Florida Power & Light, 9760 S.W. 344 St. Homestead, FL 33035

JAN 16 2012

L-2012-019
10 CFR 50.90
10 CFR 2.390

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
Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation

References:

(1) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-113), "License Amendment Request for Extended Power Uprate (LAR 205)," (TAC Nos. ME4907 and ME4908), Accession No. ML103560169, October 21, 2010.

(2) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-561), "Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation," December 31, 2011.

(3) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2012-007), "Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation," January 16, 2012.

(4) WCAP-16009-P-A, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," January 2005.

By letter L-2010-113 dated October 21, 2010 (Reference 1), Florida Power and Light Company (FPL) requested to amend Renewed Facility Operating Licenses DPR-31 and DPR-41 and revise the Turkey Point Units 3 and 4 Technical Specifications (TS). 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 TS to support operation at this increased core thermal power level. This represents an approximate increase of 15% and is therefore considered an extended power uprate (EPU).

As a result of recent information presented to the U. S. Nuclear Regulatory Commission (NRC) on December 6, 2011, FPL was asked to address the impact of Thermal Conductivity Degradation (TCD) on the Turkey Point EPU safety analyses. On December 31, 2011, FPL provided its response to the NRC request for additional information (RAI) via letter L-2011-561 (Reference 2). On January 4, 2012, the NRC informed FPL of the need for additional information regarding the TCD issue and its impact on the EPU Large Break Loss-of-Coolant-Accident (LBLOCA) analyses. On January 16, 2012, FPL provided its response to the NRC's RAI via letter L-2012-007 (Reference 3). It included specific information justifying the steps needed to perform the LBLOCA analysis in a manner consistent with the NRC approved ASTRUM Evaluation Methodology (Reference 4). It also included justification for the validity of the original confirmatory studies and for the statistical viability of the current modeling as well as addressed other specific questions, e.g., burnup, decay heat, and downcomer boiling.

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NRR

Attachments 1 and 2 to this letter provide additional information to support the updated LBLOCA analysis provided in Reference 2 and its singular statement of a 95th percentile at the 95-percent confidence joint probability for peak cladding temperature (PCT), maximum local oxidation (MLO), and core-wide oxidation (CWO) results. This information is based on re-running all 124 cases for both Integral Fuel Burnable Absorber (IFBA) rods and non-IFBA rods from the original ASTRUM analysis (Licensing Report Section 2.8.5.6.3.2 in Reference 1).

Attachment 3 contains the application for withholding the proprietary information contained in Attachment 2 from public disclosure. As Attachment 2 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 address with specificity the considerations listed in paragraph (b)(4) of §2.390 of the Commission's regulations. Accordingly, it is respectfully requested that information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of items in the response to the RAI questions in Attachment 2 of this letter or the supporting Westinghouse affidavit should reference CAW-12-3359 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, Suite 428, 1000 Westinghouse Drive, Cranberry Township, PA 16066.

This submittal does not alter the significant hazards consideration or environmental assessment previously submitted by FPL letter L-2010-113 (Reference 1) or PTN Technical Specifications.

This submittal contains no new commitments and no changes to existing commitments.

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

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 January 16, 2012.

Very truly yours,

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant

Attachments (3)

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 (without Attachment 2)

Turkey Point Units 3 and 4

RESPONSE TO NRC SRXB RAI REGARDING EPU LAR NO. 205
AND THERMAL CONDUCTIVITY DEGRADATION

ATTACHMENT 1

RAI RESPONSE
(Non-Proprietary)

Response to Request for Additional Information

RAI Introduction

The following information is provided by Florida Power and Light Company (FPL) in response to the U. S. Nuclear Regulatory Commission's (NRC) Request for Additional Information (RAI). This information was requested to support License Amendment Request (LAR) No. 205, Extended Power Uprate (EPU), for Turkey Point Nuclear Plant (PTN) Units 3 and 4 that was submitted to the NRC by FPL letter L-2010-113 on October 21, 2010 (Reference 1).

On October 8, 2009, the NRC issued Information Notice 2009-23, "Nuclear Fuel Thermal Conductivity Degradation," (Reference 2) which noted that irradiation damage and the progressive buildup of fission products in the fuel pellets result in reduced thermal conductivity of the pellets. Data was collected from an instrumented assembly at the Halden ultra-high-burnup experiment during the 1990s which indicated steady degradation in the thermal conductivity of uranium fuel pellets with increasing exposure. This data indicated a degradation of approximately 5 to 7 percent for every 10 gigawatt-days per metric tonne of exposure. The NRC expressed concern that some vendors might still be using codes for safety analyses that do not account for this phenomenon and therefore may produce non-conservative results. As a result of recent information presented to the NRC on December 6, 2011, the NRC issued Information Notice 2011-21, "Realistic Emergency Core Cooling System Evaluation Model Effects Resulting from Nuclear Fuel Thermal Conductivity Degradation," on December 13, 2011 (Reference 3) and asked FPL to address the impact of fuel Thermal Conductivity Degradation (TCD) on the PTN EPU safety analyses. On December 31, 2011, FPL provided its response to the NRC's RAI via FPL letter L-2011-561 (Reference 4).

