



Serial: RNP-RA/10-0090

**AUG 3 1 2010**

United States Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-001

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-261/LICENSE NO. DPR-23

RESPONSE TO NRC REQUEST FOR ADDITIONAL  
INFORMATION RELATED TO LETTER, "REQUEST FOR  
EXTENSION OF ENFORCEMENT DISCRETION DURING TRANSITION  
TO NATIONAL FIRE PROTECTION ASSOCIATION STANDARD NFPA-805"

Ladies and Gentlemen:

By electronic mail message dated August 20, 2010, the NRC requested that Carolina Power and Light Company, also known as Progress Energy Carolinas, Inc. (PEC), respond to a request for additional information (RAI) regarding a letter dated July 8, 2010, "Request for Extension of Enforcement Discretion During Transition to National Fire Protection Association Standard NFPA-805." The attachment to this letter provides the RAI response for the H. B. Robinson Steam Electric Plant, Unit No. 2.

There are no commitments associated with this letter.

If you have any questions concerning this matter, please contact Mr. C. A. Castell  
at (843) 857-1626.

Sincerely,

A handwritten signature in cursive script that reads 'Benjamin C. White'.

Benjamin C. White  
Manager – Support Services – Nuclear

BCW/ahv

Attachment

c: L. A. Reyes, NRC, Region II  
T. J. Orf, NRC, NRR  
NRC Resident Inspector

Progress Energy Carolinas, Inc.  
Robinson Nuclear Plant  
3581 West Entrance Road  
Hartsville, SC 29550

ADD  
NRR

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2**

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**NRC Request 1:**

List all fire protection related noncompliances and related compensatory measures.

**Response:**

The current fire protection-related non-compliances, with appropriate compensatory measures, have been entered into the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, Corrective Action Program and are available for review on site. Additional noncompliances that may be found during transition will be entered into the Corrective Action Program as they are identified.

**NRC Request 2:**

Document OMAs put in place as compensatory measures are feasible and reliable.

**Response:**

Operator Manual Actions put in place as compensatory measures are available for review on site. These actions have been determined to be feasible and reliable.

**NRC Request 3:**

Description of the physical modifications to address existing risk-significant fire protection issues.

**Response:**

**HBRSEP, Unit No. 2, Engineering Changes (EC) for Transition to 10 CFR 50.48(c)**

<b>Number</b>	<b>Subject</b>	<b>Status</b>
EC 51614	Backup Instrument Air for Charging Pumps  Description: Appendix R requires the assumed loss of instrument air. This results in the charging pumps failing at maximum speed, challenging the Volume Control Tank (VCT) level and charging pump suction capability. This modification provides additional instrument air capability to mitigate the assumed loss of instrument air.	Complete

Number	Subject	Status
EC 58657	<p>Appendix R Pressurizer PORV &amp; Charging Pump Makeup</p> <p>Description: This modification provides an electrical isolation capability for the Pressurizer PORVs in the Control Room. The purpose of this part of the modification is to provide a preemptive means to isolate the Pressurizer PORVs in the event of conductor to conductor fire induced circuit failure. Also, this modification installs an Alternate Control Scheme for the Refueling Water Storage Tank (RWST) Make-up Valve (LCV-115B) that will override the normal control scheme if the VCT Outlet Valve (LCV-115C) and the RWST Make-up Valve (LCV-115B) are closed at the same time. The purpose is to protect the charging pump from a loss of suction.</p>	Complete
EC 59403	<p>IN 92-18, "Potential for Loss of Remote Shutdown Capability During a Control Room Fire, – Hot Shutdown MOVs"</p> <p>Description: This modification evaluated the Hot Shutdown MOVs for capability to withstand a fire induced circuit failure that bypasses the torque and limit switches, resulting in the valves not being able to be repositioned as required by the Safe Shutdown Analysis. The scope of this engineering change included evaluations, physical modifications and alternate design capabilities.</p>	Complete
EC 63452	<p>IN 92-18 – Cold Shutdown MOVs</p> <p>Description: This modification evaluated the Cold Shutdown MOVs for capability to withstand a fire induced circuit failure that bypasses the torque and limit switches, resulting in the valves not being able to be repositioned as required by the Safe Shutdown Analysis. The scope of this engineering change included evaluations and physical modifications.</p>	Complete
EC 63687	<p>Replacement of Hemyc Fire Wrap with 3M Interam E54A Fire Wrap</p> <p>Description: The scope of this medication was to replace the Hemyc Fire Wrap System on the CCW Pump A and C power supply conduits with an approved one-hour fire rated 3M Interam E54A Fire Wrap System. Based on NRC fire testing, the Hemyc Fire Wrap System was of indeterminate fire rating. The 3M Interam E54A Fire Wrap has been fire tested and qualified in accordance with NRC GL 86-10 Supplement 1.</p>	Complete
EC 64319	<p>Appendix R Isolation Switches for EOP Safe Shutdown</p> <p>Description: This modification installed isolation control switches Emergency Bus Incoming Line and Emergency Diesel Generator Output Breakers to isolate the local Emergency Diesel Generator controls from the rest of the control circuitry. The purpose of this modification was to ensure Offsite Power remained available for a postulated fire in either Emergency Diesel Generator Room.</p>	Complete

