PROPRIETARY



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

January 12, 2011 U7-C-STP-NRC-110011

U. S. Nuclear Regulatory Commission Attention: Document Control Desk One White Flint North 11555 Rockville Pike Rockville, MD 20852-2738

South Texas Project Units 3 and 4 Docket Number PROJ0772 Response to Request for Additional Information

Reference: Letter from Tekia Govan to Mark McBurnett, "Request for Additional Information Re: South Texas Project Nuclear Operating Company Topical Report (TR) WCAP-17116-P Revision 0, Supplement 5 – Application to the Advanced Boiling Water Reactor" (TAC No. RG0007), November 19, 2010.

Attached are responses to NRC staff questions included in the referenced letter. The attachments address the RAI questions shown below:

RAI-39 RAI-44

The responses to both RAI-39 and RAI-44 contain information proprietary to Westinghouse Electric Corporation. In addition, RAI-39 also references enclosed compact disks (CDs) containing proprietary information. Since these responses involve information proprietary to Westinghouse Electric Company LLC, they are supported by three affidavits signed by Westinghouse, the owner of the information. The affidavits set forth the basis on which the information may be withheld from public disclosure by the Commission and address with specificity the considerations listed in paragraph (b) (4) of Section 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 Section 2.390 of the Commission's regulations.

Attachments 1 and 2 contain the proprietary and non-proprietary responses to RAI-39 and Attachments 3 and 4 contain the proprietary and non-proprietary responses to RAI-44. Attachments 5, 6 and 7 contain the requests for withholding of proprietary information, the -1007

affidavit, the proprietary information notice, and the copyright notice. The enclosure contains the two identical proprietary CDs referred to in the response to RAI-39.

The CDs being submitted with this letter are submitted for use by the NRC solely in connection with NRC review of Westinghouse proprietary WCAP-17116-P. The NRC may not use these CD's for any other purpose, and may not make copies of these CD's. The information on the CD's may not be made available in the Public Document Room (PDR) or in the Agency Document Access and Management Systems (ADAMS), either externally or internally. Upon completion of NRC review of WCAP-17116-P, proprietary information from, or derived from, the CD's should be irretrievably deleted from any computer outside the control of Westinghouse. These CD's have not been subjected to the NRC's preflight check.

Correspondence with respect to the copyright or proprietary aspects of this information or the supporting Westinghouse Affidavits should reference letters CAW-11-3072, CAW-11-3077, and CAW-11-3079 and should be addressed to: J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, Suite 428, Cranberry Township, Pennsylvania, 16066.

If this letter becomes separated from the proprietary material in Attachment 1 and 3 and the CDs in the enclosure it is no longer proprietary.

There are no commitments in this letter.

If you have any questions other than those relating to the proprietary aspects of this response, please contact Scott Head at (361) 972-7136, or Bill Mookhoek at (361) 972-7274.

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

Executed on <u>1/12/11</u>

MAMcBurnett

Mark McBurnett Vice-President, Oversight and Regulatory Affairs South Texas Project Units 3 & 4

jet

Attachments:

- 1. RAI-39 (proprietary)
- 2. RAI-39 (non-proprietary)
- 3. RAI-44 (proprietary)
- 4. RAI-44 (non-proprietary)
- 5. Request for Withholding of Proprietary Information (RAI-39)
- 6. Request for Withholding of Proprietary Information (RAI-44)
- 7. Request for Withholding of Proprietary Information (CDs)

Enclosure:

Two Proprietary CDs

cc: w/o attachment except* (paper copy)

Director, Office of New Reactors U. S. Nuclear Regulatory Commission One White Flint North 11555 Rockville Pike Rockville, MD 20852-2738

Regional Administrator, Region IV U. S. Nuclear Regulatory Commission 611 Ryan Plaza Drive, Suite 400 Arlington, Texas 76011-8064

Kathy C. Perkins, RN, MBA Assistant Commissioner Division for Regulatory Services Texas Department of State Health Services P. O. Box 149347 Austin, Texas 78714-9347

Alice Hamilton Rogers, P.E. Inspection Unit Manager Texas Department of State Health Services P. O. Box 149347 Austin, Texas 78714-9347

*Steven P. Frantz, Esquire A. H. Gutterman, Esquire Morgan, Lewis & Bockius LLP 1111 Pennsylvania Ave. NW Washington D.C. 20004

*Tekia Govan Two White Flint North 11545 Rockville Pike Rockville, MD 20852

(electronic copy)

*George F. Wunder *Tekia Govan Loren R. Plisco U. S. Nuclear Regulatory Commission

Steve Winn Joseph Kiwak Eli Smith Nuclear Innovation North America

Peter G. Nemeth Crain, Caton & James, P.C.

