



OCT 30 2012

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
License Amendment Request No. 212 Regarding Potential Non-Conservative Action
and Surveillance Requirement in Technical Specification 3.5.2 on ECCS Subsystems

References:

- (1) NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," December 29, 1998.
- (2) G. E. Edison (NRC) to J. H. Goldberg (FPL), "Turkey Point Units 3 and 4 – Issuance of Amendments Re: Replacement of Current Technical Specifications with Revised Technical Specifications (TAC Nos. 63038 and 63039, 55915 and 55916, 55384 and 55385, 71864 and 71865), Accession No. ML13440606, August 28, 1990.
- (3) NUREG-1431 Rev 4, Standard Technical Specifications – Westinghouse Plants, April 2012.

During a review of the current Technical Specifications (TS) for Turkey Point Units 3 and 4, a potential non-conservative TS Action and TS Surveillance Requirement pursuant to Administrative Letter 98-10 [Reference 1] were identified regarding TS 3.5.2, ECCS Subsystems – T_{avg} Greater Than or Equal To 350°F. The TS is applicable in MODES 1, 2, and 3, and specifies the Operability, Actions, and Surveillance Requirements for the High Head Safety Injection (HHSI) pumps, Residual Heat Removal (RHR) pumps, RHR heat exchangers, and the associated suction source flow paths for the HHSI pumps and the RHR pumps. The TS also specifies emergency electrical power requirements for operable HHSI pumps, and an associated Action for the emergency diesel generators (EDGs).

The Safety Injection System is a shared system between Turkey Point (PTN) Units 3 and 4. There are four HHSI pumps available to service both units. The RHR System has two RHR pumps per unit and is not a shared system.

TS 3.5.2 Action 'a' states:

"With any one of the required ECCS components or flow paths inoperable, except for inoperable Safety Injection pump(s) or an inoperable RHR pump, restore the inoperable component or flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours."

TS Limiting Condition for Operation (LCO) 3.5.2.a, b, c, and e require two or more components or flow paths; however, TS LCO 3.5.2.d requires only one operable flow path capable of taking suction from the Refueling Water Storage Tank (RWST) such that loss of that suction flow path would render both the Emergency Core Cooling System (ECCS) high head (HHSI) and low head (RHR) subsystems inoperable for the associated unit. The current TS was issued in August 1990 via Amendments 137 and 132 [Reference 2] which converted the original custom TS to the revised TS based on Westinghouse Standard Technical Specifications (STS)[Reference 3].

A001
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The STS Bases for TS 3.5.2 states that

“With one or more components(s) inoperable such that 100% of the flow equivalent to a single OPERABLE ECCS train is not available, the facility is in a condition outside the accident analysis and LCO 3.0.3 must be immediately entered.”

In this case, a portion of the RWST suction piping is common to both trains and subsystems. The isolation valves (MOV-3/4-864A/B) for the ECCS suction flow path from the RWST are in series such that misposition of either valve would result in the complete loss of suction from the RWST. Similarly, the isolation valves (MOV-3/4-862A/B) for the RHR suction path from the RWST are in series and downstream of ECCS isolation valves such that misposition of any one of the four valves would result in loss of suction to both RHR pumps. Accordingly, this amendment proposes to revise Actions ‘a’ and ‘f’ to reflect that, under such conditions, the allotted time is one hour rather than 72 hours. Administrative controls have been established to assure appropriate compensatory measures.

In addition, an existing TS provision approved under Amendments 101 and 95 in February 1984 allows restoration of power to the locked valves listed in SR 4.5.2.a for up to 24 hours in order to permit temporary operation of the valves for surveillance or maintenance. This provision was included in the TS as there was no control room indication for the listed valves when their breakers were open. However, plant modifications were later implemented that provide for continuous control room positive position indication for the valves listed in SR 4.5.2.a. Therefore, this amendment proposes to revise this provision to permit power to be restored to these valves for a period not to exceed 1 hour in order to provide positive valve position indication for surveillance or maintenance purposes in the event that the continuous valve position indication is unavailable.

