August 23, 2017
L-2017-110
10 CFR 50.90

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

RE: Turkey Point Nuclear Plant, Units 3 and 4
Docket Nos. 50-250 and 50-251
Renewed Facility Operating Licenses DPR-31 and DPR-41

License Amendment Request 255, Relocate the Explosive Gas Monitoring, Gas Decay Tanks and Standby Feedwater System Technical Specifications to Licensee Controlled Documents

Pursuant to 10 CFR Part 50.90, Florida Power & Light Company (FPL) hereby requests amendments to Renewed Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Nuclear Plant Units 3 and 4 (Turkey Point), respectively. The proposed license amendments modify the Turkey Point Technical Specifications (TS) by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, and Gas Decay Tanks System requirements to licensee controlled documents and establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed license amendments additionally relocate the Standby Feedwater System requirements to licensee controlled documents and modify related Auxiliary Feedwater System requirements.

The enclosure to this letter provides FPL's evaluation of the proposed changes. Attachment 1 to the enclosure provides the existing TS pages marked up to show the proposed changes. Attachment 2 provides existing TS Bases pages marked up to show the proposed changes. The TS Bases changes are provided for information only and will be incorporated in accordance with the TS Bases Control Program upon implementation of the approved amendment.

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

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

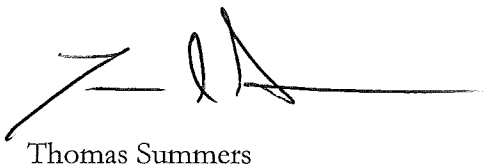
This letter contains no new regulatory commitments.

Should you have any questions regarding this submission, please contact Mr. Mitch Guth, Turkey Point Licensing Manager, at (305) 246-6698.

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

Executed on August 23, 2017

Sincerely,



Thomas Summers
Regional Vice President - Southern Region
Florida Power & Light Company

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

EVALUATION OF THE PROPOSED CHANGES

Turkey Point Nuclear Plant, Units 3 and 4
License Amendment Request to Relocate the Explosive Gas Monitoring, Gas Decay Tanks and Standby Feedwater System Technical Specifications to Licensee Controlled Documents

1.0 SUMMARY DESCRIPTION

Florida Power & Light Company (FPL) requests amendments to Renewed Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Nuclear Plant Units 3 and 4 (Turkey Point), respectively. The proposed license amendments modify the Turkey Point Technical Specifications (TS) by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, and Gas Decay Tanks System requirements to licensee controlled documents and establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed license amendments additionally relocate the Standby Feedwater System requirements to licensee controlled documents and modify related Auxiliary Feedwater System requirements. The proposed changes serve to align the Turkey Point TS more closely with NUREG 1431, Standard Technical Specifications - Westinghouse Plants, Revision 4 (Reference 6.1).

2.0 DETAILED DESCRIPTION

2.1 System Design and Operation

2.1.1 Gas Decay Tank System

The Gas Decay Tank System consists of six welded carbon steel tanks fabricated to contain compressed waste gases including hydrogen, nitrogen, and fission product gaseous wastes from Turkey Point Units 3 and 4 normal operations. Gaseous wastes are stored in the Gas Decay Tank System for a specified period of natural radioactive decay following which the gases are either released through the monitored plant vent in accordance with the Turkey Point Activity Offsite Dose Calculation Manual (ODCM) or returned as cover gas previously displaced from the Chemical and Volume Control System (CVCS) holdup tanks. The quantity of radioactivity contained in each Gas Decay Tank is restricted to provide (a) assurance that in the event of an uncontrolled release of the tank's contents, the resulting total body exposure to an individual at the nearest exclusion area boundary will not exceed 0.5 rem, and (b) assurance that the concentration of potentially explosive gas mixtures contained in the gas decay tank is maintained below the flammability limits of hydrogen and oxygen.

Gaseous sampling and analysis is conducted to monitor the concentrations of oxygen and hydrogen in the Waste Disposal System tanks, CVCS holdup tanks, Pressurizer Relief Tank and the Reactor Coolant Drain Tank. Upon indication of a high oxygen level, provisions are made to purge the affected tank to the Gas Decay Tank System. Gas samples are then drawn from the Gas Decay Tank being filled and analyzed to determine the hydrogen and

oxygen content. To prevent the hydrogen concentration from exceeding the combustible limit, components discharging to the vent header are restricted to those containing no air or aerated liquids and the vent header itself is designed to operate at a slight positive pressure to prevent in-leakage.

2.1.2 Continuous Gas Analyzer (C-289 Panel)

The Continuous Gas Analyzer utilizes inputs from a hydrogen analyzer calibrated over a range of 0 -100% hydrogen and an oxygen analyzer calibrated over a range of 0-4% oxygen. The gas analyzer performs continuous sampling of the inservice gas decay tank to ensure that the concentration of potentially explosive gas mixtures is maintained below the flammability limits of hydrogen and oxygen. Alarms are provided for both hydrogen and oxygen content.

2.1.3 Auxiliary Feedwater System

The Auxiliary Feedwater System (AFW) system is shared between Turkey Point Units 3 and 4 and supplies feedwater to the Steam Generators during transients when normal feedwater is not available. The AFW system provides sufficient heat removal capability to prevent reactor coolant inventory relief through the Pressurizer power-operated relief valves or the Pressurizer code-safety valves. The AFW system consists of three quick starting steam turbine-driven AFW pumps, each capable of supplying the total feedwater requirement to either or both Units. The three pumps are aligned to provide two AFW trains with two of the pumps normally aligned to one of the trains. The AFW steam supply valves automatically open on any one of the following five Engineered Safety Features Actuation System (ESFAS) signals.

1. Safety injection
2. Low-low level in any of the three Steam Generators
3. Loss of both feedwater pumps under normal operating conditions
4. Bus low or degraded voltage
5. Anticipated Transient Without Scram (ATWS) Mitigating System Actuating Circuitry (AMSAC) signal

2.1.4 Standby Feedwater System

The Standby Feedwater System consists of two non-safety grade standby steam generator feedwater pumps (SSGFP). One pump is motor driven and normally powered from the 4160 volt C-Bus. The other pump is diesel engine driven with an integral fuel tank and electric starting system. The

SSGFPs are normally used to supply feedwater to the Steam Generators during start-up, shutdown, and hot standby conditions. The pumps take suction from the 500,000 gallon, non-safety related demineralized water storage tank (DWST) and discharge into the main feedwater header upstream of the feedwater regulating valves. The SSGFPs can be operated from the Control Room or from a local control panel. One SSGFP is typically used during startup or shutdown when Reactor power is less than 5%.

The Standby Feedwater System is shared by Units 3 and 4, whereby any one SSGFP can supply either or both Units as necessary to meet feedwater demand. The system provides a shutdown function but not a safety related or an emergency function. In the event the Auxiliary Feedwater (AFW) system does not function properly, the Standby Feedwater System can be used as a backup water supply during which the SSGFPs can be manually started, aligned, and controlled by the operator as needed. In case of loss of off-site power, feedwater to the Steam Generators can be supplied by the diesel engine driven SSGFP should the AFW pumps not be available. For fires affecting the AFW pumps, credit is taken for the Standby Feedwater System.

