



January 19, 2022

L-2022-0009
10 CFR 50.90
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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
11545 Rockville Pike
One White Flint North
Rockville, MD 20852-2746

St. Lucie Plant Units 1 and 2
Dockets 50-335 and 50-389
Renewed Facility Operating Licenses DPR-67 and NPF-16

LICENSE AMENDMENT REQUEST FOR THE TECHNICAL SPECIFICATIONS CONVERSION TO NUREG-1432 REVISION 5 – REQUEST FOR SUPPLEMENTAL INFORMATION (RSI) RESPONSE

References:

1. Florida Power & Light Company (FPL) Letter L-2021-159 dated September 15, 2021, License Amendment Request for the Technical Specifications Conversion to NUREG-1432 Revision 5 (ADAMS Accession No. ML21265A285)
2. NRC November 5, 2021 Notice of Forthcoming Meeting with NextEra/Florida Power and Light (FPL) Regarding the Conversion of Turkey Point Nuclear Generating Station, Units 3 and 4, and St. Lucie Plant, Units 1 and 2 to Improved Technical Specifications (ADAMS Accession No. ML21312A082)
3. NRC November 17, 2021 Public Meeting, Turkey Point and St. Lucie Improved Technical Specifications Conversions, Issues Identified to Date – Draft (ADAMS Accession No. ML21320A261)
4. NRC Letter dated December 21, 2021, St. Lucie Plant, Unit Nos. 1 And 2 – Supplemental Information Needed for Acceptance of Licensing Amendment Request Concerning Technical Specification Conversion to NUREG-1432, Revision 5 (EPID L-2021-LLI-0000) (ADAMS Accession Nos. ML21350A426)

FPL, licensee for St. Lucie Plant (PSL) Units 1 and 2, has submitted an Improved Technical Specifications (ITS) conversion License Amendment Request (LAR) for the Facility Operating Licenses for PSL Units 1 and 2 (Reference 1). On November 17, 2021, the NRC held a public meeting (Reference 2) with FPL to discuss review topics of interest (Reference 3) for the ITS conversion LAR submittals. Based on this meeting, the NRC subsequently issued to FPL its RSI for the PSL ITS conversion LAR (Reference 4). The attachments to this letter provide FPL's response to the NRC RSI.

Florida Power & Light Company

15430 Endeavor Drive, Jupiter, FL 33478

For ease of reference, the index of attached information is provided on page 3 of this letter. The changes to the ITS conversion LAR identified in this RSI Response will be submitted to the NRC in a future ITS conversion LAR revision.

Should you have any questions regarding this submittal, please contact me at (561) 304-6256 or William.Maher@fpl.com.

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

Executed on the 19th day of January 2022.

Sincerely,

William D. Maher
Licensing Director - Nuclear Licensing Projects

Cc: Regional Administrator, USNRC, Region II
Project Manager, USNRC, St. Lucie Plant
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Volume 5 – Section 3.0 (ADAMS Accession No. ML21265A290) Question 1

ITS Limiting Condition for Operation (LCO) 3.0.9 - page 61 – The STS Section 3.0 Bases contains a reviewer’s note that states: “Adoption of LCO 3.0.9 requires the licensee to make the following commitments:

- [LICENSEE] commits to the guidance of NUMARC 93–01, Revision [4F], Section 11, which provides guidance and details on the assessment and management of risk during maintenance.
- [LICENSEE] commits to the guidance of NEI 04–08, “Allowance for Non Technical Specification Barrier Degradation on Supported System OPERABILITY (TSTF–427) Industry Implementation Guidance,” March 2006.”

These commitments do not appear in the application. The licensee is requested to provide additional information to support this change to adopt STS LCO 3.0.9.

FPL Response:

FPL has previously committed to conduct risk assessments using the procedures and guidance endorsed by Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," Revision 3. Regulatory Guide 1.160, Revision 3, endorses the guidance in Section 11 of NUMARC 93-01, Revision 4A in the license amendments associated with adoption of risk informed initiatives TSTF-422 "Change in Technical Specifications End States (CE-NPSD-1186)," Revision 2, and TSTF-505 "Provide Risk-Informed Extended Completion Times - RITSTF Initiative 4b," Revision 1.

PSL adopted TSTF-422 with application of site-specific variations and deviations from TSTF-422, on August 30, 2016, in License Amendments 234 and 184, for Unit 1 and Unit 2 respectively (NRC ADAMS Accession No. ML16210A374). PSL adopted TSTF-505 to include Risk Informed Completion Times (RICTs) for selected Technical Specification systems on July 2, 2019, in License Amendments 247 and 199, for Unit 1 and Unit 2 respectively (NRC ADAMS Accession No. ML19113A099).

Since PSL has already committed to conduct risk assessments using the procedures and guidance endorsed by Regulatory Guide 1.160, Revision 3, and follow the guidance established in Section 11 of NUMARC 93-01 as approved in previously approved risk informed license amendments, an additional commitment [related to Section 11 of NUMARC 93-01] is unnecessary and not proposed in Enclosure 5, “Regulatory Commitments,” of the ITS Conversion LAR.

The current plant Configuration Risk Management Program considers hazard barriers and provides for quantitative analysis for hazard barriers modeled in the plant PRA and use of bounding assessments or a combination of quantitative and qualitative methods for hazard barriers not specifically modeled in the plant PRA. Therefore, a commitment to follow the guidance of NEI 04–08, is unnecessary and not proposed in Enclosure 5 “Regulatory Commitments,” of the ITS Conversion LAR.

Volume 6 – Section 3.1 (ADAMS Accession No. ML21265A291) Question 1

ITS 3.1.1 - pages 46 and 48 – Discussion of Changes (DOC) L03 discusses the removal of CTS 4.1.1.1.1.d (“The SHUTDOWN MARGIN shall be determined to be within the core operating limit report (COLR) limits: d. Prior to initial operation above 5% RATED THERMAL POWER after each fuel loading, by consideration of the factors of e. below, with the control element assembly calculators (CEA) groups at the Power Dependent Insertion Limits of Specification 3.1.3.6 [REGULATING CEA INSERTION LIMITS].”) and that ITS Surveillance Requirement (SR) 3.1.2.1 (“Verify overall core reactivity balance is within $\pm 1.0\%$ $\Delta k/k$ of predicted values. Prior to entering MODE 1 after fuel loading”) gives confidence that these predicted values are within limit. DOC L03 asserts:

“The purpose of CTS 4.1.1.1.1.d is to verify core design predictions by determining the SDM with the CEAs at the insertion limits. This change is acceptable because the deleted Surveillance Requirement is not necessary to verify the LCO [“3.1.1.1 The SHUTDOWN MARGIN shall be within the limits specified in the COLR.”] is within limit. The core design predictions, such as rod worth, boron worth, and critical boron concentration, are verified in a manner and at a Frequency necessary to give confidence that these predicted values are within limit in accordance with ITS SR 3.1.2.1. ITS SR 3.1.2.1 has a conditional Frequency similar to that of CTS 4.1.1.1.1.d requiring performance prior to entering MODE 1 (> 5% [rated thermal power] RTP) after fuel loading. To ensure the SDM is within limits during reactor startup the critical boron concentration is verified during the startup physics test program. ... Therefore, the core design parameters upon which SDM relies are verified before exceeding 5% RATED THERMAL POWER after each fuel loading.”

It is not clear that “**with the CEA groups at the [power dependent insertion limits] (PDILs)**” that a SDM determination in MODE 2 with the reactor critical is equivalent to a core reactivity balance verification in MODE 2 with the reactor critical.

Explain how ITS will ensure that the “startup physics test program” verifies the post refueling criticality prediction is satisfied, and appropriate actions are taken if it is not.

FPL Response:

The ITS does not explicitly ensure that the “startup physics test program” verifies the post refueling criticality prediction is satisfied. However, the ITS establishes the limits and conditions to allow performance of startup physics testing and provides actions when the ITS limits are not met. Specifically, in MODES 3, 4, and 5, these limits are retained in ITS 3.1.1, requiring that the SDM be within the limits of the COLR and provides appropriate Surveillances and ACTIONS when SDM is not within the limits specified in the COLR. In MODES 1 and 2, these limits are retained in ITS 3.1.2, 3.1.3, 3.1.4, 3.1.5, and 3.1.6 with appropriate Surveillances and ACTIONS when these LCOs are not met.

The purpose of the Surveillance associated with ITS 3.1.1 is not to verify post refueling criticality predictions are satisfied. The purpose of the ITS 3.1.1 Surveillance is to ensure that SDM is within the limits of the COLR. Therefore, deletion of CTS 4.1.1.1.1.d is appropriate. DOC L03 explains that the combination of ITS SR 3.1.2.1 and the startup physics test program appropriately verify the parameters specified in CTS 4.1.1.1.1.e. As stated in ITS 3.1.1 DOC L03, ITS SR 3.1.2.1 is required to be performed prior to entering MODE 1. The Bases of ITS SR 3.1.2.1 states,

“Core reactivity is verified by periodic comparisons of measured and predicted RCS [Reactor Coolant System] boron concentrations. The comparison is made considering that other core

conditions are fixed or stable including CEA position, moderator RCS boron concentration, RCS average temperature, fuel temperature, fuel depletion, xenon concentration, and samarium concentration. The Surveillance is performed prior to entering MODE 1 as an initial check on core conditions and design calculations at BOC [beginning of cycle].”

During PHYSICS TESTS in MODES 1 and 2, LCO 3.1.8 allows LCO 3.1.3, 3.1.4, 3.1.5, and 3.1.6 to be suspended provided THERMAL POWER is restricted to the test power plateau, not to exceed 85% RTP. Appropriate Technical Specification ACTIONS are provided when LCO 3.1.8 is not met.

As stated in the Background section of ISTS 3.1.8 Bases, the key objectives of the startup physics test program are to

- a. Ensure that the facility has been adequately designed,
- b. Validate the analytical models used in design and analysis,
- c. Verify assumptions used for predicting plant response,
- d. Ensure that installation of equipment in the facility has been accomplished in accordance with design, and
- e. Verify that operating and emergency procedures are adequate.

To accomplish these objectives, testing is required prior to initial criticality, after each refueling shutdown, and during startup, low power operation, power ascension, and at power operation. The PHYSICS TESTS requirements for reload fuel cycles ensure that the operating characteristics of the core are consistent with the design predictions, and that the core can be operated as designed.

No change to the submittal is proposed.

Volume 6 – Section 3.1 (ADAMS Accession No. ML21265A291) Question 2

ITS 3.1.6 - pages 192, 197, 203, 208, and 211 – Regarding the ITS SR 3.1.6.1 (“Verify each regulating CEA group position is within its insertion limits. In accordance with the [Surveillance Frequency Control Program] SFCP”) Surveillance column note that permits 12 hours after entry into MODE 2 to verify the regulating rod group positions are within COLR limits. DOC L02 asserts adding this note is less restrictive because it is an allowance not included in corresponding Units 1 and 2 CTS SR 4.1.3.6 (“The position of each regulating CEA group shall be determined to be within the Power Dependent Insertion Limits in accordance with the Surveillance Frequency Control Program ...”). DOC L02 says the SFCP gives 12 hours as the Frequency of this Surveillance.

However, entry into MODE 2 is currently allowed without meeting the CTS 4.1.3.6 Surveillance, since CTS 3.1.3.6 Applicability says “MODE 2 with keff \geq 1.0”; even so, can the Surveillance be performed \leq 5% RTP, before entry into MODE 1?

If CTS SR 4.1.3.6 cannot be performed before being in MODE 2 with keff \geq 1.0 (before criticality is achieved), then entry into CTS 3.1.3.6 ACTION “a.” would be required and it allows 2 hours to verify rod insertion limits are met; that is, 2 hours to complete CTS SR 4.1.3.6.

If the licensee agrees with this reading of the CTS, the staff requests that the licensee revise DOC L02 to explain that the 12 hour delay after MODE 2 entry of ITS SR 3.1.6.1 is less restrictive because it is longer than the 2 hours permitted by CTS 3.1.3.6 ACTION a. Staff recognizes that CTS SR 4.0.4 allows entering LCO 3.1.3.6 Applicability with SR 4.1.3.6 not met as allowed by CTS LCO 3.0.4.b, which requires risk to be assessed and managed.

FPL Response:

DOC L02 will be revised to explain that the 12 hour delay after MODE 2 entry of ITS SR 3.1.6.1 is less restrictive because it is longer than the 2 hours permitted by CTS 3.1.3.6 ACTION a, should CTS 3.1.3.6 ACTION a be entered to complete the Surveillance in MODE 2. CTS SR 4.0.4 allows entering LCO 3.1.3.6 Applicability with SR 4.1.3.6 not met as allowed by CTS LCO 3.0.4. DOC L02 (pages 203/374, 204/374) will be revised to clarify that CTS 3.1.3.6 ACTION a is entered to allow 2 hours to complete the Surveillance in MODE 2 as allowed by CTS SR 4.0.4 and CTS LCO 3.0.4. DOC L02 will be revised to read:

L02 (*Category 7 – Relaxation of Surveillance Frequency*) CTS 4.1.3.6 requires verification of regulating CEA groups position and regulating CEA groups time Inside Long Term Steady State Insertion Limits in accordance with the Surveillance Frequency Control Program (SFCP). The SFCP frequencies are at least once per 12 hours and at least per 24 hours, respectively. ITS SR 3.1.6.1 provides a Note that states “Not required to be performed until 12 hours after entry into MODE 2” indicating that entry is allowed into MODE 2 for 12 hours without having performed the SR. This is necessary, since the unit must be in the applicable MODES in order to perform Surveillances that demonstrate the LCO limits are met. CTS does not contain this Note. CTS SR 4.0.4 and CTS LCO 3.0.4 allow entry into 3.1.3.6 ACTION a to allow 2 hours to complete the Surveillance in MODE 2.

