



Westinghouse
Electric Corporation

Energy Systems

Box 355
Pittsburgh, Pennsylvania 15230-0355

AW-92-357

September 14, 1992

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTENTION: DR. THOMAS MURLEY

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

SUBJECT: RESPONSES TO NRC REQUESTS FOR ADDITIONAL INFORMATION RELATED TO
SPES-1 TEST FACILITY

Dear Dr. Murley:

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 10CFR Section 2.790, Affidavit AW-92-357 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 10CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to this application for withholding or the accompanying affidavit should reference AW-92-357 and should be addressed to the undersigned.

Very truly yours,

N. J. Liparulo, Manager
Nuclear Safety And Regulatory Activities

/nja

cc: M. P. Siemien Office of the General Counsel, NRC
L. Barnett NRC (12H5)

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In order to conform to the requirements of 10CFR 2.790 of the commission's regulation 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 on the brackets remain, the information that was 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) contained within parentheses 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 Section (4)(ii)(a) through (4)(ii)(f) of the affidavit accompanying this transmittal pursuant to 10CFR2.790(b)(1).

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

SS

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Nicholas J. Liparulo, 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:

Nicholas J. Liparulo

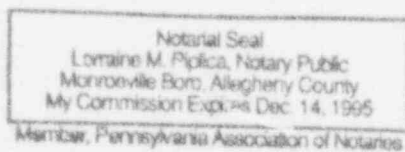
Nicholas J. Liparulo, Manager

Nuclear Safety and Regulatory Activities

Sworn to and subscribed
before me this 15th day
of September, 1992

Lorraine M. Pipica

Notary Public



- (1) I am Manager, Nuclear Safety and Regulatory Activities, in the Nuclear and Advanced 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 Unit.
- (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 Unit 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 10CFR 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) Enclosed is Letter ET-NRC-92-3749, September 1992, being transmitted by Westinghouse Electric Corporation (W) letter and Application for Withholding Proprietary Information from Public Disclosure, N. J. Liparulo (W), to Dr. Thomas Murley, Director, Office of NRR. The proprietary information as submitted for use by Westinghouse Electric Corporation is in response to questions concerning the AP600 plant and the associated design certification application and is expected to be applicable in other licensee submittals in response to certain NRC requirements for justification of licensing advanced nuclear power plant designs.

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

- (a) Demonstrate the design and safety of the AP600 Passive Safety Systems.
- (b) Establish applicable verification testing methods.
- (c) Design Advanced Nuclear Power Plants that meet NRC requirements.
- (d) Establish technical and licensing approaches for the AP600 that will ultimately result in a certified design.
- (e) Assist customers in obtaining NRC approval for future plants.

Further this information has substantial commercial value as follows:

- (a) Westinghouse plans to sell the use of similar information to its customers for purposes of meeting NRC requirements for advanced plant licenses.
- (b) Westinghouse can sell support and defense of the technology to its customers in the licensing process.

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 advanced nuclear power designs 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 analytical methods and receiving NRC approval for those methods.

Further the deponent sayeth not.

RESPONSES TO NRC QUESTIONS ON WCAP-13277

QUESTION:

1. The modifications to SPES as described in WCAP-13277 do not represent the most recent version of the AP600 design. How will design changes made after preparation of the report be incorporated? Among the specific components of concern are the pressurizer surge line and the steam generators.

RESPONSE:

The latest AP600 design changes have been provided to SEIT for incorporation into the modified SPES-2 (AP600) representation. The pressurizer surge line changes will also be included in the design changes. We are currently performing the scaling analysis on this particular line to develop the geometry and size for the SPES-2 facility. With regard to the generators, while the AP600 design has changed to the Delta 75 model, the SPES generators more accurately represent a Model F U-tube generator. These generators will not be changed for the SPES-2 (AP600) simulation. Since the purpose of the experiments is to validate system codes at high pressure for PWR's with AP600 passive safety systems, the model F generator is sufficiently representative of the AP600 such that they do not have to be altered.

QUESTION:

2. The report describes the primary system layout as having a single cold and a single hot leg for each loop. Information received as a result of the recent visit by an NRC staff member to SIET indicates that this configuration has been modified. There is also no information in the WCAP regarding the SPES-2 downcomer design, which has also apparently been changed. What will be the primary system configuration, and how closely will it resemble the AP600 layout? Also in this regard, how will the simulated CMTs be incorporated into SPES-2?

RESPONSE:

The loop configuration which will be used for the SPES-2 (AP600) is shown in Figure 1 which includes a single pump attached to the outlet plenum of the steam generator by a single pipe. The flow will split after the pump into two cold legs per loop which end at an annular downcomer which surrounds the upper unheated portion of the rod bundle. The upper portion of the downcomer is an annulus as shown in Figure 2 with all four cold legs entering. There will be flow baffles between the cold legs and the DVI injection locations to simulate the hot leg blockage and to obtain proper circumferential flow ΔP . The flow from the bottom of the annular downcomer will flow into a pipe which is parallel but separate from the heated rod bundle. The downcomer pipe connects to the simulated lower plenum below the heated portion of the rod bundle.