



Program Management Office  
1000 Westinghouse Drive  
Cranberry Township, PA 16066

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Project Number 694  
PWROG-14027-P, Revision 3

April 24, 2015

OG-15-154

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

Subject: PWR Owners Group  
**Transmittal of PWROG-14027-P, Revision 3, "No. 1 Seal Flow Rate for Westinghouse Reactor Coolant Pumps Following Loss of All AC Power, Task 3: Evaluation of Revised Seal Flow Rate on Time to Enter Reflux Cooling and Time at which the Core Uncovers," For Information Only (PA-SEE-1196)**

References:

1. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," March 12, 2012 (ADAMS Accession Number ML12054A735).

The purpose of this letter is to transmit the PWROG-14027-P, which is an assessment of specific reactor coolant pump seal leakage on generic reactor coolant system response analyses (Enclosure 1). The USNRC has asked questions relative to the applicability of PWROG-14027 during various plant audits regarding flexible and diverse coping mitigating strategies (FLEX) implementation. More specifically, the Staff asked about the limitations of the application of the methods therein. The enclosed document addresses those questions and comments. This PWROG report is being submitted for information only in support of NRC Staff audits of Overall Integrated Plans for FLEX, specifically in regards to the area of reactor coolant system make-up times. Therefore, the PWROG expects no NRC review fees. This is consistent with the language of 10 CFR 170.11(a)(1)(iii)(A) and (B).

Enclosures include:

1. PWROG-14027-P, Revision 3, "No. 1 Seal Flow Rate for Westinghouse Reactor Coolant Pumps Following Loss of All AC, Power, Task 3: Evaluation of Revised

D048  
NRR

Seal Flow Rate on Time to Enter Reflux Cooling and Time at which the Core Uncover”.

2. Westinghouse Application for Withholding Proprietary Information from Public Disclosure CAW-15-4165, accompanying Affidavit, Proprietary Information Notice, and Copyright Notice.

As Enclosure 1 contains information proprietary to Westinghouse Electric Company LLC, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit 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 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.

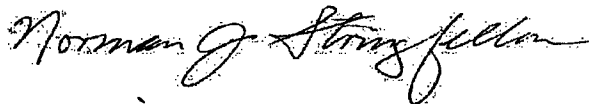
Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse affidavit should reference CAW-15-4165 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 310, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Correspondence related to this transmittal, including requests for additional information, should be addressed to:

Mr. W. Anthony Nowinowski  
Manager, PWROG Program Management Office  
Westinghouse Electric Company  
1000 Westinghouse Drive, Suite 380  
Cranberry Township, PA 16066

If you have any questions, please do not hesitate to contact me at (205) 992-7037 or Mr. Anthony Nowinowski of the PWROG Program Management Office at (412) 374-6855.

Regards,



Jack Stringfellow  
Chief Operating Officer & Chairman  
Pressurized Water Reactor Owners Group

NJS:CMH:mf

Enclosures: (2) – PWROG-14027-P, Revision 3 and CAW-15-4165

cc: J. Stringfellow, Chairman PWROG, SNOC  
PWROG Management Committee  
PWROG Steering Committee  
PWROG Analysis Committee  
PWROG Licensing Committee  
PWROG RCP Working Group  
PWROG SEE Committee  
PWROG PMO  
J. Rowley, USNRC  
S. Philpott, USNRC  
S. Whaley, USNRC  
J. Lehning, USNRC  
S. Sun, USNRC  
J. Hartz, Westinghouse  
T. Uptown, Westinghouse  
L. Gussenbauer, Westinghouse  
R. Becse, Westinghouse  
J. Moorehead, Westinghouse  
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J. Andrachek, Westinghouse



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U.S. Nuclear Regulatory Commission  
Document Control Desk  
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Rockville, MD 20852

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CAW-15-4165

April 20, 2015

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: PWROG-14027, Revision 3, "No. 1 Seal Flow Rate for Westinghouse Reactor Coolant Pumps Following Loss of All AC Power, Task 3: Evaluation of Revised Seal Flow Rate on Time to Enter Reflux Cooling and Time at which the Core Uncovers" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced document is further identified in Affidavit CAW-15-4165 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.

The subject document was prepared and classified as Westinghouse Proprietary Class 2. Westinghouse requests that the document be considered proprietary in its entirety. As such, a non-proprietary version will not be issued.

Accordingly, this letter authorizes the utilization of the accompanying Affidavit by the Pressurized Water Reactor Owners Group (PWROG).

Correspondence with respect to the proprietary aspects of the Application for Withholding or the Westinghouse Affidavit should reference CAW-15-4165 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, Cranberry Township, Pennsylvania 16066.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James A. Gresham', written over a horizontal line.

James A. Gresham, Manager  
Regulatory Compliance

CAW-15-4165

April 20, 2015

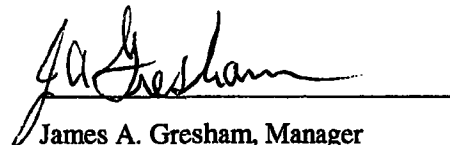
AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF BUTLER:

I, James A. Gresham, am 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 my knowledge, information, and belief.

A handwritten signature in black ink, appearing to read "JA Gresham", is written over a solid horizontal line.

James A. Gresham, Manager

Regulatory Compliance

- (1) I am Manager, Regulatory Compliance, 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 constitute Westinghouse policy and provide 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 PWROG-14027, Revision 3, "No. 1 Seal Flow Rate for Westinghouse Reactor Coolant Pumps Following Loss of All AC Power, Task 3: Evaluation of Revised Seal Flow Rate on Time to Enter Reflux Cooling and Time at which the Core Uncovers" (Proprietary) for submittal to the Commission, being transmitted by PWROG letter OG-15-154 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 PWROG request for NRC review of information regarding the development of mitigating strategies for a pressurized water reactor (PWR) response to an ELAP event, and may be used only for that purpose.



- (a) This information is part of that which will enable Westinghouse to:
  - (i) Assist the PWROG with obtaining NRC approval of mitigating strategies for a pressurized water reactor (PWR) response to an ELAP event.
  - (ii) Provide licensing support for customer submittals of mitigating strategies for a plant specific response to an ELAP event.
  
- (b) Further this information has substantial commercial value as follows:
  - (i) Westinghouse plans to sell the use of similar information to its customers for the purpose of meeting NRC requirements for licensing documentation associated with mitigating strategies for a pressurized water reactor (PWR) response to an ELAP event submittals.
  - (ii) Westinghouse can sell support and defense of industry guidelines and acceptance criteria for plant-specific applications.
  - (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 is the proprietary version of a document furnished to the NRC associated with PWROG request for NRC review of information regarding the development of mitigating strategies for a pressurized water reactor (PWR) response to an ELAP event, and may be used only for that purpose. 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.

PWR Owners Group

Letter for Transmittal to the NRC

The following paragraphs should be included in your letter to the NRC Document Control Desk:

Enclosed is:

1. PWROG-14027, Revision 3, "No. 1 Seal Flow Rate for Westinghouse Reactor Coolant Pumps Following Loss of All AC Power, Task 3: Evaluation of Revised Seal Flow Rate on Time to Enter Reflux Cooling and Time at which the Core Uncovers" (Proprietary)

Also enclosed is the Westinghouse Application for Withholding Proprietary Information from Public Disclosure CAW-15-4165, accompanying Affidavit, Proprietary Information Notice, and Copyright Notice.

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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.

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse Affidavit should reference CAW-15-4165 and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, Cranberry Township, Pennsylvania 16066.