2.1.5 Demineralized Water Storage Tank

The DWST is a 500,000 gallon, non-safety related source of demineralized water that is considered part of the primary makeup demineralized water system. The DWST is the main source of water for the Standby Feedwater System and is the alternate source of water for the AFW system. The DWST provides a shutdown function but not a safety related or an emergency function. The DWST minimum allowable inventory ensures that adequate water is available to provide reactor decay heat removal for either or both nuclear Units in the event the AFW system is unavailable.

2.2 Description of the Proposed Change

2.2.1 Explosive Gas Monitoring Instrumentation

TS 3.3.3.6, Explosive Gas Monitoring Instrumentation, specifies the Limiting Conditions for Operation (LCO), operational MODE(s), required ACTION(s) and Surveillance Requirements (SRs) for the Turkey Point explosive gas monitoring instrumentation.

TS 3.3.3.6, Table 3.3-8, Explosive Gas Monitoring Instrumentation, specifies the Minimum Channels OPERABLE, operational MODE(s) and ACTION(s) for the Turkey Point explosive gas monitoring instrumentation.

TS 3.3.3.6, Table 4.3-6, Explosive Gas Monitoring Instrumentation Surveillance Requirements, specifies the CHANNEL CHECK, Source Check, CHANNEL CALIBRATION, ANALOG CHANNEL OPERATIONAL TEST, and operational MODE(s) for the Turkey Point explosive gas monitoring instrumentation.

The proposed change deletes TS 3.3.3.6, Table 3.3-8 and Table 4.3-6, and relocates the Turkey Point explosive gas monitoring instrumentation requirements to the Turkey Point Updated Final Safety Analysis Report (UFSAR) and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59.

2.2.2 Explosive Gas Mixture

TS 3.7.8, Explosive Gas Mixture, specifies the LCO(s), operational MODE(s), ACTION(s) and SR(s) for the concentration of oxygen in the gas decay tank system when the concentration of hydrogen exceeds 4% by volume.

The proposed change deletes TS 3.7.8 and relocates the requirements for the concentration of oxygen and hydrogen in the gas decay tank system to the Turkey Point UFSAR and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59.

2.2.3 Gas Decay Tanks

TS 3.7.9, Gas Decay Tanks, specifies the LCO(s), operational MODE(s), ACTION(s) and SR(s) for the quantity of radioactivity (in dose equivalent Xenon-133) contained in each Gas Decay Tank.

The proposed change deletes TS 3.7.9 and relocates the requirements for the quantity of radioactivity contained in each Gas Decay Tank to the Turkey Point UFSAR and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59.

2.2.4 Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program

TS 6.8.4, Programs and Procedures, specifies the Turkey Point programs that shall be established, implemented, and maintained.

The proposed change establishes in TS 6.8.4, a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program, which limits the concentration

of hydrogen and oxygen in the Gas Decay Tanks and establishes a surveillance program to ensure the limits are maintained. The Program additionally establishes a surveillance program to ensure that the quantity of radioactivity contained in each Gas Decay Tank is less than the amount that would result in a whole body exposure of greater than or equal to 0.5 rem to any individual in a restricted area in the event of an uncontrolled release of the tanks' contents. The Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program will state the following:

> Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program
>
> This Program provides controls for potentially explosive gas mixtures and the quantity of radioactivity contained in the Gas Decay Tanks. The gaseous radioactivity quantities shall be determined following the methodology in Branch Technical Position (BTP) ETSB 11-5, Postulated Radioactive Release Due to Waste Gas System Leak or Failure.
>
> The Program shall include:
>
> 1. The limits for concentrations of hydrogen and oxygen in the Gas Decay Tanks and a surveillance program to ensure that the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion), and
>
> 2. A surveillance program to ensure that the quantity of radioactivity contained in each Gas Decay Tank is less than the amount that would result in a whole body exposure of $\geq$0.5 rem to any individual in an unrestricted area, in the event of an uncontrolled release of the tanks' contents.
>
> The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program surveillance frequencies.

2.2.5 Standby Feedwater System

TS 3.7.1.6, Standby Feedwater System, specifies the LCO(s), operational MODE(s), ACTION(s) and SR(s) for the Standby Feedwater System, including requirements for the SSGFPs and the DWST. Included within are

requirements to submit a SPECIAL REPORT in the event of inoperable SSGFP or DWST beyond the TS 3.7.1.6 allowable outage times.

The proposed change deletes TS 3.7.1.6 and relocates the requirements to the Turkey Point UFSAR and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59. The proposed change also deletes the special reporting requirements such that no NRC notification would occur in the event a SSGFP or DWST is non-operational in excess of the current TS 3.7.1.6 specified periods triggering special reporting.

2.2.6 Auxiliary Feedwater System

TS 3.7.1.2, Auxiliary Feedwater System, specifies the LCO(s), operational MODE(s), ACTION(s) and SR(s) for the AFW system.

The proposed change modifies TS 3.7.1.2, ACTION 2, such that in the event both AFW trains are inoperable and cannot be restored to OPERABILITY within 2 hours, the requirement to verify the OPERABILITY of both SSGFPs prior to commencing Unit(s) shutdown is replaced with a requirement to verify that both SSGFPs are capable of providing makeup to the Steam Generators prior to commencing Unit(s) shutdown.

3.0 TECHNICAL EVALUATION

The proposed license amendments modify the Turkey Point TS by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, and Gas Decay Tanks System requirements to licensee controlled documents and establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed license amendments additionally relocate the Standby Feedwater System requirements to licensee controlled documents and modify related Auxiliary Feedwater System requirements. The bases for the proposed changes follow:

3.1 Explosive Gas Monitoring Instrumentation

The proposed change deletes TS 3.3.3.6, Explosive Gas Monitoring Instrumentation, Table 3.3-8, Explosive Gas Monitoring Instrumentation, and Table 4.3-6, Explosive Gas Monitoring Instrumentation Surveillance Requirements, and relocates the explosive gas monitoring instrumentation requirements to the Turkey Point UFSAR and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59.

The explosive gas monitoring instrumentation is not installed instrumentation used to detect, and indicate in the Control Room, a significant abnormal degradation of the reactor coolant pressure boundary; does not include process variables, design features, or operating restrictions that are an initial condition of a design basis accident or transient analysis that assumes the failure of or presents a challenge to the integrity of a fission product barrier; are not comprised of SSCs that are part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that assumes the failure of or presents a challenge to the integrity of a fission product barrier; and do not include SSCs which operating experience or probabilistic risk assessment have shown to be significant to public health and safety. Hence, the explosive gas monitoring instrumentation does not meet the 10 CFR 50.36(c)(2)(ii) criteria for TS inclusion as a LCO and hence is appropriate for relocation to licensee controlled documents with no adverse impact on safety. This determination is consistent the NRC's Final Policy Statement on TS Improvements for Nuclear Power Reactors (Reference 6.2), which states in reference to the 10 CFR 50.36(c)(2)(ii) criteria:

> The purpose of Technical Specifications is to impose those conditions or limitations upon reactor operation necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety by identifying those features that are of controlling importance to safety and establishing on them certain conditions of operation which cannot be changed without prior Commission approval.