Lastly, TS LCO 3.5.2.a, footnote *, footnote #, and Action ‘f’ currently include the specification of emergency power requirements for the HHSI pumps. Normal and emergency power requirements are contained in TS 3.8.1.1. The deletion of this information from TS LCO 3.5.2.a and footnote * and deletion of footnote # and the current Action ‘f’ language (new language being substituted per discussion above) will eliminate the unnecessary cascading of these requirements between TS. The cross-reference to TS 3.5.2 in the first TS 3.8.1.1 footnote will be deleted and the word “required” added to TS 3.8.1.1 Action ‘d’ for clarification purposes. These are considered non-intent changes.

Description of the proposed TS changes with supporting justification and a no significant hazards determination and environmental consideration are provided in the Enclosure to this letter.

The Turkey Point Plant Nuclear Safety Committee has reviewed the proposed license amendment. The proposed TS change has been evaluated in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c). Florida Power and Light Company (FPL) has determined that the proposed TS change does not involve a significant hazards consideration.

FPL has determined that the proposed amendment involves no significant increase in the amounts or types of any effluents that may be released offsite, and no significant increase in individual or cumulative occupational radiation exposure. Therefore, FPL has concluded that the proposed amendment meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and, pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment need not be prepared in connection with issuance of the amendment.

This letter contains no new commitments and no revisions to existing commitments.

In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the State Designee of Florida.

Should you have any questions regarding this submittal, please contact Mr. Robert J. Tomonto, Licensing Manager, at (305) 246-7327.

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

Executed on October 30, 2012.

Very truly yours,

A handwritten signature in cursive script, appearing to read "E. M. Kiley for M. Kiley".

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant

Enclosure

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Senior Resident Inspector, Turkey Point Nuclear Plant
Ms. Cindy Becker, Florida Department of Health

Enclosure
Turkey Point Units 3 and 4

License Amendment Request No. 212
Regarding Potential Non-Conservative Action and Surveillance Requirement
in Technical Specification 3.5.2 on ECCS Subsystems

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LICENSE AMENDMENT REQUEST NO. 212 REGARDING POTENTIAL NON-CONSERVATIVE ACTION AND SURVEILLANCE REQUIREMENT IN TECHNICAL SPECIFICATION 3.5.2 ON ECCS SUBSYSTEMS

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1.0 Purpose and Scope

Florida Power and Light Company (FPL) proposes to amend Renewed Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4 to correct a non-conservative Technical Specification (TS) identified in TS 3.5.2, Emergency Core Cooling System (ECCS) Subsystems. Specifically, the amendment proposes to correct TS 3.5.2 Action 'a' such that the 72 hour Allowed Outage Time (AOT) will not apply to TS Limiting Condition for Operation (LCO) 3.5.2.d on loss of the suction flow path to the Refueling Water Storage Tank (RWST). In addition, the amendment proposes to revise the existing provision that allows restoration of power to the isolation valves listed in Surveillance Requirement (SR) 4.5.2.a for a period of up to 24 hours. The revised language will permit restoration for only 1 hour to provide for positive valve position indication in the event that continuous control room valve position indication is unavailable in order to support surveillance or maintenance activities. Lastly, the amendment proposes to revise TS LCO 3.5.2.a, footnote*, footnote #, and Action 'f' to delete cascading of emergency power requirements for the High Head Safety Injection (HHSI) pumps already provided in TS 3.8.1.1, A.C. Sources. A few minor editorial changes consistent with these changes will also be implemented in TS 3.8.1.1.

2.0 Background Information

During review of current TS for Turkey Point Units 3 and 4, a potential non-conservative TS Action and TS Surveillance Requirement pursuant to NRC Administrative Letter 98-10 [Reference 1] were identified regarding TS 3.5.2, ECCS Subsystems – T_{avg} Greater Than or Equal To 350°F. The TS is applicable in MODES 1, 2, and 3, and specifies the Operability, Actions, and Surveillance Requirements for the High Head Safety Injection (HHSI) pumps, Residual Heat Removal (RHR) pumps, RHR heat exchangers, and the associated suction source flow paths for the HHSI pumps and the RHR pumps. The TS also specifies the emergency electrical power capability requirements for operable HHSI pumps and associated Action for emergency diesel generators (EDGs).

The Safety Injection System is a shared system between Turkey Point (PTN) Units 3 and 4. There are four HHSI pumps available to service both units. The RHR System has two RHR pumps per unit and is not a shared system.

TS 3.5.2 Action 'a' states:

“With any one of the required ECCS components or flow paths inoperable, except for inoperable Safety Injection pump(s) or an inoperable RHR pump, restore the inoperable component or flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.”