The purpose of CTS 4.1.3.6 is to verify regulating CEA groups position and regulating CEA groups time Inside Long Term Steady State Insertion Limits in accordance with the Surveillance Frequency Control Program (SFCP). ITS 3.1.6 Note indicates that entry is allowed into MODE 2 for 12 hours without having performed the SR. This is necessary, since the unit must be in MODE 2 in order to perform the Surveillance that verifies each

regulating CEA group position is within its insertion limits. CTS does not contain this Note. CTS SR 4.0.4 and CTS LCO 3.0.4 allow entry into 3.1.3.6 ACTION a to allow 2 hours to complete the Surveillance in MODE 2.

This change is designated as less restrictive because additional time is allowed to perform the Surveillances in MODE 2 in the ITS than was allowed in the CTS.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 1

On page 28/450 – The Unit 2 CTS 3.3.1.x markup indicates that a “proposed” note should be added to SR 3.3.1.8 (Unit 2). There is no note added in the ITS as shown on the markup of STS 3.3.1. The ITS SR 3.3.1.8 does include the Surveillance column note from the STS. It is not clear whether the licensee only wants the STS note or if there is another note that is intended to be added. No other STS notes are called out as being added. The discussion of a proposed note is not included for any other adoption of STS notes. DOC L05 adequately discusses the STS note that says, “Neutron detectors are excluded from the CHANNEL CALIBRATION.” Please provide clarification for if only the STS note or another note should be added to ITS SR 3.3.1.8.

FPL Response:

The markup to the current technical specifications (CTS) identifies changes to the current licensing basis and are discussed in the associated Discussion of Change. Changes made to the NUREG that are incorporated as part of the Improved Technical Specification upgrade are addressed in a Justification for Deviation.

The question addresses a markup to Unit 2 Table 4.3-1, specifically a markup to CTS 3.3.1 Function 13, “Wide Range Logarithmic Neutron Flux Monitor Power Rate of Change – High, for the addition of the proposed Note to SR 3.3.1.8 as a change to CTS. The CTS markup does not propose the addition of a new Note to ITS SR 3.3.1.8.

NUREG-1432 Specification 3.3.1 (SR 3.3.1.8) currently contains a NOTE that excludes neutron detectors from Channel Calibration surveillances. CTS SR 4.3.1.1 as detailed in Table 4.3-1 Channel Calibration requirements does not currently provide for the exclusion of neutron detectors but is incorporating the NUREG Note as part of the ITS upgrade. The CTS markup as stated in the last sentence of the first paragraph in DOC L05, identifies the addition of the NUREG Note as a change to the CTS. The markup simply reflects addition of the existing NUREG Note excluding neutron detectors from the Function 13 surveillance requirement as a change to the current licensing basis.

Unit 1 CTS SR 4.3.1.1.1 as detailed in Table 4.3-1 does not currently require a Channel Calibration for the same Function. Unit 1 CTS is changed by adding the entire surveillance requirement (SR 3.3.1.8), including the NUREG note as discussed in associated DOC M03.

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 2

On pages 63, 75, 199, and 161/450 – STS SR 3.3.1.7 requires the automatic bypass removal function to be tested within 92 days of startup. For Unit 1, CTS SR 4.3.1.1.2 requires the “logic for the bypasses” be demonstrated OPERABLE during at power functional tests. For Unit 2, CTS SR 4.3.1.2 requires the logic for the bypasses be demonstrated OPERABLE within 92 days of startup. The Frequency of corresponding ITS SR 3.3.1.7 is in accordance with the SFCP. ITS SR 3.3.1.7 requires a CHANNEL FUNCTIONAL TEST of each automatic bypass removal function. In the ITS 3.3.1 Bases for SR 3.3.1.,7 in the first paragraph, there is a discussion of why this SR is important to be done prior to startup. There is discussion about when the SR is completed that is consistent with the STS Bases for the Frequency of STS 3.3.1.7, but not consistent with the ITS Surveillance Frequency of “In accordance with the SFCP,” not 92 days prior to startup. Why is the SFCP an acceptable Frequency for this Surveillance when the 92 days prior to startup is described as applicable per a topical report and the CTS (at least for Unit 2) require the 92 days prior to startup Frequency? How does the licensee assure adequate reliability of the affected reactor trip Functions? The STS does not allow the SFCP for this SR, but the Unit 1 CTS does, and both units’ ITS propose to do so. The ITS 3.3.1 Bases discussion under SR 3.3.1.7 should be revised to reflect the adequacy of the Surveillance Frequency as it relates to the referenced topical report. The use of the SFCP must be justified, at least for Unit 2. Alternately, the plant could adopt the STS Frequency.

FPL Response:

Unit 1 CTS 4.3.1.1.2 requires “The logic for the bypasses shall be demonstrated OPERABLE during the at power CHANNEL FUNCTIONAL TEST of channels affected by bypass operation” and “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.”

For Unit 1 all “at power CHANNEL FUNCTIONAL TESTs” are performed in accordance with the CTS Table 4.3-1 requirements at a frequency set in the SFCP. Total bypass function is required to be OPERABLE in accordance with the SFCP during CHANNEL CALIBRATION testing.

The NUREG “once within 92 days prior to each reactor startup” requirement is not adopted for Unit 1, the submittal has retained the current licensing basis for the surveillance frequency in accordance with the SFCP.

The Unit 1 ITS Bases is revised to remove the 92 day prior to startup allowance and the associated CEN-327 reference.

Unit 2 CTS 4.3.1.2 requires “the logic for the bypasses shall be demonstrated OPERABLE prior to each reactor startup unless performed during the preceding 92 days” and “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.”

The Unit 2 CTS SR 4.3.1.2 Frequency for bypass logic testing is consistent with the ITS SR 3.3.1.7 Frequency and is retained. The submittal for Unit 2 ITS SR 3.3.1.7 is revised to indicate a Frequency of “once within 92 days prior to each reactor startup”.

The PSL current licensing basis is being retained for Unit 1 and Unit 2. PSL applicability of topical report CEN-327, although the reference is being removed from the Unit 1 Bases, is addressed in

St. Lucie Plant Units 1 and 2
Dockets 50-335 and 50-389
FPL Response to NRC RSI No. 3.3-2
L-2022-009 Attachment 5 Page 2 of 2

Technical Evaluation Report: EGG-NTA-8341, March 1989, as an attachment to the NRC's Safety Evaluation for Generic Letter 83-28, Item 4.5.3, Reactor Trip Reliability On-Line Functional Testing of the Reactor Trip System, dated August 16, 1989.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 3

On pages 63/450 and 75/450 – CTS, footnote “a” from Table 3.3-1 states that the bypass for the Variable Power Level – High reactor trip Function is automatically removed based on wide range neutron flux power. The ITS and STS both refer to percent of RATED THERMAL POWER. The power level for bypass removal is consistent with CTS (1% for Unit 1 and 0.5% for Unit 2), but the STS has a much lower power level (1E-4%). Why is it acceptable to adopt the STS power measurement source, but maintain the power level from the CTS?

FPL Response:

Measured power used for the Unit 1 and Unit 2 Variable Power Level – High (VHPT) reactor trip Function is determined in the core protection calculator (CPC) based on the auctioneered higher of a ΔT (thermal power) or neutron flux power input. The higher (auctioneered) signal is the measured power signal provided to the VHPT RPS trip circuit for comparison to a VHPT trip setpoint, also developed within the CPC. The auctioneered signal also provides power indication in the main control room in % RATED THERMAL POWER (RTP).

The ΔT input is derived from $T_{HOT} - T_{COLD}$ inputs. A zero power mode bypass (ZPMB) is provided to permit rod drop testing during shutdown conditions (low power testing). The ZPMB inhibits the ΔT input to the auctioneered power circuit. The ΔT signal inhibit is automatically removed based on a neutron flux signal that corresponds to 1% RTP (Unit 1) and 0.5% RTP (Unit 2).

The neutron flux power signal is provided from the Wide Range Logarithmic Neutron Flux circuit and is calibrated to thermal power (% RTP) for indication and use in the VHPT RPS function. Therefore, the power measurement source has not been changed. The power level (1E-4%) presented in NUREG-1432 is a generic CE value that is not applicable to PSL. The value of 1% RTP (Unit 1) and 0.5% RTP (Unit 2) stated in ITS Table 3.3.1-1 Footnote (c) is a retention of Footnote (a) in the Table Notation of CTS Table 3.3-1 and represents the current licensing basis as previously reviewed and approved by the NRC.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 4

On page 78/450 – the thermal margin/low pressure (TM/LP) trip value was changed to include a minimum pressure allowable value. M06 only discusses Unit 1. Unit 2 has a similar, but different pressure value added as a minimum allowable. Should M06 include discussion of Unit 2? The notes in the U-2 ITS markup does not reference M06.

FPL Response:

Only the Unit 1 CTS is being changed to add a minimum pressure criteria (≥ 1887 psia). The minimum pressure criteria (≥ 1900 psia) is the current licensing basis as shown in Unit 2 CTS Table 2.2-1, Functional Unit 4 and is not a change to Unit 2. Therefore, DOC M06 only addresses the change to the Unit 1 CTS. The ITS markup reflects the change to Unit 1 CTS and the retention of the Unit 2 current licensing basis.

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 5

On pages 94/450 and 134/450 – In the addition to the first paragraph what is “key capture?”
Please provide a description of the term.

FPL Response:

“Key capture” as referenced in the text is a mechanical interlock. Trip channel bypass is manually implemented with a keylock switch specific to each channel operated by a single key. The simultaneous bypass of multiple channels in a function is prevented by physically preventing removal of the key (key capture) to prevent its use in bypassing additional channels. The key is also administratively controlled.

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 6

On pages 96/450, 136/450, and other occurrences in the bases – The referenced page numbers are the first occurrences for each unit. Applies to both units. In many cases in the bases, information is deleted with no explanation or justification. These point to justification for deviation (JFD) 1 that is just a generic statement of adopting plant specific information. Examples include:

- a. Anticipated operational occurrences (AOOs) and accidents that were listed as being mitigated by an RPS trip are deleted and there is no discussion of how these events are handled by RPS at St. Lucie. UFSAR review to determine which trip is applicable to which AOO or accident was fruitless. Provide what trips are credited for the mitigation of the deleted events or explain why those events do not require mitigation by the RPS.
- b. Descriptions of trip setpoint margins that are in the NUREG are deleted without any justification or any replacement by plant specific margin discussions. Provide margin discussions for St. Lucie equivalent to the NUREG discussion that are deleted or justify that the descriptions are not required.

FPL Response:

- a. The Unit 1 and Unit 2 tables provided herein include the requested list of deleted AOOs and accidents, and the associated RPS trip that is assumed in event mitigation for each event, where applicable.

Unit 1	
Excess feedwater heat removal	Steam Generator Pressure Difference (Function 9.b)
RCP sheared shaft	Not a design basis event for PSL Unit 1
Certain MSLB events	Variable Power Level Trip (VHPT) – High (Function 1)
Steam system piping failures	Variable Power Level Trip (VHPT) – High (Function 1)
Feedwater Pipe Breaks (FWLB) between S/G and check valve	Steam Generator A and B Level – Low (Functions 7.a, 7.b)
Inadvertent opening of S/G ADV	Thermal Margin/Low Pressure (TM/LP) (Function 9.a)
Loss of condenser vacuum with a concurrent loss of offsite power	Pressurizer Pressure – High (Function 4)
Loss of condenser vacuum with a concurrent loss of one 6.9 kV bus	Pressurizer Pressure – High (Function 4)
Isolation of turbine at 102% power (renamed as Loss of External Load/Turbine Trip)	Pressurizer Pressure – High (Function 4)
Inadvertent power operated relief valve (PORV) opening	Thermal Margin/Low Pressure (TM/LP) (Function 9.a)

The AOOs or accidents for the following RPS trip functions will be restored in the Unit 1 ITS

3.3.1 Bases markup:

- Pressurizer Pressure – High (Function 4) (Page 97/450)
 - Loss of condenser vacuum with a concurrent loss of offsite power
 - Loss of condenser vacuum with a concurrent loss of one 6.9 kV bus
- Thermal Margin/Low Pressure (TM/LP) (Function 9.a) (Page 99/450)
 - RCS depressurization (inadvertent safety or power operated relief valves (PORVs) opening)

The insert of “Excess Load” will be removed from Steam Generator A and B Level – Low (Functions 7.a, 7.b) Unit 1 ITS 3.3.1 Bases discussion (Page 98/450).

