

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8211020592    DOC. DATE: 82/10/28    NOTARIZED: NO    DOCKET # 05000389  
 FACIL: 50-389 St, Lucie Plant, Unit 2, Florida Power & Light Co.  
 AUTH. NAME                      AUTHOR AFFILIATION  
 UHRIG, R.G.                      Florida Power & Light Co.  
 RECIP. NAME                      RECIPIENT AFFILIATION  
 EISENHUT, D.G.                      Division of Licensing

SUBJECT: Forwards addl info re fire protection issues, in response to NRC request at 821021 meeting. Info consists of discussion of combustion properties of control room panelling & description of fire stop testing.

DISTRIBUTION CODE: B002S    COPIES RECEIVED: LTR 1 ENCL 1    SIZE: 4  
 TITLE: Licensing Submittal: Fire Protection

NOTES:

	RECIPIENT ID CODE/NAME		COPIES LTTR ENCL		RECIPIENT ID CODE/NAME		COPIES LTTR ENCL
	LIC BR #3 BC		1 1		NERSES, V. 01		1 1
INTERNAL:	ELD/HDS2		1 0		IE FILE 07		1 1
	NRR/DE/ADMQE		1 0		NRR/DE/CEB 06		4 4
	NRR/DSI/ASB		1 1		<u>REG FILE</u> 04		1 1
	RGN2		1 1				
EXTERNAL:	ACRS 10		6 6		LPDR 03		1 1
	NRC PDR 02		1 1		NSIC 05		1 1
	NTIS		1 1				

ADL

SECRET

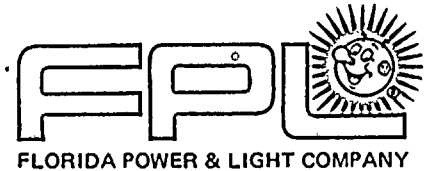
... ..  
... ..  
... ..  
... ..  
... ..

... ..  
... ..  
... ..

... ..  
... ..

...

...	...	...	...	...	...	...
1	1	...	...	1	1	...
2	1	...	...	1	1	...
3	1	...	...	1	1	...
4	1	...	...	1	1	...
5	1	...	...	1	1	...
6	1	...	...	1	1	...
7	1	...	...	1	1	...
8	1	...	...	1	1	...
9	1	...	...	1	1	...
10	1	...	...	1	1	...



October 28, 1982  
L-82-467

Office of Nuclear Reactor Regulations  
Attention: Mr. Darrell G. Eisenhut, Director  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Mr. Eisenhut:

Re: St. Lucie Unit No. 2  
Docket No. 50-389  
Fire Protection Information

Attached please find additional information on fire protection issues requested by your staff.

If you have any questions regarding this response please contact us accordingly.

Very truly yours,

Robert E. Uhrig  
Vice President  
Advanced Systems and Technology

REU/RJS/JES/sms

Attachment

cc: J. P. O'Reilly, Region II  
Harold F. Reis, Esquire

*13002*

8211020592 821028  
PDR ADOCK 05000389  
F PDR

ATTACHMENT

As requested in the meeting held on 10/21/82 to discuss fire protection for St. Lucie Unit 2, FPL has reviewed the combustion properties of the control room panelling.

The flame spread, smoke, and fuel contribution rating for the control room hardwood panelling is equal to or less than 25 which is in compliance with our commitment in the fire hazard analysis.

As discussed in the meeting on 10/21/82, FPL commits to providing a transfer switch to permit isolation of the control room source range meter from the source range meter located at the hot shut-down panel.

The following information addresses the cable tray and conduit support issue discussed in our meeting on 10/21/82.

The cable tray and conduit supports are considerably oversized for normal operation due to seismic design requirements and will thus continue to perform their intended functions at elevated temperatures. FPL for each support either a) confirms that the support meets its intended function as is or b) confirms that the support meets its intended function with an acceptable wrap.



2  
1  
2

As requested in the meeting held on 10/21/82 to discuss fire protection for St. Lucie Unit 2, the following is a description of the fire stop testing that was performed by FPL:

The report submitted in support of PSL-2 electrical penetration fire stops, titled "Fire Endurance and Hose Stream Tests of Electrical Penetration Fire Stops" was conducted in accordance with IEEE-634, 1981, "IEEE Standard Cable Penetration Fire Stop Qualification Test".

It should be noted that the data submitted in the above report also meets and exceeds the acceptance criteria established in ASTM E-119-81, "Fire Tests of Building Construction and Materials", Section 28.1.2, which states in summary, that, the unexposed average surface temperature shall not exceed 250°F above its initial temperature.

The unexposed side surface temperatures are recorded in the report for both tested configurations and identified by the designation "FIELD" in Tables III and IV. The remaining data recorded in the report was taken to assist in diagnostic evaluation of the design should the test be unsuccessful.

In Test I, eighty one surface thermocouples ("FIELD") were installed. In review of the test data record seven of these failed to properly record temperatures during the test as evidenced by a "0" reading or extreme erratic readings. These seven are identified as channel numbers 337, 338, 343, 348, 190, 192, and 273, and are excluded from the evaluation. By taking an arithmetic average of the remaining seventy four maximum recorded temperatures, an average surface temperature of 293°F which is well below the 328°F acceptance criteria of E-119 (250°F + 78°F) is demonstrated.

The following information supplements the fire protection information submittal on July 13, 1982 via L-82-282. This information relates to the evaluation provided for fire area K.

K1 EVALUATION; add the following:

- 9) All redundant cable trays containing safe shutdown cables will be protected by horizontal flame impingement shields located below the lowest tray in each stack, when (20) twenty foot separation criteria is not met. The flame impingement shield will be constructed of 1/2 in. maranite board. The flame impingement shield width shall be 13 inches or the width of the cable tray, whichever is larger. (Note that cable tray separation at the minimum is 7 feet.)
- 10) All conduit containing safe shutdown cables which cross within twenty feet of a cable tray containing redundant cable will be protected with a 1 hour wrap. The wrap will extend 2 feet beyond both sides of the cable tray.
- 11) All instrument cable trays are covered.
- 12) All cable in containment is IEEE-383 1974 qualified.
- 13) All cable trays are of the solid bottom type.



10/10/10