



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 149 TO FACILITY OPERATING LICENSE NO. DPR-31
AND AMENDMENT NO. 144 TO FACILITY OPERATING LICENSE NO. DPR-41

FLORIDA POWER AND LIGHT COMPANY

TURKEY POINT UNIT NOS. 3 AND 4

DOCKET NOS. 50-250 AND 50-251

1.0 INTRODUCTION

By letter dated May 28, 1991, Florida Power and Light Company (the licensee) requested approval of amendments to the Technical Specifications (TS) for the Turkey Point Plant, Units 3 and 4. Specifically, the proposed amendments would revise the TS by removing outdated material, incorporating administrative clarifications, and correcting typographical errors. These changes represent an administrative upgrade to the Turkey Point Units 3 and 4 TS.

2.0 EVALUATION

2.1 TS 1.0 - Definitions

On page 1-2, TS 1.7 a.2), the reference to Table 3.6-1 is deleted. This change corrects a typographical error related to referencing Table 3.6-1, which does not exist in the TS. Specification 3.6.4 meets the intent of the exception statement. The NRC staff has reviewed this change and finds it acceptable.

2.2 TS 2.0 - Safety Limits and Limiting Safety System Settings

On page 2-10, Table 2.2-1, K6 definition, the words "and K6" are deleted and the portion of the definition where the words " $= 0$ for $T < T$ " appear are moved to the following line. The expression is modified to ensure a consistent mathematical convention. The staff finds this change acceptable.

2.3 TS 3/4.1.- Reactivity Control Systems

On page 3/4 1-23, TS 4.1.3.3.2, the sentence "A CHANNEL CHECK CALIBRATION AND ANALOG CHANNEL OPERATIONAL TEST shall be performed per Table 4.1-1" is deleted and the wording "OPERABILITY of the group step counter demand position indicator shall be verified in accordance with Table 4.1-1" is substituted.

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This change is an administrative clarification. Table 4.1-1 establishes operability of the group step counter demand position indicator by performing a CHANNEL CHECK and an OPERATIONAL TEST. The demand position indicator system is a digital system and does not have channels to calibrate or perform an analog operational test. This change is consistent with the surveillance requirements of Table 4.1-1. The staff finds this change acceptable.

On page 3/4 1-23, TS 3.1.3.3, Footnote (**), the reference for the "Special Test Exceptions Specification 3.10.4" is changed to read "See Special Test Exceptions Specification 3.10.5".

This corrects a typographical error. Special Test Exceptions Specification 3.10.4 does not exist. The staff finds this change to be acceptable.

2.4 TS 3/4.3 - Instrumentation

On page 3/4 3-15, Table 3.3-2, functional unit 1.f., Steam Generator Pressure--Low, under column heading CHANNELS TO TRIP, the licensee requested that the word "generator" is substituted for the word "line". This is an administrative clarification. The steam generator low pressure system actuation signal is monitored with one channel per steam generator. The column headings CHANNELS TO TRIP and MINIMUM CHANNELS OPERABLE are established based upon the operability of this one channel per steam generator. Substitution of the word "generator" for the word "line" is made to ensure a consistent interpretation of the operability criteria based upon the total number of channels per steam generator. The staff find this change to be acceptable.

The licensee also requested a TS change on Table 3.3-2, page 3-15 for the Steam Generator Pressure - Low Signal column for CHANNEL TO TRIP and MINIMUM CHANNELS OPERABLE, which would have inserted the word "generators" in two places for the word "lines". The staff has denied this request to be consistent with the interpretation of the actual location of the pressure transmitters (PTs), which read the steam generator pressure signal downstream from the steam generator in the two steam lines. This interpretation of PT location is also consistent with the wording used in NUREG-0452, Westinghouse Standardized Technical Specifications.

