

February 16, 2000

L-2000-002 10 CFR 50.90

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D. C. 20555

RE:

St. Lucie Units 1 and 2

Docket Nos. 50-335 and 50-389
Proposed License Amendment
Accident Monitoring Instrumentation
And MOV Thermal Overload Bypass

Pursuant to 10 CFR 50.90, Florida Power and Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specifications (TS) revisions. The proposed amendments are associated with the motor operated valve thermal overload protection bypass device TS for Unit 2 and the accident monitoring instrumentation TS for both Units 1 and 2.

These changes are requested to correct existing errors in the Technical Specifications. Attachment 1 is an evaluation of the proposed changes. Attachment 2 is the "Determination of No Significant Hazards Consideration." Attachments 3 and 4 contain copies of the affected Technical Specifications pages marked up to show the proposed changes.

The proposed amendments have been reviewed by the St. Lucie Facility Review Group and the FPL Company Nuclear Review Board. In accordance with 10 CFR 50.91 (b) (1), copies of the proposed amendments are being forwarded to the State Designee for the State of Florida. Please contact us if there are any questions about this submittal.

Very truly yours,

Rajiv S. Kundalkar

Sir S. Kurdaller

Vice President

St. Lucie Plant

RSK/EJW/KWF

**Attachments** 

cc: Regional Administrator, Region II, USNRC

Senior Resident Inspector, USNRC, St. Lucie Plant

Mr. W. A. Passetti, Florida Department of Health and Rehabilitative Services

STATE OF FLORIDA ) ss. COUNTY OF ST. LUCIE )

Rajiv S. Kundalkar being first duly sworn, deposes and says:

That he is Vice President, St. Lucie Plant, for the Nuclear Division of Florida Power and Light Company, the Licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information and belief, and that he is authorized to execute the document on behalf of said Licensee.

Rajiv S. Kundalkar

STATE OF FLORIDA

COUNTY OF St. Luce

Sworn to and subscribed before me

this 16 day of February, 19 2000

by Rajiv S. Kundalkar, who is personally known to me.

Signature of Notary Public-State of Florida

Lesie J. Whitwell
MY COMMISSION # CC646183 EXPIRES
May 12, 2001
BONDED THRU TROY FAIN INSURANCE, INC.

Name of Notary Public (Print, Type, or Stamp)

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Attachment 1 to FPL Letter L-2000-002

**EVALUATION OF PROPOSED TS CHANGES** 

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### **EVALUATION OF PROPOSED TS CHANGES**

#### Introduction

Florida Power and Light Company (FPL) requests to amend Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specifications (TS) revisions. The proposed amendments are associated with:

- the accident monitoring instrumentation TS for both Units 1 and 2,
- the motor operated valve (MOV) thermal overload protection bypass device TS for Unit 2, and
- an administrative change to the Unit 2 TS Index.

## Background/Discussion

## **Unit 1 Accident Monitoring Instrumentation**

FPL discovered an apparent discrepancy in the processing of Unit 1 license amendment number 37. Along with other changes based on the NRC's "Category A" TMI related lessons learned recommendations, St. Lucie Unit 1 license amendment number 37 incorporated new Technical Specification requirements for accident monitoring instrumentation (TS 3/4.3.3.8 and Table 3.3-11). ACTION statement 1 states:

"With the number of OPERABLE channels less than required by Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 30 days or be in HOT STANDBY within the next 12 hours."

Table 3.3-11 has two columns that describe the number of instrument channels used to monitor specific accident parameters; one column is for the TOTAL NO. OF CHANNELS, and the other column is for the MINIMUM CHANNELS OPERABLE. As the TS is written, it is not clear if the ACTION statement applies to the TOTAL NO. OF CHANNELS or the MINIMUM CHANNELS OPERABLE column.

