



JAN 23 2017

L-2017-002
10 CFR 50.90

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

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Renewed Facility Operating Licenses DPR-67 and NPF-16
License Amendment Request to Revise the Technical Specifications (TS) for the Reactor Protection System (RPS) Power Rate-of-Change Instrumentation and Add New TS 3.0.5.

Pursuant to 10 CFR Part 50.90, Florida Power & Light Company (FPL) hereby requests amendments to Renewed Facility Operating Licenses DPR-67 for St. Lucie Nuclear Plant Unit 1 and NPF-16 for St. Lucie Nuclear Plant Unit 2, respectively. The proposed license amendments modify the St. Lucie Unit 1 and St. Lucie Unit 2 Technical Specifications (TS) by limiting the MODE of applicability for the Reactor Protection System (RPS), Startup and Operating Rate of Change of Power - High, functional unit trip. The proposed license amendments additionally add new Limiting Conditions of Operation (LCO) 3.0.5 and relatedly modifies LCO 3.0.2, to provide for placing inoperable equipment under administrative control for the purpose of conducting testing required to demonstrate OPERABILITY.

The enclosure to this letter provides FPL's evaluation of the proposed changes. Attachment 1 to the enclosure provides the existing St. Lucie Unit 1 TS pages marked up to show the proposed changes. Attachment 2 provides the St. Lucie Unit 2 marked up TS pages. Attachment 3 provides the St. Lucie Unit 1 retyped (clean copy) TS pages with revision bars to identify the proposed changes. Attachment 4 provides the St. Lucie Unit 2 retyped TS pages. Attachment 5 provides the existing St. Lucie Unit 1 TS Bases pages marked up to show the proposed changes. Attachment 6 provides the St. Lucie Unit 2 TS Bases marked up pages. The TS Bases changes are provided for information only and will be incorporated in accordance with the TS Bases Control Program upon implementation of the approved amendments.

FPL has determined that the proposed changes do not involve a significant hazards consideration pursuant to 10 CFR 50.92(c), and there are no significant environmental impacts associated with the change. The St. Lucie Plant Onsite Review Group (ORG) has reviewed the proposed license amendments. In accordance with 10 CFR 50.91(b)(1), copies of the proposed license amendments are being forwarded to the State designee for the State of Florida.

FPL requests that the proposed changes are processed as a normal license amendment request, with approval within one year of the submittal date. Once approved, the amendments shall be implemented within 90 days.

This letter contains no new regulatory commitments.

Should you have any questions regarding this submittal, please contact Mr. Mike Snyder, St. Lucie Licensing Manager, at (772)467-7036.

ADD
NR

I declare under penalty of perjury that the foregoing is true and correct.

Executed on *January 23, 2017*

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Summers', is written over a horizontal line.

Thomas Summers
South Region Vice President
Florida Power & Light

Enclosure

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, St. Lucie Nuclear Plant, Units 1 and 2
USNRC Senior Resident Inspector, St. Lucie Nuclear Plant, Units 1 and 2
Ms. Cindy Becker, Florida Department of Health

Enclosure

Evaluation of the Proposed Changes

St. Lucie Nuclear Plant, Units 1 and 2
License Amendment Request to Revise the Technical Specifications (TS) for the
Reactor Protection System (RPS) Power Rate-of-Change Instrumentation and Add New TS 3.0.5.

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1.0 SUMMARY DESCRIPTION

Florida Power & Light Company (FPL) hereby requests amendments to Renewed Facility Operating Licenses DPR-67 for St. Lucie Nuclear Plant Unit 1 and NPF-16 for St. Lucie Nuclear Plant Unit 2, respectively. The proposed license amendments modify the St. Lucie Unit 1 and St. Lucie Unit 2 Technical Specifications (TS) by limiting the MODE 1 applicability for Reactor Protection System (RPS) functional unit (FU), Startup and Operating Rate of Change of Power - High, to less than or equal to (\leq) 15 percent (%) of RATED THERMAL POWER. The proposed license amendments additionally add new Limiting Conditions of Operation (LCO) 3.0.5 and relatedly modifies LCO 3.0.2, to provide for placing inoperable equipment under administrative control for the purpose of conducting testing required to demonstrate OPERABILITY, thereby aligning the St. Lucie Unit 1 and Unit 2 TS more closely with NUREG-1432, Volume 1, Standard Technical Specifications - Combustion Engineering Plants (Reference 6.1).

2.0 DETAILED DESCRIPTION

2.1 System Design and Operation

2.1.1 Reactor Protective System (RPS)

The RPS is designed to assure adequate protection of the fuel, fuel cladding and reactor coolant pressure boundary during anticipated operational occurrences. The RPS functions to assure that reactor coolant pressure boundary and fuel performance guidelines are not exceeded during moderate frequency events and infrequent events. The system also provides assistance in limiting conditions for certain limiting faults. The reactor protective system consists of sensors, amplifiers, logic, and other equipment necessary to monitor selected nuclear steam supply system parameters and to effect reliable and rapid reactor shutdown if any one or a combination of parameters deviates from a preselected operating range. The RPS initiates a reactor trip whenever a selected parameter reaches its preset limit. Four independent channels normally monitor each of the selected plant parameters. Operability requirements for the RPS channels are specified in Table 3.3-1 of the St. Lucie Unit 1 and Unit 2 TS, respectively. RPS channel redundancy is provided to assure that no single failure prevents protective action when required. Since no single failure will either cause or prevent a protective system actuation, and no protective channel feeds a control channel, the arrangement meets the requirements of IEEE Standard 279-1971 (Reference 6.2).

2.1.2 RPS High Rate of Change Power Trip Function

The RPS power rate-of-change trip function is provided to protect the core during startup operations and its use serves as a backup to the administratively enforced startup rate limit. This trip is provided to trip the reactor when the rate-of-change of neutron flux power exceeds a preset value. Its purpose is to provide equipment protection and to protect against an exceedingly high rate of change of power resulting from large reactivity insertions during periods of low power operation. The function serves to enhance overall RPS reliability.

The rate of change of power is monitored at startup by four wide-range startup channels. When rated thermal power is between $10^{-4}\%$ and 15% of full power, a reactor trip will be automatically initiated if the rate of change of neutron flux is greater than a set rate as measured by any two wide-range channels. When the rate of change of neutron flux is in excess of the set rate, a Control Element

Assembly (CEA) withdraw prohibit will also become operative and an alarm will be actuated in the Control Room. A Control Room pre-trip alarm is generated from each channel bistable trip unit prior to the rate-of-change of power exceeding the trip set point limit.

Though the St. Lucie Unit 1 and Unit 2 TS states that the power rate-of-change trip may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER, the power rate-of-change trip is automatically bypassed below $10^{-4}\%$ and above 15% power and is automatically restored upon re-entering this power range. The automatic bypass function is periodically tested using test circuitry which verifies both bypass initiation and restoration capability.

2.2 Description of the Proposed Change

2.2.1 Revise MODE 1 Applicability for RPS Power Rate-of-Change Trip Function

St. Lucie Unit 1 TS 3/4.3.1, Table 3.3-1, Reactor Protective Instrumentation, establishes LCO(s), ACTION(s) and Surveillance Requirements (SRs) for the St. Lucie Unit 1 RPS instrumentation. RPS Functional Unit (FU) 11, Wide Range Logarithmic Neutron Flux Monitor, of Table 3.3-1, specifies the Total Number of Channels, Channels to Trip, Minimum Channels Operable, Applicable Modes and ACTION(s) for FU 11.a, Startup and Operating - Rate of Change of Power - High.