The Final Policy Statement further states:

> If a licensee elects to apply these [10 CFR 50.36(c)(2)] criteria, the requirements of the removed specifications will be relocated to the FSAR or other licensee-controlled documents. Licensees are to operate their facilities in conformance with the descriptions of their facilities and procedures in their FSAR. Changes to the facility or to procedures described in the FSAR are to be made in accordance with 10 CFR 50.59.

The determination that the explosive gas monitoring instrumentation does not meet the 10 CFR 50.36(c)(2)(ii) criteria is also consistent with Generic Letter (GL) 95-10, Relocation of Selected Technical Specifications Requirements Related to Instrumentation (Reference 6.3), which notes that the explosive gas monitoring instrumentation requirements address detection of possible precursors to the failure of a waste gas system but do not prevent or mitigate design basis accidents or transients which assume a failure of or present a challenge to a fission product barrier. GL 95-10 explicitly recommends TS explosive gas monitoring instrumentation requirements as candidates for relocation to licensee controlled documents.

Relocating the explosive gas monitoring instrumentation requirements to licensee controlled documents changes neither plant equipment nor modifies the manner in which plant equipment is operated or maintained. The explosive gas monitoring instrumentation operational limits, operational MODE(s) and required ACTION(s) will be relocated to plant procedures consistent with the Turkey Point TS requirements. The instrument channel checks, analyzer analog checks and zero and span checks will continue to be performed at their current periodicities. The existing defense in depth and diversity described in the Turkey Point UFSAR with regard to explosive gas monitoring instrumentation functional performance will not be diminished by the proposed license amendments. Any future changes to the UFSAR or applicable plant procedures will first be subject to the provisions of 10 CFR 50.59. As such, the deletion of TS 3.3.3.6, Table 3.3-8, and Table 4.3-6, and the relocation of the explosive gas monitoring instrumentation requirements to the Turkey Point USFAR and applicable plant procedures are reasonable.

3.2 Explosive Gas Mixture

The proposed change deletes TS 3.7.8, Explosive Gas Mixture, and relocates the requirements for the concentration of oxygen and hydrogen in the Gas Decay Tank system to licensee controlled documents whereby future changes will be subject to the provisions of 10 CFR 50.59.

The limitations specified in TS 3.7.8 ensure that the concentration of potentially explosive gas mixtures contained in the Gas Decay Tank System (as measured in the inservice gas decay tank) is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion (GDC) 60 of Appendix A to 10 CFR Part 50. Turkey Point procedures impose limits on the concentration of oxygen and hydrogen in the Gas Decay Tanks consistent with current TS Explosive Gas Mixture requirements and require immediate suspension of additions to the Gas Decay Tanks and reduction to acceptable levels if the oxygen and hydrogen concentration limits are exceeded. More specifically, Turkey Point procedures:

- Prevent the formation of explosive mixtures in the VCT, HUT, PRT, RCDT, SFP Resin, etc., by limiting the oxygen concentration to less than or equal to 2% by volume when hydrogen is greater than 4%. If the concentration of oxygen and the hydrogen in one of the tanks exceed allowable limits, plant procedures require that the tank be purged to the Gas Decay Tank system until the subject tank reaches acceptable gas concentration levels. During

purging to a Gas Decay Tank, gas concentration levels are monitored using the C-289 analyzer or if out of service, by periodic grab sample analyses.

- Prevent the formation of gases in the Gas Decay Tanks from approaching explosive levels by entry into an off-normal procedure if an in-service Gas Decay Tank reaches an oxygen concentration greater than 2% by volume and hydrogen concentration greater than 4% by volume. The off-normal procedure requires reduction of the oxygen concentration to less than or equal to 2% by volume within 48 hours. If the in-service Gas Decay Tank oxygen concentration is greater than 4% by volume and its hydrogen concentration is greater than 4% by volume, the immediate suspension of all gas additions to the Gas Decay Tank and the reduction of the oxygen concentration to less than 4% is required as soon as possible. In all cases involving the above limits, the Shift Manager is immediately notified.

The explosive gas mixture requirements of TS 3.7.8 are not of controlling importance to operational safety since they do not impose any limitations or conditions on Reactor operation which are necessary to obviate an abnormal situation or event that could pose an immediate threat to public safety. Hence, the TS Explosive Gas Mixture requirements do not meet the 10 CFR 50.36 (c)(2)(ii) criteria for TS inclusion as a LCO. Consistent with the NRC's Final Policy Statement on TS improvements (Reference 6.2), the Explosive Gas Mixture requirements are appropriate for relocation from the Turkey Point TS to licensee controlled documents with no adverse impact on safety.

Relocating the explosive gas mixture requirements of TS 3.7.8 to licensee controlled documents will not affect the procedures described above for preventing explosive gas mixtures. The explosive gas monitoring operational limits, monitoring requirements and required ACTIONS will be relocated to plant procedures consistent with the Turkey Point TS requirements. The existing defense in depth and diversity currently described in the Turkey Point UFSAR with regard to preventing explosive gas mixtures will not be diminished by the proposed change. Any future changes to the UFSAR or applicable plant procedures will first be subject to the provisions of 10 CFR 50.59. As such, the deletion of TS 3.7.8 and the relocation of the explosive gas mixture requirements to the Turkey Point USFAR and applicable plant procedures are reasonable.

3.3 Gas Decay Tanks

The proposed change deletes TS 3.7.9, Gas Decay Tanks, and relocates the requirements for the quantity of radioactivity contained in each Gas Decay Tank to the Turkey Point USFAR and applicable plant procedures whereby future changes will be subject to the provisions of 10 CFR 50.59.

The limits on the quantity of radioactivity contained in each Gas Decay Tank, as specified in TS 3.7.9, are not of controlling importance to operational safety since they do not impose any limitations or conditions on Reactor operation which are necessary to obviate an abnormal situation or event that could pose an immediate threat to public safety. Hence, the TS limits on the quantity of radioactivity contained in each Gas Decay Tank do not meet the 10 CFR 50.36 (c)(2)(ii) criteria for TS inclusion as a LCO. Consistent with the NRC's Final Policy Statement on TS improvements (Reference 6.2), the limits on the quantity of radioactivity contained in each Gas Decay Tank are appropriate for relocation from the Turkey Point TS to licensee controlled documents with no adverse impact on safety.

Relocating the limits on the quantity of radioactivity contained in each Gas Decay Tank to licensee controlled documents will not affect the manner in which whole body dose exposures will be limited to allowable levels in the event of a Gas Decay Tank rupture. The Gas Decay Tank operational limits, including the maximum dose equivalent Xe-133 activity allowed per Gas Decay Tank, the monitoring requirements and the required ACTIONS will be relocated to plant procedures consistent with the Turkey Point TS requirements. More specifically, the current TS limit of 70,000 curies dose equivalent Xe-133 per Gas Decay Tank will be maintained in applicable plant procedures such that the consequences of a ruptured Gas Decay Tank remain bounded by the UFSAR accident analysis of record for a ruptured Gas Decay Tank. Relocating the limits on the quantity of radioactivity contained in each Gas Decay Tank to licensee controlled documents will not affect the ruptured Gas Decay Tank analysis conclusion that the resulting off-site doses are less than the 0.1 rem TEDE limit specified in Branch Technical Position (BTP) 11-5 of the Standard Review Plan (SRP), Postulated Radioactive Release due to Waste Gas System Leak or Failure (Reference 6.4), and that the whole body exposure to any individual in an unrestricted area in the event of an uncontrolled release of the tanks' contents would not be greater than or equal to 0.5 rem. Hence, the existing defense in depth and diversity currently described in the Turkey Point UFSAR will not be diminished by the proposed change. Any future changes to the USFAR accident analyses or applicable plant procedures will first be subject to the provisions of 10 CFR 50.59. As such, the deletion of TS 3.7.9 and the relocation of the limits on the quantity of radioactivity contained in each Gas Decay Tank to the Turkey Point USFAR and applicable plant procedures are reasonable.

