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Vice President  
Harris Nuclear Plant  
Progress Energy Carolinas, Inc.

JUN 09 2006

Serial: HNP-06-082  
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission  
ATTENTION: Document Control Desk  
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
DOCKET NO. 50-400/LICENSE NO. NPF-63

60-DAY RESPONSE TO NRC GENERIC LETTER 2006-03, "POTENTIALLY  
NONCONFORMING HEMYC AND MT FIRE BARRIER CONFIGURATIONS"

Ladies and Gentlemen:

On April 10, 2006, the Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2006-03, "Potentially Nonconforming Hemyc and MT Fire Barrier Configurations," which requested licensees to provide information within 30 days of the date of the GL, if applicable, and all licensees to provide information within 60 days of the date of the GL. On April 28, 2006, Harris Nuclear Plant (HNP) of Carolina Power and Light Company (CP&L) doing business as Progress Energy Carolinas, Inc., submitted a 30-day response (HNP-06-066).

Attachment 1 provides the requested 60-day response to GL 2006-03 for HNP.

Attachment 2 provides a summary of the extent of use of fire barrier material to support information provided in Attachment 1.

This document contains no new Regulatory Commitments.

Please refer any question regarding this submittal to Mr. Dave Corlett at (919) 362-3137.

I declare, under penalty of perjury, that the attached information is true and correct.  
(Executed on JUN 09 2006 .)

Sincerely,

CJG/jpy

Harris Nuclear Plant  
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A125

Attachment:

1. 60-Day Response to Generic Letter (GL) 2006-03, Potentially Nonconforming Hemyc and MT Fire Barrier Configurations
2. Summary of the Extent of Use of Fire Barrier Material

c:

Mr. R. A. Musser, NRC Senior Resident Inspector  
Mr. C. P. Patel, NRC Project Manager  
Dr. W. D. Travers, NRC Regional Administrator

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FIRE BARRIER CONFIGURATIONS"

NRC Requested Information

*All addressees are requested to provide the following information:*

*1. Within 60 days of the date of this GL, provide the following:*

NRC Request 1.a

- a. A statement on whether Hemyc or MT fire barrier material is used at their NPPs and whether it is relied on for separation and/or safe shutdown purposes in accordance with the licensing basis, including whether Hemyc or MT is credited in other analyses (e.g., exemptions, license amendments, GL 86-10 analyses).*

HNP Response 1.a

The "Hemyc"™ and "MT"™ electrical cable and raceway fire wrap systems, supplied by Promatec Technologies, Inc., are used at Harris Nuclear Plant (HNP) as electrical raceway fire barrier systems (ERFBS) to satisfy the requirements of Sections C.5.b(2)(a) and (c) of BTP CMEB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants," Revision 3, July 1981. This material is used to provide separation of redundant circuits located within a fire area that are required for safe shutdown in the event of fire.

However, certain applications of Hemyc and MT material exist at HNP that are not used as an ERFBS. For clarity, these applications will not be included in the responses to NRC Requests 2 and 3 because they are not used for the protection of electrical raceway circuits.

Hemyc material is used in the Reactor Auxiliary Building, 261' elevation to eliminate combustible cable insulation as an intervening combustible material. This use was described in HNP Letter NLS-86-040, Deviation Request B, dated February 13, 1986, and accepted by the NRC in HNP's Safety Evaluation Report (SER), NUREG-1038, Supplement No. 3, dated May 1986.

MT material is used on HVAC ductwork in several locations of the plant where fire-rated dampers were installed outside of the plane of the concrete fire barrier. The use of this material is discussed in an engineering evaluation (GL 86-10 Engineering Evaluation/Analysis) associated with an Engineering Change (EC 50804) justifying the arrangement of the fire dampers. This analysis does not credit the MT as a fire-rated material.

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NRC Requested Information (continued)

NRC Request 1.b

- b. A description of the controls that were used to ensure that other fire barrier types relied on for separation of redundant trains located in a single fire area are capable of providing the necessary level of protection. Addressees may reference their responses to GL 92-08 to the extent that the responses address this specific issue.*

HNP Response 1.b

HNP uses two other fire barrier materials to provide separation of redundant circuits within a fire area in a manner similar to the Hemyc and MT materials. These materials are one- and three-hour fire-rated Interam™ E54A ERFBS manufactured by 3M Corporation and Thermo-Lag 330-1 manufactured by Thermal Science Incorporated. Both of these materials have been tested per the requirements of Generic Letter 86-10, Supplement 1 for the specific applications used at HNP. Vendor testing was used for the Interam material, and proprietary HNP fire testing was performed to qualify the Thermo-Lag installation.

