UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-1257

May 13, 2011

Mr. Robert J. Duncan, II
Vice President
Carolina Power and Light Company
H.B. Robinson Steam Electric Plant Unit 2
3581 West Entrance Road
Hartsville, SC 29550

SUBJECT: ROBINSON STEAM ELECTRIC PLANT – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT (05000261/2011011)

Dear Mr. Duncan:

On April 29, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Robinson Unit 2, 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 May 12, 2011, with you and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Robinson Unit 2 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 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
Reactor Projects Branch 4
Division of Reactor Projects

Docket Nos. 50-261
License Nos. DPR-23

Enclosure: Inspection Report 05000261/2011011

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Letter to Robert J. Duncan II from Randall A. Musser dated May 13, 2011

SUBJECT: ROBINSON STEAM ELECTRIC PLANT – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT (05000261/2011011)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos:	50-261
License Nos:	DPR-23
Report No:	05000261/2011011
Licensee:	Carolina Power and Light Company
Facility:	H.B. Robinson Steam Electric Plant, Unit 2
Location:	3581 West Entrance Road Hartsville, SC 29550
Dates:	March 23, 2011 – April 29, 2011
Inspectors:	J. Hickey, Senior Resident Inspector C. Scott, Resident Inspector
Approved by:	R. Musser, Chief Reactor Projects Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000261/2011011, 03/23/2011 – 04/29/2011; H.B. Robinson Steam Electric Plant, Unit 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. 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:

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. This review should be done for a reasonable sample of mitigating strategies/equipment.		The licensee inventoried and inspected the special tools and equipment needed to implement the Extreme Damage Mitigation Guidelines (EDMGs). Equipment which included the Engine Driven Makeup Pump (EDMP), the portable water pump, and the Temporary Skid Diesel Generator were tested satisfactorily using the normal surveillance procedures during the performance of the walk downs.
		Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).
		The inspectors reviewed completed inspection and surveillance records for the following components; • EDG "A" and "B" Portable Field Flash Batteries • Annual Inspection of the Engine Drive Pump • Bi-Monthly Engine Drive Pump Surveillance • Temporary Skid Diesel Generator The inspectors accompanied operations and maintenance personnel to inspect the physical condition of selected portable equipment used to mitigate B.5.b events associated with

		spent fuel pool cooling. The inspectors accompanied the licensee on a verification of Aqueous Film Forming Foam (AFFF) quantities being maintained at the Darlington County Fire Stations #7 and #12.
		Discuss general results including corrective actions by licensee.
		Discrepancies were entered into the licensee's corrective action program. No discrepancy was evaluated as significant enough to impact any overall strategy. Discrepancies deemed noteworthy are listed below; • EDMG-006, Electrical Power, implementation may require up to 8000 feet of electrical cabling. Sufficient cabling could not be located in the warehouse. Some of the required cabling had been reserved for other activities. The licensee located cabling on-site which could have been used to support the mitigating strategy. Actions were taken to procure additional cabling and maintain the required amount in inventory. AR 453999 was written to develop the permanent corrective actions. Note the use of the portable generator is a strategy beyond the B.5.b requirements. • Consumables/hardware to support EDMG implementation does not have safety stock designations to ensure that minimum supplies are maintained on site at all times. AR 454251 was written and immediate action was taken to protect stock for EDMG-006, Electrical Power. • Preventive maintenance checks on equipment do not have acceptance criteria associated with the performance testing, for example pump performance. AR 453557 was written and will add performance criteria to the testing procedures. • "D" Deepwell Pump testing is performed using the Non-safety related power source. Indirect testing via continuity checks are performed on the safety related power supplies. Evaluate periodic testing using the safety-related sources, Action Request (AR) 457924.

