



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 157 TO FACILITY OPERATING LICENSE NO. DPR-31
AND AMENDMENT NO. 151 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 July 20, 1993, Florida Power & Light Company (FPL or the licensee) proposed license amendments to change the Technical Specifications (TS) for the Turkey Point Nuclear Generating Units 3 and 4 (Turkey Point or the facility) to implement the revised 10 CFR Part 20, "Standards for Protection Against Radiation."

2.0 EVALUATION

The licensee has revised the TS to include wording that is consistent with the revised 10 CFR Part 20, "Standards for Protection Against Radiation." The licensee will retain the same overall level of effluent control required to meet the design objectives of Appendix I to 10 CFR Part 50.

The proposed TS changes and evaluations follow:

a. Technical Specifications INDEX - ADMINISTRATIVE CONTROLS

The licensee proposed to change the title of the "Semiannual Radioactive Effluent Release Report" to read "Annual Radioactive Effluent Release Report."

The change is administrative in nature to implement the revised reporting requirement in 10 CFR 50.36a and is acceptable.

b. Section 1.0 "DEFINITIONS"

The licensee proposed to revise the definitions of MEMBER(S) OF THE PUBLIC, SITE BOUNDARY, and UNRESTRICTED AREA to conform to the definitions of these terms used in 10 CFR 20.1003.

These changes are administrative in nature to incorporate the corresponding revised 10 CFR Part 20 definitions and are acceptable.

c. Technical Specifications 3.3.3.5, 3.3.3.6, 3.11.2.6, and 4.11.4.2

The licensee proposed to revise the title of the "Semiannual Radioactive Effluent Release Report" to read "Annual Radioactive Effluent Release Report."

The change is administrative in nature to implement the revised reporting requirement in 10 CFR 50.36a and is acceptable.

d. Technical Specification 3.11.1.1

The licensee proposed to change the wording "limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II," to read "limited to 10 times the concentrations specified in 10 CFR Part 20, Appendix B, Table 2."

10 CFR 20.106 "Radioactivity in effluents to unrestricted areas" specify that annual average concentrations of release of radioactive material to an unrestricted area shall not exceed concentration limits specified in 10 CFR 20 Appendix B. 10 CFR 50, Appendix I provides numerical guides for limiting conditions of operation such that the radioactive material in effluents released to unrestricted areas can be kept "as low as reasonably achievable" (ALARA).

To assure that releases of radioactive material to unrestricted areas during normal power operations, including expected operational occurrences, are kept as low as practical, 10 CFR 50.36a requires that licensees include TS for compliance with applicable provisions of 10 CFR 20.106 and indicates that compliance with these requirements will keep average annual releases of radioactive material in effluents at small percentages of the limits specified in 10 CFR 20.106.

TS 3.11.1.1 currently requires that the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2. Consistent with the present 10 CFR 20 requirements, the existing TS concentration limits relate an annual dose of 500 mrem such that the 10 CFR 50, Appendix I limits would not be exceeded. It is noted that although 10 CFR 20.106 allows effluent concentrations to be averaged over a year, the TS require that liquid effluent releases be limited to these concentrations at all times (i.e., for instantaneous releases). The restrictive limits incorporated into the present TS are intended to assure that the dose limits of 10 CFR 50, Appendix I or the dose limits of 40 CFR 190 are not exceeded.

The new 10 CFR Part 20 limits for liquid effluent concentration specified in Appendix B, Table 2, Column 2, 10 CFR 20.1001 - 20.2401, are based on a total effective dose equivalent of 50 mrem in a year. The licensee proposed to limit the instantaneous concentration limits to 500 mrem/year (per the existing 10 CFR 20 Appendix B). Accordingly, the licensee proposed to change the phrase in TS 3.11.1.1 "limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II," to

read "limited to 10 times the concentrations specified in 10 CFR Part 20, Appendix B, Table 2." The licensee proposed this TS change on the basis that a release concentration of 500 mrem in a year which applies at all times assures that the values in 10 CFR 50, Appendix I are not likely to be exceeded and the new 10 CFR 20 Appendix B 50 mrem in a year is, therefore, not warranted.

The staff reviewed the licensee proposal. 10 CFR 50.36a, taking into consideration the need for operational flexibility, recognizes and allows, under unusual operating conditions, temporary releases (i.e. instantaneous concentrations) higher than such small percentages, but without exceeding the (annual average concentration) limits specified in 10 CFR 20.106. 10 CFR 50.36a also states that, when using operational flexibility, best efforts shall be made to keep levels of radioactive materials in effluents as low as reasonably achievable in accordance with the guidance in 10 CFR 50, Appendix I. Based on operational history at the Turkey Point Plant, the licensee indicated that the present TS limits of 500 mrem concentrations, which apply at all times, has resulted in calculated doses to a MEMBER OF THE PUBLIC that are small percentages of 10 CFR 50, Appendix I limits.

