

PROPRIETARY INFORMATION – WITHHOLD UNDER 10 CFR 2.390

10 CFR 50.90 10 CFR 2.390

October 31, 2013

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

> Peach Bottom Atomic Power Station, Units 2 and 3 Renewed Facility Operating License Nos. DPR-44 and DPR-56 <u>NRC Docket Nos. 50-277 and 50-278</u>

- Subject: Extended Power Uprate License Amendment Request Supplement 14 Response to Request for Additional Information
- Reference: 1. Exelon letter to the NRC, "License Amendment Request Extended Power Uprate," dated September 28, 2012 (ADAMS Accession No. ML122860201)
 - NRC letter to Exelon, "Request for Additional Information Regarding License Amendment Request for Extended Power Uprate (TAC Nos. ME9631 and ME9632)," dated October 1, 2013 (ADAMS Accession No. ML13268A263)

In accordance with 10 CFR 50.90, Exelon Generation Company, LLC (EGC) requested amendments to Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (PBAPS) Units 2 and 3, respectively (Reference 1). Specifically, the proposed changes would revise the Renewed Operating Licenses to implement an increase in rated thermal power from 3514 megawatts thermal (MWt) to 3951 MWt. During their technical review of the application, the NRC Staff identified the need for additional information. Reference 2 provided the Request for Additional Information (RAI).

This letter addresses requests from the staff of Mechanical and Civil Engineering Branch (EMCB) - steam dryer (SD), of the U. S. Nuclear Regulatory Commission to provide information in support of the request for amendment for the extended power uprate. Responses to these requests are provided in the attachments to this letter:

WEC considers portions of the information provided in the responses in Attachment 1 to be proprietary and, therefore, exempt from public disclosure pursuant to 10 CFR 2.390. The proprietary information in Attachment 1 is identified; a non-proprietary version of this information is provided in Attachment 2. In accordance with 10 CFR 2.390, EGC requests Attachment 1 be withheld from public disclosure. An affidavit supporting this request for withholding is included as Attachment 3.

Attachment 1 contains Proprietary Information. When separated from Attachment 1, this document is decontrolled. U. S. Nuclear Regulatory Commission EPU LAR Supplement 14 Response to Requests for Additional Information October 31, 2013 Page 2

EGC has reviewed the information supporting a finding of no significant hazards consideration and the environmental consideration provided to the U. S. Nuclear Regulatory Commission in Reference 1. The supplemental information provided in this submittal does not affect the bases for concluding that the proposed license amendment does not involve a significant hazards consideration. Further, the additional information provided in this submittal does not affect the bases for concluding that neither an environmental impact statement nor an environmental assessment needs to be prepared in connection with the proposed amendment.

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), EGC is notifying the Commonwealth of Pennsylvania and the State of Maryland of this application by transmitting a copy of this letter along with the non-proprietary attachments to the designated State Officials.

There are no regulatory commitments contained in this letter.

Should you have any questions concerning this letter, please contact Mr. David Neff at (610) 765-5631.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 31st day of October 2013.

Respectfully,

Kevin F. Borton Manager, Licensing – Power Uprate Exelon Generation Company, LLC

Attachments:

- 1. Response to Request for Additional Information EMCB-SD Proprietary
- 2. Response to Request for Additional Information -- EMCB-SD
- 3. Affidavit in Support of Request to Withhold Information
- cc: USNRC Region I, Regional Administrator USNRC Senior Resident Inspector, PBAPS USNRC Project Manager, PBAPS R. R. Janati, Commonwealth of Pennsylvania S. T. Gray, State of Maryland

w/attachments w/attachments w/attachments w/o proprietary attachment w/o proprietary attachment Attachment 2

Peach Bottom Atomic Power Station Units 2 and 3

NRC Docket Nos. 50-277 and 50-278

Response to Request for Additional Information – EMCB-SD

Response to Request for Additional Information

Mechanical and Civil Engineering Branch (EMCB) - Steam Dryer (SD)

By letter dated September 28, 2012, Exelon Generation Company, LLC (Exelon) submitted a license amendment request for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The proposed amendment would authorize an increase in the maximum power level from 3514 megawatts thermal (MWt) to 3951 MWt. The requested change, referred to as an extended power uprate (EPU), represents an increase of approximately 12.4 percent above the current licensed thermal power level.