3.4 Explosive Gas and Storage Tank Radioactivity Monitoring Program

The proposed change adds TS 6.8.4.n, Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program, which limits the concentration of hydrogen and oxygen in the Gas Decay Tanks and establishes a surveillance program to ensure the limits are maintained. The surveillance program ensures that the quantity of

radioactivity contained in each Gas Decay Tank is less than the amount that would result in a whole body exposure of greater than or equal to 0.5 rem to any individual in an unrestricted area in the event of an uncontrolled release of the tanks' contents.

The Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program incorporates the guidance provided in NUREG-1431, Section 5.5.12, Explosive Gas and Storage Tank Radioactivity Monitoring Program, (References 6.1) as they relate to the concentration of hydrogen and oxygen and the quantity of radioactivity stored in the Turkey Point Gas Decay Tanks. However, the Program does not adopt the NUREG-1431, Section 5.5.12, guidance for outdoor liquid radwaste tanks since Turkey Point does not have outdoor liquid storage tanks that contain radwaste. Accordingly, the provisions of NUREG-1431, Section 5.5.12, relating to the limiting the contents of liquid radwaste storage tanks and determining the liquid radwaste quantities in accordance with SRP Section 15.7.3, Postulated Radioactive Release Due to Tank Failures, are not incorporated into the Turkey Point Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program.

The limits on the explosive gas concentration and radioactivity content in the Turkey Point Gas Decay Tanks that will be imposed by the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program are unchanged from the limitations currently specified in TS 3.7.8, Explosive Gas Mixture, and TS 3.7.9, Gas Decay Tanks, and implemented by Turkey Point plant procedures. Similarly, the explosive monitoring instrumentation and surveillance requirements specified in TS 3.3.3.6, Table 3.3-8, Explosive Gas Monitoring Instrumentation, and Table 4.3-6, Explosive Gas Monitoring Instrumentation Surveillance Requirements, will be implemented via the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program, UFSAR and applicable plant procedures. Hence, the net effect of the proposed change is to retain key Gas Decay Tank requirements within the Turkey Point TS while simplifying the overall content of the TS, consistent with the standard TS provided in NUREG-1431 (Reference 6.1).

The proposed Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program also states that the gaseous radioactivity quantities in the Turkey Point Gas Decay Tanks shall be determined following the methodology in BTP ETSB 11-5, Postulated Radioactive Release Due to Waste Gas System Leak or Failure (Reference 6.4). The methodology is consistent with the methodology used in the Turkey Point USFAR analyses for the determination of offsite exposures resulting from a ruptured Gas Decay Tank. Hence the Program requirement to determine the gaseous radioactivity quantities in accordance with BTP ETSB 11-5 is consistent with the Turkey Point licensing basis.

The proposed Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program also states that the provisions of Turkey Point SR 4.0.2 and SR 4.0.3 apply

to the Program surveillance frequencies. SR 4.0.2 states that each SR shall be performed within the specified time interval with a maximum allowable extension not to exceed 25% of the surveillance interval. SR 4.0.3 specifies the required actions that must be performed in the event a surveillance requirement is not completed within its specified surveillance interval. Applying SR 4.0.2 and SR 4.0.3 to the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program surveillance frequencies serve to retain the SR 4.0.2 and SR 4.0.3 requirements as currently applicable to the surveillances associated with TS 3.3.3.6, Explosive Gas Monitoring Instrumentation, TS 3.7.8, Explosive Gas Mixtures, and TS 3.7.9, Gas Decay Tanks, and thereby is consistent with the Turkey Point licensing basis.

The Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program will provide TS requirements to assure that appropriate procedures are maintained to monitor and control the radioactivity and explosive gas content of the Gas Decay Tanks using accepted NRC methodologies. Hence, incorporating the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program into the Turkey Point TS provides adequate regulatory control and assurance that the Turkey Point Gas Decay Tanks will be monitored and controlled within the applicable limits for explosive gas and radioactivity content and is thereby reasonable.

3.5 Standby Feedwater System

The proposed change deletes TS 3.7.1.6, Standby Feedwater System, and relocates the requirements for the SSGFP(s) and the DWST to licensee controlled documents whereby future changes will be subject to the provisions of 10 CFR 50.59. The proposed change also deletes the special reporting requirements of TS 3.7.1.6 such that no notification to the NRC would occur in the event a SSGFP or DWST is non-operational in excess of the current TS 3.7.1.6 specified periods triggering special reporting.

The Standby Feedwater System is not installed instrumentation used to detect, and indicate in the Control Room, a significant abnormal degradation of the reactor coolant pressure boundary; does not include process variables, design features, or operating restrictions that are an initial condition of a design basis accident or transient analysis that assumes the failure of or presents a challenge to the integrity of a fission product barrier; is not comprised of SSCs that are part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that assumes the failure of or presents a challenge to the integrity of a fission product barrier; and does not include SSCs which operating experience or probabilistic risk assessment have shown to be significant to public health and safety. Hence, the Standby Feedwater System does not meet the 10 CFR 50.36(c)(2)(ii) criteria for TS inclusion as LCOs. Consistent with the NRC's Final Policy Statement on TS Improvements for Nuclear Power Reactors (Reference 6.2), the Standby

Feedwater System TS requirements are appropriate for relocation to licensee controlled documents with no adverse impact on safety.

Relocating the Standby Feedwater System requirements to licensee controlled documents neither physically changes the system nor modifies the manner in which it will be operated and maintained. The SSGFP and DWST operational limits, applicable MODES, required ACTIONS and SRs will be relocated to plant procedures consistent with the Turkey Point TS requirements. The Standby Feedwater System will continue to perform with high reliability as FPL will continue to maintain the system in good operating condition with regard to appearance, structures, supports, component maintenance, calibrations, etc. This includes demonstrating system functionality on a periodic basis by operating the SSGFPs in the recirculation mode to verify supporting equipment performance and by verifying feedwater flow capability to the Steam Generators. To ensure that the diesel-driven SSGFP is maintained in good operating condition, the diesel driver will continue to be inspected consistent with manufacture's recommendations and FPL's overall objectives for system reliability. As such, the existing defense in depth and diversity currently described in the UFSAR with regard to Standby Feedwater System functional performance will not be diminished. Any future changes to the UFSAR or applicable plant procedures will first be subject to the provisions of 10 CFR 50.59.

