DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

April 29, 1982

TELEPHONE: AREA 704
373-4083

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: Catawba Nuclear Station
Unit 1
Docket No. 50-413

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report SD 413/82-10.

Very truly yours,

William O. Parker, Jr.

RWO/php
Attachment

cc: Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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NRC Resident Inspector
Catawba Nuclear Station

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Duke Power Company
Catawba Nuclear Station

Report Number: SD 413/82-10

Report Date: April 29, 1982

Facility: Catawba Nuclear Station, Unit 1

Identification of Deficiency: Non-Class 1E communication, fire detection and lighting cables were attached to the side rails of essential cable trays.

Initial Report: On March 29, 1982, Mr. A. Ignatonis of the NRC, Region II, Atlanta, Georgia, was notified of this deficiency by Mr. W. O. Henry and Mr. D. E. Roberts of Duke Power Company, Charlotte, North Carolina 28242.

Suppliers and/or Components: The non-Class 1E communication and fire detection cables were supplied by The Okonite Company of Ramsey, New Jersey and the Rockbestos Company of New Haven, Connecticut. The communication and fire detection cables are comprised of insulated pairs of #22AWG with tefzel insulation as furnished by Okonite, and polyethylene insulation as furnished by Rockbestos. Both cables are enclosed in 25 mil thick welded seam corrugated aluminum armor. These cables are designated as type PAA cables. The non-Class 1E lighting cables were furnished by the Okonite Company of Ramsey, New Jersey and are comprised of cross-linked polyethylene insulated singles enclosed in a 25 mil thick, welded seam corrugated aluminum armor and are designated as type ALS cable.

Description of Deficiency: Field run non-Class 1E cables used in communication, fire detection and lighting applications were attached to the side rails of essential cable trays and/or installed in the proximity of Class 1E cables/cable trays such that the minimum separation distances as defined in the Catawba FSAR were not maintained. This deficiency was noted in the plant construction phase during a routine inspection.

Corrective Action: Based on the limited power available on these curcuits and/or the cable construction and associated fire test results that have been provided by the cable manufacturers, the cable installation described above does not degrade Class 1E circuits below an acceptable level and is therefore acceptable as installed. The information below is provided in support of this position:

1. All of the cables in these applications have been qualified in accordance with the IEEE 383-1974 flame test.

2. Class 1E circuits are installed in interlocked armor cables which have been tested to demonstrate that the circuits in one cable are unaffected by a fault in an adjacent cable. Refer to the response of question 430.28 in the FSAR.

3. These circuits are fed from low voltage systems as listed below, thus minimizing the potential for any adverse effects on Class 1E circuits.

   a) Lighting circuits are either 250 volts DC or 120 volts AC.

   b) Fire detection circuits are fed from the 120 volt AC auxiliary control power system inverters.

   c) Communication circuits operate at 98 or 120 volts AC or 48 volts DC and, in either case, are powered from a dedicated power supply.

4. The Catawba FSAR will be revised to exempt these cables from the separation criteria. However, cables installed after June 1, 1982 shall be restricted to being attached to non-Class 1E cable trays only.