TS LCO 3.5.2.a, b, c, and e require two or more components or flow paths; however, TS LCO 3.5.2.d requires only one operable flow path capable of taking suction from the RWST such that loss of that suction flow path would render both the ECCS high (HHSI) and low head (RHR) subsystems inoperable. The current TS was issued in August 1990 via Amendments 137 and 132 [Reference 2] which converted the original custom TS to the revised TS based on Westinghouse Standard Technical Specifications (STS)[Reference 3].

The STS Bases states that

“With one or more components(s) inoperable such that 100% of the flow equivalent to a single OPERABLE ECCS train is not available, the facility is in a condition outside the accident analysis and LCO 3.0.3 must be immediately entered.”

In this case, a portion of the RWST suction piping is common to both trains and subsystems. The isolation valves (MOV-3/4-864A/B) for the ECCS suction flow path from the RWST are in series such that the misposition of either valve would result in the complete loss of suction flow path from the RWST. Similarly, the isolation valves (MOV-3/4-862A/B) for the RHR suction flow path to the RWST are in series and downstream of ECCS isolation valves such that the misposition of any one of the four valves would result in loss of suction to both RHR pumps. Accordingly, the amendment proposes to revise Actions ‘a’ and ‘f’ to reflect that, under such conditions, the AOT is only one hour consistent with LCO 3.0.3 rather than the 72 hours per TS 3.5.2 Action ‘a’, as currently written. Also, LCOs 3.5.2.a and 3.5.2.c and footnote * are being revised to read “with discharge flow paths aligned to the RCS cold legs” to clarify that the LCOs apply to both the pumps and their associated flow paths noting that Action ‘a’ excepts only the pumps – not the flow paths.

In addition, an existing TS provision approved under Amendments 101 and 95 in February 1984 allows restoration of power to the locked valves listed in SR 4.5.2.a for up to 24 hours in order to permit temporary operation of the valves for surveillance or maintenance. This provision was included in the TS as there was no control room indication for the listed valves when their breakers were open. However, plant modifications were later implemented that provided for continuous control room positive position indication for the valves listed in SR 4.5.2.a. Thus, this amendment proposes to revise this provision to permit power to be restored to these valves for a period not to exceed 1 hour in order to provide positive valve position indication for surveillance or maintenance purposes in the event that the continuous valve position indication is unavailable.

Administrative controls have been established to assure that appropriate compensatory measures preclude the use of the current TS Action in the unlikely event of the loss of the suction flow path to the RWST. Review of PTN’s past operating history (6 years) indicates that Action ‘a’ has not been entered for TS LCO 3.5.2.d.

Lastly, TS LCO 3.5.2.a, footnote*, and Action ‘f’ include the specification of emergency power requirements for the HHSI pumps. Normal and emergency power requirements are contained in TS 3.8.1.1. The deletion of this information from TS LCO 3.5.2.a and footnote * and the deletion of the current Action ‘f’ language (new language being substituted per discussion above) will eliminate the unnecessary cascading of these requirements between TS. The cross-reference to TS 3.5.2 in the first TS 3.8.1.1 footnote will be deleted and the word “required” will be added to TS 3.8.1.1 Action ‘d’ for clarification purposes. These are considered non-intent changes.

3.0 Description of Proposed Changes

The proposed TS changes involve TS LCO 3.5.2.a., TS 3.5.2 Action ‘a’, TS 3.5.2 footnote*, TS 3.5.2 Action ‘f’, SR 4.5.2.a, TS 3.8.1.1 footnote*, and TS 3.8.1.1 Action ‘d’. In order to provide a more specific description of the proposed changes, a TS mark-up for each change is attached. A description with brief justification is provided below.

4.0 Basis/Justification for the Proposed Changes

4.1 Changes to the PTN Technical Specifications

4.1.1 Technical Specification 3.5.2.

Current TS

3.5.2 The following Emergency Core Cooling System (ECCS) equipment and flow paths shall be OPERABLE:

- a. Four OPERABLE Safety Injection (SI) pumps, each capable of being powered from its associated OPERABLE diesel generator#, with discharge aligned to the RCS cold legs,*
- b. Two OPERABLE RHR heat exchangers,
- c. Two OPERABLE RHR pumps with discharge aligned to the RCS cold legs,
- d. An OPERABLE flow path capable of taking suction from the refueling water storage tank as defined in Specification 3.5.4, and
- e. Two OPERABLE flow paths capable of taking suction from the containment sump.