On January 4, 2012, the NRC informed FPL of the need for additional information regarding the TCD issue and its impact on the EPU Large Break Loss-of-Coolant-Accident (LBLOCA) analyses. On January 16, 2012, FPL provided its response to the NRC's RAI via letter L-2012-007 (Reference 5) noting that a supplemental response would follow with the remainder of the requested information. FPL's supplemental response to this request for additional information is presented in the non-proprietary attachment (Attachment 1) and in this proprietary attachment (Attachment 2).

The affidavit that sets forth the basis for which the information may be withheld from public disclosure by the NRC in accordance with 10 CFR 2.390 is contained in Attachment 3. Proprietary information is contained within brackets and the basis for claiming the information as proprietary is indicated by means of lower case letters (a) - (f) located as a superscript immediately following the brackets enclosing each item of information identified as proprietary. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) - (4)(ii)(f) of the affidavit accompanying this submittal pursuant to 10 CFR 2.390(b)(1). In this attachment, the proprietary information has been deleted and only the brackets remain.

Supplement to Updated BELOCA Analysis

Westinghouse performed safety analyses to support the Turkey Point Units 3 and 4 EPU Project. The large-break Loss-of-Coolant Accident (LOCA) analysis submitted as part of the FPL EPU LAR (Reference 1) was based on the currently licensed Westinghouse Best-Estimate LOCA (BELOCA) Automated Statistical Treatment of Uncertainty Method (ASTRUM) methodology (Reference 5) with the plant-specific adaptations as described in (Reference 1). In a response to an RAI from the NRC staff, an updated analysis was performed explicitly considering the effects of fuel Thermal Conductivity Degradation (TCD) on the BELOCA analysis for non-Integral Fuel Burnable Absorber (IFBA) fuel (Reference 4). The updated analysis in Reference 4 provides the aggregate effect of fuel TCD and offsetting input updates on the Peak Cladding Temperature (PCT), Maximum Local Oxidation (MLO) and Core-Wide Oxidation (CWO) results provided in the submitted LAR (Reference 1).

In response to a follow-up RAI from the NRC staff, FPL submitted additional information regarding the updated BELOCA analysis via letter L-2012-007 on January 16, 2012 (Reference 5). The response provided a justification for compliance with the ASTRUM Evaluation Methodology (Reference 6). It also included justification for the validity of the original confirmatory (parametric) studies and for the statistical viability of the current modeling as well as addressed other specific questions including burnup, quench, decay heat, and downcomer boiling. As the results presented were based on a rerun subset of 67 of the original 124 cases, it was stated that a supplemental response reflecting the results of all 124 cases would be submitted upon their completion. This submittal provides the results of the full set of 124 cases for the first cycle and selected subset of 67 cases for the second cycle as well as the effects of modeling Integral Fuel Burnable Absorber (IFBA) fuel. Note that IFBA fuel was not explicitly considered in the second cycle evaluation. However, it is expected that similar effects from IFBA fuel would be observed for the first and second cycle. The results are presented as changes to the analytical results provided in the above RAI responses (References 4 and 5)

Changes to Analysis (Ref: Section 5.0.c, LBLOCA, 2nd, 3rd, & 4th paragraphs p31/58 (Reference 4))

The analysis was updated by re-running all 124 cases from the original ASTRUM analysis (Licensing Report Section 2.8.5.6.3.2 of Reference 1) in the first cycle and a subset of cases in the second cycle. The intent for the selection of the subset of cases for the second cycle was to capture the fraction of the sample that includes all cases that can potentially become the rank k=1 case of the 124 run-set after TCD effects are included. The results of the second cycle run set are bounded by the first cycle results due to the peaking factor burndown shown in Table 5-5 of Reference 1. Therefore, the same non-parametric order statistics singular statement of a 95th percentile at the 95-percent confidence joint probability for PCT, MLO and CWO of an ASTRUM re-analysis is ensured for the updated analysis.

The confirmatory configuration and the conservatively low containment backpressure from the original ASTRUM run set were also re-evaluated considering the effects of TCD. The limiting plant configuration was determined to remain the same. The conservatively low containment backpressure from the original analysis remains bounding since the core stored energy increases when explicitly modeling fuel TCD, and the minimum T_{avg} value was increased from 570°F to 577°F, both of which increase the containment pressure.

