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OCT 21 2010

L-2010-113  
10 CFR 50.90  
10 CFR 2.390

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

Re: Florida Power & Light Company  
Turkey Point Units 3 and 4  
Docket Nos. 50-250 and 50-251  
License Amendment Request for Extended Power Uprate (LAR 205)

Pursuant to 10 CFR 50.90, Florida Power & Light Company, hereinafter referred to as FPL, hereby requests an amendment to Renewed Facility Operating Licenses DPR-31 and DPR-41 for the Turkey Point Nuclear Plant (PTN), Units 3 and 4, respectively. The proposed license amendment request (LAR) was the topic of a public meeting conducted between the U. S. Nuclear Regulatory Commission (NRC) staff and FPL on July 22, 2010.

The proposed amendment will increase each unit's licensed core power level from 2300 megawatts thermal (MWt) to 2644 MWt and revise the Renewed Facility Operating Licenses and Technical Specifications to support operation at this increased core thermal power level. This represents a net increase in licensed core thermal power of approximately 15% including a 13% power uprate and a 1.7% measurement uncertainty recapture (MUR). The net increase is calculated as follows:

$$(2300 \text{ MWt} \times 1.13) \times 1.017 \approx 2644 \text{ MWt}$$

$$(2644 \text{ MWt} - 2300 \text{ MWt})/2300 \text{ MWt} \approx 15\%$$

Due to the magnitude of this increase in licensed core thermal power, this power uprate is defined as an extended power uprate (EPU). This increase in core thermal power is currently planned to be accomplished following the Spring 2012 Unit 3 refueling outage beginning with Cycle 26 and following the Fall 2012 Unit 4 refueling outage beginning with Cycle 27.

PTN Units 3 and 4 Amendment Nos. 191 and 185 dated September 26, 1996 (ADAMS Accession No. ML013390234) approved a Stretch Power Uprate (SPU) from 2200 MWt to 2300 MWt. The proposed EPU core thermal power level represents an increase of approximately 20% from PTN's original licensed thermal power level of 2200 MWt.

The proposed LAR was developed using the guidance provided in RS-001, "Review Standard for Extended Power Uprates," Revision 0, dated December 2003 and in Regulatory Issue Summary (RIS) 2002-3, "Guidance on the Content of Measurement Uncertainty Recapture Uprate Applications," Revision 0, dated 2002 insofar as they applied to the design basis of PTN. The proposed LAR was also developed consistent with the format and content contained in the R.E. Ginna Nuclear Power Plant for an EPU (ADAMS Accession No. ML051950123). Additional technical information applicable to PTN beyond the specific guidance of these documents is provided in the attached EPU Licensing Report.

Plant modifications required to support the EPU are in the process of being implemented. A list of the key plant modifications associated with the EPU is provided in Attachment 4, Licensing Report (LR) Section 1.0, Introduction. The first phase of the EPU modifications is planned to be implemented during the Fall 2010 refueling outage for Unit 3 and the Spring 2011 refueling outage for Unit 4. The remaining EPU modifications are planned to be implemented before and during the Spring 2012 refueling outage for Unit 3 and the Fall 2012 refueling outage for Unit 4. Subject to NRC approval of this license application, power ascension to 2644 MWt is planned

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following startup from the Spring 2012 refueling outage for Unit 3 (Cycle 26) and from the Fall 2012 refueling outage for Unit 4 (Cycle 27).

FPL has submitted PTN LAR 196, Alternative Source Term and Conforming Amendment, dated June 25, 2009 (ADAMS Accession No. ML092050277), to adopt the alternative source term (AST) as allowed by 10 CFR 50.67. The changes proposed in AST LAR 196 as supplemented or modified by FPL's responses to NRC Requests for Additional Information (RAIs) are assumed in the EPU analyses and evaluations contained herein. Therefore, approval of this EPU LAR submittal is contingent upon the approval of the AST LAR.

This EPU LAR submittal includes the thirteen (13) attachments described below.

Attachment 1 contains descriptions and technical justifications for the proposed changes to the Facility Operating Licenses, Technical Specifications, and current licensing bases (CLB), and proposed plant modifications. Attachment 1 also contains the No Significant Hazards Consideration. In accordance with 10 CFR 50.91(a)(1), FPL has performed a No Significant Hazards Consideration analysis and concludes that the changes proposed by this LAR present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

Attachment 2 contains the affected Facility Operating Licenses and Technical Specification marked-up pages to facilitate identifying the proposed changes.

Attachment 3 identifies the associated changes (marked up pages) to the Technical Specification Bases. These changes are provided for information only. Following approval of the requested Facility Operating Licenses and Technical Specification changes, the Technical Specification Bases will be revised.