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. This review should be done for a reasonable sample of mitigating strategies/equipment.		The EDMGs were walked down to validate that procedural guidance existed and was executable to implement the strategies associated with 10 CFR 50.54(hh) and B.5.b. The Severe Accident Mitigation Guideline's (SAMG) were walked down to the extent possible. Actions taken per these guidelines use permanently installed equipment, systems and hard piping to carry out the majority of the actions outlined. Where specific strategies were developed that include non-permanent plant equipment, walk downs were performed to ensure that the procedures could be executed as written. *Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.* The inspectors accompanied operations personnel during a walkdown of several B.5.b and SAMG response procedures to evaluate the implementation strategy and procedure quality. The procedures evaluated were; • EDMG-000, Extreme Damage Initial Actions, Rev. 9 • EDMG-006, Electrical Power, Attachment 2, TSDG Setup and Operation, Rev. 5 • EDMG-006, Electrical Power, Attachment 7, TSDG Supply to D Deepwell Pump, Rev. 5 • EDMG-011, Spent Fuel Pool Casualty, Rev. 11 • EDMG-012, Core Cooling Using Alternate Water Source, Rev. 9 • SAM-2, Depressurize the RCS, Rev. 2 • SAM-3, Inject into the RCS, Rev. 1 • SAM-7, Reduce Containment Hydrogen, Rev. 2 • SACM-3, Control Hydrogen Flammability, Rev. 2 No discrepancies were noted in the procedures or methodology used for implementation.

		Discuss general results including corrective actions by licensee.
		No discrepancies were noted in the procedures.
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).		The licensee reviewed the qualification and training requirements of the operators and support staff. The training for B.5.b response is performed annually and SAMG training is performed bi-annually. The licensee reviewed the current qualification status of the operators and support staff. No qualification discrepancies were noted.
		Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff
		The inspectors reviewed the qualification records for twelve emergency response organization positions. The random sample included an Emergency Response Manager, Technical Analysis Manager, Site Emergency Coordinator, Plant Operations Director, Technical Analysis Director, Accident Assessment Team Electrical, Accident Assessment Team Mechanical, and Accident Assessment Team Reactor, Shift Manager, Reactor Operator, Inside Auxiliary Operator and Outside Auxiliary Operator. All qualification records were current for the assigned positions.
		Discuss general results including corrective actions by licensee.
		The licensee will perform a formal review of the tasks and training associated with the execution of the EDMGs using the Systematic Approach to Training (SAT). AR 453557.

Licensee Action	
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. This review should be done for a reasonable sample of mitigating strategies/equipment.	*Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.*
	The licensee confirmed that memorandums of understanding, letters of agreement, and contracts are in place to provide aide in combating beyond design basis events, including those covered under NRC Security Order B.5.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).
	The inspectors reviewed the letters of agreements/understanding and verified the licensee had confirmed their contents with the various stakeholders. The inspectors did not identify any content concerns which would negatively impact a mitigation strategy.
	Discuss general results including corrective actions by licensee.
	The agreement for assistance from the Shaw Air Force Base was not approved. Based on the Air Force's Assistant Staff Judge Advocates opinion, no basis for an MOU agreement between a private entity and the Air Force is in place. However, the Air Force's Assistant Staff Judge Advocate noted that response to an event at the request of the NRC or other government agencies could be supported.

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.		The inspectors reviewed the following open corrective actions generated as a result of the licensee's reviews and walkdowns; • Only having a single key to start the Temporary Skid Diesel Generator and EDMP. Additional keys with multiple storage locations are being established, AR 453999. • Identify the locations for the key boxes in the EDMG and EDMP procedures, AR 453557. • Determine the specific length of cable required for each temporary power strategy in the EDMG procedures, AR 453557. • Establish pre-staged kits for making electrical connections. The material was available in the warehouse, AR 453557. • Evaluate the need for a float charge on the emergency diesel field flash batteries. Currently a load test and re-charge is performed quarterly, AR 453557. • Loose sound insulation on the EDMG, AR 459535. • During the disconnecting of the main generator from the iso-phase bus in preparation for backfeed, no sample is performed to ensure hydrogen is not present, AR 459931. • Westinghouse Owners Group (WOG) SAMG rev. 1 has not been incorporated at Robinson, AR 458937. • EDMG-000, Extreme Damage Initial Actions, minimum injection flowrate graph has typographical errors on the time since shutdown axis, AR 458842. • EDMG equipment is stored in a non-seismic warehouse, AR 458857. None of the preceding identified issues would significantly impact the success of the licensee's mitigation strategies.