The proposed change is consistent with NUREG-1431 (Reference 6.1), which neither includes a Standby Feedwater System nor requires submittal of any special report associated with the SSGFPs or the DWST. The special reporting required by TS 3.7.1.6 provides information but neither requests NRC approval nor ensures safe operation of the facility during or after the period for report submittal. Therefore, elimination of the special reporting requirement is appropriate on the basis that it does not meet the immediate reporting criteria of 10 CFR 50.72, regarding immediate notification requirements for operating nuclear power reactors, and the reports are not necessary to ensure operation of the facility in a safe manner.

Hence, consistent with NUREG-1431 and the NRC's Final Policy Statement on TS Improvements for Nuclear Power Reactors (Reference 6.2), the Standby Feedwater System TS requirements are appropriate for relocation to licensee controlled documents with no adverse impact on safety. As such, the deletion of TS 3.7.1.6 and the relocation of the Standby Feedwater System requirements to the Turkey Point USFAR and applicable plant procedures is reasonable.

3.6 Auxiliary Feedwater System

The proposed change modifies TS 3.7.1.2, ACTION 2, such that in the event both AFW trains are inoperable and cannot be restored to OPERABILITY within 2 hours, the requirement to verify the OPERABILITY of both SSGFPs prior to

commencing Unit(s) shutdown is replaced with a requirement to verify the Standby Feedwater System is capable of providing makeup to the Steam Generators prior to commencing Unit(s) shutdown.

TS 3.7.1.2, ACTION 2, requires that with both AFW trains inoperable, one train must be restored to OPERABLE status within 2 hours following which TS 3.7.1.2, ACTION 1, must be entered for a single inoperable AFW train. TS 3.7.1.2, ACTION 2, further requires that if one of the inoperable AFW trains cannot be restored within 2 hours, the OPERABILITY of both SSGFPs must be verified and the affected Units(s) must be placed in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours. A footnote denoted by an asterisk (*) allows entry into HOT STANDBY within 12 hours and HOT SHUTDOWN within the following 6 hours if both Units are affected simultaneously. If the OPERABILITY of both SSGFPs cannot be verified within 2 hours, TS 3.7.1.2, ACTION 2, requires that corrective action be initiated to restore at least one AFW train to OPERABLE status as soon as possible followed by entry into TS 3.7.1.2, ACTION 1, for a single inoperable AFW train.

The proposed change replaces the requirement to verify the OPERABILITY of both SSGFPs prior to commencing Unit(s) shutdown with a requirement to verify that both SSGFPs are capable of providing makeup to the Steam Generators prior to commencing Unit(s) shutdown. The proposed change aligns TS 3.7.1.2, ACTION 2, with the Turkey Point licensing basis which describes the non-safety related Standby Feedwater System as a highly-reliable backup to the AFW system. Verifying that both SSGFPs are capable of providing makeup to the Steam Generators provides added assurance that the non-safety related Standby Feedwater System is capable of supporting the shutdown of the affected Unit(s). As stated earlier, FPL intends to maintain the Standby Feedwater System in good operating condition with regard to appearance, structures, maintenance, etc., and relocating the Standby Feedwater System requirements to licensee control neither physically changes the system nor modifies the manner in which it will be operated and maintained. Hence, replacing the requirement to verify the OPERABILITY of both SSGFPs with a requirement to verify that both SSGFPs are capable of providing makeup to the Steam Generators prior to commencing Unit(s) shutdown in the event both AFW trains cannot be restored to OPERABILITY within 2 hours is reasonable.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

- 10 CFR 50.36(c)(2)(ii) states that a limiting condition for operation must be included in TS for any item meeting one or more of the following four criteria:

  1) installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary;

  2) a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;

  3) a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; and

  4) a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

- 10 CFR 50.36(c)(3), states that surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

- General Design Criteria (GDC) 3 of Appendix A to 10 CFR 50, states that structures, systems, and components important to safety shall be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions.

- GDC 60 states that the nuclear power unit design shall include means to control suitably the release of radioactive materials in gaseous and liquid effluents and to handle radioactive solid wastes produced during normal reactor operation, including anticipated operational occurrences. Sufficient holdup capacity shall be provided for retention of gaseous and liquid effluents containing radioactive materials, particularly where unfavorable site

environmental conditions can be expected to impose unusual operational limitations upon the release of such effluents to the environment.

- GDC 63 states that appropriate systems shall be provided in fuel storage and radioactive waste systems and associated handling areas (1) to detect conditions that may result in loss of residual heat removal capability and excessive radiation levels and (2) to initiate appropriate safety actions.

- GDC 64 states that means shall be provided for monitoring the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluids, effluent discharge paths, and the plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents.

- 1967 Proposed GDC 6 states that the reactor core with its related controls and protection systems shall be designed to function throughout its design lifetime without exceeding acceptable fuel damage limits which have been stipulated and justified. The core and related auxiliary system designs shall provide this integrity under all expected conditions of normal operation with appropriate margins for uncertainties and for specified transient situations which can be anticipated.

- 1967 Proposed GDC 17 states that instrumentation and controls shall be provided as required to monitor and maintain within prescribed operating ranges essential reactor facility operating variables.

- 1967 Proposed GDC 18 states that monitoring and alarm instrumentation shall be provided for fuel and waste storage and associated handling areas for conditions that might result in loss of capability to remove decay heat and to detect excessive radiation levels.

- 1967 Proposed GDC 42 states that engineered safety features shall be designed so that the capability of these features to perform their required function is not impaired by the effects of a loss-of-coolant accident to the extent of causing undue risk to the health and safety of the public.

- 1967 Proposed GDC 43, states that protection against any action of the engineered safety features which would accentuate significantly the adverse after-effects of a loss of normal cooling shall be provided.

- 1967 Proposed GDC 69 states that provisions shall be made in the design of fuel and waste storage facilities such that no undue risk to the health and safety of the public could result from an accidental release of radioactivity.

The proposed license amendments comply with the requirements of 10 CFR 50.36(c)(2)(ii) and 10 50.36(c)(3), and does not alter the manner in which the subject SSCs are operated and maintained consistent with GDC(s) 3, 60, 63 and 64, and 1967 Proposed GDC(s) 6, 17, 18, 42, 43 and 69. Therefore, all applicable regulatory requirements will continue to be satisfied as a result of the proposed license amendments.

4.2 No Significant Hazards Consideration

As required by 10 CFR 50.91(a), FPL has evaluated the proposed changes using the criteria in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration. An analysis of the issue of no significant hazards consideration is presented below:

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

Response: No

The proposed license amendments modify the Turkey Point TS by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, Gas Decay Tanks and Standby Feedwater System requirements to licensee controlled documents, by relatedly modifying the AFW System requirements and by establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed changes are administrative in nature and do not alter any plant equipment or the manner in which plant equipment is operated and maintained. All equipment limitations, applicable methodologies and surveillances are maintained by the proposed changes. In addition, the proposed changes to the AFW System requirements enhance plant safety. As such, the proposed changes cannot affect the initiators, the likelihood or the expected outcomes of any analyzed accidents.

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

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

Response: No

The proposed license amendments modify the Turkey Point TS by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, Gas Decay Tanks and Standby Feedwater System requirements to licensee controlled documents, by relatedly modifying the AFW System requirements and by establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed changes neither install or remove plant equipment nor alter any plant equipment design, configuration, or method of operation. Hence, no new failure mechanisms are introduced as a result of the proposed changes.