For design controls, HNP uses engineering design controls implemented by procedures EGR-NGGC-0005, Engineering Change, and EGR-NGGC-0102, Safe Shutdown/Fire Protection to ensure that fire barrier types specified for use in the plant for separation and/or safe shutdown purposes meet regulatory requirements. This review is performed by the HNP Fire Protection Engineer and/or Safe Shutdown (SSD) Engineer as part of the engineering design change package review and approval process.

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NRC Requested Information (continued)

2. *Within 60 days of the date of this GL, for those addressees that have installed Hemyc or MT fire barrier materials, discuss the following in detail:*

NRC Request 2.a

- a. *The extent of the installation (e.g., linear feet of wrap, areas installed, systems protected),*

HNP Response 2.a

Attachment 2 provides the extent of installation information for the Hemyc and MT used as an ERFBS at HNP. This information is presented by fire area and safe shutdown analysis area showing approximate lengths of material, types of commodities protected, and the safety systems which credit the material in that fire area.

NRC Request 2.b

- b. *Whether the Hemyc and/or MT installed in their plants is conforming with their licensing basis in light of recent findings, and if these recent findings do not apply, why not,*

HNP Response 2.b

Based on the Nuclear Energy Institute's (NEI) Hemyc fire test results, HNP has determined that the Hemyc ERFBS installed at HNP is not fully capable of keeping the protected electrical circuits free of fire damage for one (1) hour when subjected to an ASTM E-119 fire in accordance with GL 86-10, Supplement 1 guidance.

HNP's position on the MT ERFBS installations is that the previous NRC fire testing is not directly applicable due to variations in the material tested from the material used at HNP. HNP is planning to perform proprietary fire testing in accordance with GL 86-10, Supplement 1 guidance to determine the fire ratings for the installed MT ERFBS.

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NRC Requested Information (continued)

NRC Request 2.c

- c. *The compensatory measures that have been implemented to provide protection and maintain the safe shutdown function of affected areas of the plant in light of the recent findings associated with Hemyc and MT installations, including evaluations to support the addresses' conclusions, and*

HNP Response 2.c

For Hemyc ERFBS, compensatory measures have been implemented in the fire areas which credit these fire wrap installations. In the applicable fire areas, a one-hour roving fire watch has been implemented in accordance with HNP procedure FPP-013, Fire Protection – Minimum Requirements, Mitigating Actions and Surveillance Requirements. Also, HNP has increased controls on transient combustible materials in the areas involved. In addition, these areas are protected with automatic detection and automatic suppression systems.

HNP's position on the MT ERFBS installations is that the previous NRC fire testing is not directly applicable due to variations in the material tested from the material used at HNP. HNP is planning to perform proprietary fire testing in accordance with GL 86-10, Supplement 1 guidance to determine the fire ratings for the installed MT ERFBS. However, as a conservative measure, compensatory actions in the form of a one-hour roving fire watch have been implemented in the fire areas which credit the MT fire wrap installations.

These compensatory measures will remain in place until final resolution of the Hemyc and MT ERFBS issue is achieved in the applicable fire areas.

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NRC Requested Information (continued)

NRC Request 2.d

- d. A description of, and implementation schedules for, corrective actions, including a description of any licensing actions or exemption requests needed to support changes to the plant licensing basis.*

HNP Response 2.d

Due to the developing regulatory concerns with the technical acceptability of Hemyc and MT fire barriers, HNP has previously developed a plan to address the issue. This resolution plan is integrated with the planned transition of the HNP fire protection program to a risk-informed, performance-based program in accordance with NFPA 805, Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants. HNP's decision to pursue this course of action is described in detail in a letter from Mr. C. S. Hinnant to the United States Nuclear Regulatory Commission (Progress Energy Serial: PE&RAS 05-033), dated June 10, 2005. As discussed in that letter, tentative completion of this transition for HNP will extend beyond December 1, 2007. Based on the fact that fire barrier issues are integrated with the NFPA 805 transition, the final resolution date for the Hemyc and MT fire barrier issue may extend beyond the License Amendment Request approval to allow for modifications for any applications not found acceptable during the NFPA 805 transition process. As stated in the letter to transition to NFPA 805, an updated schedule will accompany the License Amendment Request that HNP will submit as required by 10 CFR 50.48(c)(3)(i). This schedule will address the final resolution dates for the Hemyc and MT fire barrier issues as necessary.

