

ENCLOSURE 1 for DCP_NRC_003296

Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps (Public)
APP-GW-GLY-065 Rev. 0

(Non-Proprietary)



Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps

Westinghouse Electric Company

June 18, 2015



Public Portion of Meeting



Agenda

Topic Start Time:	Topic Description	Organization Lead
1:00 p.m.	Introductions/ Opening remarks	NRC/WEC
1:05 p.m.	Presentation by WEC: WCAP-17938 - Technical meeting to discuss information needed to complete technical review and additional gaps addressed by staff.	WEC
1:20 p.m.	Opportunity for Public Comment	PUBLIC
1:30 p.m.	Conclusion of Open Portion	
1:30 p.m.	CLOSED Presentation: <ul style="list-style-type: none">• background of issues,• status of resolving the issues,• description of the technical changes and challenges,• WEC submittal schedule	WEC
3:20 p.m.	NRC Caucus	NRC
3:50 p.m.	Summary/Action Items	NRC/WEC
4:00 p.m.	Adjourn	



Background – WCAP-17938 Timeline

- Topical Report “AP1000 In-Containment Cables and Non-Metallic Insulation Debris Integrated Assessment” (WCAP-17938) was submitted by Westinghouse to the NRC on March 12th, 2015.
- The Topical Requested NRC approval for the following items:
 - A threshold for incipient damage for AP1000 plant in-containment cabling
 - A Zone of Influence (ZOI) of 4D applicable for **AP1000** plant in-containment cabling.
 - Suitable equivalency to Metal Reflective Insulation (MRI) for the current design of the Reactor Vessel Insulation System (RVIS) upper and lower neutron shielding, the RVIS water inlet doors, and the CA31 module neutron shield blocks
 - The use of the NEI-04-07 Alternative Methodology for defining debris generation for postulated accidents in the **AP1000** plant.
- NRC provided feedback that there were a number of outstanding questions that need resolution, prior to the Topical Report being accepted for review.



Purpose

- The purpose of this technical meeting is to:
 - discuss information needed to complete technical review
 - discuss additional gaps addressed by staff



Gaps to Acceptance

- All relate to confined jet behavior section of Topical Report (3.4.4.4)
 1. Provide discussion of jet behavior within the reactor cavity region and justification for any usage of free expansion jet behavior
 2. Characterize each non-metallic insulation (NMI) location to justify whether there are jet impingement effects or not
 3. Quantify the dynamic jet loads at the NMI location (including potential jet deflection and reflection) for comparison to the test pressure
 4. Justify nodalization of GOTHIC model and quantify structural integrity of intervening structures (where credited)

Additional Gaps

- Additional Gaps (23) were also identified and will need to be addressed in a subsequent resubmittal
- Gaps apply to various topics, including:
 - Cable and NMI
 - Jet impingement testing and submergence testing
 - Topical Report Justifications
- Responses to these Gaps are planned as part of the next revision of the Topical Report

Future Actions

- Two parallel paths are currently being pursued to reach a resolution for the acceptance gaps:
 - Expanding the jet impingement test program to include a test in the jet core region to characterize the maximum damage the NMI blocks could see in the Reactor Vessel (RV) cavity
 - Analytical modeling using Computational Fluid Dynamics (CFD) and GOTHIC to show that jet expands in the RV cavity in such a way that the test program from Summer 2014 subjected the NMI blocks to bounding conditions
- Topical Report will be revised to include further justification to address confined jet behavior as well as additional gaps

ENCLOSURE 2 for DCP_NRC_003296

AW-15-4228

“Application for Withholding Proprietary Information from Disclosure”
Dated July 10, 2015

(Non-Proprietary)



Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, Pennsylvania 16066
USA

U.S. Nuclear Regulatory Commission
Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Direct tel: (412) 374-3382
Direct fax: (724) 940-8505
e-mail: russpa@westinghouse.com

AW-15-4228

July 10, 2015

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: Submittal of "Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps" Presentations for the Meeting held on June 18, 2015 (Proprietary)

Reference: Letter from Paul A. Russ to Document Control Desk, DCP_NRC_003296, dated July 10, 2015

The Application for Withholding Proprietary Information from Public Disclosure is submitted by Westinghouse Electric Company LLC (Westinghouse), pursuant to the provisions of paragraph (b)(1) of Section 2.390 of the Commission's regulations. It contains commercial strategic information proprietary to Westinghouse and customarily held in confidence.

The proprietary information for which withholding is being requested is identified in the proprietary version of the subject report. In conformance with 10 CFR Section 2.390, Affidavit AW-15-4228 accompanies this Application for Withholding Proprietary Information from Public Disclosure, setting forth the basis on which the identified proprietary information may be withheld from public disclosure.

Accordingly, it is respectfully requested that the subject 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 proprietary aspects of the Application for Withholding or the accompanying Affidavit should reference AW-15-4228, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Building 3 Suite 310, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Very Truly Yours,

A handwritten signature in black ink, appearing to read 'Paul A. Russ', written in a cursive style.

Paul A. Russ
Director, U.S. Licensing & Regulatory Support



Westinghouse Electric Company
1000 Westinghouse Drive
Cranberry Township, Pennsylvania 16066
USA

/Enclosures (3)

1. AW-15-4228, Affidavit, Proprietary Information Notice, Copyright Notice dated July 10, 2015
2. Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps (Proprietary) – APP-GW-GLY-066 Rev. 0
3. Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps (Non-Proprietary) – APP-GW-GLY-067 Rev. 0

AW-15-4228
July 10, 2015

ENCLOSURE 1 for AW-15-4228

Affidavit
Proprietary Information Notice
Copyright Notice dated July 10, 2015

(Non-Proprietary)

July 10, 2015

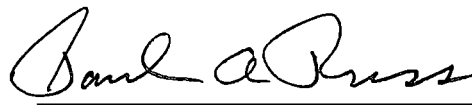
AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF BUTLER:

I, Paul A. Russ, 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 cursive script, reading "Paul A. Russ", is written over a horizontal line.

Paul A. Russ

Director, U.S. Licensing & Regulatory Support

- (1) I am Director, U.S. Licensing & Regulatory Support, 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 in "Technical Exchange Meeting Related to WCAP-17938 Acceptance Review Gaps" presentations (Proprietary) for a meeting to be held on June 18, 2015, for submittal to the Commission, being transmitted by Westinghouse letter, DCP_NRC_003296, 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 Westinghouse's request for NRC approval of WCAP-17938 and may be used only for that purpose.

- (a) This information is part of that which will enable Westinghouse to:
 - (i) Obtain NRC approval of WCAP-17938, "AP1000 In-Containment Cables and Non-Metallic Insulation Debris Integrated Assessment"
- (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 plant construction and operation.
 - (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 plant safety systems 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.