FPL concluded that an apparent error was made during review, approval, and implementation of the proposed TS changes that were approved by amendment 37. FPL submitted letter L-80-367, dated October 31, 1980, with proposed wording for TS 3.3.3.8 that included two ACTION statements. A 48 hour ACTION Statement 3.3.3.8.a was proposed that applied when the number of operable channels was less than the MINIMUM CHANNELS OPERABLE requirements of Table 3.3-11. A 30 day ACTION Statement 1 for Table 3.3-11 was proposed that applied when the number of operable channels is less than that specified in the TOTAL NO. OF CHANNELS column. As approved, Unit 1 TS

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amendment 37 incorporated ACTION 1 of Table 3.3-11, but inexplicably omitted the 48 hour ACTION Statement requirement contained in TS 3.3.3.8.a. Unit 1 Technical Specification 3.3.3.8, "Accident Monitoring Instrumentation," is not conservative in that it does not contain a more restrictive ACTION statement when the number of operable channels is less than the minimum channels operable requirements. Additionally, the originally proposed allowed outage time (AOT) for the auxiliary feedwater flow (AFW) instrumentation was more restrictive than the AOT for an out of service AFW pump. This proposed license amendment (PLA) will add appropriate ACTION statements that apply when the number of operable instrument channels is less than the minimum channels operable.

### Unit 2 Accident Monitoring Instrumentation

The St. Lucie Unit 2 TS Table 3.3-10, "Accident Monitoring Instrumentation," erroneously indicates the narrow range reactor coolant outlet temperature  $T_{hot}$  instrumentation is used to satisfy TS accident monitoring requirements. The TS bases indicates that the intent of this TS table is to provide a post accident instrumentation capability that is consistent with the requirements of Regulatory Guide 1.97. In response to the post TMI NUREGs and Regulatory Guide 1.97, separate wide range reactor coolant outlet temperature  $T_{hot}$  instrumentation was installed prior to issuance of the St. Lucie Unit 2 operating license. However, TS Table 3.3-10 was not revised to reflect the use of wide range  $T_{hot}$  instrumentation. This PLA will correct the  $T_{hot}$  instrumentation error in Table 3.3-10.

## Unit 2 Electrical MOV Thermal Overload Protection Bypass Devices

Unit 2 TS Surveillance 4.8.4 requires the periodic surveillance of the thermal overload protection bypass devices associated with the list of MOVs provided in TS Table 3.8-1. This TS table includes valves MV-21-4A and MV-21-4B, which were modified via plant modification (PC/M) 268-292 such that they no longer perform a safety function and are no longer MOVs.

PC/M 268-292 included a 10 CFR 50.59 safety evaluation. This PC/M evaluated the relocation and de-energization of MV-21-4A and 4B and concluded these changes did not represent an Unreviewed Safety Question per 10 CFR 50.59. The PC/M also considered the modification's effect on the Technical Specifications and erroneously concluded that "The subject modification does not affect or impact the Technical Specifications." TS Table 3.8-1 should have been identified as requiring revision to delete MV-21-4A and 4B. This PLA will delete the subject valves from TS Table 3.8-1.

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## Proposed Changes: Description and Bases/Justification

The affected TS pages, marked up to show the proposed changes, are included in Attachment 3 for Unit 1 and Attachment 4 for Unit 2.

**Description and Bases/Justification of Proposed Changes** 

<u>Unit 1 TS Table 3.3-11</u>

For Unit 1 TS Table 3.3-11, add ACTION 6 which reads as follows:

"ACTION 6 – With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours."

This action statement will be applicable to the following instrumentation listed in Table 3.3-11: Pressurizer Water Level, RCS Subcooling Margin Monitor, Incore Thermocouples, and Containment Pressure.

The basis and justification for this change is that the addition of the proposed action statement is more conservative than the existing TS and is consistent with the AOT and ACTION statements originally proposed by FPL in letter L-80-367 dated October 31, 1980.

For Unit 1 TS Table 3.3-11, add ACTION 7 that applies to the AFW flow rate instrumentation which reads as follows:

"ACTION 7 – With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours."

The basis and justification for this change is that the AOT is consistent with the 72 hour AOT for an inoperable AFW pump in accordance with the ACTION statement for TS 3.7.1.2 which reads as follows:

"With one auxiliary feedwater pump inoperable, restore at least three auxiliary feedwater pumps (two motor driven pumps and one capable of being powered by an OPERABLE steam supply system) to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours."