The NRC staff has reviewed the information supporting the proposed amendment and by letter dated October 1, 2013, (NRC Accession No. ML13268A263), has requested additional information. Additional time was granted for the responses to Requests EMCB-SD-RAI-8, 10, 13, and 15. Responses to those requests will be provided in a separate letter. The remaining responses to the October 1, 2013, EMCB-SD request are provided below.

EMCB-SD RAI-1

Section 7.4 of WCAP-17609-P², "Peach Bottom Units 2 and 3 Replacement Steam Dryer Structural Evaluation for High Cycle Acoustic Loads," describes the use of submodeling for [[]] the PBAPS Unit 2 Replacement Steam Dryer (RSD). The NRC staff requests the following information in order to evaluate the stress analysis of the localized regions of high stress using the aforementioned submodeling technique:

- a) Describe how the size of the submodel was determined.
- b) Describe how the boundary conditions and the loads acting on the submodel were determined.
- c) For [[]], please provide a comparison of stresses (maximum stress and maximum alternating stress intensity) obtained from the global and submodel analyses, as a function of mesh size. To ensure that the cut-boundary conditions are correctly applied, analyze each submodel with the same mesh size and geometry used in the global model and compare the results with those from the global analysis.
- d) Provide the justifications for any assumptions made regarding the submodel analyses.

² WCAP-17609-P, which is a proprietary document, is included as Enclosure 17B.2 to Attachment 17 of the licensee's application dated September 28, 2012. A publicly available version of this document is included as Enclosure 15B.2 to Attachment 15 of the application.

RESPONSE

-]^{a,c} The following factors were considered in order of importance: 1. []^{a,c} This high stress location is similar to those found in previous iterations of this analysis, as well as other RSD analyses. 2. [1^{a,c} 3. [1^{a,c} b) The boundary conditions of the submodel are the []^{a,c} Any loads that exist on the global model [1^{a,c} The submodel solution []^{a,c} c) []^{a,c}
- d) Comparisons of representative stresses and meshes are provided in Table RAI-1-1 for each of the submodels. The submodel meshes all [

]^{a,c} The global model mesh []^{a,c} Therefore, the submodel can be [

]^{a,c}

a) The size of the submodel was determined by consideration [

Table RAI-1-1 Submodel Mesh and Stress Summary

l r				
•				
		· ··· -		
	I		L	
				l ^{a,c}

e) There were [

]^{a,c} made regarding the submodel analyses.

Section 7.4 of WCAP-17609-P states the following:

[[

]]

The [[]] as presented in the excerpt above, is not clear. Please provide a more detailed explanation regarding the aforementioned [[]] and provide at least one example.

RESPONSE

The use of the word [] ^{a,c} , as stated in Section 7.4 in WCAP-17609-P, is referring to a
] ^{a,c} This is not the case for the PBAPS
submodels; [] ^{a,c}

EMCB-SD RAI-3

Section 3.2 of WCAP-17609-P indicates that the PBAPS RSDs are supported at four support points on the support lugs. The dryer is restrained [[]] and is free to expand in the radial direction. Please provide the radial displacement of the dryer support points at EPU and confirm whether the radial gaps between the dryer and the support lugs are closed at EPU. If the radial gap is closed, please explain how such closure is taken into account in the dynamic analysis of the dryer.

RESPONSE

J^{a,c} The radial gap was calculated using both dryer design drawings and reactor pressure vessel drawings confirmed by in-vessel measurements of Unit 2. Unit 3 measurements have been acquired, are being evaluated and are expected to be consistent with Unit 2.

During recent EPU reviews, the NRC staff has encountered an issue regarding significant bias errors in the main steam line (MSL) strain gage array overall voltage to pressure conversion factors, leading to underestimates of the internal MSL acoustic pressures. Based on this experience, please discuss the MSL strain gage array voltage to pressure conversion factors for PBAPS plant (static) pressurization conditions along with the voltage to pressure conversion factors for restors currently being assumed. Account for any MSL strain gage conversion factor bias errors in the fluctuating dynamic pressure loading on the steam dryer.