Through submittal of the letter to transition to NFPA 805, HNP has requested a window of enforcement discretion during which no enforcement actions will be taken for non-safety significant noncompliance's discovered as a result of evaluations to support the fire protection program licensing basis transition. This applies directly to the resolution of the Hemyc and MT fire barriers. As HNP is working through the evaluation process, any identified noncompliance's will be entered into the HNP corrective action program and addressed as described in the letter to transition to NFPA 805 by following the guidelines in accordance with NRC Interim Enforcement Policy (69 FR 33684, June 16, 2004).

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NRC Requested Information (continued)

HNP Response 2.d (continued)

The following provides a brief outline of the long-term resolution plan for Hemyc and MT fire barriers at HNP. This plan will consist of the following three (3) phases:

- Phase One - Establishment of the ERFBS fire protective worth by plant-specific fire testing and evaluation of installed configurations,
- Phase Two - Evaluation of the acceptability of the credited applications using the NFPA 805 change process, and
- Phase Three - Resolution (e.g., replacement) of remaining credited applications which were not found acceptable per NFPA 805.

The third phase of the project will fully address any HNP applications of the Hemyc and MT ERFBS which were identified by the evaluation as not providing adequate protection for the required redundant SSD circuits.



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SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,**

**HNP Hemyc and MT  
Electrical Raceway Fire Barrier System (ERFBS)  
Summary**

Note: Acronyms used in this attachment for designating essential safety systems are based on the following:

<u>System</u>	<u>Safe Shutdown Analysis Designation</u>	<u>Shutdown Use</u>
Auxiliary Feedwater System	AFW	H
Component Cooling Water System	CCW	H/C
Control Room Lighting System	CRLT	H/C
Chemical and Volume Control System	CVCS	H/C
Chilled Water System	CWS	H/C
Emergency Diesel Generator System	EDGS	H/C
Engineered Safety Features Actuation System	ESFAS	H/C
Emergency Service Water System	ESW	H/C
Containment Fan Coolers Systems	HCFC	H/C
Electric Equipment Room HVAC System	HCRC	H/C
Control Room HVAC System	HCRM	H/C
Diesel Gen. Building HVAC System	HDGB	H/C
Mech/Elec Penetration HVAC System	HMCC	H/C
Switchgear Room HVAC System	HRAA	H/C
Misc. RAB Areas HVAC System	HRAS	H/C
RHR Pump Area HVAC System	HRHR	C
ESW Intake Structure HVAC System	HSWI	H/C
Main Steam System	MSS	H
Nuclear Instrumentation System	NIS	H/C
AC Power Distribution System	PDSAC	H/C
DC Power Distribution System	PDSDC	H/C
RCS Pressure Control System	RCSPC	H/C
Residual Heat Removal System	RHRS	C

Legend:     H - Hot Standby  
              C - Cold Shutdown

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SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,**

<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-A</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-A2</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1 ½, 2, 3, 4"	191'	ESW HSW1 PDSAC	H/C H/C H/C
<b>Junction Boxes</b> 24 x 12 x 12" 18 x 18 x 12"			
<b>Cable Trays</b> 24 x 5 ¼"	19'		



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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-A</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-A4</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 1, 1 1/2"</b>	39'	HMCC HRAS	H/C H/C
<b>Junction Boxes</b>	None		
<b>Cable Trays</b>	None		

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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-B</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-B1</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1, 2, 3, 4"  <b>Junction Boxes</b> 18 x 18 x 12.5" 36.5 x 24 x 22" 36 x 24 x 12"  <b>Cable Trays</b>	645'          None	AFW CVCS ESFAS MSS	H H/C H/C H

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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-B</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-B2</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1, 1 ½, 2, 3, 4"  <b>Junction Boxes</b> 18 x 18 x 12.5" 18 x 12 x 7"  <b>Cable Trays</b> 24" x 5 ¼"	1087'          357'	AFW CCW CWS EDGS ESFAS ESW HCRM HMCC HRAA HRAS HRHR HSW1 MSS PDSAC PDSDC	H H/C H/C H/C H/C H/C H/C H/C H/C H/C C H/C H H/C H/C



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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-B</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-B4</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1, 3, 4"  <b>Junction Boxes</b> 36.5 x 18 x 17"  <b>Cable Trays</b> 24" x 5 1/4"	72'      78'	CCW CVCS CWS EDGS ESW HCFC HMCC HRAS PDSAC RHRS	H/C H/C H/C H/C H/C H/C H/C H/C H/C H/C C



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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-B</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-B5</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 2, 3, 4"</b>	8'	CCW CVCS CWS HCRM HMCC HRAS RHRS	H/C
<b>Junction Boxes</b>	None		H/C
<b>Cable Trays 24" x 5 1/4"</b>	75'		H/C H/C H/C C

