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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
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Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
CAROLINA POWER & LIGHT COMPANY	)	Docket No. 50-400 OL
and NORTH CAROLINA EASTERN	)	
MUNICIPAL POWER AGENCY	)	
	)	
(Shearon Harris Nuclear Power	)	
Plant)	)	

APPLICANTS' SUPPLEMENTAL TESTIMONY OF  
ROBERT W. PRUNTY, RICHARD M. BUCCI,  
EDWIN J. PAGAN AND KUMAR V. HATE  
IN RESPONSE TO EDDLEMAN CONTENTION 9G  
(TYPE TEST REPORTING)

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Q.1 What is the purpose of your Supplemental Testimony?

A.1 (RWP, RMB, EJP, KVH) This testimony supplements our pre-filed statement of August 31, 1984 to reflect a change in the method by which Applicants will demonstrate the environmental qualification of Class 1E coaxial and triaxial Rockbestos cable to be installed in the Shearon Harris Nuclear Power Plant ("SHNPP"). We also identify two additional types of Class 1E Rockbestos cable used at the SHNPP, and describe how Applicants will demonstrate environmental qualification of these cables.

Q.2 Why are Applicants changing the method by which they will demonstrate environmental qualification of coaxial and triaxial Rockbestos cable?

A.2 (RMB, EJP) In our August 31, 1984 pre-filed testimony, we discussed Rockbestos environmental qualification test report QR 2806, which documents successful testing of RSS-6-104/LD cable. We concluded that the RSS-6-105/LD and RSS-6-108/LD cables, the other types of Rockbestos coaxial and triaxial cable used at the SHNPP, also could be environmentally qualified by similarity to the RSS-6-104/LD cable based on QR 2806.

However, we stated that, in light of the deficiencies which have been identified in Rockbestos' environmental qualification testing program, Applicants would inspect the documentation relied on by Rockbestos to support QR 2806 and would

determine independently whether the testing data adequately supports the environmental qualification report. Applicants have now visited the Rockbestos facility, but were not presented with sufficient documentation of data to support the use of QR 2806 to qualify the coaxial or triaxial Rockbestos cables for the SHNPP.

Q.3 How will Applicants demonstrate the environmental qualification of the coaxial and triaxial cable to be installed in the SHNPP?

A.3 (RMB, EJP) One of the possible courses of corrective action specified in IE Information Notice No. 84-44 to be acceptable to assure qualification of Rockbestos cable is to obtain documentation from qualification tests performed on Rockbestos cable by vendors or test laboratories other than Rockbestos. Applicants have obtained two test reports, IPS-1053 and IPS-1054, from Conax Corporation ("Conax") which describe environmental qualification testing of electrical penetration module assemblies, including Rockbestos RSS-6-105/LD coaxial cables. Applicants have reviewed these reports and have determined that the qualification test parameters envelope applicable SHNPP parameters for the worst case location through which Rockbestos coaxial and triaxial cables are routed. As we stated in our August 31, 1984 pre-filed testimony, the minor differences among the RSS-6-105/LD, RSS-6-104/LD and RSS-6-108/LD cable types do not affect qualification. Thus, the qualification testing of RSS-6-105/LD cables is applicable

to the other Rockbestos coaxial and triaxial cable used at the SHNPP.

Q.4 Has Conax's QA program been reviewed by CP&L?

A.4 (RMB, EJP, KVH) Yes. Conax, as a supplier of Class 1E conduit seals, is a direct vendor at the SHNPP. Conax's QA program has been reviewed by CP&L and has been found acceptable. Ebasco has also reviewed Conax's QA program and found it acceptable.

Q.5 In A.10 of your August 31, 1984 pre-filed testimony, you identify three types of Rockbestos cable to be installed in the SHNPP, namely, the RSS-6-104/LD, RSS-6-105/LD and RSS-6-108/LD cables discussed above. Do you wish to clarify this answer?

A.5 (RWP, RMB, EJP) There are two additional types of safety-related Rockbestos cable used at the SHNPP: Firewall III insulated thermocouple cable, and Firewall III insulated control cable. The thermocouple cable is used as pigtails, which are approximately three feet long, in electrical containment penetrations. The control cable is used as jumper wire in the limit switch compartments of Limitorque valve operators. These jumper wires are each only a few inches in length.

These two types of cable were not identified in our August 31, 1984 pre-filed testimony because Item 2, p. 5 of the Sandia Annual Report referenced in Eddleman Contention 9G questions QR 2806, which only addresses coaxial and triaxial Rockbestos cable. As a result of Applicants' visit to the Rockbestos

facility, Applicants have concluded that, as in the case of the Rockbestos coaxial and triaxial cable, it is necessary to qualify the Rockbestos thermocouple and control cable used at the SHNPP independently of Rockbestos.

Q.6 How will Applicants demonstrate the environmental qualification of the Rockbestos thermocouple cable and control cable?

A.6 (RMB, EJP) Applicants have obtained two test reports which describe environmental qualification research tests by Sandia National Laboratories on Rockbestos Firewall III insulated control cable. The Rockbestos control cable used at the SHNPP was one of the cable types tested. Those test reports are: NUREG/CR-2932, 1 of 2, "Equipment Qualification Research Test of Electric Cable with Factory Splices and Insulation Rework Test No. 1" (September 1982); and NUREG/CR-3588, "The Effect of LOCA Simulation Procedures on Cross-Linked Polyolefin Cable's Performance" (April 1984). Applicants have reviewed these reports and have determined that the qualification test parameters, in each test, envelope applicable SHNPP parameters for the worst case location for both the control cable and thermocouple cable. Further, the control cable is representative of the thermocouple cable for qualification purposes, since the insulation materials and all other construction features significant to environmental qualification are the same. The thickness of the insulation material on the thermocouple cable is 25 mils compared to 30 mils on the control cable.

However, the thermocouple cable wires are covered by a metallic shield and Hypalon overall jacket which more than compensate for this minor difference in thickness.

Q.7 In conclusion, is the SHNPP environmental qualification program able to demonstrate qualification of all types of safety-related Rockbestos cable used at the SHNPP?

A.7 (RWP, RMB, EJP, KVH) Yes. Applicants have qualification test data independent of Rockbestos which demonstrate the environmental qualification of the Rockbestos cables to be used in the SHNPP.

October 11, 1984

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CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing "Applicants' Motion to File Supplemental Testimony in Response to Eddleman Contentions 9G (Type Test Reporting) and 116 (Fire Protection)," "Applicants' Supplemental Testimony of Robert W. Prunty, Richard M. Bucci, Edwin J. Pagan and Kumar V. Hate in Response to Eddleman Contention 9G (Type Test Reporting)" and "Applicants' Supplemental Testimony of Margareta A. Serbanescu in Response to Eddleman Contention 116 (Fire Protection)" were served this 11th day of October, 1984, by Federal Express to Mr. Wells Eddleman and by deposit in the United States Mail, First Class, postage prepaid, to all others on the attached Service List.

Michael A. Swiger  
Michael A. Swiger

DATED: October 11, 1984

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NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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Shearon Harris Nuclear Power )  
Plant) )

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