Unit 2	
Certain MSLB events	Variable Power Level Trip (VHPT) – High (Function 1)
Asymmetric loss of feedwater	Steam Generator Pressure Difference (Function 9.b)
Excess Load	Variable Power Level Trip (VHPT) – High (Function 1)
Reactor coolant pump (RCP) sheared shaft	Reactor Coolant Flow - Low
Loss of condenser vacuum with a concurrent loss of offsite power	Pressurizer Pressure – High (Function 4)
Loss of condenser vacuum with a concurrent loss of one 6.9 kV bus	Pressurizer Pressure – High (Function 4)
Isolation of turbine at 102% power (renamed as Turbine Trip)	Pressurizer Pressure – High (Function 4)
Feedwater System pipe break (renamed as FWLB (small))	Pressurizer Pressure – High (Function 4)
Loss of normal feedwater	Steam Generator A and B Level – Low (Functions 7.a, 7.b)
Inadvertent PORV opening	Thermal Margin/Low Pressure (TM/LP) (Function 9.a)

The AOOs or accidents for the following RPS trip functions will be restored in the Unit 2 ITS 3.3.1 Bases markup:

- Variable Power Level Trip (VHPT) – High (Function 1) (Page 136/450)
 - Excess Load
- Reactor Coolant Flow - Low (Function 3) (Page 137/450)
 - Reactor coolant pump (RCP) sheared shaft (and delete “/sheared” in 3rd bullet)
- Pressurizer Pressure – High (Function 4) (Page 137/450)
 - Loss of condenser vacuum with a concurrent loss of offsite power
 - Loss of condenser vacuum with a concurrent loss of one 6.9 kV bus
- Steam Generator A and B Level – Low (Functions 7.a, 7.b) (Page 138/450)
 - Loss of normal feedwater
- Thermal Margin/Low Pressure (TM/LP) (Function 9.a) (Page 139/450)
 - RCS depressurization (inadvertent safety or power operated relief valves (PORVs)

opening)

- b. As stated in Section 2.4 of the Extended Power Uprate (EPU) safety evaluations (SE) for License Amendments 213 (Unit 1) and 163 (Unit 2), dated July 9, 2012 and September 24, 2012, respectively (NRC ADAMS Accession Nos. ML12181A019 and ML12235A463), the full range of uncertainty effects are considered in the instrument trip setpoint calculations including instrument performance specifications, calibration effects, environmental effects, process effects and electrical circuit effects. The NRC staff determined that the PSL Instrument Setpoint Methodology described in the EPU license request meets the requirements of 10 CFR 50, Appendix A, General Design Criterion 13 and the regulatory guidance in NRC Regulatory Guide 1.105, "Setpoints For Safety-Related Instrumentation." As a result, analysis uncertainties and allowance for harsh environment are incorporated in the instrument trip setpoints, as applicable, and it is not necessary to duplicate this information in the ITS 3.3.1 Bases.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 7

On pages 96/450 and 136/450 Both Units - The Bases imply that even though the Power Rate of Change - High trip may be bypassed under some conditions, the indication is still required to be operable. How is this ensured by the TS?

FPL Response:

Technical Specification 3.3.1 requires operability of four RPS trip units and associated instrument and bypass removal channels for the Power Rate of Change – High function (Function 2) is required to be OPERABLE when ≥ 0.99 keff (Mode 2) and footnote d allows for bypassing the function when power is $< 10\text{-}4\%$ RTP “when poor counting statistics may lead to erroneous indication.” The “indication” stated addresses the measured count level or stated differently “indication of an erroneous power level or rate of change.”

The channel is required to be OPERABLE and the Bases text clearly states that the associated trip channel may be bypassed in operational conditions (low neutron count) when operational experience has demonstrated the potential for an erroneous power indication. During low power, low count rate operation, the “measured” count rate (more specifically a change in count rate) signal can be influenced by non-nuclear factors (poor counting statistics, instrument noise, etc.) that are reflected in the instrument response and indication. The allowance stated in the Bases is an operational consideration and does not state or imply that the affected channel or indication is inoperable when $< 10\text{-}4\%$ RTP. The instrument may be operating as designed but influenced by other factors. In fact, observation of other channel indications combined with the appropriate operational awareness can be used to support a determination that the bypassed channel is OPERABLE. Under operator evaluation, similar trends and indications observed on all channels (Channel Check) with one channel exhibiting erratic spikes and a dampening of the erratic channel indication (spikes) as power (count rate) is increased would indicate that the channel is OPERABLE.

Bypassing the “erroneous indication” channel precludes an unnecessary channel trip due to a channel signal spike not caused by an actual power change but due to other factors not associated with power level. In addition, the bypassing of a trip channel is physically limited to one channel of the function by mechanical interlock and the high rate of change trip is not credited in any Chapter 15 accident analyses.

The Bases text reflects an operational consideration for a known low count rate characteristic and footnote d is a retention of the current licensing basis.

No change to the submittal is proposed.

St. Lucie Plant Units 1 and 2
Dockets 50-335 and 50-389
FPL Response to NRC RSI No. 3.3-8
L-2022-009 Attachment 11 Page 1 of 1

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 8

On pages 96/450 and 136/450 Both Units - Under Item 1, Main Steam Line Break (MSLB), what is backup protection? Is this defined or explained somewhere?

FPL Response:

On pages 96/450 and 136/450, Unit 1 and Unit 2 ITS 3.3.1 Bases, under the fourth bullet “Main Steam Line Break (MSLB)”, the “Backup Protection” insert will be deleted.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 9

On pages 98/450 and 138/450 Both Units - The excess load event is described differently for the steam generator (SG) low level and TM/LP trips. It is also inconsistent between units. It seems that all 4 should be the same. Is there a different event for inadvertent opening of a steam generator atmospheric dump valve (ADV) or main steam safety valve (MSSV)?

FPL Response:

An excess load event is characterized for Unit 1 and Unit 2 as an “increase in steam flow” event defined as any increase in steam generator steam flow other than a steam line rupture. This would be analogous to LOCA events in which there are various specific conditions that are included in the event category. For analysis purposes the postulated excess load initiating events may include opening of all steam dump and bypass valves or the opening of the turbine control valves due to controller failure. To simplify for staff review, the Unit 1 and Unit 2 Bases will be revised to reference the generic “excess load” event when referencing events that credit specific RPS trips.

- Unit 1 Bases page B 3.3.1-15 (Page 99/450) and Unit 2 Bases page B 3.3.1-15 (Page 139/450) Function 9.a, First Bullet, will be revised to delete the excess load parenthetical “(inadvertent opening of a steam generator ADV)” to read “Excess load”.
- Unit 2 page B 3.3.1-12 (Page 136/450) Function 1, second bullet, will be revised to restore “Excess load” as an event that credits the RPS variable high power trip. The last sentence under Function 1 will be restored to the NUREG wording.
- Unit 2 page B 3.3.1-14 (Page 138/450) Function 7.a, 7.b, third bullet, will be revised consistent with the Unit 1 markup to include the generic term “excess load” replacing “Inadvertent opening of a main steam safety or steam generator atmosphere dump valve (ADV)”.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 10

On pages 100/450 and 140/450, Both Units - At the bottom of the page it is stated that the TM/LP, SG delta P, and Rx coolant flow low trips are unbypassed automatically. Should the variable power level high trip be included here? It has the same footnote as the other trips in Table 3.3.1-1.

FPL Response:

The statement in the Bases is specific to the “zero power mode bypass (ZPMB)” used to permit rod drop testing during shutdown conditions (low power testing). The ZPMB is a manually initiated key lock switch. The bypass is automatically removed when power exceeds 1% RTP (Unit 1) and 0.5% RTP (Unit 2).

This “operational bypass” provides the capability to bypass low flow and TM/LP trips; in addition, it inhibits (blocks) the ΔT input to the high power level trip to allow for special physics startups when RCS temperatures are below the operating range and the calculated ΔT power would be erroneous. The bypass reference has no association with the VHPT trip function with the exception of blocking the ΔT input for the power calculation that is auctioneered with the neutron flux power signal for input to VHPT.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 11

On pages 102/450 and 142/450, Both Units – The 4th paragraph under Item 1 changes 112% to 107%. The NUREG has the setpoint at 107% and the maximum possible value at 112%. The ITS has both set at 107%. This is inconsistent and does not allow for calibration errors, etc.

FPL Response:

The 107% value is the plant specific value calculated by the core protection calculator (CPC-2) based on process inputs. The calculated setpoint is within the range of 15% to 107% power and less than or equal to current power plus 9.61%. Instrument error has been considered in the setpoint calculation. The RPS Variable Power Level (VHPT) – High setpoint values assumed in the safety analyses are described in UFSAR Chapter 15. The assumed safety analysis value for full power events is 112%.

The PSL current licensing basis value is used rather than the NUREG generic Combustion Engineering (CE) design (112%) that incorporates a maximum fixed value. The differences in the PSL and the generic CE design are discussed in UFSAR Chapter 7. Uncertainties, including instrument uncertainties, are incorporated as part of the setpoint calculation and is based on approved methodology.

The 4th paragraph in the ITS 3.1.1 Bases (pages 102/874 and 142/874) associated with RPS Function 1, Variable Power Level Trip (VHPT) – High will be revised to state:

“The maximum actual steady state THERMAL POWER level at which a trip would be actuated is 107% RTP, which is conservative with respect to the value of 112% RTP used in the safety analyses.”

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 12

On pages 102/450 and 142/450 – Both Units - Why is the 5th paragraph deleted? What is the equivalent plant specific information? If not required, what is the basis?

FPL Response:

The ITS 3.3.1 Bases discussion associated with RPS Instrument Function 1 (Variable Power Level Trip (VHPT) – High), 5th paragraph (pages 102/450 and 142/450), will be revised to state that, “Calibration and instrument errors are considered within the setpoint calculations. The stated minimum and maximum Allowable Values and step values are the assumed safety analyses values.”

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 13

On pages 102/450 and 142/450 – Both Units - Item 2, Power Rate of Change – High does not discuss the ability to bypass the trip as is included for other trips? Should this be added? Additionally, it is not discussed that the trip may be bypassed below 1E-4% RTP.

FPL Response:

As stated in the NUREG text, the Power Rate of Change – High function is not credited in the accident analysis. To maintain consistency with NUREG-1432, modifying the NUREG with the additional detail is considered unnecessary. No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 14

On pages 102/450 and 142/450, Both Units – Item 2, Power Rate of Change – High has the discussion regarding the modes of applicability deleted. There is not adequate justification for this. Even though the lower modes are discussed in a different TS this is the same as the NUREG. Should maintain consistency with the NUREG.

FPL Response:

The text as revised accurately reflects the applicable LCO. The current licensing basis does not require the Power Rate of Change function to be OPERABLE in MODES 3, 4, and 5 and the justification is retention of the current licensing basis. Therefore, the deleted Bases text is removed because “MODES 3, 4, and 5 when the RTCBs are closed and the CEA Drive System is capable of CEA withdrawal” are not addressed or referenced in the applicable LCO. The MODES 3, 4, and 5 applicability for channel OPERABILITY is addressed in the appropriate technical specification (ITS 3.3.11).

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 15

On pages 103-105/450 and 143-145/450 – both Units - Under items 3, 4, 6, 7, and 9 information regarding uncertainty and harsh environment is deleted and no plant specific information is added. No basis is provided. No plant specific information is provided.

FPL Response:

As stated in Section 2.4 of the Extended Power Uprate (EPU) safety evaluations (SE) for License Amendments 213 (Unit 1) and 163 (Unit 2), dated July 9, 2012 and September 24, 2012, respectively (NRC ADAMS Accession Nos. ML12181A019 and ML12235A463), the full range of uncertainty effects are considered in the instrument trip setpoint calculations including instrument performance specifications, calibration effects, environmental effects, process effects and electrical circuit effects. The NRC staff determined that the PSL Instrument Setpoint Methodology described in the EPU license request meets the requirements of 10 CFR 50, Appendix A, General Design Criterion 13 and the regulatory guidance in NRC Regulatory Guide 1.105, "Setpoints For Safety-Related Instrumentation,". As a result, analysis uncertainties and allowance for harsh environment for RPS Instrument Functions 3, 4, 5, 7, and 9 are incorporated in the calculated instrument trip setpoints, as applicable, and it is not necessary to duplicate this information in the ITS 3.3.1 Bases.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 16

On pages 105/450 and 145/450, Both Units – Under item 8 it is stated that the trip is automatically bypassed at less than 15% power. The TS require the trip to be automatically unbypassed above 15% power. This is an important function that should be described.

FPL Response:

The statement regarding the Axial Power Distribution (Local Power Density) – High trip being automatically bypassed at < 15% RTP in the ISTS Bases has been retained consistent with NUREG-1432, Revision 5.0, which has been reviewed and accepted by the NRC. Therefore, a deviation from the ISTS Bases has not been proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 17

On pages 105/450 and 145/450, Both Units – Under item 9.b information regarding uncertainty is deleted and no plant specific information is added. No basis is provided.