The proposed change inserts a double-asterisk (**) adjacent to the MODE 1 indication for FU 11.a, in Table 3.3-1, and adds a new note denoted by a double asterisk (**) to the TABLE NOTATION section of Table 3.3-1. The new note states that MODE 1 applies [to FU 11.a] only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.

The proposed changes to the St. Lucie Unit 1 TS are as indicated in italics below:

TABLE 3.3-1 (Continued)					
REACTOR PROTECTIVE INSTRUMENTATION					
FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
11	Wide Range Logarithmic Neutron Flux Monitor				
	a. Startup and Operating - Rate of Change of Power - High	4	2(d)	3	2

TABLE 3.3-1 (Continued)	
TABLE NOTATION	
* With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.	
New note	** <i>MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.</i>

St. Lucie Unit 2 TS 3/4.3.1, Table 3.3-1, Reactor Protective Instrumentation, establishes LCO(s), ACTION(s) and SR(s) for the St. Lucie Unit 2 RPS instrumentation. RPS Functional Unit (FU) 13, Wide Range Logarithmic Neutron Flux Monitor, of TS 3/4.3.1, Table 3.3-1, specifies the Total Number of Channels, Channels to Trip, Minimum Channels Operable, Applicable Modes and ACTION(s) for FU 13.a, Startup and Operating - Rate of Change of Power - High.

The proposed change inserts a double-asterisk (**) adjacent to the MODE 1 indication for FU 13.a, in Table 3.3-1, and adds a new note denoted by a double asterisk (**) to the TABLE NOTATION section of Table 3.3-1. The new note states that MODE 1 applies [to FU 13.a] only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.

The proposed changes to the St. Lucie Unit 2 TS are as indicated in italics below:

TABLE 3.3-1 (Continued)					
REACTOR PROTECTIVE INSTRUMENTATION					
FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
13	Wide Range Logarithmic Neutron Flux Monitor				
	a. Startup and Operating - Rate of Change of Power - High	4	2(e)(g)	3	2

New double asterisk

1**, 2

TABLE 3.3-1 (Continued)	
TABLE NOTATION	
* With the protective system trip breakers in the closed position, the CEA drive system capable of CEA withdrawal, and fuel in the reactor vessel.	
New note	** MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.

2.2.2 Add New LCO 3.0.5 for Testing Under Administrative Control

St. Lucie Unit 1 and Unit 2 TS, Section 3/4.0, APPLICABILITY, establish LCOs for TS operation and surveillance requirements. The proposed change adds new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS in order to provide for placing inoperable equipment under administrative control for the purpose of conducting testing required to demonstrate OPERABILITY. The proposed change relatedly modifies LCO 3.0.2 to provide for the LCO 3.0.5 exception.

The proposed changes to the St. Lucie Unit 1 TS are as indicated in italics below:

LCO 3.0.2 ~~Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation (LCO) and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~

Upon discovery of a failure to meet an LCO, the Required Actions of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.

LCO 3.0.5 *Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.*

The proposed changes to the St. Lucie Unit 2 TS are as indicated in italics below:

LCO 3.0.2 ~~*Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and/or associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.*~~
Upon discovery of a failure to meet an LCO, the Required Actions of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.

LCO 3.0.5 *Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.*

3.0 TECHNICAL EVALUATION

The proposed license amendment modifies the St. Lucie Unit 1 and Unit 2 TS by limiting the MODE 1 applicability for RPS functional unit, Startup and Operating Rate of Change of Power - High, to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER. The proposed change additionally adds new LCO 3.0.5 and relatedly modifies LCO 3.0.2, to provide for placing inoperable equipment under administrative control for the purpose of conducting testing required to demonstrate OPERABILITY, thereby aligning the St. Lucie Unit 1 and Unit 2 TS more closely with NUREG-1432, Volume 1 (Reference 6.1).

3.1 Revise RPS Power Rate of Change MODE Applicability

During plant startup and shutdown, and all cases where power is below 15%, manual operation of the CEAs is used as one means of controlling reactor power. Per Note 2(d) of Unit 1 TS, Table 3.3-1, FU 11.a, [Note 2(e) of Unit 2 TS, Table 3.3-1, FU 13.a], the RPS Startup and Operating Rate of Change of Power - High (aka power rate-of-change) trip function may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER. In fact, the power rate-of-change trip function is automatically bypassed below $10^{-4}\%$ and above 15% power, though the St. Lucie Unit 1 and Unit 2 TS do not explicitly require the power rate-of-change trip to be bypassed outside this power range. A wide range logarithmic channel bistable disables the power rate-of-change output to the RPS below $10^{-4}\%$ power. Similarly, a power range safety channel bistable initiates the power rate-of-change trip bypass above 15% full power. No manual operator action is required to initiate the bypass feature.

The automatic placement of the power rate-of-change trip in the bypass mode ensures that the trip function is incapable of inadvertent operation which could compromise a smooth and continuous reactivity rate-of-change during startup and power operations. The power rate-of-change high trip provides no specified safety function above 15% power. All anticipated operational occurrences at these power levels credit automatic and manual actions as well as inherent features such as the moderator and fuel temperature coefficients to preclude the likelihood of an unacceptably high power rate of change. Similarly, the power rate-of-change trip provides no specified safety function at subcritical power levels where poor instrument counting statistics can lead to erroneous indication.

The proposed change limits the MODE 1 applicability for the power rate-of-change trip to less than or equal to 15% of RATED THERMAL POWER. Limiting the MODE of applicability to $\leq 15\%$ power neither physically changes any plant systems, structures, or components, nor modifies any plant procedure or methodology for this phase of plant operation. More specifically, the power rate-of-change trip function above 15% of RATED THERMAL POWER is not installed instrumentation used to detect, and indicate in the Control Room, a significant abnormal degradation of the reactor coolant pressure boundary; is not a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that assumes the failure of or presents a challenge to the integrity of a fission product barrier; is not a system, structure, or component (SSC) that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that assumes the failure of or presents a challenge to the integrity of a fission product barrier; and is not a SSC which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Hence the power rate-of-change trip function above 15% of RATED THERMAL POWER does not meet the criteria specified in 10 CFR 50.36(c)(2)(ii) for TS inclusion as an LCO. Only when rated thermal power is $\leq 15\%$ does the power rate-of-change trip function satisfy the 10 CFR 50.36(c)(2)(ii) criteria for TS inclusion since below 15% power, reactivity changes are limited to manual controls and automatic protective features other than the rate-of-change trip function are not available. The power rate-of-change trip setpoint does not correspond to a safety limit and no credit is taken in the safety analyses for operation of this trip outside the applicability range of power. The presence of the power rate-of-change trip function in the applicability range of power precludes the need for analyses of other events initiated from subcritical conditions. Hence, no revision of any safety analyses is required as a result of the proposed license amendments. Moreover, extending the MODE of applicability above 15% RATED THERMAL POWER creates an unnecessary burden on plant operations by imposing required ACTIONS on equipment with no specified safety function in this phase of plant operation. This unnecessarily results in TS compliance problems and corrective actions which divert maintenance and operations resources from areas more pertinent to plant safety.