If the determination of the MSL strain gage voltage to pressure conversion factor bias errors as requested is not feasible, the NRC staff requests the following information. Since Exelon plans to apply end-to-end bias and uncertainty determined from PBAPS Unit 2 to the predictions for Unit 3, the gage conversion factors for the installed MSL strain gages at both units need to be the same. Please explain how Exelon will demonstrate that the gage voltage-to-pressure conversion factors, for the installed MSL strain gages at both units, are the same.

RESPONSE

The installation set up of the strain gauges on the MSLs [

J^{a,c} As a result, the determination of the MSL strain gauge pressure conversion factor bias errors as requested is not feasible.

PBAPS Units 2 and 3 [the same []^{a,c} The units have

]^{a,c} This is acceptable because [

1^{a,c}

EMCB-SD RAI-5

Question deleted following audit on September 12, 2013. No response required.

In Section 3.1.2 of WCAP-17609-P, the use of the [[

]] is discussed in the context of connecting shell and solid elements. In some EPU applications, the use of [[]] has produced conservative results (as compared with the corresponding submodel (developed using only solid elements) results), whereas in other applications it has produced non-conservative results. Please evaluate the use of [[]] at several high stress locations by comparing the results with the corresponding submodel results. Also, provide a background on the [[]] and a detailed example of its use in the dynamic analysis of the PBAPS RSDs.

RESPONSE

The MPC approach was used to model the []^{a,c} as shown in []^{a,c} This region can be modeled using the []^{a,c} The MPC approach [

]^{a,c}

A full-scale model (Figure RAI-6-1) of a [

]^{a,c} A second full scale model [

]^{a,c}

Overall, the MPC []^{a,b,c} It was determined that the MPC and [

]^{a,b,c}

Figure RAI-6-1, used to investigate the MPC approach and shown below, gives more detail of [$J^{a,c}$.

EPU LAR Supplement 14 Response to RAI – EMCB-SD

I

Figure RAI-6-1 [

E

]^{a,c}

1^{a,c}

]^{a,c}

EMCB-SD RAI-7

Based on the review of the information provided in the enclosures contained in Attachment 17 to the application dated September 28, 2012, the NRC staff was unable to locate the information regarding how the stresses at the RSD welds (i.e., full penetration, partial penetration, and fillet welds) are calculated. Please describe how these stresses are calculated. State how the calculated weld stresses for the PBAPS RSDs compare with the weld stresses calculated in accordance with the approach recommended in American Society of Mechanical Engineers (ASME) Subsection NG, "Core Support Structures," based on the use of nominal stresses.

RESPONSE

High Cycle Fatigue

The process utilized to evaluate the weld stresses in the high cycle fatigue evaluation [

]^{a,c}

At [

]^{a,c} weld locations, [

]^{a,c}

ASME Report (Levels A, B, C, and D)

.

The structural analysis performed in the ASME report is not concerned with peak stresses as it is a strength calculation based on nominal stress. The weld stresses are [

]^{a,c}

EMCB-SD-RAI-9

Question deleted following audit on September 12, 2013. No response required.

In Section 4.1 of WCAP 17611-P, the licensee indicates that [[

]]. Based on previous EPU license amendment request reviews, the NRC staff noticed that the tank pressure during this measurement period decreases from 190 psig to approximately 130 psig. The resulting decrease in the fluid density at the standpipes along the MSLs is expected to reduce the flow energy (i.e., the dynamic head) exciting the resonances in the standpipes. Please explain how this effect is accounted for in correcting the pressure spectra obtained over the [[]] period of measurement.

RESPONSE

As the tank pressure [

]^{a,c} This is shown in the pressure power spectral density (PSD) curves at several values for the tank pressure in Figures RAI-11-1 through RAI-11-8.