FPL Response:

As stated in Section 2.4 of the Extended Power Uprate (EPU) safety evaluations (SE) for License Amendments 213 (Unit 1) and 163 (Unit 2), dated July 9, 2012 and September 24, 2012, respectively (NRC ADAMS Accession Nos. ML12181A019 and ML12235A463), the full range of uncertainty effects are considered in the instrument trip setpoint calculations including instrument performance specifications, calibration effects, environmental effects, process effects and electrical circuit effects. The NRC staff determined that the PSL Instrument Setpoint Methodology described in the EPU license request meets the requirements of 10 CFR 50, Appendix A, General Design Criterion 13 and the regulatory guidance in NRC Regulatory Guide 1.105, "Setpoints For Safety-Related Instrumentation," As a result, it is not necessary to include details of the trip setpoint and Allowable Value calculations in the ITS 3.3.1 Bases.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 18

On pages 107/450 and 147/450, Both Units – Under item Applicability, the paragraph at the top of the page on lower modes is deleted with no supporting justification. The NUREG retains this paragraph and refers to LCO 3.3.3. For St. Lucie the paragraph should refer to LCO 3.3.2. Consistency with the NUREG should be maintained where possible.

FPL Response:

Technical Specification 3.3.1 is applicable only in MODES 1 and 2 and is consistent with the current licensing basis. The deleted text is not applicable to the technical specification and unnecessarily adds text that provides no beneficial information with regards to the associated specification.

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 19

On pages 110/450 and 152/450, Both Units – Under Action G.1 why is Action F included? The trips in F are explicitly excluded in the TS.

FPL Response:

ITS 3.3.1 Condition G states “Required Action and associated Completion Time not met except for Local Power Distribution or Loss of Load Trip Functions.” Condition F states “Required Action and associated Completion Time not met for Local Power Distribution and Loss of Load Trip Functions.” The Unit 1 and Unit 2 ITS 3.3.1 Bases, ACTION G.1 included Condition F as one of the applicable Conditions and it should have been deleted. Therefore, the Unit 1 and Unit 2 ITS 3.3.1 Bases, ACTION G.1 discussion will be revised to read:

“Condition G is entered when the Required Action and associated Completion Time of Conditions A, B, C, D, or E are not met.”

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 20

On pages 112/450 and 154/450 – Both units - Under SR 3.3.1.1 why is the sentence regarding the CHANNEL CHECK supplementing less formal, but more frequent checks deleted? Are these more frequent checks not performed at St. Lucie?

FPL Response:

The NUREG Reviewer's Note indicates that two options are presented in the bracketed item with one to be selected based on current licensing basis. CTS Table 4.3-1 indicates that the appropriate option is Surveillance Frequency Control Program and is a retention of the current licensing basis. As stated in Enclosure 1 of the ITS Conversion LAR, PSL adopted a SFCP on June 22, 2015, in License Amendments 223 and 173, for Unit 1 and Unit 2 respectively (NRC ADAMS Accession No. ML15127A066). Therefore, the information related to the CHANNEL CHECK supplementing less formal, but more frequent checks is not included in the Unit 1 and Unit 2 ITS 3.3.1 Bases.

No change to the submittal is proposed.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 21

On pages 115/450 and 157/450, and other SRs with similar notes – Both Units - Under SR 3.3.1.4 the discussion of the first note is not clear. The added e.g., statement is not clear. Also, “but conservative wrt to the allowable value” is not consistent with the note in the TS table. The treatment of the added e.g., statement is not consistent for SRs 3.3.1.5, 3.3.1.6, and 3.3.1.8. It seems like all of these should read similarly. Also see similar notes in the Background sections (pages 87 and 127).

FPL Response:

As stated in ITS 3.3.1 Bases JFD #5, the as-found acceptance criteria band (i.e., OPERABILITY limit range) is synonymous with the as-found tolerance. In addition, the parenthetical e.g., was added to provide an example to clarify that an evaluation of channel performance is required when a channel setpoint is outside the as-found acceptance criteria band limit in either direction, including the conservative direction. The phrase, “...but conservative with respect to the Allowable Value,” is consistent with the wording in the ISTS Bases and does not conflict with ITS Table 3.3.1-1, Footnote (a) that requires an evaluation to be performed when an instrument channel setpoint is outside the predefined as-found acceptance criteria band, even when the setpoint is conservative with respect to the Allowable Value.

Volume 8 – Section 3.3 (ADAMS Accession No. ML21265A293) Question 22

Both Units – Adoption of TSTF-569 is made without discussing that the TSTF is applicable to the plant or stating that the licensee has verified that the traveler and SE are applicable. The LAR needs to justify adoption of the traveler to the plant.

FPL Response:

TSTF-569 Revision 2, “Revise Response Time Testing Definition,” is addressed in Enclosure 2, Volume 3 – Chapter 1.0, Definitions (ADAMS Accession No. ML21265A288).

Refer to Unit 1 CTS 1.12 and 1.26 markups (pages 9/112 and 12/112), Unit 2 CTS 1.12 and 1.26 markups (pages 23/112 and 25/112), and Discussion of Change L02 (page 44/112). Additionally, the 10 CFR 50.92 evaluation is provided In Chapter 1.0 (pages 102/112 and 110/112).

Volume 9 – Section 3.4 (ADAMS Accession No. ML21265A294) Question 1

On page 5/677 – Please provide plant-specific justification for the proposed change in LCO 3.4.1 Action B Completion Time from 4 hours to 6 hours.

FPL Response:

Pages 5/677 and 6/677 will be revised to add DOC L02 reference to the CTS 3.2.5 Action changing 4 hours to 6 hours, and the following DOC L02 will be added to the ITS 3.4.1 Discussion of Changes after DOC L01 (Page 7/677).

L02 (*Category 3 – Relaxation of Completion Time*) CTS 3.2.5 Action requires the unit to reduce THERMAL POWER to $\leq 5\%$ of RTP within the next 4 hours if the DNB parameters are not restored to within limit in 2 hours. ITS 3.4.1 ACTION B requires the power reduction to $\leq 5\%$ RTP (MODE 2) within the next 6 hours if the DNB parameters are not restored to within limit in 2 hours. This changes the CTS by extending the time for the unit to be placed outside the MODE of Applicability.

The purpose of the CTS 3.2.5 Action is to limit the time the unit can be outside of the DNB parameter limits and remain within the Applicability of the Specification. This change is acceptable because the Completion Time is consistent with safe operation under the specified Condition, considering the low probability of a DBA occurring during the allowed Completion Time. The change extends the time the unit is allowed to be outside the DNB parameter limits and be in the Applicability of the Specification. The time extension from 4 hours to 6 hours is consistent with the ISTS Completion Time to place the unit in MODE 2 and is considered a reasonable time that permits the plant power to be reduced at an orderly rate in conjunction with even control of steam generator heat removal. This change is designated as less restrictive because additional time is allowed to be outside the DNB parameter limits and be in the Applicability of the Specification than was allowed in the CTS.

Volume 9 – Section 3.4 (ADAMS Accession No. ML21265A294) Question 2

On page 83/677 “Justification for Deviation #5 states, “ISTS 3.4.3, Required Action B.2 is modified to delete the requirement to reduce RCS pressure < [500] pounds per square in gauge (psig). CTS 3.4.9.1 actions, in the condition when actions and associated completion times are not met, only require a reduction of RCS Tav_g to less than 200°F (i.e., MODE 5). The ITS is consistent with the equivalent CTS requirement and licensing basis.” Please note, ITS 3.4.3, Required Action B.2 requires to be in MODE 5 with RCS pressure less than [500] psig. Please explain how the ITS Action is consistent with the equivalent CTS Action.”

FPL Response:

When the CTS 3.4.9.1 actions and associated completion times are not met, CTS 3.4.9.1 requires lowering RCS Tav_g temperature to less than 200°F within 36 hours in accordance with Figure 3.4-2b (Unit 1) and Figure 3.4-3 (Unit 2). CTS does not include a specific reactor pressure with the reduction in RCS Tav_g temperature to less than 200°F within 36 hours. The CTS and ITS will be updated as follows to be consistent with the CTS 3.4.9.1 Action.

- (Page 54/677) Unit 1 CTS 3.4.9.1 - Update Unit 1 CTS 3.4.9.1 Action to remove redline-strikeout from the statement “in accordance with Figure 3.4-2b”. The corresponding ITS 3.4.3 figure is Figure 3.4.3-2.
- (Page 62/77) Unit 2 CTS 3.4.9.1 – Update Unit 2 CTS 3.4.9.1 Action to remove redline-strikeout from the statement “in accordance with Figure 3.4-3”. The corresponding ITS 3.4.3 figure is Figure 3.4.3-2.
- (Pages 75/677 and 79/677) Unit 1 and Unit 2 ISTS 3.4.3 Required Action B.2 - Update Unit 1 and Unit 2 ISTS 3.4.3 Required Action B.2 to add the insert “with RCS pressure within the limits specified in Figure 3.4.3-2” to replace the statement “with RCS pressure < [500] psig” which is already marked for deletion (redline-strikeout). Unit 1 and Unit 2 ITS 3.4.3, Required Action B.2, will read “Be in MODE 5 with RCS pressure within the limits specified in Figure 3.4.3-2.” ISTS 3.4.3 JFD #5 (Page 83/677) will be revised to state the following.

“JFD #5 - ISTS 3.4.3, Required Action B.2 is modified to replace the requirement to reduce RCS pressure < [500] psig with the requirement for RCS pressure to be “within the limits specified in Figure 3.4.3-2, consistent with the equivalent CTS requirement and licensing basis.”

- (Pages 89/677 and 96/677) Update Unit 1 and Unit 2 ISTS 3.4.3 Bases “B.1 and B.2” description to add the insert “with RCS pressure within the limits specified in Figure 3.4.3-2” to replace the statement “with RCS pressure < [500] psig” which is already marked for deletion (redline-strikeout). Unit 1 and Unit 2 ITS 3.4.3 Bases “B.1 and B.2” description will read “Pressure and temperature are reduced by placing the plant in MODE 3 within 6 hours and in MODE 5 with RCS pressure within the limits specified in Figure 3.4.3-2 within 36 hours.” The reference to JFD #1 will be changed to JFD #2.

Volume 10 – Section 3.5 (ADAMS Accession No. ML21265A295) Question 1

The application does not propose adopting STS 3.5.5, “TSP,” for PSL Unit 1, but does not include a Discussion for Deviation in a corresponding Attachment to Enclosure 2 Volume 10. This omission is inconsistent with the rest of the application.

FPL Response:

An ISTS Not Adopted attachment (new Attachment 6 to Enclosure 2, Volume 10), consistent with the rest of the application, will be added to Section 3.5 for PSL Unit 1 addressing ISTS 3.5.5, Trisodium Phosphate (TSP). The Section 3.5 ISTS Not Adopted attachment will include:

- Markup with redline-strikeout of ISTS 3.5.5, Trisodium Phosphate (TSP) for Unit 1 and JFD that states “ISTS 3.5.5, Trisodium Phosphate (TSP) specification is not needed for Unit 1 because TSP is not included in the PSL Unit 1 design and licensing basis for removal of iodine fission product inventory and control of pH in the containment sump during accident conditions. PSL Unit 1 utilizes the Spray Additive System to remove iodine fission product inventory and control pH in the containment sump during accident conditions.”
- Markup with redline-strikeout of ISTS 3.5.5, Trisodium Phosphate (TSP), Bases for Unit 1 and JFD that states “ISTS 3.5.5, Trisodium Phosphate (TSP) specification is not needed for Unit 1 because TSP is not included in the PSL Unit 1 design and licensing basis for removal of iodine fission product inventory and control of pH in the containment sump during accident conditions. PSL Unit 1 utilizes the Spray Additive System to remove iodine fission product inventory and control pH in the containment sump during accident conditions.”

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 1

On page 7/492 – PSL U1 CTS 3.6.1.2 markup is described in part by DOC A02. It appears that DOC A02 does not describe deleting the CTS 3.6.1.2 requirement to “restore the overall leakage rate ... prior to increasing the reactor coolant system temperature above 200F.” Provide justification for deleting this requirement.