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

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

Response: No

The proposed license amendments modify the Turkey Point TS by relocating the Explosive Gas Monitoring Instrumentation, Explosive Gas Mixture, Gas Decay Tanks and Standby Feedwater System requirements to licensee controlled documents, by relatedly modifying the AFW System requirements and by establishing a Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program. The proposed changes neither involve changes to safety analyses assumptions, safety limits, or limiting safety system settings nor adversely impact plant operating margins or the reliability of equipment credited in safety analyses.

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

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

4.3 Conclusion

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

5.0 ENVIRONMENTAL CONSIDERATION

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

6.0 REFERENCES

6.1 NUREG-1431, Standard Technical Specifications - Westinghouse Plants, Revision 4.0, Volume 1, Specifications (Accession No. ML12100A222)

6.2 NRC Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors, dated July 22, 1993 (58 FR 39132)

6.3 Generic Letter 95-10, Relocation of Selected Technical Specifications Requirements Related to Instrumentation, December 15, 1995 (ADAMS Accession No. ML031070178)

6.4 NUREG-0800, Standard Review Plan, Branch Technical Position BTP-11-5, Postulated Radioactive Releases Due to a Waste Gas System Leak or Failure, Revision 3, March 2007 (ADAMS Accession No. ML070730056)

ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION PAGES (MARKUP)

(12 pages follow)

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

~~EXPLOSIVE GAS MONITORING INSTRUMENTATION~~ 3/4 3.3.3.6 DELETED

DELETE

LIMITING CONDITION FOR OPERATION

3.3.3.6 The explosive gas monitoring instrumentation channels shown in Table 3.3-8 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.7.8 are not exceeded.

APPLICABILITY: As shown in Table 3.3-8

ACTION:

a. With an explosive gas monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, declare the channel inoperable or change the setpoint so it is acceptably conservative.

b. With less than the minimum number of explosive gas monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-8. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful prepare and submit a special report to the Commission within 30 days to explain why this inoperability was not corrected in a timely manner.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.6 Each explosive gas monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-6.

DELETE

TABLE 3.3-8

EXPLOSIVE GAS MONITORING INSTRUMENTATION DELETED

INSTRUMENT	MINIMUM CHANNELS OPERABLE	APPLICABILITY	ACTIONS
1. WASTE GAS DISPOSAL SYSTEM (Explosive Gas Monitoring System)			
a. Hydrogen and Oxygen Monitors	1	*	49

TABLE NOTATION

* During GAS DECAY TANK SYSTEM operation.

ACTION 49 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the GAS DECAY TANK SYSTEM may continue provided that grab samples are collected and analyzed for hydrogen and oxygen concentration at least a) once per 8 hours during degassing operations, and b) once per day during other operations.

TABLE 4.3-6

DELETE

~~EXPLOSIVE GAS MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS~~

DELETED

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. GAS DECAY TANK SYSTEM (Explosive Gas Monitoring System)					
a. Hydrogen and Oxygen Monitors	SFCP	N.A.	SFCP(1,2)	SFCP	*

TABLE NOTATION

* During GAS DECAY TANK SYSTEM operation.

(1) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal.

a. One volume percent hydrogen, balance nitrogen, and

b. Four volume percent hydrogen, balance nitrogen.

(2) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

a. One volume percent oxygen, balance nitrogen, and

b. Four volume percent oxygen, balance nitrogen.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Two independent auxiliary feedwater trains including 3 steam supply flowpaths, 3 pumps and associated discharge water flowpaths shall be OPERABLE.[1][2]

APPLICABILITY: MODES 1, 2 and 3

ACTION:

1) With one of the two required independent auxiliary feedwater trains inoperable, either restore the inoperable train to an OPERABLE status within 72 hours, or place the affected unit(s) in at least HOT STANDBY within the next 6 hours* and in HOT SHUTDOWN within the following 6 hours.

2) With both required auxiliary feedwater trains inoperable, within 2 hours either restore both trains to an OPERABLE status, or restore one train to an OPERABLE status and follow ACTION statement 1 above for the other train. If neither train can be restored to an OPERABLE status within 2 hours, verify ~~the OPERABILITY of both standby feed-water pumps~~ and place the affected unit(s) in at least HOT STANDBY within the next 6 hours* and in HOT SHUTDOWN within the following 6 hours. Otherwise, initiate corrective action to restore at least one auxiliary feedwater train to an OPERABLE status as soon as possible and follow ACTION statement 1 above for the other train.

3) With a single auxiliary feedwater pump inoperable, within 4 hours, verify OPERABILITY of two independent auxiliary feedwater trains, or follow ACTION statements 1 or 2 above as applicable. Upon verification of the OPERABILITY of two independent auxiliary feedwater trains, restore the inoperable auxiliary feedwater pump to an OPERABLE status within 30 days, or place the operating unit(s) in at least HOT STANDBY within 6 hours* and in HOT SHUTDOWN within the following 6 hours. The provisions of Specification 3.0.4 are not applicable during the 30 day period for the inoperable auxiliary feedwater pump.

4) With a single steam supply flowpath inoperable, within 4 hours verify OPERABILITY of two independent steam supply flowpaths or follow ACTION statement 1 or 2 above as applicable. Upon verification of the OPERABILITY of two independent steam supply flowpaths, restore the inoperable steam supply flowpath to OPERABLE status within 7 days of discovery, or place the affected Unit(s) in at least HOT STANDBY within 6 hours* and in HOT SHUTDOWN within the following 6 hours.

that both Standby Feedwater Pumps are capable of providing makeup flow to the steam generators

NOTES:

(1) One steam supply flowpath shall be OPERABLE in each AFW train and the third steam supply flowpath (via MOV-3-1404 for Unit 3 and MOV-4-1404 for Unit 4) shall be OPERABLE and aligned to either AFW train but not both simultaneously.

(2) During single and two unit operation, one pump shall be OPERABLE in each train and the third auxiliary feedwater pump shall be OPERABLE and capable of being powered from, and supplying water to either train, except as noted in ACTION 3 of Technical Specification 3.7.1.2. The third auxiliary feedwater pump (normally the “C” pump) can be aligned to either train to restore OPERABILITY in the event one of the required pumps is inoperable.

*If this ACTION applies to both units simultaneously, be in at least HOT STANDBY within the next 12 hours and in HOT SHUTDOWN within the following 6 hours.

~~STANDBY FEEDWATER SYSTEM~~ 3/4 3.7.1.6 DELETED

DELETE

LIMITING CONDITION FOR OPERATION

3.7.1.6 Two Standby Steam Generator Feedwater Pumps shall be OPERABLE* and at least 145,000 gallons of water (indicated volume), shall be in the Demineralized Water Storage Tank.**

APPLICABILITY: MODES 1, 2 and 3

ACTION:

a. With one Standby Steam Generator Feedwater Pump inoperable, restore the inoperable pump to available status within 30 days or submit a SPECIAL REPORT per 3.7.1.6d.

b. With both Standby Steam Generator Feedwater Pumps inoperable, restore at least one pump to OPERABLE status within 24 hours, or:

   1. Notify the NRC within the following 4 hours, and provide cause for the inoperability and plans to restore pump(s) to OPERABLE status and,

   2. Submit a SPECIAL REPORT per 3.7.1.6d.

c. With less than 145,000 gallons of water indicated in the Demineralized Water Storage Tank restore the available volume to at least 145,000 gallons indicated within 24 hours or submit a SPECIAL REPORT per 3.7.1.6d.

d. If a SPECIAL REPORT is required per the above specifications submit a report describing the cause of the inoperability, action taken and a schedule for restoration within 30 days in accordance with 6.9.2.