Additionally, IFBA fuel was explicitly evaluated for this updated analysis, which is consistent with the original analysis. Figure 1 shows IFBA HOTSPOT PCT as a function of effective break area and Figure 2 shows IFBA HOTSPOT PCT as a function of hot rod burnup considering the effects of TCD. These figures are analogous to Figures 5-5 and 5-21 of Reference 4.

Changes to Results (Ref: Section 5.0.c, LBLOCA, 7th paragraph p32/58 (Reference 4))

The axial power distribution shown in LR Figure 2.8.5.6.3.2-17 (Reference 1) remains unchanged in the updated BELOCA analysis considering the effects of TCD. The containment response analyzed as discussed in LR Section 2.6.6 (Reference 1) was re-evaluated considering the effects of TCD and the other input changes made in the updated analysis. The calculated containment backpressure increased because of the increases in core stored energy and minimum T_{avg}. Therefore, the conservatively low containment backpressure input from the original analysis, which was not changed in the TCD evaluation, remains bounding.

Changes to 10 CFR 50.46 Requirements (Ref: Section 5.0.c, LBLOCA, 1st, 2nd, 3rd paragraphs p33/58 (Reference 4))

(b)(1) The limiting PCT corresponds to a bounding estimate of the 95th percentile PCT at the 95-percent confidence level. Since the resulting PCT for the limiting case is 2152°F, the updated

analysis confirms that 10 CFR 50.46 acceptance criterion (b)(1), i.e., "Peak Clad Temperature less than 2200°F," is demonstrated. The result is shown in Table 1. An additional 12°F penalty is included for transition cycles when the core contains both OFA and Upgrade fuel. The resulting PCT for these cycles, 2164°F, continues to show compliance with 10 CFR 50.46 acceptance criterion (b)(1).

(b)(2) The maximum local cladding oxidation corresponds to a bounding estimate of the 95th percentile MLO at the 95-percent confidence level. Since the resulting transient MLO for the limiting case is 10.46 percent, the updated analysis confirms that 10 CFR 50.46 acceptance criterion (b)(2), i.e., "Maximum Local Oxidation of the cladding less than 17 percent," is demonstrated. The result is shown in Table 1.

(b)(3) The limiting core-wide oxidation corresponds to a bounding estimate of the 95th percentile CWO at the 95-percent confidence level. The limiting Hot Assembly Rod (HAR) total power census includes many lower power assemblies. Because there is significant margin to the regulatory limit, the CWO value can be conservatively chosen as that calculated for the limiting HAR. A detailed CWO calculation is not needed because the outcome is always less than 0.40 percent. Therefore, the updated analysis confirms that 10 CFR 50.46 acceptance criterion (b)(3), i.e., "Core-Wide Oxidation less than 1 percent," is demonstrated. The result is shown in Table 1.

The PTN ASTRUM uncertainty attributes for all 124 cases that were provided in Table 1.3.34-1 in the response to RAI SRXB-1.3.34 (Reference 7) are provided for the updated analysis in Table 2. It is noted that only the TAVG, VACC, FDH, and FQ values differ from Table 1.3.34-1 in the response to RAI SRXB-1.3.34 (Reference 7).

Additional Information on the Effects of Modeling IFBA Fuel:

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]^{a,c}

[1]ZIRLO® is a registered trademark of Westinghouse Electric Company LLC in the United States. All rights reserved. Unauthorized use is strictly prohibited.

Conclusion

The analysis was updated by re-running all 124 cases from the original ASTRUM analysis in the first cycle and a subset of cases in the second cycle. The results of the second cycle run set are bounded by the first cycle results due to the peaking factor burndown. Therefore, the same non-parametric order statistics singular statement of a 95th percentile at the 95-percent confidence joint probability for PCT, MLO and CWO of an ASTRUM re-analysis is ensured for the updated analysis. Integral Fuel Burnable Absorber (IFBA) fuel was explicitly modeled and resulted in a 59°F increase in the limiting PCT and a 3% increase in the limiting MLO, i.e., PCT increased from 2093°F to 2152°F (2164°F when the mixed fuel penalty of 12°F is added) and MLO increased from 7.46% to 10.46%. These updated analysis results remain within the limits of 2200°F and 17% for PCT and MLO specified in 10 CFR 50.46(b)(1) & (b)2). The CWO results remained less than 0.40% and well within the 1% limit in 10 CFR 50.46(b)(3).