		NRC identified concerns; • EDMG-012, Core Cooling using Alternate Water Sources, Rev. 9 specifies two 12" adjustable wrenches for use in replacing the boron Injection Tank manway with an injection flange. The number and size of the nuts may require larger and higher torque producing tools to efficiently remove them, AR 459725. • EDMG-011, Spent Fuel Pool Casualty, Rev. 11, provides for several alternate methods for makeup to the spent fuel pool. Some of these methods require access to the spent fuel pool operating floor or areas immediately adjacent to the spent fuel pool. There is a potential that radiation levels may not allow access to support some of the mitigation strategies, AR 459728. • EDMG-011, Spent Fuel Pool Casualty, Rev. 11, provided for use of a fire hose from the ground elevation to the spent fuel pool. The hose transitions from vertical to horizontal across concrete edges which could cause the hose to fail over time, AR 459732. • The post accident containment vent, path downstream of the Post Accident Containment Vent Filters is not hardened and may be vulnerable to failure as a result of hydrogen ignition. Procedures are currently in place to manage the combustibility of hydrogen via the addition of nitrogen to the containment, AR 459733. The inspectors have concluded the existing strategies are presently sufficient. The licensee intends to correct deficiencies and non-conformances by June 30, 2011 unless the items require an outage, in which case, the items will be corrected during the next refueling outage, currently scheduled for January 2012.

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.	The licensee reviewed the design basis for a SBO at Robinson Unit-2. Robinson Unit-2 is an Alternate AC (AAC) plant which utilizes a Dedicated Shutdown Diesel Generator (non-safety equipment) and supported systems upon a loss of all AC power. The licensee walked down the pre-staged equipment to support a SBO event on March 17, 2011. All equipment was in place and ready for use. The equipment testing frequency varies from monthly for the Dedicated Shutdown Diesel Generator (DSDG) to annual hydrostatic testing of hoses. Inventories of the required equipment are performed monthly or quarterly and the condition of the equipment is verified to be ready for use.
	Describe inspector actions to verify equipment is available and useable.
	The inspectors reviewed the licensee's actions and independently walked down the DSDG and support equipment to verify no material conditions were present that would impact the availability of the DSDG.
	Discuss general results including corrective actions by licensee.
	The review did not identify any issues which would impact the success of the licensee's mitigation strategies.

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.	The licensee walkdowns included the SBO coping procedures; • EPP-1, Loss of All AC, Rev. 43 • EPP-22, Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator, Rev. 25
	Describe inspector actions to assess whether procedures were in place and could be used as intended.
	The inspectors independently verified by walkdowns portions of EPP-1, Loss of all AC Power, Rev. 43 and EPP-22, Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator, Rev. 25 to confirm the procedure could be used to implement the planned strategy.
	Discuss general results including corrective actions by licensee.
	The inspectors reviewed 3 open action requests generated as a result of the licensee's reviews and walkdowns, the issues included items such as the following; • Pre-staging of required materials such as screwdrivers or jumpers should be considered, AR 453557. • Labeling discrepancies, AR 453557. • Add door blocking devices to the pre-staged equipment for use when installing control room ventilation equipment, AR 453557 None of the identified issues would significantly impact the success of the licensee's mitigation strategies.

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.		The licensee reviewed the following basis documents; • GID/R87038/0006, "Pipe Failures", Rev.5 • GID/R87038/0007, "Hazards Analysis", Rev.5 • NG-73-594, CP&L Response to AEC, "Postulated Pipe Failure Outside Containment", Dated December 21, 1973 • NO-80-896, CP&L Response to NRC, "Fire Protection Program", Dated June 12, 1980 • SOER 85-05, "Internal Flooding of Power Plant Buildings", including CP&L response, dated December 30, 1985 • RNP-M/MECH-1622, "LOCA Containment Flood Depth", Rev.0 • UFSAR, Sections 2.4, 3.6 and 9.5 • ISAR, Section 2.4 • RNP-F-PSA-0009: "Assessment of Internally Initiated Flood Events", Rev. 1 • Individual Plant Examination for External Events (IPEEE) Submittal, Final Report, CP&L, June 1995 The licensee reviewed mitigating procedures and performed walkdowns of the floor drains in the Auxiliary Building, and storm drains in the Protected Areas. The licensee also inspected doors which would be used to mitigate flooding to ensure they were capable to perform their function.