Attachment 4 contains the Licensing Report, which contains the technical assessment of the EPU per the guidance of RS-001 including: description, system and component evaluations, design transients, nuclear fuel, and accident analyses. Additional LRs beyond those included in the template are listed in LR Section 1.0, Introduction which also provides a discussion of the key modifications associated with the power uprate. For plant design features and analyses affected by the EPU, the Licensing Report describes PTN's CLB, and the methods, margins or operating limits, and results of the evaluations that have been performed to determine the impacts of EPU on the CLB. This Licensing Report demonstrates acceptable facility operation at the increased core thermal power. The functional and operational post-modification testing that will be performed to verify satisfactory installation and performance are listed in LR Section 2.12.1, Approach to EPU Power Level and Test Plan. The Licensing Report is supported by three appendices: Appendix A - Safety Evaluation Report Compliance; Appendix B - Additional Codes and Methodologies; Appendix C - List of Key Acronyms. Appendix A to Attachment 4, Safety Evaluation Report Compliance, supplements the information in LR Section 2.8.5.0, Accident and Transient Analyses-Non-LOCA Analyses Introduction, with respect to the compliance of the codes and methods used in the EPU analyses with the NRC approving safety evaluation reports. Appendix B, Additional Codes and Methods, identifies the codes used in the EPU analyses and their application that are not part of the current UFSAR.

Attachment 5 contains the applications for withholding the proprietary information contained in the Licensing Report, Attachment 4, from public disclosure. As Attachment 4 contains information proprietary to Westinghouse Electric Company, LLC (Westinghouse) and Areva, NP, Inc (Areva), it is supported by an affidavit signed by Westinghouse and Areva, the owners of the information. The affidavit sets forth the basis for which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of §2.390 of the Commission's regulations. Accordingly, it is

respectfully requested that the information which is proprietary to Westinghouse and Areva be withheld from public disclosure in accordance with 10 CFR 2.390 of the Commission's regulations.

Attachment 6 contains a listing of key regulatory commitments made in this LAR and which are required to be completed prior to EPU implementation.

Attachment 7 provides the Supplemental Environmental Report containing an assessment of the environmental impacts of the EPU.

Attachment 8 provides three Cameron/Caldon Ultrasonics Engineering Reports (ERs) and two Alden Research Lab Test Reports: ER-783, Revision 2, Bounding Uncertainty Analysis for Thermal Power for Turkey Point Units 3 & 4 Using LEFM CheckPlus™ System, dated June 2010; ER-748, Revision 1, LEFM CheckPlus Meter Factor Calculation and Accuracy Assessment for Turkey Point Unit 3 Nuclear Power Plant, dated June 2010; ER-752, Revision 1, LEFM CheckPlus Meter Factor Calculation and Accuracy Assessment for Turkey Point Unit 4 Nuclear Power Plant, dated June 2010; and Test Report No. 2009-100-C1229, Calibration of Three 14" LEFM CheckPlus Meters (Unit 3), Revision 0, dated May 2009; and Test Report No. 2009-101-C1229, Calibration of Three 14" LEFM CheckPlus Flow Meters (Unit 4), Revision 1, dated June 25, 2010. To support the MUR portion of the power uprate, FPL is installing new feedwater flow instrumentation, specifically, the Cameron/Caldon Leading Edge Flow Meter (LEFM) CheckPlus™ System. The LEFM, as proposed to be utilized at PTN, is evaluated against NRC's criteria contained in RIS 2002-3, Guidance on the Content of Measurement Uncertainty Recapture Power Uprate Applications, in LR Section 2.4.4, Measurement Uncertainty Recapture. These reports related to the PTN MUR include test data from the full scale models of Units 3 and 4 hydraulic geometry and piping arrangement.

Attachment 9 contains the application for withholding the proprietary information contained in ER-783, Revision 2, ER-748, Revision 1, and ER-752, Revision 1, of Attachment 8, from public disclosure. As Attachment 8 contains information proprietary to Cameron Measurement Systems, it is supported by an affidavit signed by Cameron, the owner of the information. The affidavit sets forth the basis for which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of §2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information which is proprietary to Cameron be withheld from public disclosure in accordance with 10 CFR 2.390 of the Commission's regulations.

Attachment 10 provides topical report WCAP-17094-P, Revision 2, Turkey Point Units 3 and 4 New Fuel Storage Rack and Spent Fuel Pool Criticality Analysis, dated July 2010. The WCAP supports the analysis of the impact of EPU and of the increase of the fuel loading enrichment discussed in LR Section 2.8.6.1, New Fuel Storage and LR Section 2.8.6.2, Spent Fuel Storage.