APPLICABILITY: MODES 1, 2, and 3**.

ACTION:

- a. With any one of the required ECCS components or flow paths inoperable, except for inoperable Safety Injection Pump(s) or an inoperable RHR pump, restore the inoperable component or flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
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- f. With a required Safety Injection pump OPERABLE but not capable of being powered from its associated diesel generator, restore the capability within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

*Only three OPERABLE Safety Injection (SI) pumps (two associated with the unit and one from the opposite unit), each capable of being powered from its associated OPERABLE diesel generator#, with discharge aligned to the RCS cold leg are required if the opposite unit is in MODE 4, 5, or 6.

#Inoperability of the required EDG's does not constitute inoperability of the associated Safety Injection pumps.

Proposed TS

3.5.2 The following Emergency Core Cooling System (ECCS) equipment and flow paths shall be OPERABLE:

- a. Four ~~OPERABLE~~ Safety Injection (SI) pumps, ~~each capable of being powered from its associated OPERABLE diesel generator#~~, with discharge **flow paths** aligned to the RCS cold legs,*
- b. Two ~~OPERABLE~~ RHR heat exchangers,
- c. Two ~~OPERABLE~~ RHR pumps with discharge **flow paths** aligned to the RCS cold legs,
- d. An ~~OPERABLE~~ flow path capable of taking suction from the refueling water storage tank as defined in Specification 3.5.4, and
- e. Two ~~OPERABLE~~ flow paths capable of taking suction from the containment sump.

APPLICABILITY: MODES 1, 2, and 3**.

ACTION:

- a. With any one of the required ECCS components or flow paths inoperable, except for inoperable Safety Injection Pump(s), ~~or~~ an inoperable RHR pump, **or an inoperable suction flow path from the RWST**, restore the inoperable component or flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
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- f. ~~With a required Safety Injection pump OPERABLE but not capable of being powered from its associated diesel generator, restore the capability within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.~~ **With the suction flow path from the refueling water storage tank inoperable, restore the flow path to OPERABLE status within 1 hour or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.**

*Only three ~~OPERABLE~~ Safety Injection (SI) pumps (two associated with the unit and one from the opposite unit), ~~each capable of being powered from its associated OPERABLE diesel generator#~~, with discharge **flow paths** aligned to the RCS cold leg are required if the opposite unit is in MODE 4, 5, or 6.

~~#Inoperability of the required EDG's does not constitute inoperability of the associated Safety Injection pumps.~~

Basis for the Changes: The change to ACTION 'a' specifically excludes LCO 3.5.2.d from the scope of the action. The HHSI and RHR pumps were already exceptions in the action; however, the insertion of the words "flow paths" in LCOs 3.5.2.a and 3.5.2.c and in footnote* clarifies that only the pumps are excluded. The applicability to LCO 3.5.2.d is removed to address the identified non-conservative TS and to reflect that the plant's ECCS configuration has common suction piping from the RWST such that failure of an isolation valve could render both HHSI and/or both RHR trains inoperable. The new language that replaces the existing language in ACTION 'f' (see below) specifically recognizes that the loss of the suction flow path to the RWST places the plant in a condition outside of the accident analysis and, therefore, an AOT consistent with LCO 3.0.3 is appropriate. This is consistent with the STS Bases discussion.

The deletions in TS LCO 3.5.2.a, footnote *, footnote #, and ACTION 'f', eliminate unnecessary cascading of the emergency power requirements between TS 3.8.1.1 to TS 3.5.2 and are considered non-intent changes. The 14 day AOT currently in ACTION 'f' for a required operable HHSI pump but with an inoperable EDG is the same requirement as that provided in TS 3.8.1.1 Action 'b'. However, due to the shared nature of the HHSI pumps in TS 3.5.2, the current action requires that both units enter the action statement while TS 3.8.1.1 only requires entry into the action statement for the affected unit. The deletion of Action 'f' introduces this acceptable change in action logging as the result of the action is the same, i.e., restore the inoperable EDG to operable status within the allowed 14 days or commence shutdown of the affected unit.

Markups of these proposed changes to TS pages 3/4 5-3 and 3/4 5-4 are attached.

