bbox="625 1068 835 1166">0FPP-008, 0PEP-04.2</td> <td data-bbox="835 1068 1753 1166">Emergency Communications Equipment Checks</td> </tr> <tr> <td data-bbox="625 1166 835 1232">OPT-12.22</td> <td data-bbox="835 1166 1753 1232">Load Test for Severe Accident Mitigation Alternative (SAMA) Diesels</td> </tr> </tbody> </table> <p>Other selected permanently installed active equipment was verified to be functional by cross checking existing procedures and ensuring they passed the most recent performance of the procedures. Passive B.5.b equipment was walked down utilizing the Extreme Damage Mitigation Guidelines (EDMG)/ B.5.b Equipment Inventory Lists, the Severe Accident</p>	Procedure	Title	OPT-34.36.1.1	Emergency Diesel Make-up Pump (EDMP) Functional Test	OPT-52.0	B.5.b Portable Generator And DC Power Supplies Operability Check	OPT-52.1	B.5.b Portable Air Manifold And Hoses Operability Check	0FPP-008, 0PEP-04.2	Emergency Communications Equipment Checks	OPT-12.22	Load Test for Severe Accident Mitigation Alternative (SAMA) Diesels
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0FPP-008, 0PEP-04.2	Emergency Communications Equipment Checks												
OPT-12.22	Load Test for Severe Accident Mitigation Alternative (SAMA) Diesels												

	<p>Mitigation Guidelines (SAMG) equipment lists, and fire protection inventory lists.</p>
	<p><i>Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).</i></p>
	<p>Inspectors reviewed test results for the procedures listed above. The inspectors walked down all B.5.b equipment inventories and large area fire protection equipment lists with a licensed operator. Plant operators under direct observation of the inspectors simulated Extreme Damage Mitigation procedures to start and run the EDMP, and start and align the B.5.b portable AC generator.</p>
	<p><i>Discuss general results including corrective actions by licensee.</i></p>
	<p>The licensee identified that some SAMG equipment was not being inventoried or controlled. However, all SAMG equipment was present in its designation location at the time of inspection. The licensee has initiated corrective actions to add periodic equipment verifications to SAMG procedures.</p> <p>Inspectors found all of the B.5.b equipment in its designated storage location and in good material condition. According to plant records, all B.5.b equipment operated satisfactorily during licensee testing. Inspectors noted that the EDMG pump is used to pump down its preferred B.5.b water source for maintenance reasons each outage, and was performed in March, 2011, further demonstrating its ability to perform its design function. Other water sources remained available during this maintenance activity.</p> <p>Inspectors also noted that the B.5.b equipment is stored in areas that would be affected by non-B.5.b scenarios. This would reduce its effectiveness in a severe natural phenomenon scenario, such as hurricane or flooding. Although this is in accordance with B.5.b guidelines, it is not reasonable to assume that the equipment would be available in a severe weather event.</p>

Licensee Action	<i>Describe the licensee's actions to verify that procedures are in place and can be executed (e.g. walkdowns, demonstrations, tests, etc.)</i>
<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>Licensed operators performed walkdowns of all EDMG and SAMG procedures. The licensee did not operate permanently installed equipment.</p>
	<p><i>Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.</i></p>
	<p>The inspectors, with a licensed operator, walked down a sampling of EDMG procedures including: 0EDMG-001, RCIC Black Start; 0EDMG-002, Spent Fuel Pool Makeup and Spray; 0EDMG-003, Attachment 1, Venting Containment Via the Hardened Wetwell Vent; 0EDMG-004, Reactor Pressure Vessel Depressurization and EDMP injection; 0EDMG-006, Drywell Injection with EDMP. Inspectors reviewed the other SAMG and EDMG procedures and records of the licensee's procedure walkdowns. Inspectors also interviewed Operations Department personnel in order to verify a sampling of operator knowledge of the procedures.</p>
	<p><i>Discuss general results including corrective actions by licensee.</i></p>
	<p>Some components requiring manual operation are located greater than six feet above the floor and do not have permanent or dedicated ladders to access them, although other ladders in the plant could be located to access the components. The licensee initiated corrective actions to locate dedicated or permanent ladders in the vicinity of the components.</p>