SURVEILLANCE REQUIREMENTS

4.7.1.6.1 The Demineralized Water Storage tank water volume shall be determined to be within limits in accordance with the Surveillance Frequency Control Program.

4.7.1.6.2 In accordance with the Surveillance Frequency Control Program verify the standby feedwater pumps are OPERABLE by testing in recirculation.

4.7.1.6.3 In accordance with the Surveillance Frequency Control Program, verify operability of the respective standby steam generator feedwater pump by starting each pump and providing feedwater to the steam generators.

*These pumps do not require plant safety related emergency power sources for operability and the flowpath is normally isolated.

**The Demineralized Water Storage Tank is non-safety grade.

4.7.1.6.4 DELETED

DELETE

SURVEILLANCE REQUIREMENTS (Continued)

4.7.1.6.4 The diesel engine for the diesel-driven Standby Steam Generator Feedwater Pump shall be demonstrated OPERABLE:

a. In accordance with the Surveillance Frequency Control Program, by testing with the associated standby steam generator feedwater pump in recirculation.

b. In accordance with the Surveillance Frequency Control Program, by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

~~EXPLOSIVE GAS MIXTURE~~ 3/4 3.7.8 DELETED

DELETE

LIMITING CONDITION FOR OPERATION

3.7.8 The concentration of oxygen in the GAS DECAY TANK SYSTEM (as measured in the inservice gas decay tank) shall be limited to less than or equal to 2% by volume whenever the hydrogen concentration exceeds 4% by volume.

APPLICABILITY: At all times.

ACTION:

a. With the concentration of oxygen in the inservice gas decay tank greater than 2% by volume but less than or equal to 4% by volume, reduce the oxygen concentration to the above limits within 48 hours.

b. With the concentration of oxygen in the inservice gas decay tank greater than 4% by volume and the hydrogen concentration greater than 4% by volume, immediately suspend all additions of waste gases to the gas decay tanks and reduce the concentration of oxygen to less than or equal to 4% by volume, then take ACTION a., above.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.8 The concentrations of hydrogen and oxygen in the inservice gas decay tanks shall be determined to be within the above limits by continuously* monitoring the waste gases in the inservice gas decay tank with the hydrogen and oxygen monitors required OPERABLE by Table 3.3-8 of Specification 3.3.3.6.

*When continuous monitoring capability is inoperable, Table 3.3-8 allows the use of grab samples.

~~GAS DECAY TANKS~~ 3/4 3.7.9 DELETED

DELETE

LIMITING CONDITION FOR OPERATION

3.7.9 The quantity of radioactivity contained in each gas decay tank shall be limited to less than or equal to 70,000 Curies of noble gases (DOSE EQUIVALENT Xe-133).

APPLICABILITY: At all times.

ACTION:

a. With the quantity of radioactive material in any gas decay tank exceeding the above limit, immediately suspend all additions of radioactive material to the tank, within 48 hours reduce the tank contents to within the limit, and describe the events leading to this condition in the next Annual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.4.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.9 The quantity of radioactive material contained in each gas decay tank shall be determined to be within the above limit at least once per 24 hours when radioactive materials are being added to the tank and the Reactor Coolant System total activity exceeds the limit of Specification 3.4.8.

PROCEDURES AND PROGRAMS (Continued)

l. Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operations are met:

a. The Surveillance Frequency Control Program shall contain a list of frequencies of those Surveillance Requirements for which the frequency is controlled by the program.

b. Changes to the frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, " Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 4.0.2 and 4.0.3 are applicable to the frequencies established in the Surveillance Frequency Control Program.

m. Snubber Testing Program

This program conforms to the examination, testing and service life monitoring for dynamic restraints (snubbers) in accordance with 10 CFR 50.55a inservice inspection (ISI) requirements for supports. The program shall be in accordance with the following:

a. This program shall meet 10 CFR 50.55a(g) ISI requirements for supports.

b. The program shall meet the requirements for ISI of supports set forth in subsequent editions of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(a) subject to the use and conditions on the use of standards listed in 10 CFR 50.55a(b) and subject to Commission approval.

c. The program shall, as required by 10 CFR 50.55a(b)(3)(v), meet Subsection ISTA, "General Requirements" and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants".

d. The 120-month program updates shall be made in accordance with 10 CFR 50.55a(g)(4), 10 CFR 50.55a(g)(3)(v) and 10 CFR 50.55a(b) (including 10 CFR 50.55a(b)(3)(v)) subject to the conditions listed therein.

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6.8.5 DELETED

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n. Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program

This Program provides controls for potentially explosive gas mixtures and the quantity of radioactivity contained in the Gas Decay Tanks. The gaseous radioactivity quantities shall be determined following the methodology in Branch Technical Position (BTP) ETSB 11-5, Postulated Radioactive Release Due to Waste Gas System Leak or Failure.

The Program shall include:

1. The limits for concentrations of hydrogen and oxygen in the Gas Decay Tanks and a surveillance program to ensure that the limits are maintained. Such limits shall be appropriate to the system's design criteria (i.e., whether or not the system is designed to withstand a hydrogen explosion), and

2. A surveillance program to ensure that the quantity of radioactivity contained in each Gas Decay Tank is less than the amount that would result in a whole body exposure of 0.5 rem to any individual in an unrestricted area, in the event of an uncontrolled release of the tanks' contents.

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Gas Decay Tank Explosive Gas and Radioactivity Monitoring Program surveillance frequencies.

ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATION BASES PAGES (MARKUP)

(7 pages follow)

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BASES

ATTACHMENT 1
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(Page 5 of 6)

BASES

ATTACHMENT 2
Technical Specification Bases
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3/4.3.3.6 ~~Radioactive Gaseous Effluent Monitoring Instrumentation~~ DELETED

DELETE →

~~The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the GAS DECAY TANK SYSTEM. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. The sensitivity of any noble gas activity monitors used to show compliance with the gaseous effluent release requirements of Specification 3.11.2.2 shall be such that concentrations as low as 1 x 10^{-6} µCi/ml are measurable.~~

3/4.4 Reactor Coolant System

3/4.4.1 Reactor Coolant Loops and Coolant Circulation

The plant is designed to operate with all reactor coolant loops in operation and maintain DNBR above the applicable design limit during all normal operations and anticipated transients. In MODES 1 and 2 with one Reactor Coolant Loop **NOT** in operation this specification requires that the plant be in at least HOT STANDBY within 6 hours.

