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March 2, 1989

Director of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

Subject: Zion Nuclear Power Station, Unit 2
License No. DPR-48
NRC Docket No. 50-304
Evaluation of Degraded Tube in 2A Steam Generator

Reference: February 8, 1989 letter from C.F. Patel
to H.E. Bliss

Gentlemen:

The referenced letter confirmed the telephone conversation of January 30, 1989 between NRC and Commonwealth Edison personnel and outlined the resultant agreements pertaining to the continued operation of Unit 2. The specific concern addressed the possible consequences of continued unit operation with a unique configuration of a degraded tube (Row 1, Column 55) in 2A Steam Generator. An engineering evaluation was required to respond to the aforementioned concern.

The purpose of this letter is to submit the analyses of the affected tube that was performed by Westinghouse Electric Corporation. The report identified the probable cause of the failure as Primary Water Stress Corrosion Cracking. It also considered parameters such as flow-induced vibration and the effect of plugging the subject tube, in order to determine the likelihood of continued propagation of the existing crack or new crack formation. The report concluded that no additional action, such as plugging or stabilizing the tube at Row 1 Column 55 is necessary.

Attachment 1 contains one proprietary copy of WCAP 12175, "Evaluation of A Degraded R1C55 Tube Located in Steam Generator" A "of Zion Unit 2" and a nonproprietary version of the same report.

Since Attachment 1 contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit is contained in Attachment 2 to this letter. The affidavit sets forth the basis of which the information may be withheld from public disclosure by the Commission and address with specificity the considerations listed in paragraph (b) (4) of Section 2.790 of the Commission's regulations.

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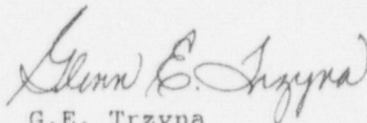
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Accordingly, Commonwealth Edison Company requests that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790 of the Commission's regulations. Correspondence with respect to the proprietary aspects of the Application for Withholding or the supporting Westinghouse Affidavit should reference CAW-89-033 and should be addressed to R.A. Wiesemann, Manager of Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

In addition to the two attachments discussed above, 2 copies of the proprietary and one copy of the nonproprietary versions of WCAP 12175 are enclosed for NRC review.

If there are any further questions regarding this matter, please contact this office.

Very truly yours,



G.E. Trzyna
Nuclear Licensing Administrator
Zion Station

/scl:0049:1-2

Attachments

cc: C.P. Patel-NRR-w/o WCAP
NRC Resident Inspector-Zion-w/o WCAP

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 10CFR 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 (g) 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 SECTIONS (4)(ii)(a) through (4)(ii)(g) OF THE AFFIDAVIT ACCOMPANYING THIS TRANSMITTAL PURSUANT TO 10CFR2.790(b)(1).

ATTACHMENT 2

AFFIDAVIT

REQUEST FROM WITHOLDING

FROM PUBLIC DISCLOSURE

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

§ 3

COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared Robert A. Wiesemann, 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:

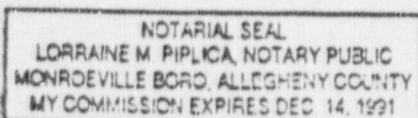
Robert A. Wiesemann

Robert A. Wiesemann, Manager
Regulatory and Legislative Affairs

Sworn to and subscribed
before me this 14th day
of Dec., 1988.

Lorraine M. Piplica

Notary Public



Member, Pennsylvania Association of Notaries

- (1) I am Manager, Regulatory and Legislative Affairs, 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, Nuclear Fuel, and Power Generation Business Units.
- (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, Nuclear Fuel, and Power Generation 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.
- (g) It is not the property of Westinghouse, but must be treated as proprietary by Westinghouse according to agreements with the owner.

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 "Point Beach Unit 2 Tube Fatigue Evaluation: Response to NRC Questions", WCAP-12042, (Proprietary), for Point Beach Nuclear Plant Unit 2, being transmitted by the Wisconsin Electric Power Company (WEPCO) letter and Application for Withholding Proprietary Information from Public Disclosure, C. W. Fay, WEPCO, to NRC Document Control Desk, Attention W. Swenson, November 17, 1988. The proprietary information as submitted for use by Wisconsin Electric Power Company for the Point Beach Unit 2 is expected to be applicable in other licensee submittals in response to certain NRC requirements for justification of actions to minimize the potential for rapidly propagating fatigue cracks causing a steam generator tube rupture.

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 the potential for denting induced fatigue degradation at the top tube support plate.
- (b) Establish the tube stiffness, frequency, and fluid-elastic stability ratios by dynamic analysis of various tubes.
- (c) Establish the effects on fluid-elastic instability of columnwise variations in anti-vibration bar insertion depths.
- (d) Establish the detailed flow conditions in the region of interest including flow velocities, densities, and void fractions.
- (e) 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 meeting NRC requirements for licensing documentation.

- (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 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.