



Westinghouse Energy Systems
Electric Corporation

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July 01, 1994
AW-94-650

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

Attention: William T. Russell, Director
Office of Nuclear Reactor Regulation

Reference: Letter from N. J. Liparulo to L. E. Phillips, NTD-NRC-94-4183, dated July 01, 1994

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: Response to NRC Request for Information on DNB Performance (Proprietary)

Dear Mr. Russell:

The application for withholding is submitted by Westinghouse Electric Corporation ("Westinghouse") pursuant to the provisions of paragraph (b) (1) of Section 2.790 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 2.790, Affidavit AW-94-650 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 2.790 of the Commission's regulations.

Correspondence with respect to this application for withholding or the accompanying affidavit should reference AW-94-650 and should be addressed to the undersigned.

Very truly yours,

Nicholas J. Liparulo, Manager
Nuclear Safety Regulatory and Licensing Activities

cc: Kevin Bohrer / NRC (12H5)

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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 2.790 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 2.790(b)(1).

Copyright Notice

The reports transmitted herewith each bear a Westinghouse copyright notice. The NRC is permitted to make the number of copies for 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 2.790 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 these 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.

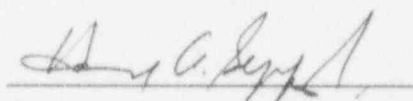
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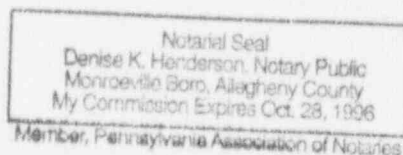
COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Henry A. Sepp, 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 Corporation ("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:



Henry A. Sepp, Manager
Regulatory and Licensing Initiatives

Sworn to and subscribed
before me this 1st day
of July, 1994.



Notary Public

- (1) I am Manager, Regulatory and Licensing Initiatives, in the Nuclear Technology Division, of the Westinghouse Electric Corporation 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 rulemaking proceedings, and am authorized to apply for its withholding on behalf of the Westinghouse Energy Systems Business Units.
- (2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.790 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 the Westinghouse Energy Systems Business Units 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 2.790 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 which 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 2.790, 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 "Response to NRC Request for Information on DNB Performance," (Proprietary), July 01, 1994, for information in support of Westinghouse Electric Corporation's submittal to the Commission, transmitted via letter, Westinghouse Electric Corporation, NTD-NRC-94-4183, dated July 01, 1994, "Response to NRC Request for Information on DNB Performance", and Application for Withholding Proprietary Information from Public Disclosure, Nicholas J. Liparulo, Westinghouse, Manager Nuclear Safety Regulatory and Licensing Activities to the attention of William T. Russell, Director, Office of Nuclear Reactor Regulation. The proprietary information as submitted by Westinghouse is in response to an NRC request for information on DNB performance.

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

- (a) Inform the NRC of the DNB Performance.
- (b) Assist its customers to supporting DNB licensing basis.
- (c) Optimize reactor design and performance while maintaining a high level of fuel integrity.

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 improved core thermal performance methodology 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 for developing the enclosed improved core thermal performance methodology.

Further the deponent sayeth not.

Response to NRC Request for Information on DNB Performance

Purpose:

The purpose of this letter is to provide the information requested by the NRC as a result of a Westinghouse/NRC conference call held on June 27, 1994. The NRC was notified of a reduction in DNB margin for the 17x17 fuel assembly designs which contain both Intermediate Flow Mixers (IFMs) and rotated mid-grids.

Background:

As a result of the VANTAGE 5H grid-to-rod fretting that occurred at various plants, Westinghouse conducted extensive testing that replicated the in-core vibration at []^{a, b, c}. Subsequent to this testing, a solution to the problem was introduced that alleviated the flow-induced fuel assembly vibration. This solution was the []^{a, b, c}. This design change also resulted in rotating specified IFMs. []

[]^{a, b, c}

Current Status:

In the course of ongoing DNB testing being performed to extend the range of the WRB-2 correlation, Westinghouse obtained DNB test data applicable to the 17x17 VANTAGE 5H fuel design []

[]^{a, b, c, e}

Licenses Impacted/Plans for Resolution:

Currently, Millstone Unit 3 is the only domestic plant operating with fuel assemblies that have the rotated IFM grid configuration. It has been determined that there is adequate DNB margin built into the plant's licensed safety analysis to continue to show compliance within the plant's current licensing basis. Four other domestic plants have received fuel shipments with both IFMs and rotated mid-grids: Byron Unit 1, Braidwood Unit 2, Wolf Creek and D. C. Cook Unit 2. Projected startup dates for these plants are shown in Table 1. Westinghouse is working with each of these customers to resolve this issue. It is expected that the solution for each of these plants will be specific to that plant, with the common intent of demonstrating that, regardless of the specific solution, sufficient DNB margin will be available to meet the plant's current licensing basis.

Table 1
Projected Startup Dates for Plants Impacted
by Reduced DNB Performance

| Plant | Projected Startup Date |
|-------------------|-------------------------------|
| Wolf Creek Unit 1 | 11/94 |
| Byron Unit 1 | 11/94 |
| Braidwood Unit 2 | 12/94 |
| D. C. Cook Unit 2 | 11/94 |