On page 3/4 3-18, Table 3.3-2, functional unit 4.d., Steam Line Flow - High, the wording "in any two steam lines" is inserted under the columns CHANNELS TO TRIP and MINIMUM CHANNELS OPERABLE. The steam line high flow system protection is based upon the presence of two channels per steam line. A review of the Turkey Point Plant, Units 3 and 4 control system diagram for steam line break protection confirms that the logic for CHANNELS TO TRIP is based on one channel per steam line in any two steam lines where it is assumed that one of the flow transmitters in one of the three steam lines has failed and its signal is placed in the trip condition. This channel logic is consistent with the channel logic criteria as specified in NUREG-0452. The addition of the wording "in any two steam lines" ensures consistency with this NUREG. The staff finds that this change is acceptable.

The licensee also requested a TS change on Table 3.3-2, page 3/4 3-18 for the Steam Line Isolation - Steam Generator Pressure - Low columns for CHANNELS TO

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TRIP and MINIMUM CHANNELS OPERABLE, which would have inserted the word "generators" in two places for the word "lines". The staff has again denied this request to be consistent with the interpretation of the actual location of the pressure transmitters (PTs) which read the steam generator pressure signal downstream from the steam generator in the two steam lines. This interpretation of PT location is also consistent with the wording used in NUREG-0452, Westinghouse Standardized Technical Specifications.

On page 3/4 3-26, Table 3.3-3, the letter "f" in 4.f. is changed to the letter "d". A review of NUREG-0452 confirms that no information was unintentionally deleted and that this change is simply a typographical correction.

On page 3/4 3-36, Table 3.3-4, the word MINIMUM is inserted in the heading CHANNELS OPERABLE, and the word "for" is added between the word "27" and "MODES" in Functional Unit 1.a., Containment Atmosphere Radioactivity - High.

These were typographical errors. Inserting the word "MINIMUM" in the column heading CHANNELS OPERABLE ensures a consistency with ACTION statements 27 and 28 of Table 3.3-4. The addition of the word "for" provides a clarification of the applicability of ACTION statement 27 for Modes 5 and 6. The NRC staff finds these changes acceptable.

On page 3/4 3-43, Table 3.3-5, the word "quadrant" is inserted after the word "core" under the column MINIMUM CHANNELS OPERABLE for Instrument 14, In Core Thermocouples (Core Exit Thermocouples).

This corrects a typographical error. The addition of the word "quadrant" ensures consistency with the definition for the TOTAL NO. OF CHANNELS for Instrument 14. This wording is identical to the wording in Table 3.3-10 of NUREG-0452, Rev. 4, Standard Technical Specifications for Westinghouse Pressurized Water Reactors. The staff has reviewed this change and finds it acceptable.

On pages 3/4 3-48 and 3/4 3-49, Table 3.3-6, under the column heading TOTAL NUMBER OF INSTRUMENTS, an asterisk (*) is added so that the heading reads "(x/y)*" for the HEAT, FLAME and SMOKE instruments. Under TABLE NOTATIONS, the expression "(x/y)" is deleted and the location of the asterisk is centered.

These were typographical errors. The definition for (x/y) is identical for the three types of instruments (heat, flame, and smoke) and was never intended to be distinguished as any different. Adding the asterisk for each instrument ensures the correct and identical definition for each type of fire detection instrument. The NRC staff finds these changes acceptable.

On page 3/4 3-53, Table 4.3-5, the asterisk ("*") footnote, which states that the "Channel calibration frequency shall be at least once per 18 months" is deleted since the definition for "R" as defined in Table 1.1 is identical.

This is an administrative clarification. Deleting the asterisk footnote, while maintaining the notation "R", reduces redundancy while maintaining consistency within the TS. The staff finds this change acceptable.

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On page 3/4 3-53, Table 4.3-5, TABLE NOTATIONS (1), second line, the word "measured" is substituted for the word "measures".

This was a typographical error related to the use of an incorrect verb syntax. The staff finds this change acceptable.

On page 3/4 3-53, TABLE NOTATIONS (2), the reference standards certifier name of "National Bureau of Standards (NBS)" is changed to "National Institute of Standards and Technology (NIST)."