FPL Response:

The requirement to restore overall leakage rate prior to increasing the reactor coolant system temperature above 200F is inherent in CTS 3.0.4 (ITS LCO 3.0.4) and the justification for deleting the requirement is an administrative change as a result of reformatting to the ISTS and justified by ITS 3.6.1 Discussion of Change (DOC) A01, which states, “In the conversion of the St. Lucie Plant (PSL) Unit 1 and Unit 2 Current Technical Specifications (CTS) to the plant specific Improved Technical Specifications (ITS), certain changes (wording preferences, editorial changes, reformatting, revised numbering, etc.) are made to obtain consistency with NUREG - 1432, Rev. 5.0, "Standard Technical Specifications – Combustion Engineering Plants" (ISTS). These changes are designated as administrative changes and are acceptable because they do not result in technical changes to the CTS.” Enclosure 2, Volume 11, Page 7/492 will be revised to add DOC A05 reference to the CTS 3.6.1.2 Action statement regarding restoration of overall leakage rate prior to increasing the reactor coolant system (RCS) temperature above 200°F. DOC A05 will be added to the ITS 3.6.1 Discussion of Changes after DOC A04 (Page 19/492):

A05 CTS 3.6.1.2 Action, in part, requires restoring the overall leakage rate to less than that specified by the Containment Leakage Rate Testing Program prior to increasing the Reactor Coolant System temperature above 200°F (i.e., MODE 4). Although not explicitly stated, if overall leakage rate is not within the limits of the Containment Leakage Rate Testing Program prior to increasing the RCS temperature above 200°F, the LCO is not met and CTS 3.0.4 (ITS LCO 3.0.4) would apply. ITS 3.6.1 ACTIONS do not include an explicit requirement to restoring the overall leakage rate to less than that specified by the Containment Leakage Rate Testing Program prior to increasing the Reactor Coolant System temperature above 200°F because it is inherently required by ITS LCO 3.0.4. This changes the CTS by deleting the Action to restore the LCO prior to increasing RCS temperature above 200°F (i.e., entering MODE 4).

This change is acceptable because CTS 3.0.4 (ITS LCO 3.0.4) already precludes entering the MODE of Applicability when the LCO is not met except: 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; or c) when an allowance is stated in the individual value, parameter, or other Specification. With overall leakage rate not within the limits specified in the Containment Leakage Rate Testing Program, none of the allowances provided in CTS 3.0.4 apply because the Technical Specification actions do not allow operation in MODE 4 for an unlimited period of time, a risk assessment cannot be performed and managed on a parameter outside limits, and there is no specific allowance stated in the Specification. Therefore, it is not necessary to include explicit requirements to restore the overall leakage rate to less than that specified by the Containment Leakage Rate Testing Program prior to increasing the Reactor Coolant System temperature above 200°F. This change is designated as administrative, because it does not result in a technical change to the CTS.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 2

On page 13/492 – PSL U1 CTS 3.6.1.2 markup is described in part by DOC A02. It appears that DOC A02 does not describe deleting the CTS 3.6.1.2 requirement to “restore the overall leakage rate ... prior to increasing the reactor coolant system temperature above 200F.” Provide justification for deleting this requirement.

FPL Response:

Page 13/492 will be revised to add DOC A05 reference to the Unit 2 CTS 3.6.1.2 Action statement regarding restoration of overall leakage rate prior to increasing the reactor coolant system (RCS) temperature above 200°F. DOC A05 as shown in FPL Response RSI 3.6-1 will be added to the ITS 3.6.1 Discussion of Changes after DOC A04 (Page 19/492).

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 3

On page 75/492 – PSL U2 B 3.6.2 markup to the Applicable Safety Analysis shows Pa as 43.43 psig. Based on CTS, it appears this Pa value is incorrect (see CTS 6.8.4.h for Containment Leakage Rate Testing Program; see also ITS 5.5.13.b).

FPL Response:

The correct Pa values are 42.77 psig (Unit 1) and 43.43 psig (Unit 2) based on Extended Power Uprate Project analyses. The submittal will be revised as follows:

- CTS Unit 1 SR 3.6.3.7 (Vol. 11 Page 126/492) pressure will be changed to 42.77.
- CTS Unit 2 SR 3.6.3.8 (Vol. 11 Page 136/492) pressure will be changed to 43.43.
- CTS Unit 1 6.8.4.h.a (Vol. 11 Page 95/492) pressure will be changed to 42.77.
- CTS Unit 2 6.8.4.h.a (Vol. 11 Page 105/492) pressure will be changed to 43.43.
- Unit 1 ITS 5.5.13.b, first sentence (Vol. 16 Page 157/296) pressure will be changed to 42.77.
- Unit 2 ITS 5.5.13.b, first sentence (Vol. 16 Page 185/296) pressure will be changed to 43.43.
- CTS Unit 1 6.8.4.h, second paragraph, first sentence (Vol. 16 Page 84/296) pressure will be changed to 42.77 with a reference to Discussion of Change (DOC) M04 added.
- CTS Unit 2 6.8.4.h, second paragraph, first sentence (Vol. 16 Page 108/296) pressure will be changed to 43.43 with a reference to DOC M04 added.

The following more restrictive DOC will be included in Discussion of Changes for ITS 5.5, "Programs and Manuals" (Vol. 16 Page 131/296), Discussion of Changes after DOC M03:

M04 Unit 1 CTS 6.8.4.h states, in part, that the peak calculated containment internal pressure for the design basis loss of coolant accident Pa, is 42.8 psig and Unit 2 CTS 6.8.4.h states, in part, that the peak calculated containment internal pressure for the design basis loss of coolant accident Pa, is 43.48 psig. Unit 1 ITS 5.5.13.b states, in part, that the calculated peak containment internal pressure for the design basis loss of coolant accident, Pa is 42.77 psig and Unit 2 ITS 5.5.13.b states, in part, that the calculated peak containment internal pressure for the design basis loss of coolant accident, Pa is 43.43 psig. This changes the CTS by revising the value of Pa to be consistent with the calculated peak containment internal pressure in the Unit 1 and Unit 2 analyses of record.

The purpose of the CTS requirement is to provide the plant specific value of Pa as defined in 10 CFR 50, Appendix J. The change is designated as more restrictive because it corrects a non-conservative Technical Specification value with respect to determining the allowable containment leakage limit, La.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 4

On page 102/492 – PSL U2 CTS 3.6.1.7 markup contains a NOTE that was not fully adopted by the corresponding ITS 3.6.3 ACTION E.2 Notes (page 132). It appears that ITS 3.6.3 ACTION E.2 Note 2 was deleted (part of CTS NOTE) without justification. Provide justification for deleting ITS 3.6.3 ACTION E.2 Note 2.

FPL Response:

Note 2 in proposed ITS 3.6.3 Required Action E.2 was inadvertently deleted in the ISTS 3.6.3 markup. Note 2 will be restored in Unit 2 ITS 3.6.3 consistent with the CTS 3.6.1.7 Action c.2 Note as follows:

- (Page 102/492) Unit 2 CTS 3.6.1.7 markup – ITS reference adjacent to the Note prior to CTS 3.6.1.7 Action c.2 will be revised to state ACTION E.2 NOTE 1 and 2.
- (Page 132/492) Unit 2 ISTS markup – Update Unit 2 ITS 3.6.3 ACTION E to restore the “S” in the word NOTES, restore the Note numbers 1 and 2, and restore Note 2, which states: “Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.”

In addition, associated changes will be made to the Unit 2 ITS Bases discussion for ACTION E.2 to include the retention of the Note in proposed ITS 3.6.3, as follows:

- (Page 170/492) Unit 2 ISTS Bases markup – Update the last paragraph associated with Unit 2 ITS 3.6.3 Bases ACTION E.1, E.2, and E.3 (pg. B 3.6.3-12) to remove the redline strikeout from the words, “two Notes,” and delete the additions “a” and “that” in the first two sentences and remove the redline strikeout from text, which states: “Note 2 applies to isolation devices that are locked, sealed, or otherwise secured in position and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since the function of locking, sealing, or securing components is to ensure that these devices are not inadvertently repositioned.” JFD #3 bracket will be adjusted to no longer apply to a Note 2 redline strikeout which is being removed.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 5

On page 149/492 – PSL U1 B 3.6.3 markup deletes the Reviewers Note related to purge valves. The note explains that the options for purge valve leakage are based primarily on the design. The justification for purge valve leakage did not address the Reviewers Note.

FPL Response:

The justification for deviation from ISTS 3.6.3 ACTION E (Unit 1 ITS 3.6.3 ACTION D) and the associated ISTS Bases considered the purge valve design of PSL Unit 1 and PSL Unit 2 and the brackets were removed in the ITS 3.6.3 markup and ITS 3.6.3 Bases markup as needed to support the purge valve design and testing capability as identified in the ISTS 3.6.3 ACTION E Bases Reviewer's Note. ITS 3.6.3 JFD #3 states, "The ISTS contains bracketed information and/or values that are generic to Combustion Engineering vintage plants. The brackets are removed, and the proper plant specific information/value is inserted to reflect the current licensing basis." JFD #3 associated with ITS 3.6.3 Bases contains an equivalent statement. As stated in Section 2.7.3 of NEI 96-06, "Improved Technical Specifications Conversion Guidance," dated August 1996 (ADAMS Accession No. 070810523) regarding deviations from the applicable ISTS, to the extent possible, deviations should be grouped. Common groupings are bracketed information, plant specific values, and generic changes.

The ISTS 3.6.3 ACTION E Bases Reviewer's Note provides NRC reviewer guidance for bracketed information intended to be used as-is or modified to describe specific plant design options. As such, there is no deviation from the NUREG-1432 guidance as the brackets specify incorporation of plant specific text within the bracketed areas specific to the plant design. FPL considered the Reviewer's Note and deletion of the Note is designated as not intended for inclusion in the ITS (ITS Bases JFD #4). FPL confirms that the ISTS text included in the brackets as marked for ITS 3.6.3 ACTION D reflects the Unit 1 facility design that only allows for testing of both purge valves simultaneously. As indicated in the Reviewer's Note, the Completion Time of 24 hours for purge valve leakage associated with ISTS 3.6.3 Required Action E.1 (ITS 3.6.3, Condition D.1) is adopted for PSL Unit 1 and ISTS ACTION F is not included based on plant design. FPL also confirms that the text as marked for Unit 2 reflects the Unit 2 facility design that does allow for testing both purge valves independently. Therefore, ISTS 3.6.3 ACTION F (ITS 3.6.3, ACTION E) is adopted for PSL Unit 2, consistent with Unit 2 plant design and CTS 3.6.1.7 Action c. ITS 3.6.3, Condition D represents a less restrictive change to both PSL Unit 1 and Unit 2 CTS and is discussed in ITS 3.6.3 DOC L08 (page 113/492). The differences in ITS 3.6.3 Required Actions associated with purge valve leakage between Units 1 and 2 reflect the specific design considerations as indicated in the Reviewer's Note. Therefore, in accordance with the NRC recommended conversion application guidelines specified in NEI 96-06, no additional justification is provided.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 6

On page 219/492 – PSL U1 B 3.6.3 Applicable Safety Analysis markup inserts temperature values without support. Provide the UFSAR reference (e.g., section, table, figure, page number, etc.) which supports confirmation of the associated temperature information.

FPL Response:

Unit 1 UFSAR Sections 3.8.2.1.2, 6.2.1.2, and Table 6.2-1C, confirm the Unit 1 containment design temperature and MSLB peak vapor temperature value. Revision 1 of the Unit 1 MSLB containment liner temperature analysis calculation for EPU conditions confirms the initial containment temperature input assumption and the peak temperature of the containment steel pressure vessel, which is below the maximum design steel shell temperature for the containment and bounds the peak containment vessel temperature value of the LOCA analysis.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 7

On page 224/492 – PSL U2 B 3.6.3 Applicable Safety Analysis markup inserts temperature values without support. Provide the UFSAR reference (e.g., section, table, figure, page number, etc.) which supports confirmation of the associated temperature information.

FPL Response:

Unit 2 UFSAR Section 5.2.2, Table 6.2-2, and Table 6.2-5 confirm the Unit 2 containment design temperature, peak main steam line break (MSLB) peak vapor temperature value, which bounds the peak containment vapor temperature value of the LOCA analysis, and the initial containment temperature input assumption. Revision 1 of the Unit 2 MSLB containment liner temperature analysis calculation for EPU conditions confirms the peak temperature of the containment steel pressure vessel, which is below the maximum design steel shell temperature for the containment and bounds the peak containment vessel temperature value of the LOCA analysis.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 8

On page 318/492 – PSL U2 SR 3.6.7.3. No basis for shield building flowrate and time limit values is provided in ITS SR 3.6.7.3. Provide the UFSAR reference (e.g., section, table, figure, page number, etc.) which supports confirmation of the associated information.

FPL Response:

The time limit value of 99 seconds is consistent with and confirmed by the time requirement in CTS 4.6.6.1.d.3. The flowrate range specified is equivalent to a nominal flowrate of 6000 cfm \pm 600 cfm (10%). This flowrate range is consistent with and confirmed by CTS 6.8.4.k.1, 2, and 4. UFSAR Table 6.2-48 also confirms a nominal value flowrate value for the Shield Building Ventilation System filters of 6000 cfm.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 9

On page 334/492 – PSL U2 B 3.6.7: SR Bases discussion for SR 3.6.7.3 provides a time limit value that differs from the actual SR. There should not be a difference between the actual SR and the SR Bases.

FPL Response:

The time (99 seconds) provided in ITS SR 3.6.7.3 is consistent with the time requirement in CTS 4.6.6.1.d.3. The ≤ 2 minutes provided in the ITS Bases is a typographical error and should indicate ≤ 99 seconds consistent with the SR. The ITS Bases will be revised to correct the typographical error.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 10

On page 354/492 – PSL U2 B 3.6.8 INSERT 1 adds American Society of Mechanical Engineers (ASME) Code information regarding “containment external pressure load” (1.05 psig) that is different from the ASME Code information provided in the PSL Unit 2 UFSAR (see page 3.8-10).