]^{a,c} The PSD curves [

]^{a,c}

This is expected, [

]^{a,c} in Figures RAI-11-1 through RAI-11-8. Additionally, the current licensed thermal power (CLTP) and extended power uprate (EPU) PSD signatures are [_______]^{a,c} [

Figure RAI-11-1 Dynamic Pressure PSD , MSL A US

Figure RAI-11-2 Dynamic Pressure PSD , MSL A DS

] ^{a,c}

] ^{a,c}

Figure RAI-11-3 Dynamic Pressure PSD , MSL B US

[

Figure RAI-11-4 Dynamic Pressure PSD , MSL B DS

] ^{a,c}

] ^{a,c}

[

] ^{a,c}

] ^{a,c}

•

Figure RAI-11-5 Dynamic Pressure PSD , MSL C US

[

Figure RAI-11-6 Dynamic Pressure PSD , MSL C DS

[

I

Figure RAI-11-7 Dynamic Pressure PSD , MSL D US

Figure RAI-11-8 Dynamic Pressure PSD , MSL D DS

] ^{a,c}

] ^{a,c}

Although the MSLs at PBAPS contain dead-leg pipes on MSLs B and C, the licensee does not discuss the effect of the low frequency acoustic modes of these pipes on the RSD load definition. Therefore, you are requested to:

- a) Provide the frequencies of the lowest acoustic modes of the dead-leg pipes.
- b) Discuss whether the response of these modes was observed in the in-plant measurements or the SMT results.
- c) Explain the effect of these acoustic modes on the RSD acoustic loading.

RESPONSE

- a) The predicted natural frequency of the dead-ended leg pipes is [
- b) Both the subscale and plant data show []^{a,c} Figures RAI-12-1 and RAI-12-2 show []^{a,c} waterfall PSDs for [

(MSLs) B and C. The [

]^{a,c} for main steam lines

l^{a,c}

l^{a,c}

Figure RAI-12-1 PSD Waterfall Plots, MSL B, 0-50 Hz

[

]^{a,c}

Figure RAI-12-2 PSD Waterfall Plots, MSL C, 0-50 Hz

The plant data also []^{a,c} For example, Figure RAI-12-3 shows the PBAPS Unit 2 PSDs for MSL C at increasing power levels from [

]^{a,c}

On MSL C, [

I

]^{a,c}

Figure RAI-12-3 PB Unit 2 Plant Data PSD Comparison, Various Power Levels

c) The RSD acoustic loading is [

,

]^{a,c}

ANSYS and any and all ANSYS, Inc. product and service names are registered trademarks or trademarks of ANSYS, Inc. or its subsidiaries located in the United States or other countries.

In the course of the review of the enclosures to Attachment 17 to the application dated September 28, 2012, the NRC staff has noted several references to the Boiling Water Reactor Vessels and Internals Project (BWRVIP)-194, "Methodologies for Demonstrating Steam Dryer Integrity for Power Uprate," report. Since this report has not yet been approved for use by the NRC staff, please extract the relevant information from BWRVIP-194 used to support the PBAPS EPU amendment request and provide a summary of the information used from the report.

RESPONSE

By letter dated February 15, 2013, Exelon (EGC) provided supplemental information (Supplement No. 1) supporting the September 28, 2012, extended power uprate request. In Supplement No.1 the following BWRVIP-194 references were cited. Also, provided below is a summary of the cited BWRVIP-194 information.

EMCB Supplemental Information Request 1

Supplement No.1, Attachment 9, Page 3:

"ACM 4.1 was not developed based on a specific dryer geometry and was expected to be applicable to any steam dryer geometries (BWRVIP 194 section 6.7)."

Section 6 of the BWRVIP-194 report describes the Acoustic Circuit Model (ACM) Methodology. In the conclusion of Section 6 (Section 6.7), the report describes [

J^{a,c} This reference was used as the source for a statement of fact indicating that the ACM model is not dryer design specific.

Supplement No.1, Attachment 9, Page 4:

"The development of the []^{a,c} used in the PBAPS analysis is based on the []^{a,c} of the standpipe resonance frequencies discussion in the RAI responses to questions on the BWRVIP-194 (BWRVIP Response to NRC RAI BWRVIP-194-EMCB-RAI-01, LTR-A&SA-11-47-P) and is summarized as follows:"

The BWRVIP-194 reference was used as a source for the information that followed the cited reference. How the information was applied was also provided following the cited reference in Supplement No. 1.