Attachment 11 contains the application for withholding the proprietary information contained in WCAP-17094-P, Revision 2, Attachment 10, from public disclosure. As Attachment 10 contains information proprietary to Westinghouse Electric Company, LLC (Westinghouse), it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis for which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of §2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390 of the Commission's regulations.

Attachment 12 provides topical report WCAP-17070-P, Revision 0, Westinghouse Setpoint Methodology for Protection Systems for Turkey Point Units 3 and 4 Power Uprate to 2644 MWt-

Core Power, dated April 2010. Instrument uncertainties for the reactor trip system (RTS) and engineered safety feature actuation system (ESFAS) setpoints affected by the EPU are based on the methodology in this topical report. This setpoint methodology addresses the intent of Technical Specification Task Force (TSTF) Traveler No. 493, Revision 4, "Clarify Application of Setpoint Methodology for LSSS Functions," which was published in the Federal Register on May 11, 2010, as it applies to those setpoints affected by the EPU.

Attachment 13 contains the application for withholding the proprietary information contained in the WCAP-17070-P, Revision 0, Attachment 12, from public disclosure. As Attachment 12 contains information proprietary to Westinghouse Electric Company, LLC (Westinghouse), it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis for which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of §2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390 of the Commission's regulations.

Enclosed are copies of two CDs containing proprietary and non-proprietary versions of EPU LAR 205. Tables 1 and 2 provide a listing of the proprietary and non-proprietary EPU LAR CD contents, respectively, including the file name, title, and size of each LAR Attachment. The files on these CDs have passed preflight checks to ensure conformance with NRC guidelines related to electronic submittals, i.e., 'Guidance for Electronic Submissions to the NRC,' Revision 5, dated May 17, 2010. Some of the files include scanned content. Scanned content has been OCR'd with the latest release of Acrobat. Even so, the OCR process does not recognize all the text on some pages due limitations of the software and/or interfering content on the scanned pages, e.g., background fill, sign-offs, text size. As such, this submission should not be rejected because of the unrecognized text. Extra copies of the CDs are enclosed for the NRC Project Manager to support the NRC technical review while a limited number of hardcopies will also be supplied separately to further facilitate that review.

Correspondence with respect to the copyright or proprietary aspects of the items provided in Attachment 4 of this letter in LR Sections 2.2.2.5, 2.2.3, 2.8.1, 2.8.3 and LR Tables 2.1.9-1, 2.2.2.1-1, 2.2.2.5-1, 2.2.2.5-4, 2.2.2.5-5, 2.2.2.5-6, 2.2.2.5-7, 2.2.2.6-1, 2.2.2.6-2, 2.2.2.7-1, 2.2.2.7-2, 2.2.3-1, 2.2.7-1, 2.8.3-1, 2.8.3-4, and 2.8.3-5 or the supporting Westinghouse affidavit should reference CAW-10-2957 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, PA 15230-0355.

Correspondence with respect to the copyright or proprietary aspects of the items provided in Attachment 4 of this letter in LR Sections 2.2.2.4 and 2.8.4.1 or the supporting Areva affidavit should be addressed to Gayle F. Elliot, Product Licensing, Areva NP Inc, P.O. Box 10935, Lynchburg, VA 24506-0935.

Correspondence with respect to the copyright or proprietary aspects of the items provided in Attachment 8 of this letter in Engineering Reports ER-783, Revision 2, ER-748, Revision 1, and ER-752, Revision 1, or the supporting Cameron affidavit should reference CAW-10-06 and be addressed to Calvin R. Hastings, General Manager, Cameron International Corporation, Caldon Ultrasonics Technology Center, 1000 McClaren Woods Drive, Coraopolis, PA 15108.

Correspondence with respect to the copyright or proprietary aspects of the items provided in Attachment 10 of this letter in WCAP-17094-P, Revision 2 or the supporting Westinghouse affidavit should reference CAW-10-2895 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, PA 15230-0355.

Correspondence with respect to the copyright or proprietary aspects of the items provided in Attachment 12 of this letter in WCAP-17070-P, Revision 2 or the supporting Westinghouse affidavit should reference CAW-10-2913 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, PA 15230-0355.

FPL requests approval and issuance of the proposed amendments by December 30, 2011 with implementation coincident with the Spring 2012 Unit 3 and Fall 2012 Unit 4 refueling outages.

The Turkey Point Plant Nuclear Safety Committee has reviewed the proposed license amendments. In accordance with 10 CFR 50.91(b)(1), a copy of the proposed amendments is being forwarded to the State Designee for the State of Florida.

