NRC FORM 195
(2-70)

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

U.S. NUCLEAR REGULATORY COMMISSION

DOCKET NUMBER
50-335

FILE NUMBER

| TO:
Mr. Don K. Davis | FROM:
Florida Power & Light Company
Miami, Florida
Robert E. Uhrig | DATE OF DOCUMENT
5/26/77 |
| | | DATE RECEIVED
6/1/77 |

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1 SIGNED

DESCRIPTION	ENCLOSURE
DO NOT REMOVE DISTRIBUTION OF MATERIAL CONCERNING DIESEL ALARM CIRCUITRY FOR DEESEL GENERATORS. PLANT NAME: (1-P) St. Lucie Unit No. 1 RJL **ACKNOWLEDGED**	Consists of requested additional information regarding the alarm and control circuitry for the diesel generators.................. (3-P)

SAFETY		FOR ACTION/INFORMATION	ENVIRO
ASSIGNED AD:			ASSIGNED AD:
BRANCH CHIEF:	(S) Davis		BRANCH CHIEF:
PROJECT MANAGER:	Reeves		PROJECT MANAGER:
LIC. ASST.:	Diggs		LIC. ASST.:

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GOSSICK & STAFF	ENGINEERING	IPPOLITO	ENVIRO TECH.
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			SITE TECH.
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May 26, 1977
L-77-161

REGULATORY DOCKET FILE COPY

Office of Nuclear Reactor Regulation
Attention: Mr. Don K. Davis, Acting Chief
            Operating Reactors Branch #2
            Division of Operating Reactors
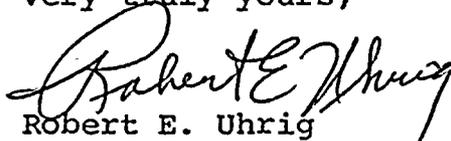U. S. Nuclear Regulatory Commission
Washington, D. C.   20555

Dear Mr. Davis:

Re: St. Lucie Unit 1
     Docket No. 50-335
     Diesel Generator Information

We have reviewed your April 7, 1977 information request regarding the alarm and control circuitry for the diesel generators at our St. Lucie facility. The information you requested is attached.

Very truly yours,

Robert E. Uhrig
Vice President

REU/MAS/cpc

Attachment

cc: Mr. Norman C. Moseley, Region II
     Robert Lowenstein, Esquire

771530106

St. Lucie Unit 1
Docket No. 50-335
Diesel Generator Information

CONDITIONS THAT PREVENT DIESEL GENERATOR FROM RESPONDING TO EMERGENCY START SIGNAL:	WORDING ON ANNUNCIATOR WINDOW(S) IN CONTROL ROOM CORRESPONDING TO ALARMED CONDITIONS:	WORDING ON ANNUNCIATOR WINDOW AT LOCAL PANEL CORRESPONDING TO ALARMED CONDITIONS:	ANY OTHER ALARM SIGNALS THAT ALSO CAUSE THE SAME CONTROL ROOM ANNUNCIATOR TO ALARM:	REMARKS:
OVERSPEED TRIP	EMERGENCY DIESEL GEN 1A LOCKOUT	–	HIGH ENGINE WATER OUTLET TEMPERATURE; LOW ENGINE OIL SYSTEM PRESSURE	LOCKOUT SIGNALS DUE TO HIGH ENGINE WATER OUTLET TEMPERATURE OR LOW ENGINE OIL SYSTEM PRESSURE OVER-RIDDEN AS A RESULT OF AN SIAS, CIS, CSAS, OR LOSS OF OFF-SITE POWER
	EMERGENCY DIESEL GEN 1A LOCAL ALARM	OVERSPEED TRIP	ANY OTHER ALARM ON LOCAL PANEL	–
LOW START SYSTEM AIR PRESSURE	EMERGENCY DIESEL GEN 1A LOCAL ALARM	STARTING AIR LOW PRESSURE	ANY OTHER ALARM ON LOCAL PANEL	–
AIR START RECEIVER ISOLATED	EMERGENCY DIESEL GEN 1A LOCAL ALARM	AIR RECEIVER DISCONNECTED	ANY OTHER ALARM ON LOCAL PANEL	–
FUEL OIL DAY TANK EMPTY	EMERGENCY DIESEL GEN 1A LOCAL ALARM	FUEL DAY TANK HIGH-LOW LEVEL	ANY OTHER ALARM ON LOCAL PANEL	–