This is an administrative clarification which reflects a change in the title of a government agency. The staff finds this change acceptable.

On page 3/4 3-56, Table 3.3-8, 4.d., the values under the three columns are moved over several spaces to line-up with the values in Table 3.3-8.

This was a strictly editorial typographical error. The staff finds this change acceptable.

On pages 3/4 3-59 and 3/4 3-61, Table 4.3-6, footnote "(6)" on page 3/4 3-61 is deleted, and "R" is substituted for "(6)" under the column heading CHANNEL CALIBRATION for Instruments 4.a., 4.d., and 4.e. on page 3/4 3-59.

These are administrative clarifications. These changes reduces redundancy, since the definition for "R" as provided in Table 1.1 is identical to the definition for "(6)" as defined in Table 4.3-6. The staff finds these changes acceptable.

On page 3/4 3-60, TABLE NOTATIONS (3), the reference standards certifier name of "National Bureau of Standards (NBS)" is change to "National Institute of Standards and Technology (NIST)."

This is an administrative clarification which reflects a change in the title of a government agency. The staff finds this change acceptable.

2.5 TS 3/4.4 - Reactor Coolant System (RCS)

On page 3/4 4-22, Table 3.4-1, the valve for Unit 3 should read "3-876A", as opposed to "3-876-A". Reactor coolant system pressure isolation valves MOV3-750 and MOV3-751 are incorrectly listed as valves in the Loop A hot leg to the residual heat removal (RHR) system. These valves are actually located in the Loop C hot leg to the RHR. Table 3.4-1 is revised to reflect the correct location of MOV3-750 and MOV3-751.

These changes ensure accuracy with the plant configuration. For each unit, the RCS pressure isolation valve is located on at least one hot leg to the RHR. TS 3.4.6.2e. states that RCS leakage shall be limited to a maximum of 5 gpm from any reactor coolant system pressure isolation valve. This change identifies the actual loop the Unit 3 motor-operated valves in the hot leg to the RHR are located, without compromising the system protection. The staff has reviewed these changes and find them acceptable.

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On page 3/4 4-28, Table 4.4-4, the word "AND" for the word "ANY" is substituted in the column heading "TYPE OF MEASUREMENT ANY ANALYSIS".

This corrects a typographical error and ensures accuracy and consistency with NUREG-0452, Standard Technical Specifications for Westinghouse Pressurized Water Reactors, Rev. 4. The staff finds this change acceptable.

2.6 TS 3/4.6 - Containment Systems

On page 3/4 6-10, TS 4.6.1.6.3, fifth line down, the reference for TS "4.6.1.2.1" is changed to "4.6.1.2".

TS 4.6.1.2.1. does not exist in the TS. Eliminating the ".1", at the end of this TS ensures that the intent of this cross-reference is maintained. The staff has reviewed this change and finds it acceptable.

On page 3/4 6-15, TS 4.6.3.b2), a period between "6" and "a" is inserted in the expression "criteria of position C.6a".

This corrects a typographical error. The staff has reviewed this change and finds it acceptable.

2.7 TS 3/4.7 - Plant Systems

On page 3/4 7-33, TS 3.7.9, the wording "fire barrier penetration seals" is relocated from an example of "fire rated assemblies" to an example of "all sealing devices in fire rated assembly penetrations."

This is an administrative clarification. TS 4.7.9.1 states that at least once per 18 months the required fire rated assemblies and penetration sealing devices shall be verified operable. The surveillance requirement differentiates the extent of the inspection based upon the category of the equipment (i.e., fire rated assemblies versus penetration sealing devices). By substituting the wording "fire barrier penetration seals" as an example of sealing devices in fire rated assembly penetrations, the surveillance requirements are consistent with TS 3.7.9. The staff finds this change acceptable.