Table 1 - (Table 5-7 of Reference 1)
PTN Best-Estimate Large-Break LOCA Updated Analysis Considering the Effects of Thermal Conductivity Degradation Results – Comparison of Results to Current 10 CFR 50.46(b) Acceptance Criteria

	Result	Acceptance Criterion
95/95 PCT[1]	2152°F	< 2200°F
95/95 Transient MLO[2]	10.46%	< 17%
95/95 CWO[3]	0.40%	< 1%
Coolable Geometry	Criterion Met	Remains Coolable
Long-Term Cooling	See Long Term Cooling TCD Assessment (Reference 1)	

Notes:

1. Peak Cladding Temperature
2. Maximum Local Oxidation, transient
3. Core-wide Oxidation

a,c

Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT) (Table 5-9 of Reference 1)

a,c

Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT)

a.c

Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT)

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Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT)

a,c

Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT)

a.c

Table 2 ASTRUM Uncertainty Attributes for PTN Best-Estimate Large-Break LOCA Updated Analysis (Ranked by Updated IFBA PCT)														

Figure 1 (Figure 5-5 in Reference 4)
PTN IFBA HOTSPOT PCT vs. Effective Break Area

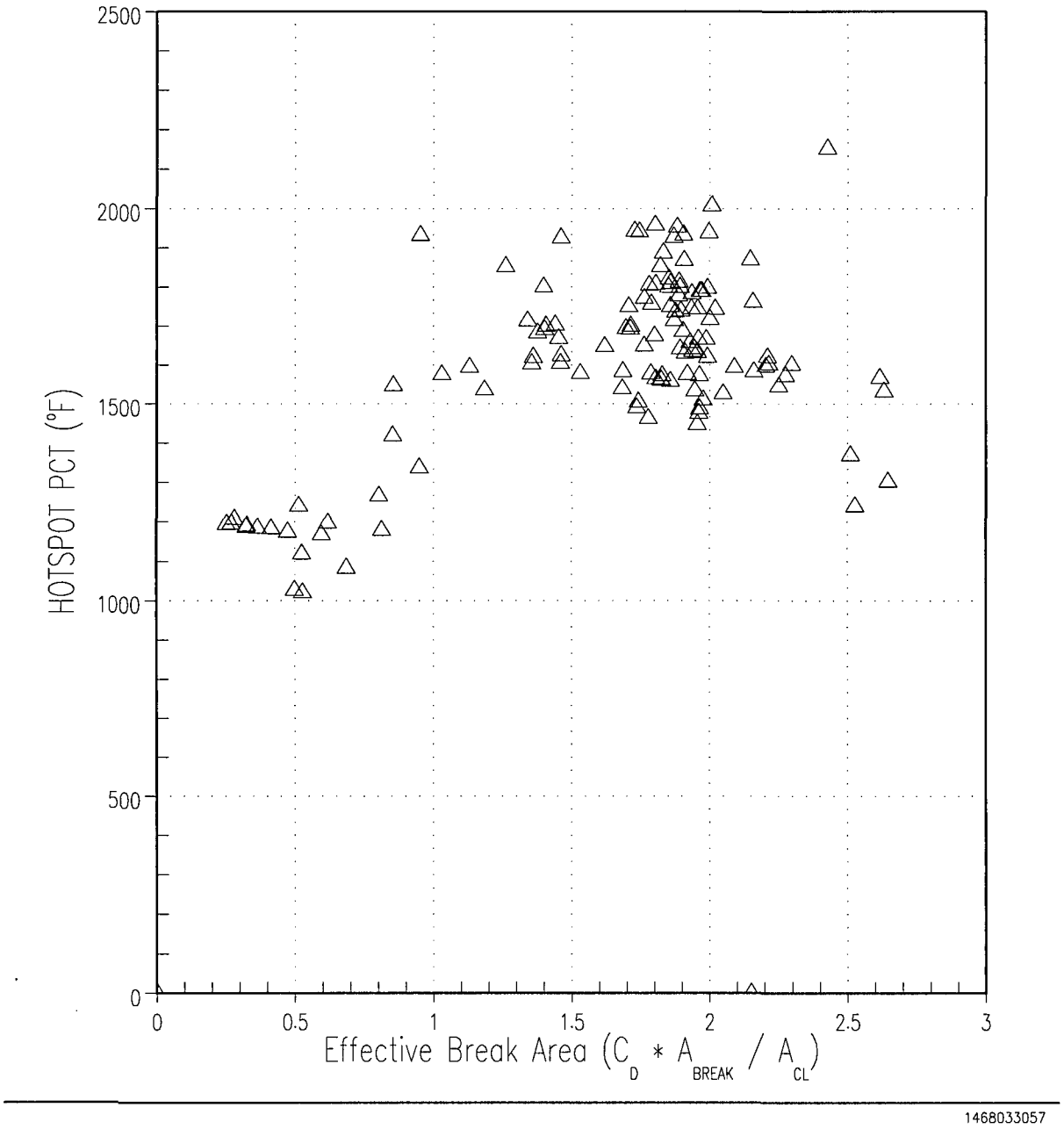


Figure 2 (Figure 5-21 in Reference 1)
PTN IFBA HOTSPOT PCT vs. Hot Rod Burnup

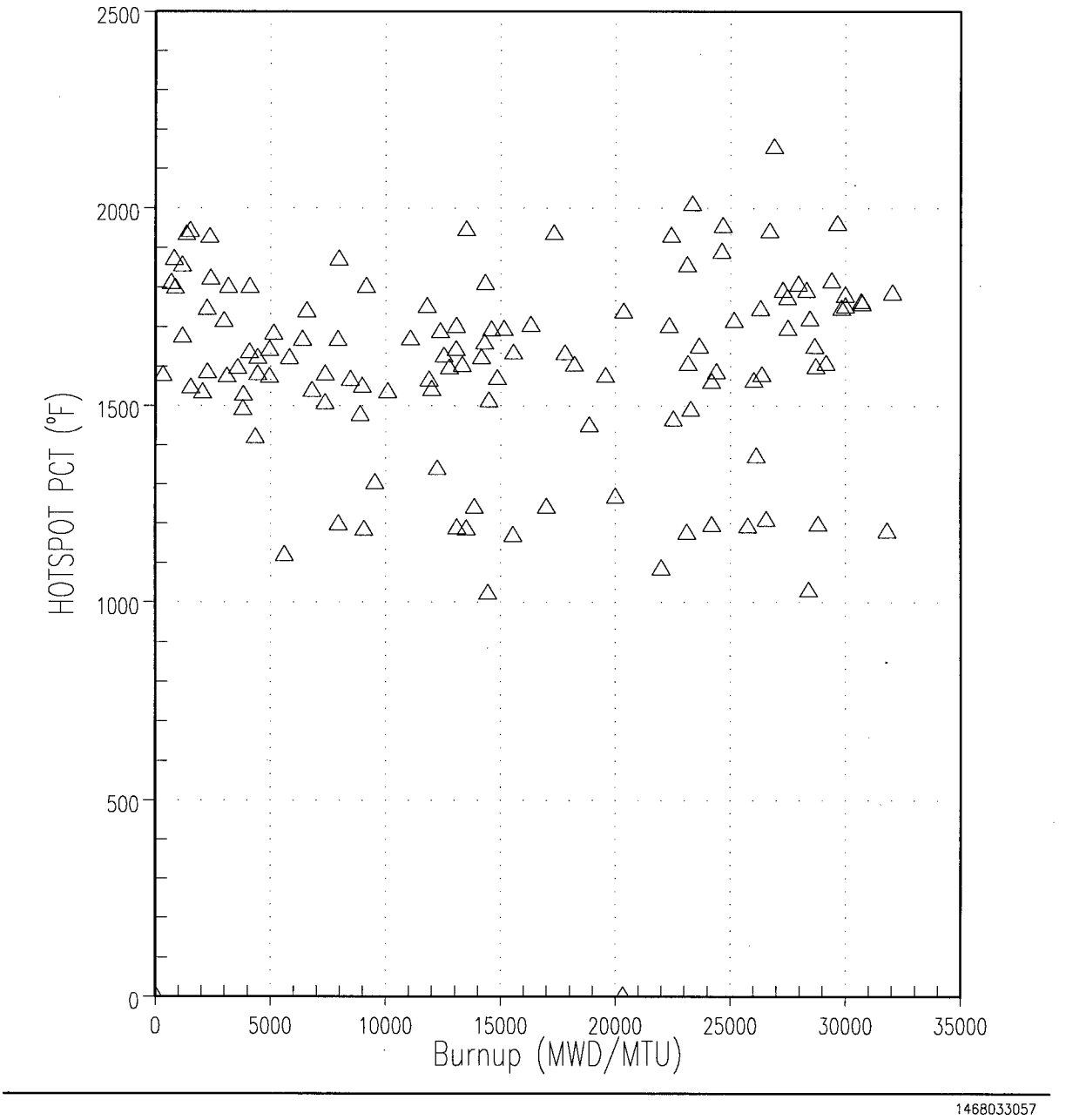
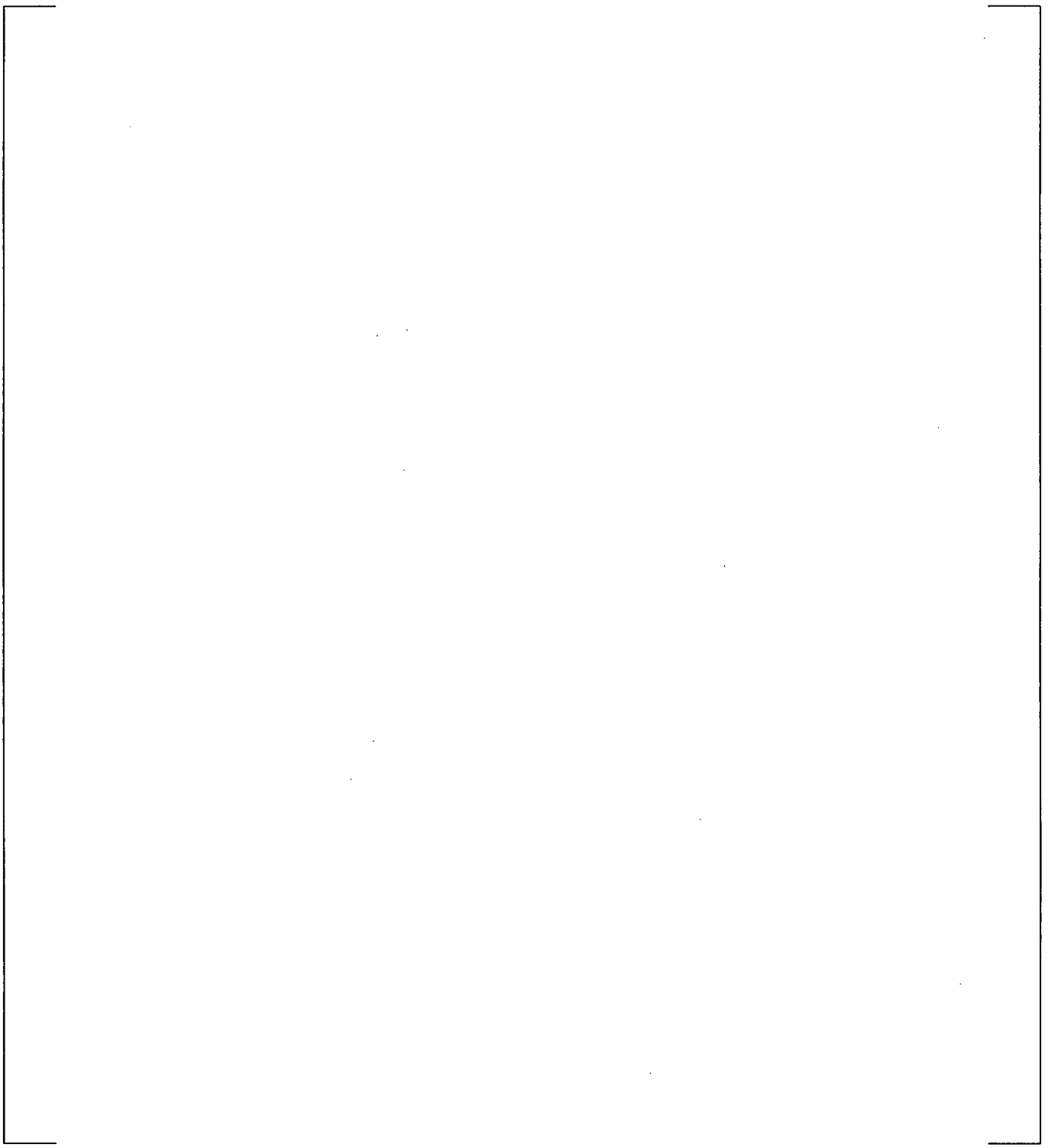
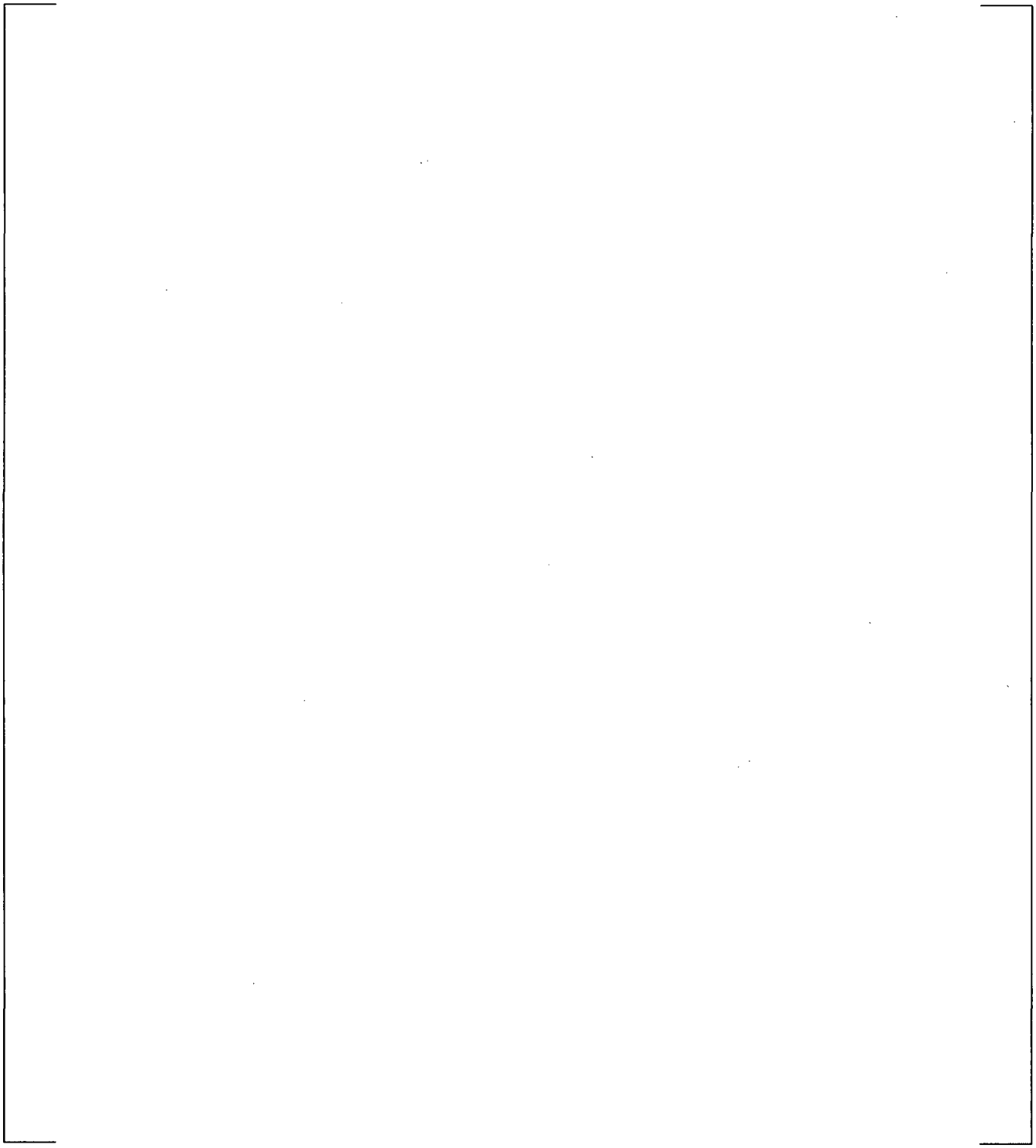