LOCAL START NORMAL – ISOLATE SWITCH SELECTED TO ISOLATE POSITION	EMERGENCY DIESEL GEN 1A BKR CLOSE FAILURE/CS ISOLATED	–	DIESEL GENERATOR DC POWER FAILURE	DIESEL WILL START UPON UV, WILL NOT START ON SIAS, CIS, OR CSAS UNLESS IN CONJUNCTION WITH OR FOLLOWED BY AN UV
	EMERGENCY DIESEL GEN 1A LOCAL ALARM	START DC FAILURE CS ISOLATED	ANY OTHER ALARM ON LOCAL PANEL	–
GENERATOR DIFFERENTIAL CURRENT TRIP	EMERGENCY DIESEL GEN 1A LOCAL ALARM	GENERATOR DIFFERENTIAL CURRENT TRIP	ANY OTHER ALARM ON LOCAL PANEL	–
DIESEL GENERATOR DC POWER FAILURE	EMERGENCY DIESEL GEN 1A BKR CLOSE FAILURE/CS ISOLATED	–	LOCAL START NORMAL- ISOLATE SWITCH TO ISOLATE POSITION	–
	EMERGENCY DIESEL GEN 1A LOCAL ALARM	START DC FAILURE CS ISOLATED	ANY OTHER ALARM ON LOCAL PANEL	
DIESEL GENERATOR BREAKER FAILS TO CLOSE	EMERGENCY DIESEL GEN 1A BREAKER FAIL TO CLOSE	–	–	–
GENERATOR POTENTIAL TRANSFORMER FUSE FAILURE	EMERGENCY DIESEL GEN 1A LOCAL ALARM	GENERATOR POT TRANSFER FUSE FAILURE	ANY OTHER ALARM ON LOCAL PANEL	–
DIESEL FAILS TO START	EMERGENCY DIESEL GEN 1A ONE ENGINE NOT RUNNING	–	–	–

NOTES: (1) THE ANNUNCIATOR WORDINGS LISTED IN THE SECOND COLUMN ARE FOR THE 1A DIESEL GENERATOR; THERE ARE SIMILAR ANNUNCIATOR WINDOWS FOR THE 1B DIESEL GENERATOR.

(2) ALL CONDITIONS THAT COULD PREVENT A DIESEL GENERATOR FROM RESPONDING TO AN AUTOMATIC START SIGNAL ARE ALARMED IN THE CONTROL ROOM.

(3) NO PROPOSED MODIFICATIONS HAVE RESULTED FROM THIS EVALUATION.

(4) THE FSAR CHAPTER 8 SUBSECTION ON DIESEL GENERATORS LISTS SEVEN CONDITIONS WHICH CAN CAUSE A DIESEL GENERATOR LOCKOUT. HOWEVER, ALL BUT TWO CONDITIONS ARE OVERRIDDEN IF THE DIESEL IS STARTED AS A RESULT OF AN SIAS, CIS, CSAS, OR LOSS OF OFFSITE POWER. THOSE WHICH REMAIN FUNCTIONAL ARE "ENGINE OVERSPEED" AND "GENERATOR DIFFERENTIAL," AND THESE TWO CONDITIONS ARE CONSIDERED IN THE PRECEDING TABLE.

(5) A MEANS OF PERIODICALLY TESTING THE PROTECTIVE RELAYING COMPONENTS AND THE DIESEL GENERATOR SYSTEM AS A WHOLE ARE PROVIDED BY DESIGN. IF A DIESEL IS BEING TESTED WHEN A LOSS OF OFF-SITE POWER OCCURS OR AN ENGINEERED SAFETY FEATURES SIGNAL IS RECEIVED, THE DIESEL GENERATOR BREAKER OPENS AND AUTOMATIC BREAKER CLOSING AND LOAD SEQUENCING OCCURS.