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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-CSRA</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-CSRA</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1, 1 ½, 2, 3, 4"  <b>Junction Boxes</b> 18 x 12 x 6" 18 x 12 x 12" 18 x 18 x 12" 28 x 74 x 18"  <b>Cable Trays</b> 30" X 5 ¼"	1523'            4'	CVCS CWS EDGS ESFAS HCRC HCRM HDGB HMCC HRAA HRAS HRHR HSW1 MSS NIS PDSAC RCSPC	H/C H/C H/C H/C H/C H/C H/C H/C H/C H/C H/C H/C H/C C H/C H H/C H/C H/C



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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-EPA</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-EPA</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 1 1/2"</b>	69'	RCSPC	H/C
<b>Junction Boxes</b>	None		
<b>Cable Trays</b>	None		

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<b>HEMYC ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-EPB</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-EPB</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<p><b>Conduits</b> 1 ½, 4"</p> <p><b>Junction Boxes</b> 36 x 24 x 12.5" 37 x 36 x 25" 37 x 43 x 25"</p> <p><b>Cable Trays</b></p>	<p>129'</p> <p>None</p>	<p>CVCS RHRS</p>	<p>H/C C</p>

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<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>12-A-BAL</b>	<b>SSA ANALYSIS AREA</b>	<b>12-A-BAL</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 4"  <b>Junction Boxes</b> 36 x 24 x 12" 36 x 24 x 15" 48 x 36 x 15"  <b>Cable Trays</b>	1.5'          None	PDSAC	H/C

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<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-ACP</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-ACP</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b>  <b>Junction Boxes</b> 28.5 x 22.5" (embedded box)  <b>Cable Trays</b>	None          None	NIS	H/C

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<b>FIRE AREA</b>	<b>1-A-BAL-A</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-A1</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 4"</b>	121'	ESW HSW1 PDSAC	H/C
<b>Junction Boxes</b>	None		H/C
<b>Cable Trays</b>	None		H/C



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<b>FIRE AREA</b>	<b>1-A-BAL-A</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-A2</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 4"</b>	4.5'	HCRC HCRM PDSAC	H/C H/C H/C
<b>Junction Boxes</b>	None		
<b>Cable Trays</b>	None		

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
 DOCKET NO. 50-400/LICENSE NO. NPF-63  
 SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-B</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-B1</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1 ½, 2, 3”  <b>Junction Boxes</b> 30 x 60 x 36” 24 x 24 x 16”  <b>Cable Trays</b>	158’       None	ESW	H/C

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 SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-C</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-C</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 1½, 2, 4"</b>	128'	PDSAC RCSPC	H/C
<b>Junction Boxes</b>	None		H/C
<b>Cable Trays</b>	None		

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 SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-BAL-D</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-BAL-D</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 4"  <b>Junction Boxes</b> 18 x 18 x 13"  <b>Cable Trays</b>	71'          None	EDGS HDGB	H/C H/C

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SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>1-A-SWGRB</b>	<b>SSA ANALYSIS AREA</b>	<b>1-A-SWGRB</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits</b> 1, 1 ½, 2, 3, 4"  <b>Junction Boxes</b> 24.25 x 18 x 12"  <b>Cable Trays</b>	 735'   None	 CRLT ESFAS NIS PDSAC PDSDC RCSPC	 H/C H/C H/C H/C H/C H/C

**SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
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SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,**

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>5-0-BAL</b>	<b>SSA ANALYSIS AREA</b>	<b>5-0-BAL</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<b>Conduits 3, 4"</b>	30'	EDGS	H/C
<b>Junction Boxes 24 x 12 x 12"</b>			
<b>Cable Trays</b>	None		

**SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
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SUMMARY OF THE EXTENT OF USE OF FIRE BARRIER MATERIAL,**

<b>MT ELECTRICAL RACEWAY FIRE BARRIER SYSTEM</b>			
<b>FIRE AREA</b>	<b>FPYARD</b>	<b>SSA ANALYSIS AREA</b>	<b>FPYARD</b>
<b>Electrical Raceway Commodity Protected</b>		<b>Safety Systems Crediting Electrical Raceway With Fire Wrap</b>	
<b>Type &amp; Sizes (inches)</b>	<b>Approximate Linear Feet of Wrap</b>	<b>Safety System</b>	<b>Required for: Hot Standby – H Cold Shutdown - C</b>
<p align="center"><b>Conduits</b></p> <p align="center">None</p> <p><b>Junction Boxes</b> 36 x 36" 24 x 48" (embedded boxes)</p> <p><b>Cable Trays</b></p> <p align="center">None</p>		EDGS	H/C