

USNRC REGION II  
ATLANTA, GE



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January 4, 1982  
L-82-3

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



Dear Mr. O'Reilly:

Re: RII:JPO  
50-389  
Rockbestos Cables

On December 4, 1981, FPL identified, via telecon, a potential 10 CFR 50.55(e) condition existing on this site involving certain coaxial cables supplied by Rockbestos Company. A final report discussing the resolution is attached for your review.

Very truly yours,

Robert E. Uhrig  
Vice President  
Advanced Systems & Technology

REU/DME/ah

cc: Director of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555  
Harold F. Reis, Esquire

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FINAL DEFICIENCY REPORT

ROCKBESTOS CABLES

Name of Station:	St. Lucie Plant - Unit 2
Owner:	Florida Power & Light Company
Architect/Engineer:	Ebasco Services Incorporated
Date NRC Notified:	December 4, 1981
Final Report File:	January 4, 1982

## I Summary

A potential deficiency was identified in certain coaxial cables supplied by Rockbestos Company, in which the cables were subject to failure in an adverse environment with temperatures above 230°F. This problem was first identified by General Atomic Company who used these Rockbestos cables in their equipment and submitted a Part 21 report to the NRC. An investigation was undertaken for St. Lucie Unit 2 and it has been identified that these cables were specified to be used for some safety related system components (excore nuclear instrumentation and containment radiation monitoring), located inside containment and were partially installed.

This deficiency involving the Rockbestos cables is deemed reportable under 10 CFR 50.55(e). FPL notified the NRC of this deficiency existing in St. Lucie Unit 2 site as a potentially reportable event on December 4, 1981. This final report is submitted to advise the NRC of the description of the deficiency and corrective action that is being taken.

## II Description

The subject Rockbestos cables are of solid dielectric coaxial construction with a braided shield. Expansion of the dielectric when heated causes foreshortening of the braided shield which in turn results in longitudinal compression and kinking of the center conductor. This kinking, combined with heat may cause mechanical and/or thermal stress cracking of the polymer LD inner layer, permitting electrical failure. Cables of this type which were purchased for operation under design basis accident conditions inside containment are thus found to be subject to potential failure above 230°F.

The following Class 1E systems/components were specified to use these cables; the status of cable installation is also indicated;

- a) Excore nuclear instrumentation (neutron detectors) -  
Cables are already installed inside containment.
- b) Containment radiation monitors - Cables are not  
installed yet.

## III Corrective Action

The B/M (bill of material) number of these affected cables were identified and installation of these cables has been stopped. These cables will be replaced by qualified cables provided by the vendor (Rockbestos) according to a site correction procedure.

## IV Safety Implications

The affected system/components include the excore nuclear instrumentation and containment radiation monitors which are safety related. The deficiency is considered as a deviation from performance specifications and it has been concluded that the safety of operation of the nuclear power plant could have

been adversely affected sometime throughout the expected lifetime of the plant, if the cable deficiency were to have remained uncorrected.

V Conclusion

Corrective action as indicated in Section III of this report will be undertaken. This closes out this item for St. Lucie Unit 2 as regards to 10 CFR 50.55(e) requirements.