Limiting the power rate-of-change MODE of applicability to $\leq 15\%$ of RATED THERMAL POWER is an administrative change in nature and affects neither the physical equipment nor the manner in which they are maintained. As such, the SRs associated with the RPS power rate-of-change trip function will continue to be performed at the periodicity and in the manner currently specified. More specifically, SR 4.3.1.1.1 of the St. Lucie Unit 1 TS and SR 4.3.1.1 of the St. Lucie Unit 2 TS require that each reactor protective instrumentation channel be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies specified in Table 4.3-1 of the St. Lucie Unit 1 and Unit 2 TS, respectively. Included within Table 4.3-1 are RPS functional units RPS logic and WR Logarithmic Neutron Flux Monitors, each of which are tested in accordance with the Surveillance Frequency Control Program. Testing includes RPS power rate-of-change trip and power rate-of-change pre-trip setpoint verification. Testing also includes verification of each of the six power rate-of-change logic matrices for appropriate trip signal response.

Additionally, Note 2(d) of Unit 1 TS, Table 3.3-1, FU 11.a [Note 2(e) of Unit 2 TS, Table 3.3-1, FU 13.a] states that the power rate-of-change trip bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 10^{-4}\%$ and Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER. These operating bypasses are automatically removed when the enabling bypass conditions (i.e. less than $10^{-4}\%$ or above 15% power) are no longer satisfied. Since the proposed change is administrative in nature and neither affects the physical equipment nor the manner in which they are maintained, removing the MODE of applicability above 15% power does not affect the capability of any power rate-of-change trip channel to automatically bypass or automatically reset from the bypass position once the enabling bypass or reset conditions are entered. In addition, the system capability will continue to be periodically tested using appropriate test circuitry which verifies both the bypass initiation and removal features. More specifically, SR 4.3.1.1.2 of the St. Lucie Unit 1 TS requires the bypass logic to be demonstrated OPERABLE during the at-power CHANNEL FUNCTION TEST for channels affected by bypass operation. SR 4.3.1.2 of the St. Lucie Unit 2 TS requires the bypass logic circuitry to be demonstrated OPERABLE prior to each reactor startup (unless performed during the preceding 92 days). Both Units TS require the total bypass function to be demonstrated OPERABLE during CHANNEL CALIBRATION testing in accordance with the Surveillance Frequency Control Program. Limiting the MODE of applicability for the power rate-of-change trip to $\leq 15\%$ of RATED THERMAL POWER will not affect the total bypass function since the channel surveillances will continue to be

performed and the associated surveillance acceptance criteria will continue to be applied as currently specified.

Hence, no changes to the applicable St. Lucie Unit 1 and Unit 2 SRs are proposed. The existing defense in depth and diversity described in the St. Lucie Unit 1 and Unit 2 Final Safety Analysis Report (UFSAR) with regard to the power rate-of-change trip functional performance will not be diminished as a result of the proposed change.

Limiting the MODE 1 applicability to $\leq 15\%$ of RATED THERMAL POWER would not alter the manner in which applicable TS required ACTION(s) are implemented in the event of an inoperable power rate-of-change trip channel while below $\leq 15\%$ power. The inoperable channel would be placed in the bypass or trip position within the timeframes currently specified in TS Table 3.3-1, ACTION 2, of the St. Lucie Unit 1 and Unit 2 TS, as applicable. No changes are proposed to TS Table 3.3-1, ACTION 2 for St. Lucie Unit 1 and Unit 2. However above $\leq 15\%$ power, the power rate-of-change channels are automatically placed in the bypass position, though not explicitly required by the St. Lucie Unit 1 and Unit 2 TS. As such, repositioning a power rate-of-change channel suspected of malfunction from the bypass to the trip condition would not provide an added degree of safety since the power rate-of-change trip performs no specified safety function above $\leq 15\%$ power. In this case, the malfunctioning channel would be declared out-of-service and a work ticket created of sufficient priority such that the malfunctioned channel would be repaired as soon as practical. Should reactor power fall below the 15% power range with a power rate-of-change trip channel out-of-service, ACTION 2 would be invoked as described above. The same scenario would apply should two power rate-of-change trip channels malfunction. Hence, the power rate-of-change trip channels would be operated in accordance with the applicable TS LCO and required ACTION when rated thermal power is $\leq 15\%$ of RATED THERMAL POWER; and outside this range, where the power rate-of-change trip provides no specified safety function, no TS LCO and required ACTION would apply, consistent with 10 CFR 50.36(c)(2)(ii). For this reason, a new ACTION to address the proposed license amendments is not warranted.

Based upon the foregoing, the RPS Startup and Operating Rate of Change of Power - High trip function does not satisfy the 10 CFR 50.36(c)(2)(ii) criteria for LCO inclusion and is not credited in design basis accident analyses at power levels above 15%. Furthermore, the associated power rate-of-change instrumentation will continue to be maintained in accordance with station surveillance frequency control and maintenance program procedures such that the existing defense in depth and diversity described in the St. Lucie Unit 1 and Unit 2 UFSARs would remain unchanged. As such, the proposed change to limit the MODE 1 applicability for Unit 1 TS Table 3.3-1, FU 11.a, and Unit 2 TS Table 3.3-1, FU 13.a, for the Startup and Operating Rate of Change of Power - High trip, to Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER is reasonable.

3.2 Modify LCO 3.0.2 / Add New LCO 3.0.5 for Operability Tests Under Administrative Control

The purpose of new LCO 3.0.5 is to allow testing which demonstrates the OPERABILITY of equipment being returned to service or the OPERABILITY of other equipment where otherwise simultaneous testing and compliance with a required ACTION is not possible. As such, LCO 3.0.2 requires modification to provide for the exception in accordance with LCO 3.0.5. The proposed change to LCO 3.0.2 and the new LCO 3.0.5 are as currently written in NUREG 1432, Volume 1 (Reference 6.1), with the exception of the term "specified Completion time(s)" which is replaced with "specified time interval(s)", for consistency with the St. Lucie Unit 1 and Unit 2 TS.

The administrative controls of LCO 3.0.5 ensure that the amount of time the inoperable equipment is placed inservice, in contradiction to the applicable TS ACTION, is limited to only the time absolutely necessary to perform the OPERABILITY testing. However, intentional non-compliance with LCO 3.0.2 by applying LCO 3.0.5 will not be permitted since LCO 3.0.5 is limited to plant conditions where simultaneous testing and compliance with the TS required actions is not possible. For example, administratively returning inoperable equipment to service during OPERABILITY testing in order to minimize operational risk would not be a valid reason for implementing LCO 3.0.5. The TS Bases will be employed to specify appropriate examples of LCO 3.0.5 usage. Attachments 5 and 6 of this enclosure provide the St. Lucie Unit 1 and Unit 2 TS Bases' marked up pages, respectively. The TS Bases' changes are provided for information only and will be incorporated in accordance with the TS Bases Control Program upon implementation of the approved license amendments.