Figure 3
Clad Temperature and Burst Temperature Comparisons for Limiting Case with IFBA and Non-IFBA Fuel



a,c

Figure 4
Linear Heat Generation Rate Comparison for Limiting Case with IFBA and Non-IFBA Fuel



a,c

References

1. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-113), "License Amendment Request for Extended Power Uprate (LAR 205)," Accession No. ML103560169, October 21, 2010.
2. NRC Information Notice 2009-23, "Nuclear Fuel Thermal Conductivity Degradation," Accession No. ML113430785, October 8, 2009.
3. NRC Information Notice 2011-21, "Realistic Emergency Core Cooling System Evaluation Model Effects Resulting from Nuclear Fuel Thermal Conductivity Degradation," Accession No. ML091550527, December 13, 2011.
4. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-561), "Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation," December 31, 2011.
5. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2012-007), "Response to NRC Reactor Systems Branch Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Thermal Conductivity Degradation," January 16, 2012.
6. WCAP-16009-P-A, "Realistic Large-Break LOCA Evaluation Methodology Using the Automated Statistical Treatment of Uncertainty Method (ASTRUM)," January 2005. (Westinghouse Proprietary Class 2).
7. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-233), "Response to NRC Request for Additional Information Regarding Extended Power Uprate License Amendment Request No. 205 and Reactor Systems Issues," August 5, 2011.
8. WCAP-12945-P-A, Code Qualification Document for Best Estimate LOCA Analysis," March 1998. (Westinghouse Proprietary Class 2).