FPL Response:

The Unit 2 ITS 3.6.8 Bases indicated that the containment was rerated for an external pressure load equivalent to 1.05 psig in accordance with paragraph IWA-4331 of Section XI of the ASME Boiler and Pressure Vessel Code. IWA-4331 of ASME Code Section XI allowed the containment external pressure to be rerated. The containment was rerated for a new external pressure load equivalent using the original code of record, paragraph NE 3133 of ASME Code Section III, as specified in Unit 2 UFSAR Section 3.8.2.3 (pg. 3.8-10).

To provide consistency with the UFSAR and clarify the ASME Code used to calculate the rerated containment external pressure load equivalent, Insert 1 to the Unit 2 ITS 3.6.8 Bases will be revised as follows:

“in accordance with paragraph NE-3133.3 of ASME Boiler and Pressure Vessel Code, Section III (Ref. 2).”

In addition, the proposed Reference 2 of the Unit 2 ITS 3.6.8 Bases markup (pg. B 3.6.8-3, pdf file pg. 356/492) will be revised as follows:

“2. ASME Boiler and Pressure Vessel Code, 1971 and applicable Addenda through Summer 1972, Section III, Division 1, Subsection NE.”

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 11

On page 433/492 – PSL U1 SR 3.6.10.5 adds flow rate (gpm) information that is different from CTS SR 4.6.2.2.d (the ITS has a different flow band as compared to the CTS).

FPL Response:

The demineralized water flowrate band of +1.5 gpm specified in the Bases of ITS SR 3.6.10.5 is a typographical error. The flow and associated band should be 18 ± 1.5 gpm consistent with the value specified in CTS 4.6.2.2.d. This value will be revised in the Unit 1 ITS 3.6.10 Bases to reflect the CTS value of 18 ± 1.5 gpm.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 12

On page 233/492 and 238/492 Unit 1 and Unit 2 – CTS 3.6.2.1 Action 1.a (one containment spray train inoperable), has a restore time of 72 hours or in accordance with the Risk Informed Completion Time. The CTS markup proposed to change the restore time to 7 days or in accordance with the Risk Informed Completion Time. A discussion for this change is provided in ITS 3.6.6 DOC L01. The associated ISTS Bases 3.6.6 markup (see ITS Section 3.6.6 pdf page 271 (U1) or 286 (U2)) for this condition (one containment spray train inoperable) has a reviewer's note that states: "Utilization of the 7 day Completion Time for Required Action A.1 [one containment spray train inoperable] is dependent on the licensee adopting CE NPSD-1045-A (Ref. 6) and meeting the requirements of the Topical Report and the associated Safety Evaluation including the following commitment: "[LICENSEE] has enhanced its Configuration Risk Management Program, as implemented under 10 CFR 50.65(a)(4), the Maintenance Rule, to include a Large Early Release Fraction assessment to support this application." Otherwise, a 72 hour Completion Time applies." Based on ITS 3.6.6 DOC L01, it appears that there was no consideration given to adoption of CE NPSD-1045-A and the associated Safety Evaluation and commitment. Provide an explanation for why there was no discussion of the proposed change consistent with the ISTS Bases 3.6.6 described above. In addition, describe how the limitations specified in the Topical Report and in the associated NRC safety evaluation, as well as the commitment, are met or are not applicable.

FPL Response:

FPL did consider CE-NPSD-1045-A and associated commitments in the associated NRC safety evaluation during the development of ITS 3.6.6 DOC L01, which justified extending the Completion Time front stop from 72 hours to 7 days when one containment spray train is inoperable. PSL currently has an enhanced plant Configuration Risk Management Program (CRMP) implemented under 10 CFR 50.65(a)(4) and includes a Large Early Release Fraction (LERF) assessment to support safety related structures, systems and components (SSCs), including the Containment Spray System. The Containment Spray System and its components are considered within the scope of PRA, and modeled for contribution to core damage frequency and LERF calculations. Additionally, CRMP online risk models include the Containment Spray System SSCs for 10 CFR 50.65(a)(4) and Risk Informed Completion Time calculations. The Unit 1 and Unit 2 CRMP and technical adequacy of the PRA models used in the CRMP were reviewed by the NRC and determined to be acceptable as described in the safety evaluation associated with the Risk Informed Completion Time Amendments 247 and 199, for Unit 1 and Unit 2, respectively (NRC ADAMS Accession No. ML19113A099). Therefore, the PSL CRMP supports extending the Completion Time front stop from 72 hours to 7 days when one containment spray train is inoperable. FPL has not identified any other limitations or commitments specified in Topical Report CE-NPSD-1045-A or the associated NRC safety evaluation.

The following changes will be made to the Unit 1 and Unit 2 ITS 3.6.6 Bases markups to restore Topical Report CE-NPSD-1045-A as a reference.

- (Pages 271/492 and 286/492) Restore redline strikeout phrase in last sentence of ACTION A.1 and change Ref. 6 to Ref. 3 to state; "... , and the findings of Ref. 3."
- (Pages 272/492 and 287/492) Revise proposed change regarding Reference 7 from "3" to "4" in the ACTION C.1 Bases.
- (Pages 279/492 and 294/492) Revise proposed change regarding Ref. 9 from "4" to "5" in the SR 3.6.6.6 Bases.

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- (Pages 281/492 and 296/492) Restore redline strikeout of topical report CE-NPSD-1045-A, "CEOG Joint Application Report for Modification to the Containment Spray System Technical Specifications," March 2000. Renumber reference list as follows: Reference 6 to 3, Reference 7 to 4, and Reference 9 to 5.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 13

On page 385/492 – CTS SR 4.6.6.1.d.4 requires verifying that each system (shield building ventilation system) achieves a negative pressure greater than a specified value in the fuel storage building after actuation of a signal. The proposed ITS SR that appears to satisfy CTS SR 4.6.6.1.d.4 is ITS SR 3.6.9.5. However, ITS SR 3.6.9.5 does not require verifying that each shield building ventilation system can produce the negative pressure. Therefore, it appears that the ITS SR is less restrictive than the CTS SR and there is no justification provided. Please evaluate and provide the justification for this apparent less restrictive change.

FPL Response:

On page 385/492 – The Unit 2 ITS SR 3.6.9.5 Surveillance insert will be changed from “... one SBVS train ...” to “... each SBVS train ...” and the new insert will read:

“Verify each SBVS train can maintain a negative pressure ≥ 0.125 inches water gauge in the fuel handling building after actuation of a fuel pool area high radiation signal.”

No change to the Unit 2 SR 3.6.9.5 Bases is required.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 14

On page 316/492 – CTS SR 4.6.6.1.c.4 requires that each system (shield building ventilation system) produces a negative pressure (greater than or equal to a specified value) in the annulus within a specified time after a start signal. The proposed ITS SR that appears to satisfy this CTS requirement is ITS SR 3.6.7.3. However, ITS SR 3.6.7.3 does not require to verify that each shield building ventilation system can produce the negative pressure and timing requirements. Therefore, it appears that the ITS SR is less restrictive than the CTS SR and there is no justification provided. Please evaluate and provide appropriate justification for this apparent less restrictive change.

FPL Response:

Consistent with the ISTS SR 3.6.11.4, ITS SR 3.6.7.3 verifies that Shield Building Ventilation System (SBVS) can produce the required negative pressure in the shield building using one train. This ensures that only one train is used to develop the negative pressure. The standard ISTS Frequency is "[18] months on a STAGGERED TEST BASES for each..." ensures that each train is tested. CTS 4.6.6.1.c.4 is performed in accordance with the Surveillance Frequency Control Program with a frequency of 18 months. A less restrictive change will be added to allow the verification of shield building annulus pressure to be performed by each SBVS train on a Staggered Test Basis to ensure each train is tested but on a less frequent basis. CTS 4.6.6.1.c.4 markup (page 304/492) will be revised to ~~strikeout~~ the word "each" and include a reference to proposed DOC L02. The following Discussion of change will be added after ITS 3.6.7 DOC L01.

L02 **Unit 1 Only** (*Category 7 – Relaxation of Surveillance Frequency*) CTS 4.6.1.1.c.4 requires a drawdown of the shield building annulus by each Shield Building Ventilation System (SBVS) train to within limits in accordance with the Surveillance Frequency Control Program. The Frequency in accordance with the Surveillance Frequency Control Program for PSL Unit 1 is "at least once per 18 months." ITS SR 3.6.7.3 requires a drawdown of the shield building to within limits using one SBVS train." The specified Surveillance Frequency in accordance with the Surveillance Frequency Control Program is proposed to be changed to "36 months on a Staggered Test Basis for each SBVS train" consistent with the ISTS 3.6.11.4 (ITS 3.6.7.3) Frequency as modified by the CTS 1.32 definition of "Staggered Test Basis." This change continues to require each SBVS train to be tested but changes the CTS by allowing the drawdown test for each SBVS train to be performed less frequently.

The purpose of CTS 4.6.6.1.c.4 is to verify the integrity of the shield building boundary by ensuring the shield building annulus can be rapidly drawn to a negative pressure of at least -2.0 inches water gauge. Therefore, this is a test of shield building integrity and does not need to be performed every 18 months using each SBVS train. Staggering use of the SBVS train every 18 months (i.e., 36 months total) will ensure both trains are capable of producing the proper negative pressure in the shield building annulus. This change is acceptable because performing the drawdown test using one train of SBVS every 18 months will adequately verify shield building integrity. OPERABILITY of SBVS will be maintained through the application of the requirements of ITS 3.6.9, Shield Building Ventilation System (SBVS). This change is designated as less restrictive because the shield building annulus drawdown Surveillance will be performed less frequently with each SBVS train under the ITS than under the CTS.

Volume 11 – Section 3.6 (ADAMS Accession No. ML21265A296) Question 15

On page 318/492 – CTS SR 4.6.6.1.d.3 requires that each system (shield building ventilation system) produces a negative pressure (greater than or equal to a specified value) in the annulus within a specified time after a start signal. The proposed ITS SR that appears to satisfy this CTS requirement is ITS SR 3.6.7.3. However, ITS SR 3.6.7.3 does not require to verify that each shield building ventilation system can produce the negative pressure and timing requirements. Therefore, it appears that the ITS SR is less restrictive than the CTS SR and there is no justification provided. Please evaluate and provide appropriate justification for this apparent less restrictive change.

FPL Response:

Consistent with the ISTS SR 3.6.11.4, ITS SR 3.6.7.3 verifies that Shield Building Ventilation System (SBVS) can produce the required negative pressure in the shield building using one train. This ensures that only one train is used to develop the negative pressure. The standard ISTS Frequency is "[18] months on a STAGGERED TEST BASES for each..." ensures that each train is tested. CTS 4.6.6.1.d.3 is performed in accordance with the Surveillance Frequency Control Program with a frequency of 36 months on a Staggered Test Basis. Based on the CTS 1.32 definition of Staggered Test Basis, the stated Frequency ensures that the drawdown test is performed every 18 months, with each train being tested every 36 months. Therefore, it is unnecessary to explicitly state that "each" system produce a negative pressure. An administrative change will be added to clarify that each SBVS train will continue to be performed on a Staggered Test Basis. CTS 4.6.6.1.d.3 markup (page 308/492) will be revised to strikeout the word "each" and include a reference to proposed DOC A04. The following Discussion of change will be added after ITS 3.6.7 DOC A03.

A04 **Unit 2 Only** CTS 4.6.1.1.d.3 requires a drawdown of the shield building annulus by each Shield Building Ventilation System (SBVS) train to within limits in accordance with the Surveillance Frequency Control Program. The Frequency in accordance with the Surveillance Frequency Control Program for PSL Unit 2 is "at least once per 36 months on a Staggered Test Basis." ITS SR 3.6.7.3 requires a drawdown of the shield building to within limits using one SBVS train."

The purpose of CTS 4.6.6.1.c.4 is to verify the integrity of the shield building boundary by ensuring the shield building annulus can be rapidly drawn to a negative pressure of at least -2.0 inches water gauge. Staggering use of the SBVS train every 18 months (i.e., 36 months total) will ensure both trains are capable of producing the proper negative pressure in the shield building annulus. The specified Surveillance Frequency "on a Staggered Test Basis" continues to require each SBVS train to be tested. Therefore, this change is designated as administrative.

Volume 12 – Section 3.7 (ADAMS Accession No. ML21265A297) Question 1

LCO 3/4.7.6 “Flood Protection” is proposed to be deleted from Unit 2 TS but is not discussed in Volume 12 of the application. Provide a discussion of changes for this item including a 10 CFR 50.36(c)(2)(ii) Criteria Evaluation.

FPL Response:

Discussion of relocation related to Unit 2 CTS 3/4.7.6, Flood Protection is provided in Enclosure 2, Volume 1 (Split Report), Appendix A. This discussion provides the 10 CFR 50.36(c)(2)(ii) Criteria Evaluation.