Richard Peña Kevin Pollo L. D. Blaylock CPS Energy

RAI-39 (non-proprietary)

RAI-39

QUESTION:

Fuel and Core Design

a. Fuel assembly map and control rod sequence for reference cycle

b. BOC, IVIOC, EOC exposure maps, void histories, etc.

- c. Bypass flow area and loss
- d. Top guide geometry
- e. Provide the detailed fuel design report supporting the SVEA-96 OPTIMA2 Reference Core.
- f. Provide the detailed nuclear design report supporting the SVEA-96 OPTIMA2 Reference Core.
- g. Provide the Reference Core Design.

RESPONSE:

a. Fuel assembly map and control rod sequence for reference cycle

The fresh fuel bundle loading pattern is shown below in Figure 39-1. Quarter core mirror symmetry and []^{a,c} loading pattern have been used. The fresh fuel bundles have been loaded inside the [

]^{a,c}

]^{a,c}

[

U7-C-STP-NRC-110011 Attachment 2 Page 2 of 9

]^{a,c}.

Figure 39-1 below contains the core position of bundles for the equilibrium cycle.

Westinghouse Non-Proprietary Class 3

Figure 39-1 Core Position of Bundles for the Equilibrium Cycle

The cycle is simulated in [

]^{a,c} steps of varying length,[]^{a,c}. The CR sequences used are [

A CR sequence swap is done every []^{a,c} step and a calculation is done both before and after the swap. Figures 39-2 through 39-5 illustrate the control rod sequences for the equilibrium cycle.

RAI-39 (non-proprietary)

U7-C-STP-NRC-110011 Attachment 2 Page 3 of 9

Figure 39-2 A1 CR Sequence

U7-C-STP-NRC-110011 Attachment 2 Page 4 of 9

Figure 39-3 A2 CR Sequence

a,c

Westinghouse Non-Proprietary Class 3

U7-C-STP-NRC-110011 Attachment 2 Page 5 of 9

Figure 39-4 B1 CR Sequence

,

Westinghouse Non-Proprietary Class 3

U7-C-STP-NRC-110011 Attachment 2 Page 6 of 9

a,c

Figure 39-5 B2 CR Sequence

`

RAI-39 (non-proprietary)

b. BOC, MOC, EOC exposure maps, void histories, etc.

The information requested above is provided in the attached CD labeled "POLCA7 Data for RAI#39". The request for BOC, MOC, EOC exposure maps are found in the three files titled "boc-0-bur-2d.txt", "moc-8520-bur-2d.txt" and "eoc-16900-bur-2d.txt". They contain the exposure map (BOC, MOC, EOC) for each core in the form of average assembly burnup, control rod history, and EFPH. Void history is not used any more in POLCA7. The maps are given in quarter-core format with mirror symmetry.

It is unclear what is meant by "etc." In case more detailed information is needed than the 2D maps mentioned above, extra files have been added. For each core (BOC, MOC, EOC), the axial nodal distributions for all assemblies have been exported into an ASCII file that contains all isotopes and other distributions with historic exposure information. Each new distribution in the file is marked with the word "BEGIN". The data would need to be imported into a graphical tool for presentation.

The two files "source-alt_c-def.txt" and "comp-all.txt" provide the data that were used in the calculations and what calculation steps were performed to burn the reference cycle. POLCA7 input data description is found in WSE Report No. "BR 95-924 rev 21". This document is available for NRC review. Attached below is the listing of files available on CD "POLCA7 Data for RAI#39".

source-alt_c-def.txt	Basic data for reference cycle
comp-all.txt	Burnup steps & CR sequence for reference cycle
boc-0-bur-2d.txt	Burnup maps BOC – 2D, quarter mirror symmetry
boc-0-dist-3d.txt	History distributions BOC – 3D
moc-8520-bur-2d.txt 8520-dist-3d.txt	Burnup maps MOC – 2D, quarter mirror symmetry moc- History distributions MOC – 3D
eoc-16900-bur-2d.txt 16900-dist-3d.txt	Burnup maps EOC – 2D, quarter mirror symmetry eoc- History distributions EOC – 3D

RAI-39 (non-proprietary)

U7-C-STP-NRC-110011 Attachment 2 Page 8 of 9

c. Bypass flow area and loss

Table 39-1 below contains a summary of Optima2 loss coefficients and reference area, including bypass flow holes and watercross bypass (Central Canal and Water Wings).