2.8 TS 3/4.9 - Refueling Operations

On page 3/4 9-12, TS 3.9.11, the asterisk footnote which reads "During spent fuel rerack operation, the water level may be lowered to a level justified by an engineering safety evaluation. There will be no movement of fuel assemblies with water level lower than 56' - 10" elevation during rerack operation" is deleted. Also, the asterisk in the second line of TS 3.9.11 is deleted. All double asterisk notations are changed to a single asterisk notation.

This is an administrative clarification. This footnote is no longer applicable, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two region high-density spent fuel storage racks. The staff finds this change acceptable.

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9. 备注: 无

On page 3/4 9-13, TS 3.9.12, the asterisk footnote, which reads "The spent fuel cask can be moved into the Unit 4 spent fuel pit after a minimum decay of 1000 hours until the new two-region high density spent fuel racks are installed" is deleted. The asterisk in TS 3.9.12 1) is also deleted.

This footnote is no longer applicable, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks. The staff finds this change acceptable.

On page 3/4 9-13, the TS number "4.9.12.3" is substituted for the number "4.8.12.3".

This corrects a typographical error. The number "8" was inadvertently substituted for the number "9" in the specification number. The staff finds this change acceptable.

On page 3/4 9-15, TS 3/4.9.14, Spent Fuel Storage, is modified to reflect the fact that Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks. The following changes are requested:

- (a) The wording in TS 3.9.14a., which reads "Fuel Assemblies containing more than 4.1 weight percent of U-235 shall not be placed in the single region spent fuel storage racks. After installation of the two region high density spent fuel racks,..." is deleted.
- (b) TS 3.9.14d. is deleted.
- (c) In ACTION statement a., the wording "either condition a or c" is substituted for the wording "any of conditions a, c or d", and
- (d) The asterisk footnote, which reads "These requirements are applicable only after installation of the new two-region high density spent fuel racks" is deleted. Also, the asterisk in TS 3.9.14c. is deleted.

These changes are no longer applicable, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks. The NRC staff finds these changes acceptable.

On page 3/4 9-15, TS 3.9.14a., the wording "not exceed" is substituted for the word "be".

This is an administrative clarification. The intent of this TS is to establish an upper-limit on the fuel assembly enrichment in the spent fuel pool. The insertion of this wording ensures a consistent interpretation for the limiting condition for operation for the spent fuel storage racks and does not change the actual enrichment limit. The staff finds this change acceptable.



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2.9 TS 3/4.11 - Radioactive Effluents

On page 3/4 11-15, TS 4.11.2.5, the reference to "Table 3.3-8 of Specification 3.3.3.7" is substituted for "Table 3.3-8 of Specification 3.3.3.6". Also, in the asterisk footnote, the reference from "Table 3.3-9" is changed to "Table 3.3-8".

These are administrative clarifications. The corrections are being made to ensure compliance with the appropriate TS. Both TS 3.3.3.7 and Table 3.3-9 do not exist in the TS. TS 3/4.11.2.5 applies to the Gas Decay Tank System, while TS 3.3.3.6 applies to "Radioactive Gaseous Effluent Monitoring Instrumentation", and therefore the correct cross-reference is TS 3.3.3.6. The staff finds these changes acceptable.

The asterisk footnote provided on page 3/4 11-15 addresses the inoperability of the continuous monitoring capability for concentrations of hydrogen and oxygen. ACTION statement 49, in Table 3.3-8, clearly addresses this condition. The staff has reviewed these changes and finds them acceptable.

2.10 TS 3/4.12 - Radiological Environmental Monitoring

On page 3/4 12-2, TS 3.12.1, ACTION statement c, the wording "broad leaf" is substituted for the wording "fresh leafy".

This is an administrative clarification. The correct terminology is "broad leaf", as used in Table 3.12-1 and the associated TABLE NOTATION (11). This substitution ensures consistency within the reporting requirements. The NRC staff finds this change acceptable.

2.11 Bases for Sections 3.0 and 4.0

On page B 3/4 9-4, the footnote "*" and the corresponding asterisk in the text are deleted.