Number	Subject	Status
EC 66326	<p>Protect the E-Bus Incoming Line Breakers from Spurious Operation for a Postulated Fire in the Turbine Building</p> <p>Description: This modification installed isolation relays in the Emergency Bus Incoming Line Breaker circuitry. The purpose of this modification was to ensure the Emergency Diesel Generators were available during a postulated fire in the Turbine Building.</p>	Complete
EC 66327	<p>Protection from Spurious Operation of Main Steam Isolation Valves (MSIVs)</p> <p>Description: The scope of this modification is to install additional electrical raceway to separate target conductors in the MSIV control circuit from the source conductors. The purpose is to provide positive control of the valves in the event of a postulated fire in either the Cable Vaults or the Turbine Building.</p>	RO-27
EC 66328	<p>Protection for Steam Generator Wide Range Level Indication</p> <p>Description: The scope of this modification is to install instrument isolators in the steam generator instrument loops. The purpose of the modification is to ensure the steam generator wide range level instruments are available in the Control Room for a postulated fire in either the Motor Driven Auxiliary Feedwater (AFW) Pump Room or the Turbine Building.</p>	RO-27
EC 66329	<p>Protection of Emergency Response Facility Information System (ERFIS) Cables in Turbine Building</p> <p>Description: The scope of this modification rerouted ERFIS cables for many Safe Shutdown components out of the Turbine Building. The purpose of this was to ensure availability of these components for a postulated fire in the Turbine Building.</p>	Complete
EC 69420	<p>Auto Reload of the Battery Chargers on a Loss of Offsite Power (LOOP)</p> <p>Description: The scope of this modification was to redesign the safety related battery chargers to remain connected to the safety related power sources following a LOOP. The purpose was to eliminate the dependence on the time critical manual operator actions following a LOOP.</p>	Complete
EC 69422	<p>Reroute LCV-115C Power Cable to Eliminate Operator Manual Action associated with RCP seal cooling</p> <p>Description: The scope of this modification is to reroute the power cable for the VCT Outlet Valve (LCV-115C) outside Pipe Alley. The purpose of this modification is to eliminate a time critical manual operator action for a postulated fire in the Pipe Alley.</p>	RO-27

Number	Subject	Status
EC 69423	Auto-Start of Dedicated Shutdown Diesel Generator  Description: The scope of this modification is to install an auto-start capability on the Dedicated Shutdown Diesel Generator. The purpose of this modification is to reduce the dependence on time critical manual operator actions during postulated Appendix R fire events.	Fall 2011
EC 71732	Installation of the Main and Aux Transformer Fire Walls  Description: This modification installed fire walls around the Main and Auxiliary Transformer to limit the consequences of a Main or Auxiliary Transformer fire.	Complete

Note: RO-27 refers to Refueling Outage 27, currently scheduled for October 2011.  
These changes require a refueling outage for installation.

The completed EC packages contain a detailed description of the physical changes to the plant, including requisite engineering drawings and analysis. The EC packages are available for review on site.

This information was provided in Table 2 of letter dated July 8, 2010, "Request for Extension of Enforcement Discretion During Transition to National Fire Protection Association Standard NFPA-805."

**NRC Request 4:**

Status of the transition, including schedule of milestones, broken down into the following major areas:

- Nuclear Safety Performance Criteria transition (NFPA 805 Chapters 1, 2 and 4).
- Non-power operational transitions.
- NFPA 805 monitoring program.

**Response:**

Nuclear Safety Performance Criteria transition methodology is currently zero percent complete with an expected completion date of March 2011. Nuclear Safety Performance Criteria transition of fire area-by-fire area review is sixty-three percent complete with an expected completion date of November 2011. Non-power operational transitions are fifty-two percent complete with an expected completion date of September 2011. NFPA-805 monitoring program is zero percent complete with an expected completion date of July 2012. See the following table for a summary of the NFPA-805 Transition Schedule.

### NFPA-805 Transition Schedule

<b>License Amendment Request / Topical Report Section</b>	<b>Topic</b>	<b>Schedule Date (Estimated Completion Status)</b>
4.1, Attachment A	Fundamental Fire Protection Program Elements and Minimum Design Requirements (Table B-1)	February 2011 (Approximately 44% Complete)
4.2.1, Attachment B	Nuclear Safety Capability Assessment – Methodology (Table B-2)	March 2011 (0% Complete)
4.2.2, Attachment C	Nuclear Safety Capability Assessment Fire-Area-by-Fire-Area Review (Table B-3)	November 2011 (Approximately 63% Complete)
4.3, Attachment D	NPO Modes (Table F-1)	September 2011 (Approximately 52% Complete)
4.4, Attachment E	Radioactive Release (Table G-1)	April 2011 (Approximately 32% Complete)
4.5.1	Fire Probabilistic Risk Assessment Development	February 2012 (Approximately 57% Complete)
4.5.5	Risk Change Due to NFPA 805 Transition	May 2012 (0% Complete)
4.6	NFPA-805 Monitoring	July 2012 (0% Complete)

Note – Schedule dates are milestones and do not constitute commitments.