4.1.2 Technical Specification SR 4.5.2.a

Current TS

4.5.2 Each ECCS component and flow path shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying by control room indication that the following valves are in the indicated positions with power to the valve operators removed:

| <u>Valve Number</u> | <u>Valve Function</u> | <u>Valve Position</u> |
|---------------------|--------------------------|-----------------------|
| 864A and B | Supply from RWST to ECCS | Open |
| 862A and B | RWST Supply to RHR pumps | Open |
| 863A and B | RHR Recirculation | Closed |
| 866A and B | H.H.S.I. to Hot Legs | Closed |
| HCV-758* | RHR HX Outlet | Open |

To permit temporary operation of these valves for surveillance or maintenance purposes, power may be restored to these valves for a period not to exceed 24 hours.

Proposed TS

4.5.2 Each ECCS component and flow path shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying by control room indication that the following valves are in the indicated positions with power to the valve operators removed:

| <u>Valve Number</u> | <u>Valve Function</u> | <u>Valve Position</u> |
|---------------------|--------------------------|-----------------------|
| 864A and B | Supply from RWST to ECCS | Open |
| 862A and B | RWST Supply to RHR pumps | Open |
| 863A and B | RHR Recirculation | Closed |
| 866A and B | H.H.S.I. to Hot Legs | Closed |
| HCV-758* | RHR HX Outlet | Open |

~~To permit temporary operation of these valves for surveillance or maintenance purposes, power may be restored to these valves for a period not to exceed 24 hours.~~

To permit positive valve position indication for surveillance or maintenance purpose in the event that the continuous valve position indication in the control room is unavailable, power may be restored to these valves for a period not to exceed 1 hour.

Basis for the Change: The existing TS provision that allows restoration of power to the locked valves listed in SR 4.5.2.a for up to 24 hours was approved under Amendments 101 and 95 in February 1984 to permit temporary operation of the valves for surveillance or maintenance. The provision was required at the time since there was no control room indication for the listed valves when their breakers were open. However, plant modifications were later implemented that provided for continuous control room positive position indication for the valves listed in SR 4.5.2.a. Thus, this provision would no longer be required under normal conditions but is being maintained with a one hour limit for qualified alternative indication in support of surveillance and maintenance activities in the event that continuous control room valve indication becomes unavailable.

A markup of the proposed change to TS page 3/4 5-5 is attached.

4.1.3 Technical Specification 3.8.1.1

Current TS

3.8.1.1 As a minimum, the following A. C. electrical power sources shall be OPERABLE:

*Whenever one or more of the four EDG's is out-of-service, ensure compliance with the EDG requirements specified in Specifications 3.5.2 and 3.8.2.1.

ACTION:

- d. With one diesel generator inoperable, in addition to ACTIONS b. or c. above, verify that:

Proposed TS

3.8.1.1 As a minimum, the following A. C. electrical power sources shall be OPERABLE:

*Whenever one or more of the four EDG's is out-of-service, ensure compliance with the EDG requirements ~~specified~~ in Specifications ~~3.5.2 and~~ 3.8.2.1.

ACTION:

- d. With one **of the required** diesel generators inoperable, in addition to ACTIONS b. or c. above, verify that:

Basis for the Changes: The deletion of the cross-reference to TS 3.5.2 in the first TS 3.8.1.1 footnote is consistent with the other changes proposed to TS 3.5.2 addressing cascading of emergency power requirements. The addition of the word "required" to TS 3.8.1.1 Action 'd' is provided for clarification and is administrative in nature. Markups of the proposed changes to TS pages 3/4 8-1 and 3/4 8-3 are attached.

5.0 List of Commitments

None

6.0 Conclusion

The proposed amendment corrects a non-conservative TS Action in TS 3.5.2 Action 'a' by limiting the scope of the action and revising TS 3.5.2 Action 'f' to apply actions consistent with LCO 3.0.3 in the event that the single suction flow path from the RWST is isolated during MODES 1, 2, and 3. The amendment also proposes to revise the existing provision that allows restoration of power to the isolation valves listed in SR 4.5.2.a for a period of up to 24 hours. The revised language will permit restoration for only 1 hour in order to provide for positive valve position indication in the event that continuous control room valve position indication is unavailable to support surveillance or maintenance activities. Lastly, the amendment deletes emergency power requirements for HHSI pumps in TS LCO 3.5.2.a and applicable footnotes and the TS 3.5.2 cross-reference in TS 3.8.1.1 to eliminate cascading of these requirements from TS 3.8.1.1 to TS 3.5.2. These are considered non-intent changes. Appropriate compensatory measures have been established to address the non-conservative TS until the proposed amendment is approved by the NRC and implemented.