For consistency with the application, Attachment 18 to Enclosure 2, Volume 12 will be updated to include a CTS markup and Discussion of Change addressing the relocation of Unit 2 CTS 3/4.7.6, Flood Protection. The revised attachment will include:

- Unit 2 CTS 3/4.7.6 markup (Unit 2 CTS pg. 3/4 7-17) with redline strikeout and reference to DOC R01.
- Discussion of Changes Unit 2 CTS 3/4.7.6, Flood Protection with the following DOC R01:

R01 External flooding during hurricane conditions is not designated as a PSL DBA or transient event. In addition, external flooding due to a hurricane is not postulated to occur during any DBA or transient, thus water level (as it pertains to wave run up effects during a hurricane) is not credited in any safety analysis. The Flood Protection Technical Specification requirements ensure that facility protective actions will be taken in the event of flood conditions whenever a hurricane warning is issued. The installation of the stoplogs ensures adequate protection for wave run-up effects where no permanent adjacent structures exist and provides protection to safety-related equipment.

The ITS does not include this Specification. This changes the CTS by relocating this Specification to the Technical Requirements Manual (TRM). This change is acceptable because the Flood Protection Specification does not meet the 10 CFR 50.36(c)(2)(ii) criteria for inclusion into the ITS.

10 CFR 50.36(c)(2)(ii) Criteria Evaluation:

1. Flood protection requirements are not used for, nor capable of, detecting a significant abnormal degradation of the reactor coolant pressure boundary prior to a DBA.
2. Flood protection requirements are not process variables that are initial conditions of a DBA or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
3. Flood protection requirements are not part of the primary success path that functions or actuates to mitigate a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
4. The specific requirements specified in the Flood Protection Specification related to a hurricane are found to be non-significant risk contributors to core damage frequency and offsite releases and do not represent structures, systems, or components which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Since the screening criteria have not been satisfied, the Flood Protection Specification may be relocated to a licensee controlled document outside the Unit 2 Technical Specifications. A general requirement associated with hazard barriers (ITS LCO 3.0.9), which includes external flooding barriers, is added to ITS Section 3.0. A hazard barrier that cannot perform its related support function will be evaluated and managed under the Maintenance Rule plant configuration control requirement, 10 CFR 50.65(a)(4), and associated industry guidance, NUMARC 93-01, Revision 4A. Changes to the TRM will be controlled by the provisions of 10 CFR 50.59. This change is designated as relocation because the Specification does not meet the criteria in 10 CFR 50.36(c)(2)(ii) and has been relocated to the TRM.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 1

On page 96 and 97/540 – Unit 1 Bases Insert 3 contains details related to power supply capabilities, which appear to describe alternative paths to create an operable offsite circuit. There does not appear to be an SR to test the alternative path to create an offsite circuit. Unit 2 Bases markup contains a similar Insert. Please provide discussions of the existing licensing basis relative to offsite sources and whether or not an evaluation was performed to determine if a SR is necessary to verify this path remains operable.

FPL Response:

The description of the alternate offsite circuit path from the opposite unit startup transformer provided in Unit 1 and Unit 2 ITS 3.8.1 Bases is adapted from CTS 3.8.1.1, Action f proposed for relocation per DOC LA02. As described in DOC LA02, the configuration discussion in CTS 3.8.1.1, Action f allows for alignment of one unit's startup transformer to satisfy one of the two qualified offsite circuits requirement of CTS 3.8.1.1 for the other unit. This description regarding the alternate offsite circuit path was implemented as part of Amendment No. 103, "St. Lucie Unit 1 – Issuance of Amendment Re: Diesel Generator Reliability (TAC No. 75505)," dated June 7, 1990 (ADAMS Accession No. ML013550091) and Amendment No. 39, "St. Lucie Unit 2 – Issuance of Amendment Re: Diesel Generator Reliability (TAC Nos. 59634 and 64190)," dated February 7, 1989 (ADAMS Accession No. ML013600246). These amendments formed the existing licensing basis of the alternate circuit path from the opposite unit startup transformer.

As stated in proposed Insert 1 to the ITS 3.8.1 Bases, AC power can be supplied from an opposite unit startup transformer by manually aligning the opposite unit startup transformer (i.e., removing and installing the startup transformer feeder breaker in a different breaker cubicle) to the unit 4.16 kV ESF bus. SR 3.8.1.1 ensures the offsite circuit is OPERABLE by verifying correct breaker alignment and indicated power availability for the alternate offsite circuit path. Therefore, no additional surveillances were added as licensed in Amendments 103 and 39 for Units 1 and 2, respectively.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 2

On page 98/540 – Unit 1 Bases Insert 4 contains statements related to a start up transformer's compliance with criterion for shared systems between units when aligned to ESF buses of both units. There does not appear to be a reference to Current Licensing Basis documentation to support the statements added to the Bases. Please provide a reference to Current Licensing Basis documentation to support the statements for Unit 1 and Unit 2 Bases.

FPL Response:

Unit 1 UFSAR Subsection 1.2.6 (pg. 1.2-22) and Unit 2 UFSAR Subsection 1.2.4 (pg. 1.2-15) confirm the statement, "Each startup transformer set (1A-2A, 1B-2B) is provided with a manual switching arrangement that permits powering the associated Class 1E electrical distribution subsystem from either unit's startup transformer." Unit 1 UFSAR Subsection 8.2.1.3 (pg. 8.2-2) and Unit 2 Subsection 8.2.1.5 (pgs. 8.2-3 and 8.2-4) confirm the statement, "A single startup transformer is adequate to accommodate the emergency and auxiliary loads of a unit during a postulated DBA."

The last sentence of Insert 4 of the ITS 3.8.1 Bases markup is adapted from CTS 3.8.1.1, Action f proposed for relocation per DOC LA02 and is confirmed by the electrical plant design that consists of two 4.16 kV breakers between three 4.16 kV breaker cubicles, which physically prevents supplying power from a single startup transformer to the Unit 1 and Unit 2 4.16 kV ESF buses simultaneously. This description regarding the alternate offsite circuit path was implemented as part of Unit 1 Amendment No. 103 (ADAMS Accession No. ML013550091) and Unit 2 Amendment No. 39 (ADAMS Accession No. ML013600246). These amendments formed the existing licensing basis of the alternate circuit path from the opposite unit startup transformer.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 3

On pages 42 and 43/540 – DOC L03 does not state that TSTF-422 was explicitly approved for CTS 3.8.1 Action f. More justification may need to be presented in DOC L03.

FPL Response:

As described in CTS 3.8.1.1 DOC LA02, the configuration discussion in CTS 3.8.1.1, Action f allows for alignment of one unit's startup transformer to satisfy one of the two qualified offsite circuits requirement of CTS 3.8.1.1 for the other unit. Following moving this information to the ITS Bases to describe the alternate circuit path from the opposite unit's startup transformer, the condition described in CTS 3.8.1 Action f is equivalent to CTS 3.8.1.a (i.e., one offsite circuit inoperable). DOC L03 explains that Action a was previously approved when adopting TSTF-422. This change combines Action f with the requirements of Action a since they are equivalent. Therefore, no additional technical analysis is needed to justify the change of the end state because the end state condition with one required offsite circuit inoperable was previously evaluated and approved in Amendments 234 and 184 (ADAMS Accession No. ML16210A374) for Units 1 and 2, respectively.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 4

On page 209/540 – Unit 1 and 2 Bases Insert 1 contains details related to power supply capabilities, which appear to describe alternative paths to create an operable offsite circuit. There does not appear to be an SR to test the alternative path to create an offsite circuit. Unit 2 Bases markup contains a similar Insert. Please provide discussions of the existing licensing basis relative to offsite sources and whether or not an evaluation was performed to determine if a SR is necessary to verify this path remains operable. This Insert also exists in Bases for ITS 3.8.1.

FPL Response:

The description of the alternate offsite circuit path from the opposite unit startup transformer provided in Unit 1 and Unit 2 ITS 3.8.2 Bases is adapted from CTS 3.8.1.1, Action f proposed for relocation per DOC LA02. As described in DOC LA02, the configuration discussion in CTS 3.8.1.1, Action f allows for alignment of one unit's startup transformer to satisfy one of the two qualified offsite circuits requirement of CTS 3.8.1.1 for the other unit. This description regarding the alternate offsite circuit path was implemented as part of Unit 1 Amendment No. 103 (ADAMS Accession No. ML013550091) and Unit 2 Amendment No. 39 (ADAMS Accession No. ML013600246). These amendments formed the existing licensing basis of the alternate circuit path from the opposite unit startup transformer. Unit 1 UFSAR Subsection 8.2.1.3 and Unit 2 UFSAR Subsection 8.2.1.5 state that a single startup transformer is adequately sized to accommodate the outage auxiliary loads of both units. Therefore, it is acceptable for a single startup transformer to supply power to both the Unit 1 and Unit 2 4.16 kV ESF buses simultaneously when both units are in MODES 5 or 6 or defueled.

LCO 3.8.2 requires, in part, one qualified circuit between the offsite transmission network and the onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.10, "Distribution Systems Shutdown." SR 3.8.2.1 requires the SRs of Specification 3.8.1, "AC Sources – Operating," for AC sources required to be OPERABLE to meet LCO 3.8.2 (with exceptions). SR 3.8.1.1, which is required via SR 3.8.2.1, ensures the single required offsite circuit is OPERABLE when the unit is in MODE 5 or 6, or during movement of irradiated fuel assemblies, by verifying correct breaker alignment and indicated power availability for the offsite circuit required to meet LCO 3.8.2. This Surveillance Requirement would apply to any alternate offsite circuit path described in proposed Insert 1 of the ITS 3.8.2 Bases markup. Therefore, no additional Surveillance Requirement is needed for ITS 3.8.2 to confirm the single required offsite circuit is OPERABLE.

Backfeeding power through the unit auxiliary transformer is utilized as an additional offsite source when the unit is not in MODE 1, 2, 3, 4 for defense in depth but will not be credited as a qualified offsite source for the purposes of meeting LCO 3.8.2 at this time.

Insert 1 to the Bases of ITS 3.8.2 will be revised to remove the discussion regarding crediting backfeeding power through the unit auxiliary transformer. The second sentence of Insert 1 (pages 209/540 and 216/540) will be revised to state:

“Alternately, when the unit startup transformer is unavailable, the associated offsite circuit may be supplied from the opposite unit startup transformer via the associated non-ESF buses.”

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 5

On pages 243 and 252/540 – There is no explicit SR text in SR 3.8.3.1 to test and verify the capability to move oil between Unit 1 tanks or Unit 2 excess supply. Please provide more explanation regarding DFO licensing basis and why there is no explicit SR text to test and verify the capability to move oil between Unit1 tanks or Unit 2 excess supply. While the proposed ITS Bases for U1 SR 3.8.3.1 mentions implied requirements, the proper location for requirements is in the TS themselves, Bases should explain the reason for the test.

FPL Response:

On January 27, 2020, the U.S. Nuclear Regulatory Commission (the Commission) issued Amendment Nos. 250 and 202 to Renewed Facility Operating License Nos. DPR-67 and NPF-16 for the St. Lucie Plant, Unit Nos. 1 and 2, respectively (ADAMS Accession No. ML1926A072). The amendments change the technical specifications in response to the application from Florida Power & Light Company dated December 20, 2018 (ADAMS Accession No. ML18354A901), as supplemented by letter dated June 28, 2019 (ADAMS Accession No. ML19179A132).

The amendments revise the technical specifications to allow for the performance of selected emergency diesel generator surveillance requirements during power operation and relocate two surveillance requirements, for each unit, to licensee control. Specifically, one change relocates the emergency diesel generator (EDG) fuel oil transfer pump cross-connection testing to plant procedural control whereby future changes will be subject to 10 CFR 50.59 requirements. The relocated Surveillances, Unit 1 SR 4.8.1.1.2.e.10 and Unit 2 SR 4.8.1.1.2.e.11, required verification of capability of transferring fuel from each fuel storage tank to the engine mounted tank via the cross-connection pipe. The FPL license amendment request and FPL Request for Additional information (RAI) response, specifically EEOB-RAI-4 response, provide justification for the relocated Surveillances.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 6

On page 432/540 – The reviewer's note mentions MODE 4 end states require commitments to follow guidance in NUMARC 93-01 and WCAP-16364-NP. Since U1 did not have an inverter spec previously, please confirm the commitments made during TSTF-422 adoption for Unit 2 will apply to Unit 1 with respect to inverters. The commitments are not mentioned in Enclosure 5.

FPL Response:

As stated in Enclosure 1 of the PSL ITS Conversion LAR, FPL adopted TSTF-422, "Change in Technical Specifications End States (CE NPSD-1186)," Revision 2, with application of site-specific variations and deviations from TSTF-422, on August 30, 2016, in License Amendments 234 and 184, for Unit 1 and Unit 2 respectively (NRC ADAMS Accession No. ML16210A374).