This change is necessary to ensure that the AOT for AFW flow rate instrumentation is not more conservative than the AOT for the AFW pump itself.

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For TS Table 3.3-11, revise ACTION 1 to read as follows:

"ACTION 1 – With the number of OPERABLE accident monitoring channels less than the Total No. of Channels shown in Table 3.3-11..."

The basis and justification for this change is that it clarifies that ACTION 1 applies when the number of operable channels is less than the Total No. of Channels column in Table 3.3-11.

## Unit 2 TS Table 3.3-10

For Unit 2 TS Table 3.3-10 revise item 2 of the INSTRUMENT column to read:

"Reactor Coolant Outlet Temperature - That (Wide Range)"

The basis and justification for this change is that the wide range reactor coolant outlet temperature instrumentation was installed prior to issuance of the St. Lucie Unit 2 operating license in order to meet the requirements of Regulatory Guide 1.97. The design of these instruments is consistent with their use during post accident conditions (e.g., environmental qualification, Class 1E safety related power requirements, etc.). The FPL final response to Regulatory Guide 1.97 (L-85-417) credited the use of the wide range reactor coolant outlet temperature instrumentation to meet Regulatory Guide 1.97 requirements. However, TS Table 3.3-10 was not revised to incorporate this design change made in response to Regulatory Guide 1.97. Therefore, this change is acceptable.

### **Unit 2 Table 3.8-1**

Delete valves MV-21-4A and MV-21-4B.

The bases and justification for this change are as follows. Valves MV-21-4A and MV-21-4B provide isolation of the lube water supply lines to the circulating water (CW) pumps. Prior to the plant modification performed under PC/M 268-292, the CW pump lube water supply consisted of one tap off of each intake cooling water (ICW) essential (safety related) header. As such, MV-21-4A and 4B used to perform a safety function by isolating the non-safety CW pump lube water from the safety related ICW system upon receipt of a safety injection actuation signal (SIAS). As a result of the plant modification, the CW pump lube water supply was relocated to the non-essential header of the ICW system, commonly referred to as the turbine cooling water (TCW) header, and MV-21-4A and 4B were deenergized, effectively becoming manual valves.

The non-safety TCW header is automatically isolated from the safety related ICW headers via MV-21-2 and MV-21-3 (these valves are listed in Table 3.8-1), which automatically

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close on SIAS. As such, MV-21-4A and 4B no longer perform a safety function and are not required to close upon SIAS. Therefore, this change to Table 3.8-1 is acceptable.

### Unit 2 TS Index

When the smooth pages were developed for the Reload Process Improvement proposed license amendment submitted by FPL via letter L-98-308, dated December 18, 1998, the reformatted text carried over onto a new page. Page XIX of the Unit 2 TS was not changed to reflect the new pagination. This change is administrative and required to correct a typographical error in the Unit 2 TS Index.

#### **Environmental Consideration**

The proposed license amendment changes requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The proposed amendment involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and no significant increase in individual or cumulative occupational radiation exposure. FPL has concluded that the proposed amendment involves no significant hazards consideration and meets the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and that, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment need not be prepared in connection with issuance of the amendment.

#### Conclusion

FPL determined that these proposed license amendments are necessary to correct existing errors in the Technical Specifications.

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## Attachment 2 to FPL Letter L-2000-002

**DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION** 

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## **DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION**

Description of amendment request: The proposed license amendments (PLAs) to Facility Operating Licenses DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 are necessary to:

- Correct an existing non-conservatism in Unit 1 Technical Specification (TS) 3.3.3.8, Accident Monitoring Instrumentation, by providing a 48 hour action statement that applies when the number of operable accident monitoring instrumentation channels is less than the minimum channels operable requirements. This is consistent with FPL's original submittal as documented in FPL letter L-80-367 dated October 31, 1980.
- Add a 72 hour ACTION statement to Unit 1 Technical Specification (TS) 3.3.3.8, Accident Monitoring Instrumentation, that applies when the number of operable auxiliary feedwater flow instrumentation channels is less than the minimum channels operable requirements.
- Correct an existing error in Unit 2 Technical Specification (TS) Table 3.3-10, Accident Monitoring Instrumentation, that incorrectly indicates the use of reactor coolant outlet temperature Thot narrow range instrumentation to meet Regulatory Guide 1.97 accident monitoring instrumentation requirements. St. Lucie Unit 2 utilizes wide range reactor coolant outlet temperature Thot instrumentation to meet Regulatory Guide 1.97 accident monitoring requirements.
- Correct an existing error in Unit 2 TS Table 3.8-1, Motor Operated Valves Thermal Overload Protection Bypass Devices, by deleting valves MV-21-4A and MV-21-4B from the list. These valves were changed to manual valves and no longer perform a safety function.
- Correct an administrative error in the Unit 2 TS Index.

Pursuant to 10 CFR 50.92, a determination may be made that a proposed license amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed as follows.

(1) Operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The addition of the new ACTION statements for the Unit 1 accident monitoring instrumentation adds conservatism that does not exist in the current Technical Specifications. These changes are consistent with either FPL's originally proposed license amendment for this instrumentation or consistent with the Technical Specification allowed outage time for the component being monitored (i.e., the auxiliary feedwater pumps). Unit 2 valves MV-21-4A and MV-21-4B were modified to be manually operated valves and no longer perform an accident mitigation function. Unit 2 wide range That instrumentation is used to satisfy Regulatory Guide 1.97 accident monitoring requirements.

These Technical Specification changes either correct existing errors or add conservatism to the way the Unit is operated. Based on the above, the physical changes to plant equipment or plant operation would not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) Operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any accident previously evaluated.

Accident monitoring instrumentation monitors the process of postulated events, and is not an accident initiator. Unit 2 valves MV-21-4A and MV-21-4B were modified to be manually operated valves and no longer have an active safety function, therefore, these valves are not accident initiators. These Technical Specification changes either correct existing errors or add conservatism to the way the Unit is operated. Based on the above, the physical changes to plant equipment or plant operation would not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) Operation of the facility in accordance with the proposed amendments would not involve a significant reduction in a margin of safety.

The proposed amendments do not involve a significant reduction in a margin of safety. FPL determined that these proposed license amendments are necessary to correct existing errors or add conservatism to the way the Unit is operated. As such, the assumptions and conclusions of the accident analyses in the UFSAR remain valid and the associated safety limits will continue to be met.

Based on the above discussion and the supporting Evaluation of Technical Specification changes, FPL has determined that the proposed license amendments involve no significant hazards consideration.

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# Attachment 3 to FPL Letter L-2000-002

ST. LUCIE UNIT 1 MARKED UP TECHNICAL SPECIFICATION PAGES

Page 3/4 3-42

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TABLE \_\_\_3-11
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT		TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
1.	Pressurizer Water Level	3	1	1669
2.	Auxiliary Feedwater Flow Rate	1/pump	1/pump	+(7)
3.	RCS Subcooling Hargin Honitor	2	1	1663
4.	PORV Position Indicator Acoustic Flow Monitor	1/valve	1/valve	2
5.	PORV Block Valve Position Indicator	1/valve	1/valve	2
6.	Safety Valve Position Indicator	1/valve	1/valve	3
7.	Incore thermocouples	4/core quadrant	2/core quadrant	1(6)
8.	Containment Sump Water Level (Harrow Range)	1*	1*	4, 5
9.	Containment Sump Water Level (Wide Range)	. 2	1	4, 5
10.	Reactor Vessel Level Monitoring System	. 2**	1**	4, 5
11.	Containment Pressure	2	. 1	١٤٤٦٠

<sup>\*</sup>The non-safety grade containment sump water level instrument may be substituted.

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<sup>\*\*&</sup>lt;u>Pefinition of OPERABLE</u>: A channel is composed of eight (8) sensors in a probe, of which four (4) sensors must be OPERABLE.