In addition, adding new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS and relatedly modifying LCO 3.0.2 is consistent with the guidance provided in NUREG-1432, Volume 1 (Reference 6.1) and thereby has been previously evaluated by the Commission for acceptability. As such, the proposed change to add new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS, and modify LCO 3.0.2 to provide for the LCO 3.0.5 exception, is reasonable.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

- 10 CFR 50.36, Technical Specifications, requires the establishment of an LCO for any structure, system or component (SSC) satisfying the criteria of 10 CFR 50.36(c)(2)(ii).
- General Design Criteria (GDC) 13 of Appendix A to 10 CFR 50, Instrumentation and Control, states that instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety, including those variables and systems that can affect the fission process, the integrity of the reactor core, the reactor coolant pressure boundary, and the containment and its associated systems. Appropriate controls shall be provided to maintain these variables and systems within prescribed operating ranges.
- GDC 20 of Appendix A to 10 CFR 50, Protection System Functions, states that the protection system shall be designed (1) to initiate automatically the operation of appropriate systems including the reactivity control systems, to assure that specified acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences and (2) to sense accident conditions and to initiate the operation of systems and components important to safety.
- GDC 21 of Appendix A to 10 CFR 50, Protection System Reliability and Testability, states that the protection system shall be designed for high functional reliability and inservice testability commensurate with the safety functions to be performed. The protection system shall be designed to permit periodic testing of its functioning when the reactor is in operation, including a capability to test channels independently to determine failures and losses of redundancy that may have occurred.
- GDC 22 of Appendix A to 10 CFR 50, Protection System Independence, states that the protection system shall be designed to assure that the effects of natural

phenomena, and of normal operating, maintenance, testing and postulated accident conditions on redundant channels do not result in loss of the protection function, or shall be demonstrated to be acceptable on some other defined basis. Design techniques, such as functional diversity or diversity in component design and principles of operation, shall be used to the extent practical to prevent loss of the protection function.

- GDC 24 of Appendix A to 10 CFR 50, Separation of Protection and Control Systems, states that the protection system shall be separated from control systems to the extent that failure of any single control system component or channel, or failure or removal from service of any single protection system component or channel which is common to the control and protection systems leaves intact a system satisfying all reliability, redundancy, and independence requirements of the protection system. Interconnection of the protection and control systems shall be limited so as to assure that safety is not significantly impaired.
- GDC 25 of Appendix A to 10 CFR 50, Protection System Requirements for Reactivity Control Malfunctions, states that the protection system shall be designed to assure that specified acceptable fuel design limits are not exceeded for any single malfunction of the reactivity control systems, such as accidental withdrawal (not ejection or dropout) of control rods.
- GDC 29 of Appendix A to 10 CFR 50, Protection Against Anticipated Operational Occurrences, states that the protection and reactivity control systems shall be designed to assure an extremely high probability of accomplishing their safety functions in the event of anticipated operational occurrences.
- Regulatory Guide (RG) 1.75, Revision 1 (Unit 2 only), Physical Independence of Electric Systems, describes a method acceptable to the NRC staff for complying with the NRC's regulations with respect to the physical independence requirements of the circuits and electric equipment that comprise or are associated with safety systems. (Reference 6.4)
- IEEE 279-1971, Criteria for Protection Systems for Nuclear Power Generating Stations, establishes minimum requirements for safety related functional performance and reliability of the reactor protective system (Reference 6.2).

The proposed change complies with the requirements of 10 50.36(c)(2)(ii) and does not alter the manner in which the RPS power rate-of-change trip channels are operated and maintained consistent with GDCs 13, 20, 21, 22, 24, 25 and 29 and Regulatory Guide 1.75. Therefore, all applicable regulatory requirements will continue to be satisfied as a result of this proposed change.

4.2 No Significant Hazards Consideration

The proposed license amendment modifies the St. Lucie Units 1 and 2 TS by limiting the MODE 1 applicability for RPS functional unit, Startup and Operating Rate of Change of Power - High, to Power Range Neutron Flux Power \leq 15% of RATED THERMAL POWER. The proposed change additionally adds new LCO 3.0.5 and relatedly modifies LCO 3.0.2, in order to allow inoperable equipment testing under administrative control for the purpose of demonstrating OPERABILITY, thereby aligning the St. Lucie Unit 1 and Unit 2 TS more closely with NUREG-1432, Volume 1(Reference 6.1).

As required by 10 CFR 50.91(a), FPL has evaluated the proposed changes using the criteria in 10 CFR 50.92 and has determined that the proposed changes do not involve a

significant hazards consideration. An analysis of the issue of no significant hazards consideration is presented below:

- (1) Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

Limiting the MODE 1 applicability for RPS functional unit, Startup and Operating Rate of Change of Power - High, to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER, is an administrative change in nature and does not alter the manner in which the functional unit is operated or maintained. The proposed changes do not represent any physical change to plant SSC(s), or to procedures established for plant operation. The subject RPS functional unit is not an event initiator nor is it credited in the mitigation of any event or credited in the PRA. As such, the initial conditions associated with accidents previously evaluated and plant systems credited for mitigating the consequences of accidents previously evaluated remain unchanged.

The proposed addition of new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS and related modification to LCO 3.0.2 is consistent with the guidance provided in NUREG-1432, Volume 1 (Reference 6.1) and thereby has been previously evaluated by the Commission with a determination that the proposed change does not involve a significant hazards consideration.

Therefore, facility operation in accordance with the proposed license amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

Limiting the MODE 1 applicability for the RPS functional unit, Startup and Operating Rate of Change of Power - High, to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER, is an administrative change in nature and does not involve the addition of any plant equipment, methodology or analyses. The proposed changes do not alter the design, configuration, or method of operation of the subject RPS functional unit or of any other SSC. More specifically, the proposed changes neither alter the power rate-of-change trip function nor its ability to bypass and reset as required. The subject RPS functional unit remains capable of performing its design function.

The proposed addition of new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS and related modification to LCO 3.0.2 is consistent with the guidance provided in NUREG-1432, Volume 1 (Reference 6.1) and thereby has been previously evaluated by the Commission with a determination that the proposed change does not involve a significant hazards consideration.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

- (3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No

Limiting the MODE 1 applicability for RPS functional unit, Startup and Operating Rate of Change of Power - High, to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER is an administrative change in nature. The proposed changes neither involve changes to any safety analyses assumptions, safety limits, or limiting safety system settings nor do they adversely impact plant operating margins or the reliability of equipment credited in safety analyses.

The proposed addition of new LCO 3.0.5 to the St. Lucie Unit 1 and Unit 2 TS and related modification to LCO 3.0.2 is consistent with the guidance provided in NUREG-1432, Volume 1 (Reference 6.1) and thereby has been previously evaluated by the Commission with a determination that the proposed change does not involve a significant hazards consideration.

Therefore, operation of the facility in accordance with the proposed amendment will not involve a significant reduction in the margin of safety.

Based upon the above analysis, FPL concludes that the proposed amendment does not involve a significant hazards consideration, under the standards set forth in 10 CFR 50.92, "Issuance of Amendment," and accordingly, a finding of "no significant hazards consideration" is justified.

4.3 Conclusion

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment modifies a regulatory requirement with respect to the installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or changes an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

6.0 REFERENCES

- 6.1 NUREG-1432, Standard Technical Specifications - Combustion Engineering Plants, Revision 4.0, Volume 1, Specifications (Accession No. ML12102A165)
- 6.2 IEEE 279-1971, Criteria for Protection Systems for Nuclear Power Generating Stations, establishes minimum requirements for safety related functional performance and reliability of the Reactor Protective System.
- 6.3 NUREG-1432, Standard Technical Specifications - Combustion Engineering Plants Revision 4.0, Volume 2, Bases (Accession No. ML12102A169)
- 6.4 Regulatory Guide 1.75, Physical Independence of Electric Systems, Revision 2 (Accession No. ML12102A169)

Attachment 1

**ST. LUCIE UNIT 1
PROPOSED TECHNICAL SPECIFICATION PAGES (MARKUP)**

(6 pages follow)

Attachment 1

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation (LCO) contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

INSERT LCO 3.0.2
(see next page)

3.0.2 ~~Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation (LCO) and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~

3.0.3 When a Limiting Condition for Operation (LCO) is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the LCO. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODES 5 or 6.