FPL conducts risk assessments using the procedures and guidance endorsed by Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." Regulatory Guide 1.160, Revision 3, endorses the guidance in Section 11 of NUMARC 93-01, Revision 4A. As stated in the safety evaluation accompanying the TSTF-422 End-State amendments, FPL also reviewed the supporting Topical Report WCAP-16364-NP, Revision 2. The NRC staff concluded that PSL's commitment to Regulatory Guide 1.160 guidance is acceptable for application of TSTF-422. PSL has committed to conduct risk assessments using the procedures and guidance endorsed by Regulatory Guide 1.160, Revision 3, and follow the guidance established in Section 11 of NUMARC 93-01.

Note: Requirements associated with inverters are proposed to be added to the Unit 1 CTS in a separate license amendment request PSL LAR L-2020-164, "Allow Risk Informed Completion Times (RICT) for the 120-Volt AC Instrument Bus Requirements," (ADAMS Accession No. ML20356A16. This license amendment is expected to be approved in January 2022.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 7

On pages 490 and 499/540 – The final sentence of Insert 1 to the Bases states “...are not required to be entered, since LCO 3.0.6 allows this exception...” This is a partially inaccurate paraphrase of the LCO 3.0.6 exception to LCO 3.0.2. Insert 1 fails to acknowledge the other portion of LCO 3.0.6 which requires an evaluation in accordance with the Safety Function Determination Program. To prevent confusion between LCO requirements in TS and the reason for the requirements in TS Bases, this Insert should be deleted.

FPL Response:

Insert 1 to the ITS 3.8.9 Bases provides clarification on what Specifications apply based on whether an inoperable electrical bus is listed or not listed in Table B 3.8.9-1. Insert 1 to Unit 1 and Unit 2 ITS 3.8.9 Bases markup (pgs. 490/540 and 499/540) and the associated reference to Insert 1 on ITS 3.8.9 Bases page B 3.8.9-3 (pgs. 489/540 and 498/540) will be deleted.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 8

On pages 188, 189, 190, 191, and 198/540 – The markup of the Applicability statement of CTS 3.8.1.2, “[AC Sources –] Shutdown,” for PSL Unit 1 shows addition of “During movement of irradiated fuel assemblies.” For PSL Unit 2, the markup of the Applicability statement of CTS 3.8.1.2 shows addition of “During movement of recently irradiated fuel assemblies.” The markups indicate that these changes for both units are addressed by DOC M01; however, this DOC does not address the use of the word “recently,” which was introduced by TSTF-51.

The markup of the Applicability of STS 3.8.2, “AC Sources – Shutdown,” for both units indicates that the bracketed word “recently” is not adopted in ITS 3.8.2 by lining it out, as shown: “During movement of [recently] irradiated fuel assemblies.” The word “recently” is also included in brackets in STS 3.8.2 Required Actions A.2.1 and B.1 (which both state: “Suspend movement of [recently] irradiated fuel assemblies. Immediately”). The markup indicates that these differences for both units are addressed by Specification JFD 2. JFD 2 does not explicitly explain the omission of “recently.”

The related passages in the STS 3.8.2 Bases, which are also not being adopted, are called out in Issue 11, which should be treated as part of Issue 10.

Note that the Applicability of Unit 1 CTS 3.9.4 and Unit 2 CTS 3.9.9, is the same as for STS 3.9.3, “Containment Penetrations,” and is “During movement of recently irradiated fuel within the containment.” And ITS 3.9.3 for both units maintains this Applicability as well as use of the phrase “recently irradiated fuel.” Since it appears that for this Specification, the CTS have previously adopted TSTF-51, with deviations, the licensee is requested to summarize in appropriate JFDs for all affected ITS Subsections the PSL implementation of deviations from TSTF-51, and where the post-shutdown irradiated fuel decay time value is located and how it is controlled to ensure the assumption of the UFSAR Fuel Handling Accident analysis is respected.

FPL Response:

The use of the word “recently” in the Unit 2 CTS 3.8.1.2 markup (pg. 189/540) is a clerical error. The inserted statement will be revised to reflect the Applicability of Unit 2 ITS 3.8.2 and the inserted statement in the Unit 1 CTS 3.8.1.2 markup to state, “During movement of irradiated fuel assemblies.”

The bracketed word “[recently]” in the Applicability and ACTIONS of ISTS 3.8.2 is not included in ITS 3.8.2 consistent with PSL current licensing and analysis basis. FPL relaxed the containment penetration, containment isolation, the Unit 1 Fuel Pool Ventilation System, and Unit 2 Shield Building Ventilation System Technical Specification requirements based on TSTF-51, “Revise containment requirements during handling irradiated fuel and core alterations,” Revision 2, on August 30, 2002, in License Amendments 184 and 127, for Unit 1 and Unit 2 respectively (NRC ADAMS Accession No. ML022420403). These license amendments did not include relaxation of the Control Room Emergency Ventilation System (CREVS) Technical Specification requirements.

Unit 1 CTS 3.7.1.1 and Unit 2 CTS 3.7.7 require the CREVS to be OPERABLE during movement of irradiated fuel assemblies. As indicated in Unit 1 UFSAR Subsection 15.4.3 and Table 15.4.3-1 and Unit 2 UFSAR Subsection 15.7.4.1.2 and Table 15.7.4.1-4, the fuel handling accident (FHA) analysis assumes operation of the Control Room Emergency Ventilation System in the mitigation of the FHA to ensure dose to the operator in the control room is within the limits of 10 CFR 50, Appendix A, General Design Criterion 19. Since the CREVS is required to be OPERABLE during movement of irradiated fuel, irrespective of whether the fuel movement is recent (i.e., fuel exposed to a critical core within 72 hours) or non-recent, the Applicability of ITS 3.8.2 is maintained

consistent with the Applicability of the CREVS Specification (CTS 1 CTS 3.7.1.1 and Unit 2 CTS 3.7.7 – ITS 3.7.10). Additionally, the Applicability of ITS 3.8.5, “DC Sources – Shutdown,” 3.8.8, “Inverters – Shutdown,” and 3.8.10, “Distribution Systems – Shutdown,” also include “During movement of irradiated fuel assemblies.” consistent with the Applicability of the CREVS Specification (ITS 3.7.10) and associated actuation instrumentation (ITS 3.3.7). Since the PSL Class 1E Electrical Power System is needed to support CREVS during movement of irradiated fuel assemblies regardless of whether associated with recent or non-recent irradiated fuel assemblies based on current licensing basis, the bracketed word “[recently]” in the Applicability of ITS 3.8.2, 3.8.5, 3.8.8, and 3.8.10 is removed and justified by JFD #2 which states, “The ISTS contains bracketed information and/or values that are generic to all Combustion Engineering vintage plants. The brackets are removed, and the proper plant specific information/value is inserted to reflect the current licensing basis.”

The post-shutdown irradiated fuel decay time requirement is provided in CTS 3/4.9.3, Decay Time. As shown in the Split Report (Enclosure 2, Volume 1 of the ITS Conversion LAR), CTS 3/4.9.3 is proposed for deletion.

Due to compiling error, Attachment 7 was not included in Enclosure 2, Volume 14 (Refueling Operations) in the ITS Conversion LAR submittal. Enclosure 2, Volume 14 (Refueling Operations) will be revised to include Attachment 7 which provides a markup of Unit 1 and Unit 2 CTS 3/4.9.3, “Decay Time,” indicating a removal of detail change with reference to DOC LA01. The following DOC LA01 will also be included in Attachment 7:

LA01 *(Type 4 – Removal of LCO, SR, or other TS Requirement to the TRM, UFSAR, ODCM, NQAP, CLRT Program, IST Program, or ISI Program)* CTS 3/4.9.3 provides requirements associated with Decay Time. Specifically, CTS 4.9.3 requires a determination of verifying that the reactor has been subcritical for at least 72 hours by a verification of the date and time of subcriticality prior to movement of irradiated fuel in the reactor pressure vessel. With the reactor subcritical for less than 72 hours, the CTS 3.9.3 Action requires suspension of all operations involving movement of irradiated fuel in the reactor pressure vessel (RPV). ITS does not include a requirement for decay time. This changes the CTS by moving the explicit decay time requirements from the Technical Specifications to the Technical Requirements Manual (TRM).

The purpose of CTS 3/4.9.3 is to ensure that sufficient time has elapsed to allow radioactive decay of the short-lived fission products in the irradiated fuel consistent with the assumptions used in the fuel handling accident analysis. The removal of this administrative control detail from the Technical Specifications is acceptable because this type of information is not necessary to provide adequate protection of public health and safety. It is improbable to move irradiated fuel within 72 hours from entering MODE 3 (i.e., $k_{eff} < 0.99$) because of the physical time required to perform plant shutdown, cooldown, depressurize the Reactor Coolant System (RCS), and the additional operations required prior to moving recently irradiated fuel in the reactor vessel (e.g., containment entry, removal of vessel head, removal of vessel internals, etc.). Therefore, movement of irradiated fuel prior to the 72 hour decay is precluded. Thus, it is unnecessary to retain the decay time requirement in Technical Specifications. ITS retains Specifications to mitigate a fuel handling accident associated with the movement of recently irradiated fuel, which encompasses the unlikely movement of fuel prior to a decay period of 72 hours. Specifically, Specifications associated with the following systems will ensure these systems are OPERABLE during movement of recently irradiated fuel:

- engineered safety feature ventilation systems, the Unit 1 fuel building ventilation system, and associated instrumentation actuation functions;

- control room emergency ventilation system and associated instrumentation actuation functions;
- reactor vessel and spent fuel pool minimum water level;
- containment penetration requirements and associated containment isolation instrumentation; and
- electrical systems needed to support systems listed herein.

The administrative requirement to determine that the reactor has been subcritical for at least 72 hours by verification of the date and time of subcriticality prior to movement of irradiated fuel in the RPV will be relocated to the TRM, along with the action requirement to immediately suspend irradiated fuel movement in the unlikely event that irradiated fuel movement did occur < 72 hours from subcriticality. Any change to the decay time input assumption in the fuel handling accident analysis will be evaluated pursuant to the criteria of 10 CFR 50.59 c(2). This change is acceptable because the removed information will be adequately controlled in the TRM. Changes to the TRM are controlled by the provisions of 10 CFR 50.59, which ensures changes are properly evaluated. This change is designated as a less restrictive removal of detail change because a requirement is being removed from the Technical Specifications.

Volume 13 – Section 3.8 (ADAMS Accession No. ML21265A298) Question 9

On pages 206, 207, 208, 210, 213, 214, 215, 217, and 220/540 – The markup of STS B 3.8.2 for ITS B 3.8.2 for both units shows by redline-strikeout the non-adoption of the bracketed word “recently” in the phrase “...during movement of [recently] irradiated fuel assemblies...” This marked up phrase is shown as indicated in the ‘Applicable Safety Analyses’ (ASA) and ‘Applicability’ Bases sections, initial paragraph; the ASA section also shows by redline-strikeout the non-adoption of the bracketed STS B 3.8.2 passage: “[involving handling recently irradiated fuel. Due to radioactive decay, AC electrical power is only required to mitigate fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous [X] days)]”; the LCO Bases section markup first paragraph shows by redline-strikeout the non-adoption of the bracketed STS B 3.8.2 passage: “[involving handling recently irradiated fuel]”; the initial paragraph of the Applicability Bases section markup also shows by redline-strikeout the non-adoption of the bracketed STS B 3.8.2 passage: “[involving handling [recently] irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous [X] days)]”; the markup of the Bases for STS 3.8.2 Required Actions A.1, A.2.1, and B.2, for both units, shows by redline-strikeout the non-adoption of the bracketed word “recently” in the phrase “...[recently] irradiated fuel...”

The STS 3.8.2 Bases markups indicate that these differences for both units are addressed by Bases JFD 2. JFD 2 does not explicitly explain the omission of “recently” and the above noted passages. Address this with related comment for ITS Specification 3.8.2.

FPL Response:

As noted in FPL Response 3.8-8, the bracketed word “[recently]” in the Applicability and ACTIONS of ISTS 3.8.2 is not included in ITS 3.8.2 consistent with PSL current licensing and analysis basis. Unit 1 CTS 3.7.1.1 and Unit 2 CTS 3.7.7 require the Control Room Emergency Ventilation System to be OPERABLE during movement of irradiated fuel assemblies. Since the CREVS is required to be OPERABLE during movement of irradiated fuel, irrespective of whether the fuel movement is recent (i.e., fuel exposed to a critical core within 72 hours) or non-recent, the Applicability of ITS 3.8.2 is maintained consistent with the Applicability of the CREVS Specification (CTS 1 CTS 3.7.1.1 and Unit 2 CTS 3.7.7 – ITS 3.7.10). Since the PSL Class 1E Electrical Power System is needed to support CREVS during movement of irradiated fuel assemblies regardless of whether associated with recent or non-recent irradiated fuel assemblies based on current licensing basis, the bracketed word “[recently]” in the Applicability of ITS 3.8.2, 3.8.5, 3.8.8, and 3.8.10 is removed and justified by JFD #2 which states, “The ISTS contains bracketed information and/or values that are generic to all Combustion Engineering vintage plants. The brackets are removed and the proper plant specific information/value is inserted to reflect the current licensing basis.”