## TABLE 3.3-11 (Continued)

## ACTION STATEMENTS

the Total No. of Channels shown

- ACTION 1 With the number of OPERABLE channels less than required by Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 30 days or be in HOT STANDBY within the next 12 hours.
- ACTION 2 With position indication inoperable, restore the inoperable indicator to OPERABLE status or close the associated PORV block valve and remove power from its operator within 48 hours or be in HOT STANDBY within the next 6 hours.
- ACTION 3 With any individual valve position indicator inoperable, obtain quench tank temperature, level and pressure information once per shift to determine valve position.
- ACTION 4 With the number of OPERABLE Channels one less than the Total Number of Channels shown in Table 3.3-11, either restore the inoperable channel to OPERABLE status within 7 days if repairs are feasible without shutting down or prepare and submit a Special Report to the Commission pursuant to the specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- ACTION 5 With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 48 hours if repairs are feasible without shutting down or:
  - 1. Initiate an alternate method of monitoring the reactor vessel inventory; and
  - 2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status; and
  - 3. Restore the Channel to OPERABLE status at the next scheduled refueling.



## Insert 1:

- ACTION 6 With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 48 hours or be at least in HOT SHUTDOWN within the next 12 hours.
- ACTION 7 With the number of OPERABLE accident monitoring channels less than the Minimum Channels OPERABLE requirements of Table 3.3-11, either restore the inoperable channel(s) to OPERABLE status within 72 hours or be at least in HOT SHUTDOWN within the next 12 hours.

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## Attachment 4 to FPL Letter L-2000-002

## ST. LUCIE UNIT 2 MARKED UP TECHNICAL SPECIFICATION PAGES

Page XIX

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## **ADMINISTRATIVE CONTROLS**

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5.11	RADIATION PROTECTION PROGRAM	رىتى.

<sup>\*</sup> These corresponding instruments may be substituted for each other.

<sup>\*\*</sup> Not required if the PORV block valve is shut and power is removed from the operator.

<sup>\*\*\*</sup> If not available, monitor the quench tank pressure, level and temperature, and each safety valve/PORV
... discharge piping temperature at least once every 12 hours.

<sup>\*\*\*\*</sup> The non-safety grade containment sump water level instrument may be substituted.

<sup>\*\*\*\*\*</sup> Definition of OPERABLE: A channel consists of eight (8) sensors in a probe of which four (4) sensors must be OPERABLE.

## TABLE 3.8.1 (Continued)

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# MOTOR-OPERATED VALVES THERMAL OVERLOAD PROTECTION BYPASS DEVICES

VALVE NUMBER		<u>FUNCTION</u>	BYPASS (YES/NO)
MAIN S	TEAM: MV-08-1A, 18 MV-08-18A, 18B MV-08-19A, 19B MV-08-12, 13 MV-08-3 MV-08-14, 15, 16, 17	MSIV BYPASS A.D.V. A.D.V. AFW TURBINE INLET AFW TURBINE INLET AFW TURBINE INLET	YES YES YES YES YES YES
MAIN F	EEDWATER: MV-09-9,10,11,12 MV-09-13,14	AUX. FEED ISOL. AUX. FEED X-TIE	YES YES
ICW: _	MV-21-2,3 -HV-21-4A,48	ICW ISOL.	YES
CCW:	MV-14-17,18,19,20 MV-14-9,10,11,12,13,14,15, 16 MV-14-1,2,3,4	FUEL POOL ISOL. CONT. FAN ISOL.	YES YES
c.s.:	MV-07-1A,1B MV-07-2A,2B MV-07-3,4	RWT ISOL. SUMP ISOL. SYSTEM ISOL.	YES YES YES
HVAC:	FCV-25-24,25 FCV-25-11,12 FCV-25-35 FCV-25-29,34	CRECS ISOL. CRECS ISOL. SBYS ISOL. VENT ISOL. H2 CONT. PURGE SFP EXHAUST SBYS INLET	YES YES YES YES YES YES YES YES