		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
		The inspectors accompanied operations staff on a walkdown and inspection of multiple floor drains in the Reactor Auxiliary Building. The walkdown was performed using drawing G-190495, Reactor Auxiliary Building Ground and Mezzanine Floor Plans and Drainage, Rev 12 and G-190238, Fuel Handling Floor and Equipment Drainage and Embedded Piping, Rev 14. The inspector noted that there were several drains that appear to have been partially obstructed. The licensee has flagged several drains that need additional attention and cleaning. During the walkdown, the operations staff found numerous instances where the drawing showed a floor drain existing in a specified location; however no drain could be seen in the indicated area. The discrepancies were captured in AR 457673 and 457959. The licensee placed the floor drain discrepancies on the emergent work list and corrected them. The inspectors accompanied engineering staff on a walkdown and inspection of multiple storm drains in the Protected Area. The walkdown was performed using drawing HBR2-11739, Storm Drain Locations, Rev. 3. The inspectors noted several storm drains with sediment accumulation obstructing between 10% and 50% of the drain lines available surface area. During the walkdown engineering staff found several instances of drain location and identification differences between the drawing and the actual field locations. In addition, two sea-land containers were placed over storm drains and could not be inspected. The inspectors noted there is no preventive maintenance performed on the storm drain system such as periodic inspection or cleaning. The discrepancies were captured in AR 457685. The licensee placed the storm drain discrepancies on the emergent work list and corrected them. The inspectors performed a walkdown of the Auxiliary Building to verify that the accessible

		doors and barriers were functional. The inspector verified that all the proper equipment used to mitigate an internal flood was adequate and properly staged in the Auxiliary Building. The inspector reviewed AOP-022, Loss of Service Water, Attachment 4: Flood Control in Auxiliary Building and observed licensed operators test the adequacy of staged equipment. The inspector's observations were that the internal flood mitigation strategy in the Auxiliary Building was sufficient. Due to the site topography, external flooding scenarios do not apply.
		Discuss general results including corrective actions by licensee.
		The inspectors reviewed 5 open corrective actions generated as a result of the licensee's reviews and walkdowns, the issues included items such as the following; • Residual Heat Removal (RHR) Sump Pump Preventive Maintenance is on a 10-year frequency. Evaluate the frequency, AR 453557. • (RHR) Sump Pump start check is on a 3-year frequency. Evaluate the frequency, AR 453557. • Storm drains partially obstructed with sediment, AR 457685. • Auxiliary Building floor drains partially obstructed , AR 457959 • Review preventive maintenance for floor and storm drains, AR 457685, 457959. Because of the specific site topography and minimal below grade components, none of the issues identified in this section would significantly impact the success of the licensee's flood mitigation strategies.

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.	The licensee identified the components used to mitigate fire and flood events using plant drawings, design basis documents and the Final Safety Analysis Report (FSAR). The licensee performed walkdowns of the fire and flood mitigating systems in the Auxiliary Building, Turbine Building, Intake Structure, Major Fire System Sectionalizing Valves, the Motor Driven Fire Pump (MDFP), the Engine Driven Fire Pump (EDFP), the diesel fuel tank for the EDFP, fire hydrants, fire hose stations, Cardox and Halon suppression systems, and fire brigade bunker gear and equipment. The licensee noted the fire protection system is non-seismic and this vulnerability is beyond the design basis for the plant. Potential mitigation strategies will be included in the scope of the Utility Industry Executive Advisory Group (EAG).
	Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.
	The inspectors accompanied engineering staff on a walkdown and inspection of fire protection piping and components in the Auxiliary Building, Intake Structure and Owner Controlled Areas. The walkdown was performed using drawing HBR2-8255, Fire System Piping, Rev. 20. The inspectors noted several examples minor material condition issues related to coating degradation of components exposed to the elements. The licensee