Licensee Action	<i>Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.</i>
<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 verified that all licensed operators' qualifications and continuing training include adequate instruction of SAMG and EDMG procedures; all auxiliary operators' qualifications and continuing training include adequate instruction for EDMG procedures; and all emergency response organization (ERO) team members qualifications and continuing training were appropriate for the applicable ERO positions.</p> <p>The licensee also verified that each operating crew and ERO crew contained an adequate number of personnel whose qualifications and training were current.</p>
	<p><i>Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.</i></p>
	<p>Inspectors reviewed the licensee's training and qualification records to ensure each crew was adequately staffed with qualified personnel and that training and qualification status was being properly tracked. Inspectors reviewed SAMG and EDMG training and testing material to ensure that the training was effective.</p>
	<p><i>Discuss general results including corrective actions by licensee.</i></p>
	<p>The licensee and the inspectors found that qualifications of personnel met all requirements. Inspectors noted that written qualification and continuing training exams during the most recent 2-year cycle did not include any questions related to EDMG procedures. Although not required, testing would ensure that learning was effective. Also, no simulator scenarios are run that cover SAMG or EDMG procedures.</p>

Licensee Action	<i>Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.</i>
<p>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 reviewed and verified that all existing letters of understanding and agreement were in place and current.</p>
	<p><i>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).</i></p>
	<p>Inspectors reviewed licensee records for agreements with offsite entities were current by cross-checking emergency response procedures with existing contracts.</p>
	<p><i>Discuss general results including corrective actions by licensee.</i></p>
	<p>The licensee found that all agreements are current. Inspectors noted that the licensee maintains a written agreement with the Brunswick County Emergency Management Agency, but not the New Hanover Emergency Management Agency, and both are referenced in the licensee's emergency plan. The licensee does not consider an agreement with New Hanover county to be necessary, but inspectors noted that there is no formal guidance to determine if this assessment is correct.</p>

Licensee Action	<i>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.</i>
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.	Inspectors reviewed corrective action documents associated with part 03.01 and found no adverse conditions that would prevent the mitigating strategy from being effective.
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	<i>Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event.</i>
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	The licensee conducts routine maintenance and checks on the backup battery supply used in an SBO event. Additionally the licensee performed load tests on the backup diesels (SAMA diesels) which would be used to power the battery chargers in an SBO event. The licensee also verified that all equipment referenced in procedures was in the proper locations.
	<i>Describe inspector actions to verify equipment is available and useable.</i>

	<p>The inspectors walked down the battery rooms to make sure that they are being maintained in a condition of readiness. The condition of the backup diesels (SAMA diesels) was also checked. The SAMA diesels are used to mitigate a complete loss of on-site and off-site power (i.e. beyond design basis event) in addition to an SBO. Inspectors noted that the location of the SAMA diesels made the SAMA diesels susceptible to weather-related events such as high winds and beyond design basis flooding. In addition, because the SAMA diesels are exposed to the weather, the exhaust piping had begun corroding. Current functionality of the SAMA diesel is not impacted.</p> <p><i>Discuss general results including corrective actions by licensee.</i></p> <p>The SAMA diesel performed adequately in its load test. The licensee plans to address the inspector's concern with corrosion on the diesel exhaust piping.</p>								
<p>Licensee Action</p>	<p><i>Describe the licensee's actions to verify the capability to mitigate an SBO event.</i></p>								
<p>b. Demonstrate through walkdowns that procedures for response to an SBO are executable.</p>	<p>Licensed operators performed walkdowns of the following procedures to verify that all equipment was properly staged and that the procedures were executable:</p> <table border="1" data-bbox="625 998 1688 1395"> <thead> <tr> <th data-bbox="625 998 854 1036">Procedure</th> <th data-bbox="854 998 1688 1036">Title</th> </tr> </thead> <tbody> <tr> <td data-bbox="625 1036 854 1068">0AOP-36.2</td> <td data-bbox="854 1036 1688 1068">Station Blackout</td> </tr> <tr> <td data-bbox="625 1068 854 1190">0EOP-01-LEP-01</td> <td data-bbox="854 1068 1688 1190">                     Alternate Coolant Injection                     <ul style="list-style-type: none"> <li>• Section 5: Fire Protection/Demineralized Water Tank Injection</li> </ul> </td> </tr> <tr> <td data-bbox="625 1190 854 1395">0EOP-01-SEP-01</td> <td data-bbox="854 1190 1688 1395">                     Primary Containment Venting                     <ul style="list-style-type: none"> <li>• Section 1: Venting Primary Containment to Control Pressure In Accordance With EOP-02-PCCP, PC/P</li> <li>• Section 2: Venting Primary Containment via the Suppression Chamber within Site Release</li> <li>• Section 3: Venting Primary Containment via the</li> </ul> </td> </tr> </tbody> </table>	Procedure	Title	0AOP-36.2	Station Blackout	0EOP-01-LEP-01	Alternate Coolant Injection <ul style="list-style-type: none"> <li>• Section 5: Fire Protection/Demineralized Water Tank Injection</li> </ul>	0EOP-01-SEP-01	Primary Containment Venting <ul style="list-style-type: none"> <li>• Section 1: Venting Primary Containment to Control Pressure In Accordance With EOP-02-PCCP, PC/P</li> <li>• Section 2: Venting Primary Containment via the Suppression Chamber within Site Release</li> <li>• Section 3: Venting Primary Containment via the</li> </ul>
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		Drywell within Site Release Rate Limit	
	0EOP-01-SEP-08	Restoration Procedure <ul style="list-style-type: none"> <li>• Section 6: Drywell Cooler LOCA Lockout Logic Restoration</li> </ul>	
	0EOP-01-SEP-10	Circuit Alteration Procedure <ul style="list-style-type: none"> <li>• Section 4: Defeating Drywell Cooler LOCA Lockout Logic</li> </ul>	
	0EOP-02-PCCP	Primary Containment Control Procedure	
	<p><i>Describe inspector actions to assess whether procedures were in place and could be used as intended.</i></p>		
<p>The inspectors reviewed the procedures listed above, and licensee comments from their review of the procedures. The inspectors also walked down the Station Blackout procedure, 0AOP-36.2, to ensure its adequacy.</p>			
<p><i>Discuss general results including corrective actions by licensee.</i></p>			
<p>The licensee made several minor enhancements to its procedures. The inspectors identified procedure enhancements which included providing the location of necessary equipment; requiring equipment checks in time of emergency; and eliminating repetitive notes throughout the procedures. The licensee entered the issues into their corrective action program.</p>			



