Westinghouse
Electric Corporation

Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

August 25, 1992
CAW-92-345

Document Control Desk
US Nuclear Regulatory Commission
Washington, DC 20555

Attention: Dr. Thomas Murley, Director

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: "Westinghouse Response to NRC Request for Additional Information on South Carolina Electric & Gas MSSV Setpoint Tolerance Relaxation"

Dear Dr. Murley:

The proprietary information for which withholding is being requested in the above-referenced letter is further identified in Affidavit CAW-92-345 signed by the owner of the proprietary information, Westinghouse Electric Corporation. 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 2.790 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying Affidavit by the South Carolina Electric & Gas Company.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-92-345, and should be addressed to the undersigned.

Very truly yours,

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

Enclosures

cc: M. P. Siemien, Esq.
Office of the General Counsel, NRC

CAW-92-345

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

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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, Manager
Nuclear Safety and Regulatory Activities

Sworn to and subscribed
before me this 28th day
of August, 1992

Lorraine M. Pjelica
Notary Public

Notarial Seal
Lorraine M. Pjelica, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Dec. 14, 1995
Member, Pennsylvania Association of Notaries

050 082792

(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 10CFR 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) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in "Westinghouse Response to NRC Request for Additional Information on SCE&G MSSV Setpoint Tolerance Relaxation", August, 1992 for Virgil C. Summer Nuclear Station, being transmitted by the South Carolina Electric & Gas Company (CGE) letter and Application for Withholding Proprietary Information from Public Disclosure, John L. Skolds to Document Control Desk, Attention of Dr. Thomas Murley. The proprietary information as submitted for use by South Carolina Electric & Gas Company for the Virgil C. Summer Nuclear Station is expected to be

applicable in other licensee submittals in response to certain NRC requirements for justification of Main Steam Safety Valve Setpoint Tolerance Relaxation.

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

(a) Provide documentation of the analyses, methods, and testing for reaching a conclusion relative to relaxing the Main Steam Safety Valve (MSSV) setpoint tolerance.

(b) Establish applicable analytical technologies.

(c) Establish the applicable codes and standards which are to be applied.

(d) Assist the customer to obtain NRC approval.

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 satisfying NRC requirements for licensing documentation.

(b) Westinghouse can sell support and defense of 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 analytical documentation 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 testing and analytical methods and performing tests.

Further the deponent sayeth not.

Westinghouse Response to NRC Request for Additional Information on SCE&G MSSV Setpoint Tolerance Relaxation

South Carolina Electric & Gas has submitted a proposed Tech Spec change to the NRC to relax the main steam safety valve (MSSV) setpoint tolerance. In particular, the proposed Tech Spec increases the tolerance above the current 1%, to 3% for the four highest MSSV banks; however, the 1% tolerance will be retained for the bank with the lowest setpoint[1]. In support of this proposed Tech Spec amendment, Westinghouse has performed a series of safety analyses which assume an MSSV setpoint tolerance of 3%.

As part of their review of the proposed Tech Spec amendment, the NRC has requested a comparison of the peak secondary side pressures achieved in the 1% tolerance and 3% tolerance cases for those events which actuate the main steam safety valves. In addition, to facilitate their review, the NRC has requested a short description of the LOFTRAN MSSV model. The text below is provided as a result of this request.

The comparison was made between the current licensing basis (FSAR) analyses (assuming 1% MSSV tolerance) and the analyses which have been performed to support an increase in the tolerance to 3%. [

]$^{(a,c)}$

Per Westinghouse procedures, the MSSV lift pressure assumed in the V. C. Summer FSAR analyses corresponds to the [

]$^{(a,c)}$ Therefore, prior to reaching a steam pressure of [ ]$^{(a,c)}$, no MSSV relief is credited in the analyses. The maximum MSSV flow rate allowed in the accident simulation is [ ]$^{(a,c)}$ This is less than the total MSSV capacity at the V. C. Summer plant. Note that no explicit accounting for the 1% setpoint tolerance has been made in the FSAR analyses. The 1% tolerance has been considered negligible with respect to the margins available to the licensing limits. Furthermore, with such a small tolerance, it is judged that as many MSSVs may be considered to have lift setpoints below the nominal, as above. However, independent of any tolerance considerations, the assumed lift pressure is consistent with the ASME Code requirement in NB-7512.1 which dictates that the MSSVs shall attain the rated lift at a pressure no greater than 3% above the set pressure.

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[1] The 1% tolerance on the lowest MSSV bank setpoint is being retained to ensure that the auxiliary feedwater flow rate imbalance between steam generators will not be too severe during transients, not as a result of peak secondary side pressure concerns, as is shown below.

The MSSV model which was utilized to support a 3% MSSV setpoint tolerance is identical to that used in the FSAR analyses, except that the single setpoint lift pressure has been increased by the 3% tolerance to [ ]$^{(a,c)}$ Note that this lift pressure explicitly accounts for both the valve accumulation and setpoint tolerance by conservatively adding the two factors algebraically. This treatment of the accumulation and tolerance is considerably more conservative than the valve behavior required by NB-7512.1 which requires the MSSVs to be fully open within 3% above the set pressure. As before, the maximum allowable relief capacity is [ ]$^{(a,c)}$

The comparison of the peak steam pressure results of these analyses are summarized below in Table 1. In all cases the peak steam pressure remains below 1318.5 psia (110% of design pressure). Note that the peak pressures reached in all cases are equal to the assumed MSSV lift pressure. This means that the assumed relief capacity of [ ]$^{(a,c)}$ is sufficient to terminate the steam pressure transient. The actual MSSV relief capacity available at the V. C. Summer plant exceeds [ ]$^{(a,c)}$

Table 1
Maximum steam pressures*

Event	FSAR	3% MSSV Tolerance
[		] (a,c)

* pressure values do not include the pressure drop from the steam generator to the MSSVs of approximately [ ]$^{(a,c)}$

Since the maximum steam pressure in each analysis is the assumed MSSV lift pressure, the most limiting secondary side pressure transient is considered to be that transient which requires the highest MSSV flow rate to maintain steam pressure at the MSSV lift pressure. Examination of each transient reveals that the Loss of Load/Turbine Trip analysis requires the greatest MSSV relief rate. The MSSV relief rate reaches a maximum steam flow of [ ]$^{(a,c)}$. However, this relief rate is only required for a very short time period [ ]$^{(a,c)}$

[

]$^{(a,c)}$

[

]$^{(a,c)}$

[

]$^{(a,c)}$