



Program Management Office
4350 Northern Pike
Monroeville, Pennsylvania 15146

WCAP-16406-P Rev. 1
Project Number 694

September 7, 2007

OG-07-404

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

Subject: PWR Owners Group
Submittal of WCAP-16406-P Revision 1, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191"(PA-SEE-0195)

Reference: (1) Response to Westinghouse Owners Group Letter No. WOG-05-287, Regarding WCAP-16406-P, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191", Herbert N. Berkow (NRC) to Gordon Bischoff (WOG), October 27, 2005.

This letter transmits four (4) copies of WCAP-16406-P Revision 1, entitled "Evaluation of Downstream Sump Debris Effects in Support of GSI-191," dated August 2007. The Pressurized Water Reactor Owners Group (PWROG) is requesting formal review of WCAP-16406-P Revision 1 in accordance with the Nuclear Regulatory Commission (NRC) licensing topical report program for review and acceptance for referencing in licensing actions.

A non-proprietary version is not available and will not be submitted. This is due to the extensive quantity of proprietary information contained in WCAP-16406-P Revision 1, and omitting such information within this document would compromise the intent and coherence of this WCAP.

WCAP-16406-P Revision 1 provides methods and information for each PWR licensed in the U. S. that can be used to perform an assessment of the impact of debris on various equipment required by the ECCS and NSSS to maintain the core in a coolable geometry in a post-accident condition. Each plant will need to determine their plant-specific sump debris mixture and sump screen size in order to utilize the evaluation. This report provides information on a common methodology and acceptance criteria for potentially affected components for Westinghouse, CE, and B&W PWR NSSS designs. This report also identifies potential plant actions (based on evaluation) which may include component modifications to demonstrate compliance with the NRC GL2004-02.

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Please note that Chapter 4, entitled "Systems Descriptions and Mission Times," and Appendices A, B, C, D, G, H and M, are submitted for information only and no review is being requested on these sections.

Also enclosed is Westinghouse authorization letter AW-07-2328, accompanying affidavit, Proprietary Information Notice, and a Copyright Notice.

WCAP-16406-P Revision 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 this 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 information listed above or the supporting Westinghouse affidavit should reference AW-07-2328 and should be addressed to Mr. J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355

The PWROG requests that a fee waiver be considered for the NRC review of WCAP-16406-P Revision 1 pursuant to the provisions of 10 CFR 170.11(a)(1)(i). WCAP-16406-P Revision 1 provides the technical background as requested by the NRC in the Safety Evaluation of NEI 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology." Both NEI-04-07, which was exempt from NRC review fees, and WCAP-16406-P Revision 1 were developed in response to NRC request associated with Generic Safety Issue GSI-191. The application of the methods and information described in this report will reduce regulatory burden and allow for more appropriate allocation of NRC inspection resources.

During the fee waiver decision period, the PWROG respectfully requests the NRC Staff to review WCAP-16406-P Revision 1. The PWROG will assume the responsibility of the NRC review fees accrued if the fee waiver is not granted.

Consistent with the Office of Nuclear Reactor Regulation, Office Instruction LIC-500, "Processing Request for Reviews of Topical Reports," the PWROG requests that the NRC provide target dates for any Request(s) for Additional Information and for issuance of the Safety Evaluation for WCAP-16406-P Revision 1.

Correspondence related to this transmittal and invoices associated with the review of WCAP-16406-P Revision 1 should be addressed to:


Mr. Gordon Bischoff
Manager, Owners Group Program Management Office
Westinghouse Electric Company
Mail Stop ECE 5-16
P. O. Box 355
Pittsburgh, Pennsylvania 15230-0355

The reference documents requested in Reference (1) above are currently being prepared and will be provided under a separate cover.

If you have any questions, please do not hesitate to contact me at 630-657-3897 or Mr. Gordon Bischoff of the Owners Group Program Management Office at 860-731-6200.

If you require further information, please contact Mr. Reginald R. Dulaney in the Owners Group Program Management Office at 412-374-6549.

Regards,

A handwritten signature in black ink, appearing to read 'Fred Schiffley', followed by the word 'for'.