Component	$\Delta p = \xi$	$\times (G_{ref}^2/2\rho)$	with	ξ=a ×Re ^{-b}	
	a	b	Refe	erence area	
Inlet (incl transition piece, bottom tie plate, debris filter)	_				- a,
Spacer grids, 96 rods					
Spacer grids, 92 rods					
Spacer grids, 84 rods					
Outlet (irreversible losses)					
Bypass holes					
Water Cross Central Canal, inlet					
Water Cross Central Canal, outlet					
Water Wings, inlet					
Water Wings, outlet					
Core inlet throttling, center					
Core inlet throttling, periphery	_				

Table 39-1 SVEA-96 Optima2 Loss Coefficients and Reference Areas

d. Top guide geometry

The following drawings provide the Top guide geometry.

- STP-3W-B11-D065-3103-01 002 01 Top Guide Hardware
- STP-3W B11-D074-3103-01 003 01 Top Guide (1 of 3)
- STP-3W B11-D074-3103-02 004 01 Top Guide (2 of 3)
- STP-3W B11-D074-3103-03 005 01 Top Guide (3 of 3)

These drawings are proprietary to Toshiba, but are available for NRC review.

e. Provide the detailed fuel design report supporting the SVEA-96 OPTIMA2 Reference Core.

Document BTK 09-0459 Rev 0 contains the fuel design input report and Document No. BTA 08-0255 Rev 1 contains the Thermal Hydraulic Report. These documents are proprietary to Westinghouse, but are available for NRC review.

RAI-39 (non-proprietary)

f. Provide the detailed nuclear design report supporting the SVEA-96 OPTIMA2 Reference Core.

Document No. BTF-08-0253, Rev 1 contains the detailed nuclear design report supporting the SVEA-96 Optima2 Reference Core. This report is proprietary to Westinghouse, but is available for NRC review.

g. Provide the Reference Core Design.

Document No. BTF-08-0253, Rev 1 contains the reference core design. This report is proprietary to Westinghouse, but is available for NRC review.

RAI-44 (non-proprietary)

U7-C-STP-NRC-110011 Attachment 4 Page 1 of 2

RAI-44

QUESTION:

What are the expected differential pressures under normal operating conditions:

a. From the lower plenum to the inside of the orificed fuel support assembly?

b. From inside the orificed fuel support assembly to inside the fuel nose assembly?

c. From the inside of the fuel nose assembly to the top of the active fuel?

d. From the top of the active fuel to the upper plenum (top guide loss)?

e. Across the reactor internal pumps?

f. Across the separators?

g. Across the steam dryers?

h. From the RPV to the turbine stop valves?

RAI-44 (non-proprietary)

U7-C-STP-NRC-110011 Attachment 4 Page 2 of 2

RESPONSE:

The maximum design differential pressures (dP) are as shown in Table 44-1 below. Note that there is no nominal dP and the expected dP under normal operating conditions is less than or equal to the maximum values listed.

RAI Item No. Location		Maximum dP, MPa		
a	Lower plenum to inside orificed fuel support assembly	a,c		
b	Inside orificed fuel support assembly to inside fuel nose assembly			
c	Inside of fuel nose assembly to top of active fuel			
d	Top of active fuel to upper plenum			
е	Across reactor internal pumps			
f	Across the separators	1		
g	Across the steam dryers			
h	RPV to turbine stop valves			

Table 44-1 Differential Pressure at Normal Operating Conditions

Request for Withholding of Proprietary Information (RAI-39) U7-C-STP-NRC-110011 Attachment 5 CAW-11-3072

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SŚ

COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared B. 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:

B. F. Maurer, Manager ABWR Licensing

Sworn to and subscribed before me this 6th day of January 2011

Notary Public

OMMONWEATT

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Renee Giampole, Notary Public Penn Township, Westmoreland County My Commission Expires September 25, 2013 Request for Withholding of Proprietary Information (RAI-39)

(1) I am Manager, ABWR Licensing, in Nuclear Services, 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

2

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.