3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

INSERT LCO 3.0.5
(see next page)

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

Attachment 1

INSERT



3.0.2 Upon discovery of a failure to meet an LCO, the Required ACTION(s) of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.

INSERT



3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

Attachment 1

This page is for information only.
There are no changes to this page.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTIVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

- 3.3.1.1 As a minimum, the reactor protective instrumentation channels and bypasses of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

- 4.3.1.1.1 Each reactor protective instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations during the modes and at the frequencies shown in Table 4.3-1.
- 4.3.1.1.2 The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation. The total bypass function shall be demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program during CHANNEL CALIBRATION testing of each channel affected by bypass operation.
- 4.3.1.1.3 The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit in accordance with the Surveillance Frequency Control Program. Neutron detectors are exempt from response time testing. Each test shall include at least one channel per function.

Attachment 1

This page is for information only.
There are no changes to this page.

TABLE 3.3-1
REACTOR PROTECTIVE INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Manual Reactor Trip	2	1	2	1, 2 and *	1
2. Power Level – High	4	2(a)	3(f)	1, 2	2
3. Reactor Coolant Flow – Low	4/SG	2(a)/SG	3/SG	1, 2 (e)	2
4. Pressurizer Pressure – High	4	2	3	1, 2	2
5. Containment Pressure – High	4	2	3	1, 2	2
6. Steam Generator Pressure – Low	4/SG	2(b)/SG	3/SG	1, 2	2
7. Steam Generator Water Level – Low	4/SG	2/SG	3/SG	1, 2	2
8. Local Power Density – High	4	2(c)	3	1	2
9. Thermal Margin/Low Pressure	4	2(a)	3	1, 2 (e)	2
9a. Steam Generator Pressure Difference – High	4	2(a)	3	1, 2 (e)	2
10. Loss of Turbine – Hydraulic Fluid Pressure – Low	4	2(c)	3	1	2

Attachment 1

TABLE 3.3-1 (Continued)
REACTOR PROTECTIVE INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. Wide Range Logarithmic Neutron Flux Monitor				Add double asterik (**) ↓ 1, 2 and *	
a. Startup and Operating ~ Rate of Change of Power ~ High	4	2(d)	3	1, 2 and *	2
b. Shutdown	4	0	2	3, 4, 5	3
12. Reactor Protection System Logic	4	2	4	1, 2*	4
13. Reactor Trip Breakers	4	2	4	1, 2*	4

Attachment 1

TABLE 3.3-1 (Continued)

TABLE NOTATION

* With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.

INSERT

** MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.

- (a) Trip may be bypassed below 1% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 1\%$ of RATED THERMAL POWER.
- (b) Trip may be manually bypassed below 685 psig; bypass shall be automatically removed at or above 685 psig.
- (c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when Power Range Neutron Flux power is $\geq 15\%$ of RATED THERMAL POWER.
- (d) Trip may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 10^{-4}\%$ and Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER.
- (e) Deleted.
- (f) There shall be at least two decades of overlap between the Wide Range Logarithmic Neutron Flux Monitoring Channels and the Power Range Neutron Flux Monitoring Channels.

ACTION STATEMENTS

- ACTION 1 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the protective system trip breakers.
- ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
 - a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. For the purposes of testing and maintenance, the inoperable channel may be bypassed for up to 48 hours from time of initial loss of OPERABILITY; however, the inoperable channel shall then be either restored to OPERABLE status or placed in the tripped condition.

Attachment 2

**ST. LUCIE UNIT 2
PROPOSED TECHNICAL SPECIFICATION PAGES (MARKUP)**

(5 pages follow)

Attachment 2

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

INSERT LCO 3.0.2
(see next page)

3.0.2 ~~Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and/or associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour, action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or

INSERT LCO 3.0.5
(see next page)

- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

Attachment 2

INSERT



3.0.2 Upon discovery of a failure to meet an LCO, the Required ACTION(s) of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.

INSERT



3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

Attachment 2

This page is for information only.
There are no changes to this page.

3/4.3 INSTRUMENTATION

3/4.3.1 REACTOR PROTECTIVE INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

- 3.3.1 As a minimum, the reactor protective instrumentation channels and bypasses of Table 3.3-1 shall be OPERABLE.

APPLICABILITY: As shown in Table 3.3-1.

ACTION:

As shown in Table 3.3-1.

SURVEILLANCE REQUIREMENTS

- 4.3.1.1 Each reactor protective instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST operations for the MODES and at the frequencies shown in Table 4.3-1.
- 4.3.1.2 The logic for the bypasses shall be demonstrated OPERABLE prior to each reactor startup unless performed during the preceding 92 days. The total bypass function shall be demonstrated OPERABLE in accordance with the Surveillance Frequency Control Program during CHANNEL CALIBRATION testing of each channel affected by bypass operation.
- 4.3.1.3 The REACTOR TRIP SYSTEM RESPONSE TIME of each reactor trip function shall be demonstrated to be within its limit in accordance with the Surveillance Frequency Control Program. Neutron detectors are exempt from response time testing. Each test shall include at least one channel per function.

Attachment 2

TABLE 3.3-1
REACTOR PROTECTIVE INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Manual Reactor Trip	4 4	2 2	4 4	1, 2 3*, 4*, 5*	1 5
2. Variable Power Level – High	4	2(a)(d)	3	1, 2	2
3. Pressurizer Pressure – High	4	2	3	1, 2	2
4. Thermal Margin/Low Pressure	4	2(a)(d)	3	1, 2	2
5. Containment Pressure – High	4	2	3	1, 2	2
6. Steam Generator Pressure – Low	4/SG	2/SG(b)	3/SG	1, 2	2
7. Steam Generator Pressure Difference – High	4	2(a)(d)	3	1, 2	2
8. Steam Generator Level – Low	4/SG	2/SG	3/SG	1, 2	2
9. Local Power Density – High	4	2(c)(d)	3	1	2
10. Loss of Component Cooling Water to Reactor Coolant Pumps	4	2	3	1, 2	2
11. Reactor Protection System Logic	4	2	3	1, 2 3*, 4*, 5*	2 5
12. Reactor Trip Breakers	4	2(f)	4	1, 2 3*, 4*, 5*	4 5
13. Wide Range Logarithmic Neutron Flux Monitor				Add double asterisk (**)	
a. Startup and Operating – Rate of Change of Power – High	4	2(e)(g)	3	1, 2	2
b. Shutdown	4	0	2	3, 4, 5	3
14. Reactor Coolant Flow – Low	4/SG	2/SG(a)(d)	3/SG	1, 2	2
15. Loss of Load (Turbine Hydraulic Fluid Pressure – Low)	4	2(c)	3	1	2

ST. LUCIE - UNIT 2

3/4 3-2

Amendment No. 69, 179

Attachment 2

TABLE 3.3-1 (Continued)

TABLE NOTATION

INSERT

* With the protective system trip breakers in the closed position, the CEA drive system capable of CEA withdrawal, and fuel in the reactor vessel.

** MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.

- (a) Trip may be manually bypassed below 0.5% of RATED THERMAL POWER in conjunction with (d) below; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is greater than or equal to 0.5% of RATED THERMAL POWER.
- (b) Trip may be manually bypassed below 705 psig; bypass shall be automatically removed at or above 705 psig.
- (c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when Power Range Neutron Flux power is greater than or equal to 15% of RATED THERMAL POWER.
- (d) Trip may be bypassed during testing pursuant to Special Test Exception 3.10.3.
- (e) Trip may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 10^{-4}\%$ and Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER.
- (f) Each channel shall be comprised of two trip breakers; actual trip logic shall be one-out-of-two taken twice.
- (g) There shall be at least two decades of overlap between the Wide Range Logarithmic Neutron Flux Monitoring Channels and the Power Range Neutron Flux Monitoring Channels.

ACTION STATEMENTS

- ACTION 1 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and/or open the protective system trip breakers.

Attachment 3

**ST. LUCIE UNIT 1
PROPOSED TECHNICAL SPECIFICATION PAGES (Clean Copy)**

(3 pages follow)

Attachment 3

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

- 3.0.1 Compliance with the Limiting Conditions for Operation (LCO) contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.
- 3.0.2 Upon discovery of a failure to meet an LCO, the Required ACTION(s) of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.
- 3.0.3 When a Limiting Condition for Operation (LCO) is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable in:
1. At least HOT STANDBY within the next 6 hours,
 2. At least HOT SHUTDOWN within the following 6 hours, and
 3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the LCO. Exceptions to these requirements are stated in the individual specifications:

This specification is not applicable in MODES 5 or 6.

- 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
 - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
 - c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

- 3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

Attachment 3

time

TABLE 3.3-1 (Continued)
REACTOR PROTECTIVE INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
11. Wide Range Logarithmic Neutron Flux Monitor					
a. Startup and Operating – Rate of Change of Power – High	4	2(d)	3	1**, 2 and *	2
b. Shutdown	4	0	2	3, 4, 5	3
12. Reactor Protection System Logic	4	2	4	1, 2*	4
13. Reactor Trip Breakers	4	2	4	1, 2*	4

Attachment 3

TABLE 3.3-1 (Continued)

TABLE NOTATION

- * With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal.
- ** MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER
- (a) Trip may be bypassed below 1% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 1\%$ of RATED THERMAL POWER.
- (b) Trip may be manually bypassed below 685 psig; bypass shall be automatically removed at or above 685 psig.
- (c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when Power Range Neutron Flux power is $\geq 15\%$ of RATED THERMAL POWER.
- (d) Trip may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 10^{-4}\%$ and Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER.
- (e) Deleted.
- (f) There shall be at least two decades of overlap between the Wide Range Logarithmic Neutron Flux Monitoring Channels and the Power Range Neutron Flux Monitoring Channels.

ACTION STATEMENTS

- ACTION 1 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours and/or open the protective system trip breakers.
- ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
 - a. The inoperable channel is placed in either the bypassed or tripped condition within 1 hour. For the purposes of testing and maintenance, the inoperable channel may be bypassed for up to 48 hours from time of initial loss of OPERABILITY; however, the inoperable channel shall then be either restored to OPERABLE status or placed in the tripped condition.

Attachment 4

**ST. LUCIE UNIT 2
PROPOSED TECHNICAL SPECIFICATION PAGES (Clean Copy)**

(3 pages follow)

Attachment 4

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

- 3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.
- 3.0.2 Upon discovery of a failure to meet an LCO, the Required ACTION(s) of the associated conditions shall be met, except as provided in LCO 3.0.5. If the LCO is met or is no longer applicable prior to expiration of the specified time interval(s), completion of the Required ACTION(s) is not required, unless otherwise stated.
- 3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour, action shall be initiated to place the unit in a MODE in which specification does not apply by placing it, as applicable, in:
1. At least HOT STANDBY within the next 6 hours,
 2. At least HOT SHUTDOWN within the following 6 hours, and
 3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

This specification is not applicable in MODE 5 or 6.

- 3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:
- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
 - b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
 - c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

- 3.0.5 Equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to LCO 3.0.2 for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

Attachment 4

TABLE 3.3-1
REACTOR PROTECTIVE INSTRUMENTATION

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NO. OF CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ACTION</u>
1. Manual Reactor Trip	4	2	4	1, 2	1
	4	2	4	3*, 4*, 5*	5
2. Variable Power Level – High	4	2(a)(d)	3	1, 2	2
3. Pressurizer Pressure – High	4	2	3	1, 2	2
4. Thermal Margin/Low Pressure	4	2(a)(d)	3	1, 2	2
5. Containment Pressure – High	4	2	3	1, 2	2
6. Steam Generator Pressure – Low	4/SG	2/SG(b)	3/SG	1, 2	2
7. Steam Generator Pressure Difference – High	4	2(a)(d)	3	1, 2	2
8. Steam Generator Level – Low	4/SG	2/SG	3/SG	1, 2	2
9. Local Power Density – High	4	2(c)(d)	3	1	2
10. Loss of Component Cooling Water to Reactor Coolant Pumps	4	2	3	1, 2	2
11. Reactor Protection System Logic	4	2	3	1, 2	2
				3*, 4*, 5*	5
12. Reactor Trip Breakers	4	2(f)	4	1, 2	4
				3*, 4*, 5*	5
13. Wide Range Logarithmic Neutron Flux Monitor					
a. Startup and Operating – Rate of Change of Power – High	4	2(e)(g)	3	1**, 2	2
b. Shutdown	4	0	2	3, 4, 5	3
14. Reactor Coolant Flow – Low	4/SG	2/SG(a)(d)	3/SG	1, 2	2
15. Loss of Load (Turbine Hydraulic Fluid Pressure – Low)	4	2(c)	3	1	2
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Attachment 4

TABLE 3.3-1 (Continued)

TABLE NOTATION

- * With the protective system trip breakers in the closed position, the CEA drive system capable of CEA withdrawal, and fuel in the reactor vessel.
- ** MODE 1 applicable only when Power Range Neutron Flux power is $\leq 15\%$ of RATED THERMAL POWER.
- (a) Trip may be manually bypassed below 0.5% of RATED THERMAL POWER in conjunction with (d) below; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is greater than or equal to 0.5% of RATED THERMAL POWER.
- (b) Trip may be manually bypassed below 705 psig; bypass shall be automatically removed at or above 705 psig.
- (c) Trip may be bypassed below 15% of RATED THERMAL POWER; bypass shall be automatically removed when Power Range Neutron Flux power is greater than or equal to 15% of RATED THERMAL POWER.
- (d) Trip may be bypassed during testing pursuant to Special Test Exception 3.10.3.
- (e) Trip may be bypassed below $10^{-4}\%$ and above 15% of RATED THERMAL POWER; bypass shall be automatically removed when Wide Range Logarithmic Neutron Flux power is $\geq 10^{-4}\%$ and Power Range Neutron Flux power $\leq 15\%$ of RATED THERMAL POWER.
- (f) Each channel shall be comprised of two trip breakers; actual trip logic shall be one-out-of-two taken twice.
- (g) There shall be at least two decades of overlap between the Wide Range Logarithmic Neutron Flux Monitoring Channels and the Power Range Neutron Flux Monitoring Channels.