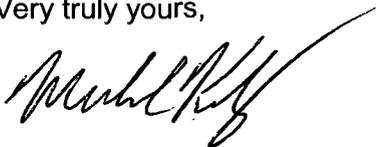
The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1), using the criteria in 10 CFR 50.92(c). FPL has determined that the proposed changes do not involve a significant hazards consideration.

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

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

Executed on October 21, 2010.

Very truly yours,



Michael Kiley  
Site Vice President  
Turkey Point Nuclear Plant

Enclosures: 1 Non-public (Proprietary) EPU LAR CD  
1 Public (Non-proprietary) EPU LAR CD

cc: USNRC Regional Administrator, Region II (w/Non-public and Public CDs)  
USNRC Project Manager, Turkey Point Nuclear Plant (w/Non-public and Public CDs)  
USNRC Senior Resident Inspector, Turkey Point Nuclear Plant (w/Non-public and Public CDs)  
Mr. W. A. Passetti, Florida Department of Health (w/Public CD only)

**Table 1**

**Non-Public (Proprietary) EPU LAR Contents**

<b>File No.</b>	<b>Attachment No.</b>	<b>Attachment Description</b>	<b>File Size (bytes)</b>
001	Attachment 1	Description and Technical Justifications for the Renewed Operating License, Technical Specifications, and Licensing Basis Changes	335,303
002	Attachment 2	Renewed Facility Operating License and Technical Specification Proposed Change Markups.	12,489,019
003	Attachment 3	Technical Specifications Bases Markups (For Information Only)	287,797
004	Attachment 4	Licensing Report	14,138,029
005	Appendix A	Safety Evaluation Report Compliance	300,203
006	Appendix B	Additional Codes & Methods	120,141
007	Appendix C	List of Key Acronyms	155,615
008	Attachment 5	Westinghouse & Areva Affidavits for Attachment 4	759,655
009	Attachment 6	Summary of Regulatory Commitments	112,871
010	Attachment 7	Supplemental Environmental Report	7,821,131
011	Attachment 8	Measurement Uncertainty Recapture Reports	27,933,059
012	Attachment 9	Cameron Affidavit for Attachment 8	12,561,899
013	Attachment 10	WCAP-17094-P, Revision 2, Turkey Point Units 3 and 4 New Fuel Storage Rack and Spent Fuel Pool Criticality Analysis, July 2010	9,216,476
014	Attachment 11	Westinghouse Affidavit for Attachment 10	599,134
015	Attachment 12	WCAP-17070-P, Revision 0, Westinghouse Setpoint Methodology for Protection Systems for Turkey Point Units 3 and 4 Power Uprate to 2644 MWt-Core Power, August 2010	1,177,556
016	Attachment 13	Westinghouse Affidavit for Attachment 12	8,270,064

**Table 2**

**Public (Non-Proprietary) EPU LAR Contents**

<b>File No.</b>	<b>Attachment No.</b>	<b>Attachment Description</b>	<b>File Size (bytes)</b>
001	Attachment 1	Description and Technical Justifications for the Renewed Operating License, Technical Specifications, and Licensing Basis Changes	335,303
002	Attachment 2	Renewed Facility Operating License and Technical Specification Proposed Change Markups.	12,489,019
003	Attachment 3	Technical Specifications Bases Markups (For Information Only)	287,797
004	Attachment 4	Licensing Report	14,698,123
005	Appendix A	Safety Evaluation Report Compliance	300,203
006	Appendix B	Additional Codes & Methods	120,141
007	Appendix C	List of Key Acronyms	155,615
008	Attachment 5	Westinghouse & Areva Affidavits for Attachment 4	759,655
009	Attachment 6	Summary of Regulatory Commitments	112,871
010	Attachment 7	Supplemental Environmental Report	7,821,131
011	Attachment 8	Measurement Uncertainty Recapture Reports	9,719,326
012	Attachment 9	Cameron Affidavit for Attachment 8	12,561,899
013	Attachment 10	WCAP-17094-NP, Revision 2, Turkey Point Units 3 and 4 New Fuel Storage Rack and Spent Fuel Pool Criticality Analysis, July 2010	6,186,701
014	Attachment 11	Westinghouse Affidavit for Attachment 10	599,134
015	Attachment 12	WCAP-17070-NP, Revision 0, Westinghouse Setpoint Methodology for Protection Systems for Turkey Point Units 3 and 4 Power Uprate to 2644 MWt-Core Power, August 2010	7,009,597
016	Attachment 13	Westinghouse Affidavit for Attachment 12	8,270,064