3

- (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.

.4

- (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 WEC-STP-2011-0001 P-Enclosure, "South Texas Project Units 3 & 4 Response for RAI 39 to WCAP-17116-P" (Proprietary) for submittal to the Commission, being transmitted by South Texas Project Nuclear Operating Company (STPNOC) letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is that associated with the ABWR ECCS analysis methodology in support of Westinghouse ABWR fuel products.

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

(a) Assist the customer in obtaining NRC review of the Westinghouse ECCS analysis methodology as applied to ABWR plant designs.

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 plant specific ECCS analysis methodology development for ABWR licensing basis applications.
- (b) Its use by a competitor would improve their competitive position in the design and licensing of a similar product for ABWR ECCS analysis methodology.
- (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 technical evaluations 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.

Request for Withholding of Proprietary Information (RAI-39)

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.

11.371.5

Request for Withholding of Proprietary Information (RAI-44)

U7-C-STP-NRC-110011 Attachment 6 CAW-11-3079

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared B. 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:

B. F. Maurer, Manager ABWR Licensing

Sworn to and subscribed before me this 11th day of January 2011

Notary Public

COMMONWEALTH OF PENNSYLVANIA Notariai Seal Cynthia Olesky, Notary Public Manor Boro, Westmoreland County My Commission Expires July 16, 2014 Member, Pennsylvania Association of Notarles

- (1) I am Manager, ABWR Licensing, in Nuclear Services, 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.
- 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.
- 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

2

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.
- 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 WEC-STP-2011-0002 P-Enclosure, "South Texas Project Units 3 & 4 Response for RAI 44 to WCAP-17116-P" (Proprietary) for submittal to the Commission, being transmitted by South Texas Project Nuclear Operating Company (STPNOC) letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is in response to the NRC's Request for Additional Information related to their review of WCAP-17116-P in support of Westinghouse ABWR fuel products.

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

(a) Assist the customer in obtaining NRC review of the Westinghouse ECCS analysis methodology as applied to ABWR plant designs.

4

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 plant specific ECCS analysis methodology development for ABWR licensing basis applications.
- (b) Its use by a competitor would improve their competitive position in the design and licensing of a similar product for ABWR ECCS analysis methodology.
- (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 technical evaluations 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.

Request for Withholding of Proprietary Information (RAI-44)

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.

Request for Withholding of Proprietary Information (CDs) U7-C-STP-NRC-110011 Attachment 7 CAW-10-3077

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ŞS

COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared B. 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:

B. F. Maurer, Manager ABWR Licensing

Sworn to and subscribed before me this 10th day of January 2011

Notary Public

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Renee Giampole, Notary Public Penn Township, Westmoreland County My Commission Expires September 25, 2013 (1) I am Manager, ABWR Licensing, in Nuclear Services, 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

- (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.

and the second second

3

(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 "POLCA7 Data for RAI #39, WCAP-17116-P" (Proprietary) for submittal to the Commission, being transmitted by South Texas Project Nuclear Operating Company (STPNOC) letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is in response to the NRC's Request for Additional Information related to their review of WCAP-17116-P in support of Westinghouse ABWR fuel products.

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

(a) Assist the customer in obtaining NRC review of Westinghouse ECCS analysis methodology as applied to ABWR plant designs.

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 plant specific ECCS analysis methodology development for ABWR licensing basis applications.

(b) Its use by a competitor would improve their competitive position in the design and licensing of a similar product for ABWR ECCS analysis.

(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 technical evaluations 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.

Request for Withholding of Proprietary Information (CDs)

U7-C-STP-NRC-110011 Attachment 7

PROPRIETARY INFORMATION NOTICE

Transmitted herewith is the proprietary version of a document furnished to the NRC in connection with requests for generic and/or plant specific review and approval. The document is to be considered proprietary in its entirety.

COPYRIGHT NOTICE

The report transmitted herewith bears a Westinghouse copyright notice. The NRC is permitted to make the number of copies of the information contained in this report which is 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. Copies made by the NRC must include the copyright notice in all instances and the proprietary notice if the original was identified as proprietary.