ACTION STATEMENTS

- ACTION 1 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and/or open the protective system trip breakers.

Attachment 5

**ST. LUCIE UNIT 1
PROPOSED TECHNICAL SPECIFICATION BASES PAGES (MARKUP)**

(7 pages follow)

Attachment 5

SECTION NO.: 3.0 & 4.0	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 2 OF ADM-25.04 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS ST. LUCIE UNIT 1	PAGE: 2 of 16
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Attachment 5

SECTION NO.: 3.0 & 4.0	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 2 OF ADM-25.04 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS ST. LUCIE UNIT 1	PAGE: 4 of 16
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3/4.0 APPLICABILITY (continued)

BASES (continued)

3.0.1 (continued)

ACTION

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

3.0.2 This specification establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition for Operation is restored within the time interval specified in the associated ACTION requirements.

New paragraph

LCO 3.0.5 provides for an exception to LCO 3.0.2 for the limited purpose of performing required testing to demonstrate either the OPERABILITY of equipment being returned to service or the OPERABILITY of other equipment. Refer to the LCO 3.0.5 discussion for use.

Attachment 5

SECTION NO.: 3.0 & 4.0	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 2 OF ADM-25.04 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS ST. LUCIE UNIT 1	PAGE: 1 10 of 16
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3/4.0 APPLICABILITY (continued)

BASES (continued)

3.0.4 (continued)

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, LCO 3.0.1 and LCO 3.0.2 require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the LCO is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 4.0.4. Therefore, utilizing LCO 3.0.4 is not a violation of SR 4.0.1 or SR 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

3.0.5 (Add INSERT from next page)

Attachment 5

INSERT

3.0.5 LCO 3.0.5 establishes the allowance for restoring equipment to service under administrative controls when it has been removed from service or declared inoperable to comply with ACTIONS. The sole purpose of this Specification is to provide an exception to LCO 3.0.2 (e.g. to not comply with the applicable Required Action(s)) to allow the performance of required testing to demonstrate either:

1. The OPERABILITY of the equipment being returned to service or,
2. The OPERABILITY of other equipment.

The administrative controls ensure the time the equipment is returned to service in conflict with the requirements of the ACTIONS is limited to the time absolutely necessary to perform the required testing to demonstrate OPERABILITY. This Specification does not provide time to perform any other preventive or corrective maintenance.

LCO 3.0.5 specifically states that equipment removed from service or declared inoperable to comply with ACTION(s) may be returned to service under administrative control solely to perform testing required to demonstrate the OPERABILITY of the equipment or that of other equipment. LCO 3.0.5 is limited to plant conditions where simultaneous testing and compliance with the required ACTION(s) is not possible. Hence LCO 3.0.5 may only be used if it is the only alternative to performing the required testing, regardless of whether the other alternatives present higher risk to the plant.


An example of demonstrating the OPERABILITY of equipment being returned to service is reopening a containment isolation valve that has been closed to comply with required ACTION(s) and must be reopened to perform the required testing.

An example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to prevent the trip function from occurring during the performance of required testing on another channel in the other trip system. A similar example of demonstrating the OPERABILITY of other equipment is taking an inoperable channel or trip system out of the tripped condition to permit the logic to function and indicate the appropriate response during the performance of required testing on another channel in the same trip system.

References:

1. NUREG 1432, Standard Technical Specifications - Combustion Engineering Plants, Revision 4, Volume 2, Bases (ML12102A169)
2. Enclosure 10: Case Study 6: ANO 1 Use of LCO 3.0.5 Meeting Summary of the January 27 & 28 Meeting with NRC/TSTF (ML 090640444)

Attachment 5

	ST. LUCIE UNIT 1 TECHNICAL SPECIFICATIONS BASES ATTACHMENT 5 OF ADM-25.04 SAFETY RELATED		Section No. 3/4.3
			Attachment No. 5
			Current Revision No. 5
Title: INSTRUMENTATION			
Responsible Department: Licensing			
REVISION SUMMARY: Revision 5 - Incorporated PCR 2087288 based on NRC approval of TSTF-422, Change in Technical Specifications End States (CE NPSD-1186). (Author: N. Davidson) Revision 4 - Incorporated PCR 2053666 based on NRC approval of the TSTF-425 LAR that implements the Surveillance Frequency control Program. (Author: K. Frehafer) Revision 3 - Incorporated PCR 1767970 to update for Unit 1 EPU conditions as modified per EC 246569 and the Unit 1 EPU LAR. (Author: Don Pendagast) Revision 2 - Incorporated PCR 587518 to include information inadvertently omitted. (Author: K. Frehafer) Revision 1 - Bases for Technical Specifications 195. (M. DiMarco, 12/21/04) Revision 0 - Bases for Technical Specifications. (E. Weinkam, 08/30/01)			
Revision	Approved By	Approval Date	UNIT #
0	R. G. West	08/30/01	UNIT 1
5	R. Coffey	08/26/15	DATE
			DOCT
			DOCN
			SYS
			STATUS
			REV
			# OF PGS
			PROCEDURE
			Section 3/4.3
			COMPLETED
			5

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3/4.3 INSTRUMENTATION (continued)

BASES (continued)

3/4.3.1 and 3/4.3.2 (continued)

Response time may be demonstrated by any series of sequential, overlapping or total channel measurements, including allocated sensor response time, provided that such tests demonstrate total channel response time as defined. CEOG Topical Report CE NPSD-1167, and FPL No Significant Hazards Evaluation PSL-ENG-SEIS-03-043 provide the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in these documents. The allocated sensor response time must be verified prior to placing a new component in operation and re-verified after maintenance that may adversely affect the sensor response time (e.g., replacement of a transmitter DP cell or variable damping circuits). Sensor response time verification may be demonstrated by either 1) in place, onsite or offsite test measurements or 2) utilizing replacement sensors with certified response times.

The CEOG topical report and FPL evaluation only cover certain sensor model numbers. If sensors are replaced with types not previously evaluated, then periodic response time testing (RTT) for the new sensor must either be performed and the appropriate changes made to plant procedures, or an additional request for RTT elimination must be submitted and approved by the NRC. If, however, the replacement sensor is one for which RTT elimination has been approved, then FPL may modify the plant procedures, using an allocated response time based upon a vendor-supplied response time value, or upon statistical analysis of historical data for that transmitter type and model.

The Safety Injection Actuation Signal (SIAS) provides direct actuation of the Containment Isolation Signal (CIS) to ensure containment isolation in the event of a small break LOCA.

Add INSERT
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Attachment 5

INSERT

The wide range nuclear instruments (NIs) provide a Startup and Operating Rate of Change of Power - High Trip. OPERABILITY of the Startup and Operating Rate of Change of Power - High Trip channels is limited to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER, since this trip function performs no specified safety function above this power level. The Startup and Operating Rate of Change of Power - High trip function is automatically bypassed whenever RATED THERMAL POWER is $< 10^{-4}\%$ or $> 15\%$, though not explicitly required by the Unit 1 Technical Specifications. The operating bypasses are automatically removed when the enabling bypass conditions are no longer satisfied. When required to be OPERABLE, ACTION 2(a) requires an inoperable Startup and Operating Rate of Change of Power - High Trip channel to be placed in bypass within 1-hour and if not restored within 48-hours, be placed in the trip position. ACTION 2(c) allows an additional channel to be placed in bypass up to 48-hours for maintenance and testing provided the inoperable channel is placed in trip. There are no other RPS functional units affected by an inoperable Startup and Operating Rate of Change of Power - High Trip bypass or trip channel. The Startup and Operating Rate of Change of Power - High Trip function and its bypass and reset capability are periodically tested in accordance with the Surveillance Frequency Control Program.