7.0 No Significant Hazards Determination

The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazard if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. FPL has reviewed this proposed license amendment for FPL's Turkey Point Units 3 and 4 and determined that its adoption would not involve a significant hazards consideration. The bases for this determination are:

The proposed amendment does not involve a significant hazards consideration for the following reasons:

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

No. The proposed amendment does not change or modify the design or operation of ECCS systems, subsystems, or components. The proposed amendment does not affect any precursors to any accident previously evaluated or do not adversely affect known mitigation equipment or strategies. The proposed amendment provides better assurance that the ECCS systems, subsystems, and components are properly aligned to support safe reactor operation consistent with the licensing and design basis requirements. The proposed changes addressing cascading of emergency power requirements are considered non-intent changes. Therefore, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

No. The proposed amendment provides better assurance that the ECCS systems, subsystems, and components are properly aligned to support safe reactor operation consistent with the licensing and design basis requirements. No new accident initiators are introduced directly or indirectly by the proposed changes. The changes addressing cascading of emergency power requirements are considered non-intent changes. Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in the margin of safety?

No. The proposed amendment provides better assurance that the ECCS systems, subsystems, and components are properly aligned to support safe reactor operation consistent with the licensing and design basis requirements. The proposed changes correct deficiencies regarding TS LCO 3.5.2.d and TS SR 4.5.2.a to assure ECCS availability is maintained within the assumptions of the safety analysis. Therefore, the proposed amendment does not involve a significant reduction in the margin of safety.

Based on the above discussion, FPL has determined that the proposed change does not involve a significant hazards consideration.

8.0 Environmental Consideration

10 CFR 51.22(c)(9) provides criteria for and identification of licensing and regulatory actions eligible for categorical exclusion from performing an environmental assessment. A proposed amendment of an operating license for a facility requires no environmental assessment, if the operation of the facility in accordance with the proposed amendment does not: (1) involve a significant hazards consideration, (2) result in a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, and (3) result in a significant increase in individual or cumulative occupational radiation exposure. FPL has reviewed this license amendment request and determined that the proposed amendment meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the issuance of the amendment. The basis for this determination follows.

Basis

This change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) for the following reasons:

1. As demonstrated in the 10 CFR 50.92 evaluation, the proposed amendment does not involve a significant hazards consideration.
2. The proposed amendment does not result in a significant change in the types or increase in the amounts of any effluents that may be released offsite. The proposed amendment does not change or modify the design or operation of the ECCS systems, subsystems, or components. The proposed amendment provides better assurance that the ECCS systems, subsystems, and components are properly aligned to support safe reactor operation consistent with the licensing and design basis requirements. The proposed amendment does not directly or indirectly affect effluent discharges.
3. The proposed amendment does not result in a significant increase in individual or cumulative occupational radiation exposure. The proposed amendment does not change or modify the design or operation of the ECCS systems, subsystems, or components. The proposed amendment provides better assurance that the ECCS systems, subsystems, and components are properly aligned to support safe reactor operation consistent with the licensing and design basis requirements. The proposed amendment does not directly or indirectly affect the radiological source terms.

9.0 Summary of Results

The proposed amendment corrects a non-conservative TS Action in TS 3.5.2 Action 'a' by limiting the scope of the action and revising TS 3.5.2 Action 'f' to apply actions consistent with LCO 3.0.3 in the event that the single suction flow path from the RWST is isolated during MODES 1, 2, and 3. The amendment also proposes to revise the existing provision that allows restoration of power to the isolation valves listed in SR 4.5.2.a for a period of up to 24 hours. The revised language will permit restoration for only 1 hour in order to provide for positive valve position indication in the event that continuous control room valve position indication is unavailable to support surveillance or maintenance activities. Lastly, the amendment deletes emergency power requirements for HHSI pumps in TS LCO 3.5.2.a and applicable footnotes and the TS 3.5.2 cross-reference in TS 3.8.1.1 to eliminate cascading of these requirements from TS 3.8.1.1 to TS 3.5.2. These are considered non-intent changes. Appropriate compensatory measures have been established to address the non-conservative TS until the proposed amendment is approved by the NRC and implemented.