In MODE 3, three reactor coolant loops provide sufficient heat removal capability for removing core decay heat in the event of a bank withdrawal accident; however, a single Reactor Coolant Loop provides sufficient heat removal capacity if a bank withdrawal accident can be prevented, i.e., by opening the Reactor Trip System breakers. Single active failure considerations require that at least two loops be OPERABLE at all times.

In MODE 4, and in MODE 5 with reactor coolant loops filled, a single reactor coolant loop or RHR loop provides sufficient heat removal capability for removing decay heat, but all combinations of two loops, except two RHR loops, provide single active failure protection.

ATTACHMENT 2
Technical Specification Bases
(Page 138 of 194)

3/4.7.1.2 (Continued) neither AFW train can be restored to OPERABLE status within 2 hours.

ACTION statement 1 describes the actions to be taken when one of the two required independent AFW trains is inoperable. Two redundant AFW trains must be OPERABLE in order to satisfy the design basis requirement that the AFW System meet the single failure criterion in response to a MSLB. The 72-hour ACTION statement for an inoperable AFW train is reasonable based on the redundant capabilities afforded by the AFW system, the time needed for repairs, and the low probability of a DBA occurring during this time period. Additionally, the 72-hour ACTION statement is consistent with the 72-hour completion time specified in TS 3.7.5 of NUREG-1431, Revision 4, for one inoperable AFW train.

ACTION statement 2 describes the actions to be taken when ~~both Auxiliary Feedwater Trains are inoperable~~. The requirement to verify the availability of both Standby Feedwater Pumps is to be accomplished by verifying that both pumps have successfully passed their surveillance tests within the last surveillance interval. The requirement to complete this action before beginning a unit shutdown is to ensure that an alternate feedwater train is available before putting the affected unit through a transient. If **NO** alternate feedwater trains are available, the affected unit is to stay at the same condition until an auxiliary feedwater train is returned to service, and then invoke ACTION statement 1 for the other train. If both Standby Feedwater Pumps are made available before one Auxiliary Feedwater Train is returned to an OPERABLE status, then the affected units shall be placed in at least HOT STANDBY within 6 hours and HOT SHUTDOWN within the following 6 hours.

If this ACTION applies to both Units simultaneously, the Units shall be placed in at least HOT STANDBY with the next 12 hours and in HOT SHUTDOWN within the following 6 hours. Placing the affected Unit(s) in HOT SHUTDOWN removes the Unit(s) from the MODEs of applicability for AFW and allows the non-safety grade Standby Feedwater System to provide makeup flow to one or both Units, as necessary.

ATTACHMENT 2
Technical Specification Bases
(Page 143 of 194)

3/4.7.1.6 ~~Standby Steam Generator Feedwater System~~ DELETED

DELETE →

The purpose of this specification and the supporting surveillance requirements is to assure operability of the non-safety grade Standby Steam Generator Feedwater System. The Standby Steam Generator Feedwater System consists of commercial grade components designed and constructed to industry and FPL standards of this class of equipment located in the outdoor plant environment typical of FPL facilities system wide. The system is expected to perform with high reliability, i.e., comparable to that typically achieved with this class of equipment. FPL intends to maintain the system in good operating condition with regard to appearance, structures, supports, component maintenance, calibrations, etc.

The function of the Standby Feedwater System for OPERABILITY determinations is that it can be used as a backup to the Auxiliary Feedwater (AFW) System in the event the AFW System does **NOT** function properly. The system would be manually started, aligned, and controlled by the operator when needed.

The A pump is electric-driven and is powered from the non-safety related C bus. In the event of a coincident loss of offsite power, the B pump is diesel driven and can be started and operated independent of the availability of on-site or off-site power.

A supply of 77,000 gallons from the Demineralized Water Storage Tank for the Standby Steam Generator Feedwater Pumps is sufficient water to remove decay heat from the reactor for six (6) hours for a single unit or two (2) hours for two units. This was the basis used for requiring 77,000 gallons of water in the non-safety grade Demineralized Water Storage Tank and is judged to provide sufficient time for restoring the AFW System or establishing make-up to the Demineralized Water Storage Tank.

The minimum indicated volume (145,000 gallons) consists of an allowance for level indication instrument uncertainties (approximately 15,000 gallons) for water deemed unusable because of tank discharge line location and vortex formation (approximately 50,200 gallons) and the minimum usable volume (77,000 gallons). The minimum indicated volume corresponds to a water level of 9.2 feet in the Demineralized Water Storage Tank.

ATTACHMENT 2
Technical Specification Bases
(Page 144 of 194)

3/4.7.1.6 ~~(Continued)~~

DELETE

The Standby Steam Generator Feedwater Pumps are **NOT** designed to NRC requirements applicable to Auxiliary Feedwater Systems and **NOT** required to satisfy Design Basis Events requirements. These pumps may be out of service for up to 24 hours before initiating formal notification because of the extremely low probability of a demand for their operation.

The guidelines for NRC notification in case of both pumps being out of service for longer than 24 hours are provided in applicable plant procedures, as a voluntary 4 hour notification.

Adequate demineralized water for the Standby Steam Generator Feedwater system will be verified in accordance with the Surveillance Frequency Control Program. The Demineralized Water Storage Tank provides a source of water to several systems and therefore, requires daily verification.

The Standby Steam Generator Feedwater Pumps will be verified OPERABLE by starting and operating them in the recirculation mode. Also, each Standby Steam Generator Feedwater Pump will be started and aligned to provide flow to the nuclear unit's steam generators. The surveillance frequencies are controlled under the Surveillance Frequency Control Program.

This surveillance regimen will thus demonstrate operability of the entire flow path, backup non-safety grade power supply and pump associated with a unit at least each refueling outage. The pump, motor driver, and normal power supply availability would typically be demonstrated by operation of the pumps in the recirculation mode monthly on a staggered test basis.

The diesel engine driver for the B Standby Steam Generator Feedwater Pump will be periodically verified operable. In addition, an inspection will be performed on the diesel in accordance with procedures prepared in conjunction with its manufacture's recommendations for the diesel's class of service. The surveillance frequencies are controlled under the Surveillance Frequency Control Program. This inspection will ensure that the diesel driver is maintained in good operating condition consistent with FPL's overall objectives for system reliability.

ATTACHMENT 2
Technical Specification Bases
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3/4.7.7 Sealed Source Contamination

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(a)(3) limits for plutonium. This limitation will ensure that leakage from Byproduct, Source, and Special Nuclear Material sources will **NOT** exceed allowable intake values.

Sealed Sources are classified into three groups according to their use, with Surveillance Requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are **NOT**. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need **NOT** be tested unless they are removed from the shielded mechanism.

3/4.7.8 ~~Explosive Gas Mixture~~ DELETED

DELETE →

~~This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the Gas Decay Tank System (as measured in the Inservice Gas Decay Tank) is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.~~

3/4.7.9 ~~Gas Decay Tanks~~ DELETED

DELETE →

~~The tanks included in this specification are those tanks for which the quantity of radioactivity contained is **NOT** limited directly or indirectly by another Technical Specification. Restricting the quantity of radioactivity contained in each Gas Decay Tank provides assurance that in the event of an uncontrolled release of the tank's contents, the resulting whole body exposure to a MEMBER OF THE PUBLIC at the nearest SITE BOUNDARY will **NOT** exceed 0.1 rem.~~