Based on the above, it is acceptable that the instantaneous limits associated with the liquid release rate TS are based on ten times the effluent concentration values given in Appendix B, Table 2, Column 2 to 10 CFR 20.1001-20.2401, to apply at all times.

e. Technical Specification 3.11.4

The licensee has proposed to change the reference from "10 CFR 20.405(c)" to "10 CFR 20.2203(a)(4)."

This change is administrative in nature to incorporate the corresponding revised 10 CFR Part 20 section number and is acceptable.

f. Technical Specification 5.1.3

The licensee has proposed to change the second sentence (referring to the site area map) from "Definition of UNRESTRICTED AREAS within the SITE BOUNDARY that are accessible to MEMBERS OF THE PUBLIC, shall be as shown in Figure 5.1-1" to read "The UNRESTRICTED AREAS and SITE BOUNDARY shall be as shown in Figure 5.1-1."

The licensee controls access to the areas currently designated as UNRESTRICTED AREAS within the EXCLUSION AREA; however, these areas will not be UNRESTRICTED AREAS as defined in the revised 10 CFR Part 20.

The changes are administrative in nature and are in agreement with the revised 10 CFR Part 20. The changes are acceptable.

g. Technical Specification 5.1-1

The licensee has proposed to delete Note 1 and the reference to the note. Additionally, the site boundary is being revised to reflect additional land owned by the licensee.

The areas referred to in Note 1 are no longer considered UNRESTRICTED AREAS as defined in the revised 10 CFR Part 20. The changes to the site boundary reflect land to the north and south owned by the licensee.

The changes are administrative in nature and are in agreement with the revised 10 CFR Part 20. The changes are acceptable.

h. Technical Specification 6.9.1.2a

The licensee has proposed to revise this TS to add the words "for whom monitoring was required" and "annual deep dose equivalent," replace "whole body dose" with "deep dose equivalent," and replace the reference to "20.407" with "20.2206."

The proposed changes are administrative in nature and provide clarification of the TS consistent with the requirements of the revised Part 20. The proposed changes are acceptable.

i. Technical Specification 6.9.1.4

The licensee has proposed to revise the title of the "Semiannual Radioactive Effluent Release Report" to "Annual Radioactive Effluent Release Report."

The change is administrative in nature to implement the revised reporting requirement in 10 CFR 50.36a and is acceptable.

j. Technical Specification 6.12.1

The licensee has proposed the following revisions: (a) change the reference "20.203(c)(5)" to "20.1601(c)"; (b) change the reference "20.203(c)" to "20.1601(a)"; (c) change the intensity of radiation from "1000 mR/h at 45 cm (18 in.)" to read "1000 mrem/hr at 30 cm (12 in.)"; and (d) change the unit of measurement from "mR/h" to "mrem/hr."

The proposed changes are administrative in nature and consistent with the revised Part 20. The proposed changes are acceptable.

k. Technical Specification 6.12.2

The licensee has proposed the following revisions: (a) substitute the wording "mrem/hr at 30 cm. (12 in.) and less than 500 rads/hr at 1 meter" for the wording "mR/h at 45 cm (18 in.)" in the first paragraph; and (b)

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substitute the wording "mrem/hr and less than 500 rads/hr" for the wording "mR/h" in the second paragraph.

The proposed changes are consistent with the requirements of the revised Part 20 and are acceptable.

1. Technical Specifications 6.13.2, 6.14.2, and 6.15.1

For the TS, the licensee has proposed to revise the title of the "Semiannual Radioactive Effluent Release Report" to the title "Annual Radioactive Release Report."

The change is administrative in nature to implement the revised reporting requirement in 10 CFR 50.36a and is acceptable.

m. BASES Section 3/4.11 "RADIOACTIVE EFFLUENTS"

The licensee has revised the BASES for Sections 3.0 and 4.0 to reflect the proposed changes to the TS.

The changes are consistent with the requirements of the revised Part 20 and are acceptable.

3.0 STATE CONSULTATION

The Florida State official was notified of the proposed issuance of the amendment. The Florida State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The amendments also relate to changes in recordkeeping, reporting, or administrative procedures or requirements. 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 (58 FR 43926). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

Based on the staff evaluation in Section 2.0 above, the staff concludes that the proposed Technical Specifications changes are acceptable.

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.

Principle Contributor: S. Klementowicz, PRPB

Date: November 18, 1993

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