10.0 References

1. NRC Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," December 29, 1998.
2. G. E. Edison (NRC) to J. H. Goldberg (FPL), "Turkey Point Units 3 and 4 – Issuance of Amendments Re: Replacement of Current Technical Specifications with Revised Technical Specifications (TAC Nos. 63038 and 63039, 55915 and 55916, 55384 and 55385, 71864 and 71865), Accession No. ML13440606, August 28, 1990.
3. NUREG-1431 Rev 4, Standard Technical Specifications–Westinghouse Plants, April 2012.

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{avg} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

3.5.2 The following Emergency Core Cooling System (ECCS) equipment and flow paths shall be OPERABLE:

- a. Four OPERABLE Safety Injection (SI) pumps, ~~each capable of being powered from its associated OPERABLE diesel generator[#]~~, with discharge aligned to the RCS cold legs,*
- b. Two OPERABLE RHR heat exchangers,
- c. Two OPERABLE RHR pumps with discharge aligned to the RCS cold legs,
- d. An OPERABLE flow path capable of taking suction from the refueling water storage tank as defined in Specification 3.5.4, and
- e. Two OPERABLE flow paths capable of taking suction from the containment sump.

↑ flow paths

↓ flow paths

APPLICABILITY: MODES 1, 2, and 3**.

ACTION:



or an inoperable suction flow path from the RWST.

- a. With any one of the required ECCS components or flow paths inoperable, except for inoperable Safety Injection Pump(s) or an inoperable RHR pump, restore the inoperable component or flow path to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. In the event the ECCS is actuated and injects water in the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date since January 1, 1990.
- c. With one of the four required Safety Injection pumps inoperable and the opposite unit in MODE 1, 2, or 3, restore the pump to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours.***

flow paths

* Only three OPERABLE Safety Injection (SI) pumps (two associated with the unit and one from the opposite unit), ~~each capable of being powered from its associated OPERABLE diesel generator[#]~~, with discharge aligned to the RCS cold leg are required if the opposite unit is in MODE 4, 5, or 6.

** The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry into MODE 3 for the Safety Injection flow paths isolated pursuant to Specification 3.4.9.3 provided that the Safety Injection flow paths are restored to OPERABLE status prior to T_{avg} exceeding 380°F. Safety Injection flow paths may be isolated when T_{avg} is less than 380°F.

*** The provisions of Specifications 3.0.4 and 4.0.4 are not applicable.

[#] ~~Inoperability of the required EDG's does not constitute inoperability of the associated Safety Injection pumps.~~

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{379} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

- d. With two of the four required Safety Injection pumps inoperable and the opposite unit in MODE 1, 2, or 3, restore one of the two inoperable pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours. This ACTION applies to both units simultaneously.
- e. With one of the three required Safety Injection pumps inoperable and the opposite unit in MODE 4, 5, or 6, restore the pump to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- f. ~~With a required Safety Injection pump OPERABLE but not capable of being powered from its associated diesel generator, restore the capability within 14 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.~~
- g. With an ECCS subsystem inoperable due to an RHR pump being inoperable, restore the inoperable RHR pump to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

With the suction flow path from the refueling water storage tank inoperable, restore the flow path to OPERABLE status within 1 hour or be in HOT STANDBY with the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS component and flow path shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying by control room indication that the following valves are in the indicated positions with power to the valve operators removed:

| <u>Valve Number</u> | <u>Valve Function</u> | <u>Valve Position</u> |
|---------------------|--------------------------|-----------------------|
| 864A and B | Supply from RWST to ECCS | Open |
| 862A and B | RWST Supply to RHR pumps | Open |
| 863A and B | RHR Recirculation | Closed |
| 866A and B | H.H.S.I. to Hot Legs | Closed |
| HCV-758* | RHR HX Outlet | Open |

~~To permit temporary operation of these valves for surveillance or maintenance purposes, power may be restored to these valves for a period not to exceed 24 hours.~~

- b. At least once per 31 days by:

- 1) Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping,
- 2) Verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position, and
- 3) Verifying that each RHR Pump develops the indicated differential pressure applicable to the operating conditions in accordance with Figure 3.5-1 when tested pursuant to Specification 4.0.5.