EMCB Supplemental Information Request 2

Supplement No. 1, Attachment 9, Page 6:

"As noted in the U. S. Nuclear Regulatory Commission request, the ANSYS model solution [

]^{a,c} (BWRVIP-194 report, Section E.4)."

The BWRVIP-194 report states [

]^{a,c} The

use of this reference was used as the source for a statement of fact that the

 $J^{a,c}$. As stated in Supplement No.1: "Accordingly, it is EGC's position that the specific dimensions and design of the dryer are not considered critical attributes for this [$J^{a,c}$, and that the [$J^{a,c}$ is applicable to general welded structures, including other steam dryer designs, of similar complexity and modeled with the same type of elements (predominantly shell elements) and comparable mesh spacing."

Attachment 3

Peach Bottom Atomic Power Station Units 2 and 3

NRC Docket Nos. 50-277 and 50-278

AFFIDAVIT

<u>Note</u>

Attachment 1 contains proprietary information as defined by 10 CFR 2.390. WEC, as the owner of the proprietary information, has executed the enclosed affidavit, which identifies that the proprietary information has been handled and classified as proprietary, is customarily held in confidence, and has been withheld from public disclosure. The proprietary information has been faithfully reproduced in the attachment such that the affidavit remains applicable.



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CAW-13-3844

October 28, 2013

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: Attachment 1 "Response to Request for Additional Information – EMCB-SD - Proprietary," attached to Exelon Generation submittal to the NRC "Extended Power Uprate License Amendment Request – Supplement 14, Response to Request for Additional Information"

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-13-3844 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 Exclon Generation.

Correspondence with respect to the proprietary aspects of the application for withholding or the accompanying Affidavit should reference CAW-13-3844 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 310, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Very truly yours,

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Bradley F. Maurer, Principal Engineer Plant Licensing

Enclosures

<u>AFFIDAVIT</u>

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared Bradley F. Maurer, 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:

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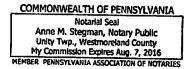
Bradley F. Maurer, Principal Engineer Plant Licensing

Sworn to and subscribed before me this 28th day of October 2013

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Notary Public



- (1) I am Principal Engineer, Plant Licensing, in Engineering, Equipment and Major Projects, 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in Attachment 1 "Response to Request for Additional Information – EMCB-SD - Proprietary," attached to Exelon Generation submittal to the NRC "Extended Power Uprate License Amendment Request – Supplement 14, Response to Request for Additional Information" for submittal to the Commission, being transmitted by Exelon Generation letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is to assist the NRC in their review of the Peach Bottom Atomic Power Station, Units 2 and 3, License Amendment Request for Extended Power Uprate and may be used only for that purpose.

- (a) This information is part of that which will enable Westinghouse to:
 - (i) Assist Exelon Generation in obtaining NRC review of the Peach Bottom Atomic Power Station Units 2 and 3 License Amendment Request.
- (b) Further this information has substantial commercial value as follows:
 - Westinghouse plans to sell the use of this information to its customers for purposes of plant specific replacement steam dryer analysis for licensing basis applications.
 - (ii) Its use by a competitor would improve their competitive position in the design and licensing of a similar product for BWR steam dryer analysis methodology.
 - (iii) 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 technical evaluation justifications 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).

Copyright Notice

The reports transmitted herewith each bear a Westinghouse copyright notice. The NRC is permitted to make the number of copies of the information contained in these reports which are necessary for its internal use in connection with generic and plant-specific reviews and approvals as well as the issuance, denial, amendment, transfer, renewal, modification, suspension, revocation, or violation of a license, permit, order, or regulation subject to the requirements of 10 CFR 2.390 regarding restrictions on public disclosure to the extent such information has been identified as proprietary by Westinghouse, copyright protection notwithstanding. With respect to the non-proprietary versions of these reports, the NRC is permitted to make the number of copies beyond those necessary for its internal use which are necessary in order to have one copy available for public viewing in the appropriate docket files in the public document room in Washington, DC and in local public document rooms as may be required by NRC regulations if the number of copies submitted is insufficient for this purpose. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.