<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.</p>	
<p>Licensee Action</p>	<p><i>Describe the licensee’s actions to verify the capability to mitigate existing design basis flooding events.</i></p>
<p>a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>Flood Mitigating Equipment includes both permanent and portable structures, systems, and components (SSCs) that are used to mitigate design or licensing basis internal and external floods. The licensee conducted active component walkdowns including credited sump pumps, flood detection instrumentation (e.g., level switches), and flood doors. In addition, the licensee performed passive structural walkdowns including: dikes, sumps, drains, basins, yard drainage equipment, walls, floors, structures, and link seals.</p>
	<p><i>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</i></p>
	<p>Inspectors conducted active component walkdowns including credited sump pumps, flood detection instrumentation (e.g., level switches), and flood doors. In addition, inspectors performed passive structural walkdowns including: dikes, sumps, drains, basins, yard drainage equipment, walls, floors, structures, and link seals. Inspectors’ walkdowns included the following plant areas: service water intake structure, the reactor building 1 and reactor building 2, radwaste building, diesel generator building, control building, augmented off-gas building, turbine building, and the diesel four-day tank building. Inaccessible areas included: locked high radiation areas, energized cabinets, areas that cannot be visually inspected without scaffolding, and areas behind barriers. Maintenance records for permanently installed equipment (sumps/switches/floor drains) were reviewed. Inspectors reviewed the documents listed below to ensure that they could be used as intended.</p>

	Document	Title	
	0AOP-13	Operation During Hurricane, Flood conditions, tornado, or earthquake	
	0AOP-31	Flooding in turbine building condenser pit or pipe tunnel	
	0PEP-02.6	Severe Weather	
	0AI-68	Brunswick Nuclear Plant response to severe weather warnings	
	<i>Discuss general results including corrective actions by licensee.</i>		
	<p>Diesel fire pump batteries and 4kV breaker control box for the electric fire pump would be under water during a design basis external flooding event. Both of these pumps are located at ground level in the makeup water treatment building. This building is not seismically qualified or safety related. While designed according to existing requirements, this equipment would be adversely affected by a severe natural phenomenon. The licensee is assessing an improvement to this equipment through their corrective action program.</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>Licensee Action</p>	<p><i>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.</i></p>
<p>a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>The licensee used plant records to determine the quality classification of all equipment used for fire or flood mitigation, walked down systems to identify vulnerabilities, and performed preliminary assessments to determine if non-seismically qualified equipment could be seismically qualified based on EPRI guidance. The need for mitigation strategies for identified vulnerabilities was documented in the licensee corrective action program.</p> <p><i>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</i></p> <p>Inspectors reviewed results from the licensee’s actions listed above, walked down accessible fire and flood mitigation equipment, and reviewed existing procedures used to mitigate the loss of this equipment including OOP-41, Fire Protection and Well Water System and OAOP-13.0, Operation During Hurricane, Flood Conditions, Tornado, or Earthquake.</p> <p><i>Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.</i></p> <p>The licensee’s focus was on identifying equipment vulnerabilities that may need future mitigation strategies. These strategies have not yet been formulated. Inspectors noted that there are several pieces of fire and flooding mitigation equipment vulnerable to a seismic event, including all installed fire pumps, much of the fire protection piping, building sump pumps, and flood detection instrumentation. However, the fire and flooding protection equipment is designed and installed in accordance with the licensee’s current licensing basis.</p>

Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. M. Annacone and other members of licensee management at the conclusion of the inspection on April 28, 2011. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

M. Annacone, Site Vice President  
L. Beller, Superintendent, Operations Training  
S. Boyce, Shift Technical Advisor  
K. Crocker, Supervisor, Emergency Preparedness  
C. Dunsmore, Manager – Shift Operations  
L. Grzeck, Lead Engineer - Technical Support  
S. Kronenwetter, Rapid Response Supervisor  
P. Mentel, Manager - Support Services  
R. Mullis, Supervisor – Operations Training  
T. Sherrill, Engineer - Technical Support  
L. Spencer, Nuclear Technical Assistant  
M. Turkal, Lead Engineer - Technical Support  
E. Wills, Director – Site Operations

#### **NRC Personnel**

Randall A. Musser, Chief, Reactor Projects Branch 4, Division of Reactor Projects Region II

## 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 or 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>
0PT-34.36.1.1	Emergency Diesel Make-up Pump Functional Test
0PT-52.0	B.5.b Portable Generator and DC Power Supplies Operability Check
0PT-52.1	B.5.b Portable Manifold and Hoses Operability Check
0FPP-008	Fire Protection Equipment Monthly Inspection
0PEP-04.2	Emergency Facilities and Equipment
0PT-12.22	SAMA Diesel Load Test
0EDMG-001	Extreme Damage Mitigation Initial Response
0EDMG-002	Spent Fuel Pool Makeup/Spray and Refuel Floor Enhanced Ventilation Under Conditions of Extreme Damage
0EDMG-003	Containment Venting Under Conditions of Extreme Damage
0EDMG-004	Depressurization of the Reactor Vessel and Injection Using the Emergency Diesel Makeup Pump
0EDMG-005	CST and Hotwell Makeup Under Conditions of Extreme Damage
0EDMG-006	Drywell Injection Using the Emergency Diesel Makeup Pump Under Conditions of Extreme Damage
0EDMG-007	Mitigation Fission Product Release Using Portable Sprays Under Conditions of Extreme Damage
0EDMG-008	Emergency Diesel Makeup Pump Setup and Operation
0SAMG-01	SAMG Primary Containment Flooding Procedure
0SAMG-10	SAMG Primary Containment Purging
0SAMG-12	SAMG Primary Containment Venting
	EP Fundamentals Training Guide
	SAMG Introduction and Phenomenology Training Guides
	Technical Support Guidelines Training Guide
0ERP	Radiological Emergency Plan

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

<u>Number</u>	<u>Description or Title</u>
0AOP-36.1	Loss of Any 4160V Buses or 480V E-Buses
0AOP-39	Loss of DC Power
0PT-12.22	Load Test For SAMA Diesels
0PT-12.2A	No. 1 Diesel Generator Monthly Load Test
0PT-12.2B	No. 2 Diesel Generator Monthly Load Test
0PT-12.2C	No. 3 Diesel Generator Monthly Load Test
0PT-12.2D	No. 4 Diesel Generator Monthly Load Test
0PT-12.2.4	UAT Backfeed Operability Test

0OP-50.1	Diesel Generator Emergency Power System Operating Procedure
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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>
0AOP-13	Operation During Hurricane, Flood Conditions, Tornado, or Earthquake
0AOP-16	RBCCW System Failure
0AOP-17	Turbine Building Closed Cooling Water System Failure
0AOP-18	Nuclear Service Water System Failure
0AOP-19	Conventional Service Water System Failure
0AOP-23	Condensate/Feedwater System Failure
0AOP-31	Flooding in Turbine Building, Condenser Pit, or Pipe Tunnel
0PT-34.2.2.1	Fire Door, Pressure Boundary Door, ASSD Access/Egress Door, and Severe Weather/Flood Control Door Inspections
0OP-47	Floor and Equipment Drain System Operating Procedure

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>
0OP-41	Fire Protection and Well Water System
0AOP-13.0	Operation During Hurricane, Flood Conditions, Tornado, or Earthquake