- c. At least once per 92 days by:

- 1) Verifying that each SI pump develops the indicated differential pressure applicable to the operating conditions when tested pursuant to Specification 4.0.5.

SI pump ≥ 1083 psid at a metered flowrate ≥ 300 gpm (normal alignment or Unit 4 SI pumps aligned to Unit 3 RWST), or
 ≥ 1113 psid at a metered flowrate ≥ 280 gpm (Unit 3 SI pumps aligned to Unit 4 RWST).

To permit positive valve position indication for surveillance or maintenance purposes in the event that the continuous valve position indication is unavailable in the control room, power may be restored to these valves for a period not to exceed 1 hour.

*Air Supply to HCV-758 shall be verified shut off and sealed closed once per 31 days.

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two startup transformers and their associated circuits, and
- b. Three separate and independent diesel generators* including,
 - 1) For Unit 3, two (3A and 3B); for Unit 4, one (3A or 3B) each with:
 - a) A separate skid-mounted fuel tank and a separate day fuel tank with an OPERABLE solenoid valve to permit gravity flow from the day tank to the skid mounted tank, and with the two tanks together containing a minimum of 2000 gallons of fuel oil.
 - b) A common Fuel Storage System containing a minimum volume of 38,000 gallons of fuel,**
 - c) A separate fuel transfer pump,**
 - d) Lubricating oil storage containing a minimum volume of 120 gallons of lubricating oil,
 - e) Capability to transfer lubricating oil from storage to the diesel generator unit, and
 - f) Energized MCC bus (MCC 3A vital section for EDG 3A, MCC 3K for EDG 3B).
 - 2) For Unit 3, one (4A or 4B); for Unit 4, two (4A and 4B) each with:
 - a) A separate day fuel tank containing a minimum volume of 230 gallons of fuel,
 - b) A separate Fuel Storage System containing a minimum volume of 34,700 gallons of fuel,
 - c) A separate fuel transfer pump, and
 - d) Energized MCC bus (MCC 4J for EDG 4A, MCC 4K for EDG 4B).

*Whenever one or more of the four EDG's is out-of-service, ensure compliance with the EDG requirements specified in Specifications 3.5.2 and 3.8.2.1.

**A temporary Class III fuel storage system containing a minimum volume of 38,000 gallons of fuel oil may be used for up to 10 days during the performance of Surveillance Requirement 4.8.1.1.2i.1 for the Unit 3 storage tank while Unit 3 is in Modes 5, 6, or defueled. If the diesel fuel oil storage tank is not returned to service within 10 days, Technical Specification 3.8.1.1 Action b and 3.8.1.2 Action apply to Unit 4 and Unit 3 respectively.

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION (Continued)

startup transformer and associated circuits within one hour and at least once per 8 hours thereafter; and if the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining required diesel generators by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours, unless it can be confirmed that the cause of the inoperable diesel generator does not exist on the remaining required diesel generators, unless the diesel generators are already operating; restore one of the inoperable sources to OPERABLE status in accordance with Action Statements a and b, as appropriate. If testing of remaining required diesel generators is required, this testing must be performed regardless of when the inoperable diesel generator is restored to OPERABILITY. Notify the NRC within 4 hours of declaring both a start-up transformer and diesel generator inoperable. Restore the other A.C. power source (startup transformer or diesel generator) to OPERABLE status in accordance with the provisions of Section 3.8.1.1 Action Statement a or b, as appropriate, with the time requirement of that Action Statement based on the time of initial loss of the remaining inoperable A.C. power source.

- d. With one ^{of the required} diesel generator inoperable, in addition to ACTION b. or c. above, verify that:
1. All required systems, subsystems, trains, components, and devices (except safety injection pumps) that depend on the remaining required OPERABLE diesel generators as a source of emergency power are also OPERABLE.

If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 2. At least two Safety Injection pumps are OPERABLE and capable of being powered from their associated OPERABLE diesel generators.

If this condition is not satisfied within 2 hours, be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours. This ACTION applies to both units simultaneously.
- e. With two of the above required startup transformers or their associated circuits inoperable notify the NRC within 4 hours; restore at least one of the inoperable startup transformers to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours* and in COLD

*If the opposite unit is shutdown first, this time can be extended to 42 hours.