Attachment 6

**ST. LUCIE UNIT 2
PROPOSED TECHNICAL SPECIFICATION BASES PAGES (MARKUP)**

(7 pages follow)

Attachment 6

SECTION NO.: 3.0 & 4.0	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 2 OF ADM-25.04 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS ST. LUCIE UNIT 2	PAGE: 2 of 16
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Attachment 6

SECTION NO.: 3.0 & 4.0	TITLE: TECHNICAL SPECIFICATIONS BASES ATTACHMENT 2 OF ADM-25.04 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS ST. LUCIE UNIT 2	PAGE: 4 of 16
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3/4.0 APPLICABILITY (continued)

BASES (continued)

3.0.1 (continued)

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

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New paragraph

LCO 3.0.5 provides for an exception to LCO 3.0.2 for the limited purpose of performing required testing to demonstrate either the OPERABILITY of equipment being returned to service or the OPERABILITY of other equipment. Refer to the LCO 3.0.5 discussion for use.

Attachment 6

SECTION NO.:	TITLE:	PAGE:
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3.4.0 APPLICABILITY (continued)

BASES (continued)

3.0.4 (continued)

Upon entry into a MODE or other specified condition in the Applicability with the LCO not met, LCO 3.0.1 and LCO 3.0.2 require entry into the applicable Conditions and Required Actions until the Condition is resolved, until the LCO is met, or until the unit is not within the Applicability of the Technical Specification.

Surveillances do not have to be performed to be performed on the associated inoperable equipment (or on variables outside the specified limits), as permitted by SR 4.0.4. Therefore, utilizing LCO 3.0.4 is not a violation of SR 4.0.1 or SR 4.0.4 for any Surveillances that have not been performed on inoperable equipment. However, SRs must be met to ensure OPERABILITY prior to declaring the associated equipment OPERABLE (or variable within limits) and restoring compliance with the affected LCO.

3.0.5 (Add INSERT from next page)

Attachment 6

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1. NUREG 1432, Standard Technical Specifications - Combustion Engineering Plants, Revision 4, Volume 2, Bases (ML12102A169)
2. Enclosure 10: Case Study 6: ANO 1 Use of LCO 3.0.5 Meeting Summary of the January 27 & 28 Meeting with NRC/TSTF (ML 090640444)

Attachment 6

 FPL	ST. LUCIE UNIT 2 TECHNICAL SPECIFICATIONS BASES ATTACHMENT 5 OF ADM-25.04 SAFETY RELATED	Section No. 3/4.3
		Attachment No. 5
		Current Revision No. 5
Title: INSTRUMENTATION		
Responsible Department: Licensing		
REVISION SUMMARY: <p>Revision 5 - Incorporated PCR 2087288 based on NRC approval of TSTF-422, Change in Technical Specifications End States (CE.NPSD-1186). (Author: N. Davidson)</p> <p>Revision 4 - Incorporated PCR 2053666 based on NRC approval of the TSTF-425 LAR that implements the Surveillance Frequency control Program. (Author: K. Frehafer)</p> <p>Revision 3 - Incorporated PCR 1792591 to update for Unit 2 EPU conditions as modified per EC-249985 and the Unit 2 EPU LAR. (Author: Don Pendagast)</p> <p>Revision 2 - Incorporated PCR 08-6765 for CR 2007-32178 for Bases changes to Technical Specifications 155 for License Amendments 152 and 153. Procedure changes to implement AST were reviewed in ORG-07-041 on 5/29/07 as part of the license amendment submittal. (Author: Ken Frehafer)</p> <p>Revision 1 - Bases for Technical Specifications 137. (M. DiMarco, 12/21/04)</p> <p>Revision 0 - Bases for Technical Specifications. (E. Weinkam, 08/30/01)</p>		
Revision: <u>0</u>	Approved By: <u>R.G. West</u>	Approval Date: <u>08/30/01</u>
5	R. Coffey	08/26/15
		UNIT # <u>UNIT 2</u> DATE _____ DOC T. <u>PROCEDURE</u> DOC N. <u>Section 3/4.3</u> SYS _____ STATUS <u>COMPLETED</u> REV <u>5</u> # OF PGS _____

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3/4.3 INSTRUMENTATION (continued)

BASES (continued)

3/4.3.1 and 3/4.3.2 (continued)

ESFAS subgroup relay testing is performed in accordance with the Surveillance Frequency Control Program.

The measurement of response time at the specified frequencies provides assurance that the protective and ESF action function associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable. The Surveillance Frequency is controlled under the Surveillance Frequency control Program.

Response time may be demonstrated by any series of sequential, overlapping or total channel measurements, including allocated sensor response time, provided that such tests demonstrate total channel response time as defined. CEOG Topical Report CE NPSD-1167, and FPL No Significant Hazards Evaluation PSL-ENG-SEIS-03-043 provide the basis and methodology for using allocated sensor response times in the overall verification of the channel response time for specific sensors identified in these documents. The allocated sensor response time must be verified prior to placing a new component in operation and re-verified after maintenance that may adversely affect the sensor response time (e.g., replacement of a transmitter DP cell or variable damping circuits). Sensor response time verification may be demonstrated by either 1) in place, onsite or offsite test measurements or 2) utilizing replacement sensors with certified response times.

The CEOG topical report and FPL evaluation only cover certain sensor model numbers. If sensors are replaced with types not previously evaluated, then periodic response time testing (RTT) for the new sensor must either be performed and the appropriate changes made to plant procedures, or an additional request for RTT elimination must be submitted and approved by the NRC. If, however, the replacement sensor is one for which RTT elimination has been approved, then FPL may modify the plant procedures, using an allocated response time based upon a vendor-supplied response time value, or upon statistical analysis of historical data for that transmitter type and model.

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Attachment 6

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The wide range nuclear instruments (NIs) provide a Startup and Operating Rate of Change of Power - High Trip. OPERABILITY of the Startup and Operating Rate of Change of Power - High Trip channels is limited to Power Range Neutron Flux Power $\leq 15\%$ of RATED THERMAL POWER, since this trip function performs no specified safety function above this power level. The Startup and Operating Rate of Change of Power - High trip function is automatically bypassed whenever RATED THERMAL POWER is $< 10^{-4}\%$ or $> 15\%$, though not explicitly required by the Unit 2 Technical Specifications. The operating bypasses are automatically removed when the enabling bypass conditions are no longer satisfied. When required to be OPERABLE, ACTION 2(a) requires an inoperable Startup and Operating Rate of Change of Power - High Trip channel to be placed in either bypass or trip within 1-hour and the channel must be returned to OPERABLE status no later than the next COLD SHUTDOWN. ACTION 2(b) allows an additional inoperable channel to be placed in bypass provided one of the inoperable channels is placed in trip. There are no other RPS functional units affected by an inoperable Startup and Operating Rate of Change of Power - High Trip channel placed in bypass or trip. The Startup and Operating Rate of Change of Power - High Trip function and its bypass and reset capability are periodically tested in accordance with the Surveillance Frequency Control Program.