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JUN 25 2010

L-2010-137
10 CFR 50.90

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Revised Radiological Dose Consequences for Alternative Source Term and Conforming License Amendment Request 196

References:

(1) W. Jefferson (FPL) to U.S. Nuclear Regulatory Commission (L-2009-133), "License Amendment Request 196: Alternative Source Term and Conforming Amendment," Accession No. ML092050277, June 25, 2009.

(2) W. Jefferson (FPL) to U.S. Nuclear Regulatory Commission (L-2009-163), "Transmittal of Meteorological Data CD Supporting Alternative Source Term and Conforming License Amendment Request 196 – Supplemental Information," Accession No. ML100680718, July 21, 2009.

(3) J. Paige (NRC) to M. Nazar (FPL), "Turkey Point Units 3 and 4 – Request for Additional Information Regarding Request to Adopt the Alternate Source Term (TAC Nos. ME1624 and ME1625)," Accession No. ML100700446, March 24, 2010.

(4) Email from J. Paige (NRC) to S. Franzone (FPL), "Follow-up Requests for Additional Information Re: Turkey Point, Unit 3 and 4 AST LAR," Accession No. ML101480750, May 28, 2010.

(5) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-121), "Revised Meteorological Data for 2005-2009 Supporting Alternative Source Term and Conforming License Amendment Request 196," Accession No. ML101650648, June 11, 2010.

(6) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-131), "Response to 5/28/2010 Request for Additional Information (RAI) Regarding Alternative Source Term (TAC Nos. ME1624 and ME1625)," June 23, 2010.

By letter L-2009-133 dated June 25, 2009 [Reference 1], Florida Power and Light (FPL) requested to amend Facility Operating Licenses DPR-31 and DPR-41 and revise the Turkey Point Units 3 and 4 Technical Specifications (TS). The proposed amendments revise the TS to adopt the Alternative Source Term (AST) as allowed in 10 CFR 50.67.

The meteorological data for 2003-2007 originally used to support the AST License Amendment Request (LAR) was transmitted to the NRC staff by letter dated July 21, 2009 [Reference 2]. Subsequent NRC review of this meteorological data resulted in questions regarding the quality of the data as submitted for this period [References 3, 4]. Based on further review of the data, FPL revised the meteorological data set to include more recent meteorological data from years 2008-2009 that was not previously available.

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On June 11, 2010, FPL submitted revised meteorological data for years 2005-2009 [Reference 5]. Resolution of the quality issues raised regarding the calibration of the meteorological tower temperature sensors has resulted in a conservative decision to bias vertical temperature differentials (ΔT) with the average (mean) calculated value for each channel over each six month instrument calibration interval for the hourly meteorological data. On June 23, 2010, FPL provided its RAI response in which the basis for using the temperature biased meteorological data was discussed in detail [Reference 6].

The averaged ΔT value for each channel was applied as a bias or correction factor to the hourly meteorological data. This correction resulted in changes to the calculated stability classes for the hourly meteorological data and in corresponding changes to the calculated onsite and offsite atmospheric dispersion factors (X/Qs). Where the resultant ΔT biased X/Q values exceeded the unbiased X/Qs, the more conservative X/Q value was used. This technical approach was chosen to assure that the calculated radiological dose consequences for the AST analyzed design basis accidents would remain conservative.

In addition, FPL previously retracted the proposed SR 4.7.5.c.2 change on tightening the methyl iodide penetration test criterion [Reference 6] and therefore, reduced the credited control room filter efficiencies for elemental iodines and organic iodides from 97.5% to 95%. To partially offset the effect of this change, FPL has increased the credited control room filter efficiency for particulates from 97.5% to 99% consistent with test results. In addition, FPL has reduced the amount of unfiltered air inleakage into the Control Room from 115 scfm to 100 scfm in order to preclude any encroachment on the AST LAR 196 indicated margin to the regulatory dose limits. These changes in inputs and assumptions and the revised results of the radiological dose consequence analyses for the design basis accidents are contained in Attachment 1 to this letter, Numerical Applications, Inc. (NAI) Report No. NAI-1396-045, "AST Licensing Technical Report (LTR) for Turkey Point Units 3 and 4," Revision 2, June 24, 2010.

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

This submittal does not alter the significant hazards consideration or the environmental assessment previously submitted by FPL letter L-2009-133 [Reference 1].

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

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

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

Executed on June 25, 2010.

Very truly yours,

Michael Kiley
Site Vice President

Turkey Point Nuclear Plant

Attachment: NAI Report No. NAI-1396-045, "AST Licensing Technical Report for Turkey Point Units 3 and 4," Revision 2, June 24, 2010

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Resident Inspector, Turkey Point Nuclear Plant
Mr. W. A. Passetti, Florida Department of Health