Turkey Point Units 3 and 4

RESPONSE TO NRC SRXB RAI REGARDING EPU LAR NO. 205
AND THERMAL CONDUCTIVITY DEGRADATION

ATTACHMENT 3

Westinghouse Affidavit CAW-12-3359 for Attachment 2
January 13, 2012

This coversheet plus 8 pages

Westinghouse Electric Company
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USA

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Proj letter: FPL-12-10

CAW-12-3359

January 13, 2012

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: FPL-12-10 P-Attachment, "Thermal Conductivity Degradation Effect on the Large-Break LOCA Analysis: Justification of Full Compliance with ASTRUM EM Licensing Basis and Procedures for Extended Power Uprate (EPU) License Amendment Request (LAR) No. 205 (TAC Nos. ME 4907 and ME 4908)" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-12-3359 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. The affidavit, which accompanies this letter, sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of 10 CFR Section 2.390 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying affidavit by Florida Power and Light.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-12-3359, and should be addressed to J. A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 428, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Very truly yours,

P A Marrone (for

J. A. Gresham, Manager
Regulatory Compliance

Enclosures

CAW-11-3359

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared T. Rodack, who, being by me duly sworn according to law, deposes and says that he is authorized to execute this Affidavit on behalf of Westinghouse Electric Company LLC (Westinghouse), and that the averments of fact set forth in this Affidavit are true and correct to the best of his knowledge, information, and belief:

T. Rodack, Director
Licensing and Engineering Programs

Sworn to and subscribed before me
this 13th day of January 2012

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Joyce A. Szapessy, Notary Public
Parks Twp., Armstrong County
My Commission Expires April 16, 2013
Member, Pennsylvania Association of Notaries

(1) I am Director, Licensing and Engineering Programs, in Nuclear Fuels, Westinghouse Electric Company LLC (Westinghouse), and as such, I have been specifically delegated the function of reviewing the proprietary information sought to be withheld from public disclosure in connection with nuclear power plant licensing and rule making proceedings, and am authorized to apply for its withholding on behalf of Westinghouse.

(2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.

(3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged or as confidential commercial or financial information.

(4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.

(i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.

(ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

(a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of

Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

(b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.

(c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.

(d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.

(e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.

(f) It contains patentable ideas, for which patent protection may be desirable.

There are sound policy reasons behind the Westinghouse system which include the following:

(a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.

(b) It is information that is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.

(c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.

(d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.

(e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.

(f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.

(iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.

(iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.

(v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in FPL-12-10 P-Attachment, "Thermal Conductivity Degradation Effect on the Large-Break LOCA Analysis: Justification of Full Compliance with ASTRUM EM Licensing Basis and Procedures for Extended Power Uprate (EPU) License Amendment Request (LAR) No. 205 (TAC Nos. ME 4907 and ME 4908)" (Proprietary), for submittal to the Commission, being transmitted by Florida Power and Light letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse for use by Turkey Point Units 3 and 4 is expected to be applicable for other licensee submittals in response to certain NRC requirements for Extended Power Uprate (EPU) submittals and may be used only for that purpose.

This information is part of that which will enable Westinghouse to:

(a) Provide input to the U.S. Nuclear Regulatory Commission for review of the Turkey Point Extended Power Uprate (EPU) submittals.

(b) Provide additional information on fuel thermal conductivity degradation impact on full compliance with ASTRUM EM.

(c) Provide licensing support for customer submittal.

Further this information has substantial commercial value as follows:

(a) Westinghouse plans to sell the use of this information to its customers for purposes of meeting NRC requirements for licensing documentation.

(b) Westinghouse can sell support and defense of the technology to its customer in the licensing process.

(c) The information requested to be withheld reveals the distinguishing aspects of a methodology which was developed by Westinghouse.

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar calculations and licensing defense services for commercial power reactors without commensurate expenses. Also, public disclosure of the information would enable others to use the information to meet NRC requirements for licensing documentation without purchasing the right to use the information.

The development of the technology described in part by the information is the result of applying the results of many years of experience in an intensive Westinghouse effort and the expenditure of a considerable sum of money.

In order for competitors of Westinghouse to duplicate this information, similar technical programs would have to be performed and a significant manpower effort, having the requisite talent and experience, would have to be expended.

Further the deponent sayeth not.

Proprietary Information Notice

Transmitted herewith are proprietary and/or non-proprietary versions of documents furnished to the NRC in connection with requests for generic and/or plant-specific review and approval.

In order to conform to the requirements of 10 CFR 2.390 of the Commission's regulations concerning the protection of proprietary information so submitted to the NRC, the information which is proprietary in the proprietary versions is contained within brackets, and where the proprietary information has been deleted in the non-proprietary versions, only the brackets remain (the information that was contained within the brackets in the proprietary versions having been deleted). The justification for claiming the information so designated as proprietary is indicated in both versions by means of lower case letters (a) through (f) located as a superscript immediately following the brackets enclosing each item of information being identified as proprietary or in the margin opposite such information. These lower case letters refer to the types of information Westinghouse customarily holds in confidence identified in Sections (4)(ii)(a) through (4)(ii)(f) of the affidavit accompanying this transmittal pursuant to 10 CFR 2.390(b)(1).

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