Frederick P. "Ted" Schiffley, II, Chairman
PWR Owners Group

FPS:RRD:mjl

Enclosures

cc: PWROG Steering Committee
PWROG Management Committee
PWROG Licensing Subcommittee
PWROG Systems and Equipment Engineering Subcommittee
PWROG Project Management Office
S. Peters, USNRC
T. S. Andreychek, Westinghouse
P. V. Pyle, Westinghouse
W. J. Rinkacs, Westinghouse
W. Turkowski, Westinghouse
L. I. Ezekoye, Westinghouse
R. Hundal, Westinghouse
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Our ref: AW-07-2328

September 7, 2007

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: WCAP-16406-P, Rev. 1, "Evaluation of Downstream Sump Debris Effects in Support of GSI-191"
(Proprietary Class 2)

Reference: OG-07-404 letter from Frederick P. Schiffler, II, Chairman, PWR Owners Group to NRC
Document Control Desk dated, September 7, 2007

The Application for Withholding 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 material 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-07-2328 accompanies this Application for Withholding, 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 this Application for Withholding or the accompanying affidavit should reference AW-07-2328 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Very truly yours,

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

J. A. Gresham, Manager
Regulatory Compliance and Plant Licensing

Enclosures

cc: Jon Thompson (NRC O-7E1A)

bcc: J. A. Gresham (ECE 4-7A) 1L
R. Bastien, 1L (Nivelles, Belgium)
C. Brinkman, 1L (Westinghouse Electric Co., 12300 Twinbrook Parkway, Suite 330, Rockville, MD 20852)
RCPL Administrative Aide (ECE 4-7A) (Letter and affidavit only)

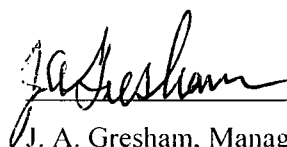
AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF ALLEGHENY:


Before me, the undersigned authority, personally appeared J. A. Gresham, 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:



J. A. Gresham, Manager

Regulatory Compliance and Plant Licensing

Sworn to and subscribed before me
this 7th day of September, 2007



Notary Public

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal
Sharon L. Markle, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Jan. 29, 2011

Member, Pennsylvania Association of Notaries

- (1) I am Manager, Regulatory Compliance and Plant 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" accompanying this Affidavit.
- (3) I have personal knowledge of the criteria and procedures utilized by Westinghouse in designating information as a trade secret, privileged or as confidential commercial or financial information.
- (4) Pursuant to the provisions of paragraph (b)(4) of Section 2.390 of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - (i) The information sought to be withheld from public disclosure is owned and has been held in confidence by Westinghouse.
 - (ii) The information is of a type customarily held in confidence by Westinghouse and not customarily disclosed to the public. Westinghouse has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitutes Westinghouse policy and provides the rational basis required.

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

- (a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where prevention of its use by any of Westinghouse's competitors without license from Westinghouse constitutes a competitive economic advantage over other companies.

- (b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage, e.g., by optimization or improved marketability.
- (c) Its use by a competitor would reduce his expenditure of resources or improve his competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
- (d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of Westinghouse, its customers or suppliers.
- (e) It reveals aspects of past, present, or future Westinghouse or customer funded development plans and programs of potential commercial value to Westinghouse.
- (f) It contains patentable ideas, for which patent protection may be desirable.

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

- (a) The use of such information by Westinghouse gives Westinghouse a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the Westinghouse competitive position.
- (b) It is information that is marketable in many ways. The extent to which such information is available to competitors diminishes the Westinghouse ability to sell products and services involving the use of the information.
- (c) Use by our competitor would put Westinghouse at a competitive disadvantage by reducing his expenditure of resources at our expense.
- (d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component

may be the key to the entire puzzle, thereby depriving Westinghouse of a competitive advantage.

- (e) Unrestricted disclosure would jeopardize the position of prominence of Westinghouse in the world market, and thereby give a market advantage to the competition of those countries.
- (f) The Westinghouse capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- (iii) The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
- (iv) The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
- (v) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in WCAP-16406-P, Rev. 1 "Evaluation of Downstream Sump Debris Effects in Support of GSI-191 (Proprietary Class 2), dated August 2007, being transmitted by Westinghouse letter (LTR-OG-07-404) and Application for Withholding Proprietary Information from Public Disclosure.

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

- (a) Assist the customer in evaluating downstream effects as defined in GSI-191.
- (b) Assist the customer in evaluating possible hardware modifications based on the results of the downstream effects evaluation.

Further this information has substantial commercial value as follows:

- (a) Westinghouse plans to sell the application of the methodology contained in the report.
- (b) The information requested to be withheld reveals test data specific and unique to Westinghouse equipment.
- (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 qualification evaluation justification 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.