



**Florida  
Power**

CORPORATION  
Crystal River Unit 3  
Docket No. 80-302  
Operating License No. DPR-72

October 13, 1999  
3F1099-19

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U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

Subject: 10CFR21 Report – Cable Damage

Dear Sir:

The purpose of this letter is to provide a 30-day written report to the NRC, pursuant to 10CFR21.21, concerning damage identified on safety-grade cable provided to Florida Power Corporation (FPC) by the BICC Brand-Rex Company. The FPC Responsible Officer was notified of the reportability evaluation results, the 2-day facsimile required pursuant to 10CFR21.21 was transmitted to the NRC Operations Center, and receipt of the facsimile was confirmed (Event No. 36265) on October 6, 1999. The BICC Brand-Rex Company was notified of FPC's intention to report the cable damage to the NRC under 10CFR21.21.

No new commitments are contained in this submittal. If you have questions regarding this submittal, please contact Mr. Larry McDougal, Manager, Nuclear Regulatory Compliance, at (352) 563-4988.

Sincerely,

D. L. Roderick  
Director, Nuclear Engineering and Projects

DLR/dwh

Attachment

xc: Regional Administrator, Region II  
Senior Resident Inspector  
NRR Project Manager

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ATTACHMENT

10CFR21.21(d)(4) requires that the 30-day written report shall include, but need not be limited to, the following information, to the extent known:

- (i) Name and address of the individual or individuals informing the Commission.

Florida Power Corporation (FPC)  
Crystal River Unit 3 (CR-3)  
15760 West Power Line Street  
Crystal River, Florida 34428-6708

- (ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Power Cable  
BICC Brand-Rex Company Part #1108582  
1KV, 3/C, #2/0, Class B, 90C, XLPE Insulated, Black Jacket  
FPC Purchase Order #F830409D (BICC General #00373)

- (iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

BICC Brand-Rex Company  
1600 West Main Street  
Willimantic, Connecticut 06226-1128

- (iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

The insulation on one conductor of a three conductor cable was found to be damaged when the outer jacket was removed for termination. This was the first issuance of the cable from the FPC warehouse. A 20 foot sample length from the same cable reel was inspected by FPC personnel. Damage was found on conductor #2, consistent with the damage identified in the field. The conductor appeared to have been damaged during fabrication rather than by cable pulling techniques.

The BICC Brand-Rex Company examined samples of the damaged cable and concluded that the damage was created during the cabling process while combining the three conductors just prior to closing. They concluded that the one damaged conductor fell off a pulley due to loss of tension, causing the insulation to be scraped.

The cable had been procured as safety-related, Environmentally Qualified (EQ), and suitable for installation in a safety-related application in a "harsh" environment such as in the Reactor Building or Intermediate Building. In a harsh environment created under accident conditions, the damaged cable insulation could allow the cable conductor to "leak" through moisture to nearby grounds, tripping and rendering inoperable the equipment downstream of the ground fault. Conductor insulation is the primary barrier to conductor leakage in Loss of Coolant Accident (LOCA) tests, assuming the jacket material cracks. Also, if the cable was installed in a metal cabinet so that the outer cable jacket had been stripped near the defect, the damaged insulation on the conductor could potentially allow direct contact with the cabinet or a nearby ground during a seismic event and cause the circuit to malfunction. In either case, safety-related loads required to mitigate the consequences of an accident or to perform a safety-related function could be impacted to the extent that a substantial safety hazard could be created.

- (v) The date on which the information of such defect or failure to comply was obtained.

FPC Corrective Action Program Precursor Card PC99-2868 was initiated August 31, 1999, to document identified damage to a new power cable being installed in a non-safety-related application under Modification Approval Record 98-04-06-01 (Instrument Air Compressor Upgrade). One conductor of a three conductor cable was found to be damaged when the outer jacket was removed for termination.

The 10CFR21.21 reportability evaluation was completed on October 4, 1999.

- (vi) In the case of a basic component which contains a defect or fails to comply, the number and location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations of this part.

This was the first issuance of the subject BICC Brand-Rex power cable. Four (4) Reels containing approximately 4,000 feet total had been procured.

- (vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

FPC verified that the subject cable was a special order item and that this was the first issuance of that product to the field. The special order consisted of four reels (approximately 4,000 feet). The issued cable was returned to stock. The special order cable was returned to the BICC Brand-Rex Company.

The BICC Brand-Rex Company stated that the cable unit used for the special order had been replaced with a cabling unit that does not use pulleys. The new cabling unit is a straight line process which prevents recurrence of the subject cable damage.

The BICC Brand-Rex Company stated that further reviews were performed to see if the cable damage could be present in any other product supplied to FPC. The BICC Brand-Rex Company determined that there has been no other product manufactured or supplied to FPC which utilized the same manufacturing process or equipment. Therefore, the subject cable damage would not be present in any other cable supplied to FPC, either in storage or installed.

The BICC Brand-Rex Company stated that an additional electrical test is being added to the manufacturing process after cabling (prior to jacketing) which would identify this type deficiency.

- (viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

None.