These are administrative clarifications. This footnote is no longer required, since the actual configuration of the Turkey Point Units 3 and 4 spent fuel pool is the two-region high density spent fuel racks. As a result, the statement which referenced this footnote is governed by the TS. The NRC staff finds these changes acceptable.

2.12 TS 5.0 - Design Features

On page 5-5, TS 5.6.1, Criticality, is modified to reflect the fact that the Turkey Point Units 3 and 4 spent fuel pool was reracked with two-region high density spent fuel storage racks. The following changes are requested:

- (a) TS 5.6.1.1a. and 5.6.1.1d. are deleted.
- (b) In TS 5.6.1.1c., the first sentence which reads "A nominal 13.7 inch center-to-center distance between fuel assemblies placed in the single-region storage racks" is deleted.



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- (c) In TS 5.6.1.1e., the beginning of the first sentence which reads "After installation of the two-region high density spent fuel storage racks,..." is deleted.

These are administrative clarifications. These TS can be deleted, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks and the references to the "single region spent fuel storage racks" are no longer applicable. The NRC staff finds these changes acceptable.

On page 5-6, TS 5.6.1.3, the asterisk footnote which reads "During rack installation, it will be necessary to temporarily store Region I fuel in the Region II spent fuel racks. Administrative controls will be utilized to maintain a checkerboard storage configuration, i.e., alternate cell occupation, in the Region II racks" is deleted. Also, the asterisk in the second line of TS 5.6.1.3 is deleted.

This is an administrative clarification. This footnote can be deleted, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks. Reference to the "temporary storage of Region I fuel in the Region II spent fuel racks" is no longer applicable. The NRC staff finds this change acceptable.

On page 5-6, TS 5.6.3, the statement "... 621** fuel assemblies in one region storage racks or .." is deleted. Also, footnote "**" is deleted.

This is an administrative clarification. The statement and footnote can be deleted, since both Turkey Point Units 3 and 4 spent fuel pools have been reracked with two-region high density spent fuel storage racks and the reference to the maximum number of fuel assemblies in one region storage racks is no longer applicable. The NRC staff finds this change acceptable.

2.13 TS 6.2 - Organization

On page 6-1, TS 6.2.1a., third line, the wording from "intermediate levels to an including" is changed to the wording "intermediate levels to, and including". (A comma is added between the words "to" and "and".)

These changes correct typographical errors by clarifying the intent of the line of authority, responsibility and communications. The NRC staff finds this change acceptable.

On page 6-7, TS 6.5.1.7b., third line, "-" is inserted, between the words "Manager" and "Nuclear", such that the wording reads "Plant Manager - Nuclear".

This corrects a typographical error. This correction is made to ensure consistency within TS 6.0. The NRC staff finds this change acceptable.

On pages 6-14 and 6-15, TS 6.8.4, the title "c. Secondary Water Chemistry" is moved from the top of page 6-15 to the bottom of page 6-14.

This corrects a typographical error. The title is moved to maintain consistency with the implied intention. This change parallels NUREG-0452, Rev. 4, Standard Technical Specifications for Westinghouse Pressurized Water Reactors. The staff finds this change acceptable.

On page 6-17, an asterisk is added to the heading "Annual Radiological Environmental Operating Report". In the fourth paragraph, second line, an additional asterisk is added to the asterisk after the words "two legible maps".

These were typographical errors. These changes ensure consistency between the footnotes and the statements associated with the asterisks. The NRC staff finds these changes acceptable.

On page 6-22, the page heading "Record Retention" is changed to read "Radiation Protection Program".

This change is consistent with TS conventions and the section name on the bottom of page 6-21. The staff finds this change acceptable.

3.0 STATE CONSULTATION

Based upon the written notice of the proposed amendments, the Florida State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (56 FR 31434). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). These amendments also involve changes in administrative procedures and reporting requirements. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth under 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: F. Talbot

Date: September 25, 1991