		captured these issues and entered them into the corrective action program as work requests or condition reports. No new vulnerabilities were identified by the licensee as a result of the walkdown. The inspectors reviewed AOP-041, Response to a Fire Event, Rev. 4. No discrepancies were identified which would impact the success of the licensee's mitigation strategies.
		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 inspectors reviewed 5 open corrective actions generated as a result of the licensee's reviews and walkdowns, the issues included items such as the following; • Fire piping deficiencies, one support missing U-bolt, one support not in full contact with wall, AR 458834 • Rust stains visible on concrete below fire piping, inspect pipe condition, WR 480296 • Post Indicating Valve's require painting, WR 480300 • RHR Pump room fire cabinet requires replacement due to rust, WR 480299 • The warehouse where the B.5.b equipment is stored is non-seismic, AR 458857 None of the issues identified in this section would significantly impact the success of the licensee's mitigation strategies. The licensee is awaiting the recommendations of the EAG working group for a response to identified generic vulnerabilities.

Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. R. Duncan and other members of licensee management at the conclusion of the inspection on May 12, 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

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee
A. Acharya, Civil, Senior Engineer
J. Cole, Manager, Shift Operations
T. Cosgrove, Plant General Manager
J. Cox, Operations, SRO
R. Duncan, Vice President
D. Foster, Superintendent, Work Control Center
B. Gerwe, Fire Protection Lead Engineer
A. Jones, Supervisor, Mechanical/Civil Design
J. Pennington, Operations, SRO
W. Stewart, Civil, Lead Engineer

NRC personnel

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

Attachment

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

Number	Description or Title	Date or Revision
WO 1804470	EDG "A" and "B" Portable Field Flash Battery Inspection	3/9/2011
WO 1902324	Annual Inspection of the Engine Drive Pump	3/17/2011
WO 1902322	Bi-Monthly Engine Drive Pump Surveillance	3/17/2011
WO 1804250	Quarterly inventory of B.5.b supplies	4/6/2011
WO 1805852	Monthly Radio Surveillances	4/6/2011
OST-413	Temporary Skid Diesel Generator	3/17/2011
AOP-022	Loss of Service Water, Attachment 4, Flood Control in Auxiliary Building	Rev. 34
	List of Personnel Qualification Data by Duty Area	4/11/2011
	Personal Course Lists for the Emergency Response Positions	4/7/2011
	South Carolina Emergency Management Division, Acknowledgement of Agreement	2/8/2011
	Darlington County Sheriff's Department, Acknowledgement of Agreement	2/14/2011
	Darlington County Fire Department, Acknowledgement of Agreement	3/8/2011
	Hartsville Regional Airport, Acknowledgement of Agreement	2/8/2011
	Columbia Metropolitan Airport, Acknowledgement of Agreement	2/8/2011
	Darlington County Jetport, Acknowledgement of Agreement	2/8/2011
	Florence Regional Airport, Acknowledgement of Agreement	2/8/2011
	Florence County Sheriff's Department, Memorandum of Understanding	2/16/2011
	Carolina Pines Regional Medical Center, Acknowledgement of Agreement	2/8/2011
	Chesterfield General Hospital, Acknowledgement of Agreement	2/8/2011
	Darlington County Emergency Services, Acknowledgement of Agreement	2/14/2011
	INPO emergency assistance agreement	9/30/2010
	Darlington County Combustion Turbine Plant, Memorandum of Understanding	3/2/2011

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

Number	Description or Title	Date or Revision
EPP-1	Loss of All AC Power	Rev. 43
EPP-22	Energizing Plant Equipment Using Dedicated Shutdown Diesel Generator	Rev. 25

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

Number	Description or Title	Date or Revision
G-190495	Reactor Auxiliary Building Ground and Mezzanine Floor Plans and Drainage	Rev. 12
G-190238	Fuel Handling Floor and Equipment Drainage and Embedded Piping	Rev. 14
HBR2-11739	Storm Drain Locations	Rev. 3
AOP-22	Loss of Service Water Attachment 4 Flood Control in the Auxiliary Building	Rev. 34

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

Number	Description or Title	Date or Revision
HBR2-8255	Fire System Piping	Rev. 20
AOP-041	Response to a Fire Event	Rev. 4.