Northeast
Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(203) 665-5000

March 29, 1995

Docket No. 50-423
B15175

Re: 10CFR50.55a(g)

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

Millstone Nuclear Power Station, Unit No. 3
Relief Request for Performing Volumetric Examination
of Inner Radius of Steam Generator Steam Nozzle
Additional Information

The purpose of this submittal is to supplement the original relief request (i.e., IR-19) made by Northeast Nuclear Energy Company (NNECO) on December 16, 1994,[1] regarding performance of volumetric examination of inner radius of steam generator main steam nozzles at Millstone Unit No. 3. During a conference call with the NRC Staff, NNECO was requested by the NRC Staff to provide additional information regarding volumetric examination of the inner radius sections of the steam generator main steam nozzles at Millstone Unit No. 3.

The information regarding (1) main steam nozzle material, (2) accessibility for the visual examination, and (3) stress for the main steam nozzle is provided below:

Steam Generator Main Steam Nozzle Material

The Millstone Unit No. 3 steam generator main steam nozzle is a solid blank made of SA508CL2A with seven drilled holes. The underside of the blank was weld overlayed with nickel-chromium-iron alloy. Each of the seven holes had a venturi inserted that is also a nickel-chromium-iron alloy that is fastened at the end to mate with the weld overlay. The venturis are then fillet welded in place. The accessible

(1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 3, Inservice Inspection Program - Relief Request from Performing Volumetric Examination of Inner Radius of Steam Generator Main Steam Nozzle," dated December 16, 1994.

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surface for visual examinations would be the flared end of the venturi and weld overlay.

Accessibility for the Visual Examination

Access to the inside surface of the steam generator main steam nozzle is sealed off by a bank of moisture separators to allow only the passage of steam. As seen from the attached sketch, the access for the visual examination (e.g., use of a camera) is very difficult due to geometric configuration and permanent obstructions (e.g., moisture separators) in that area of the steam generator and would require the welds to be cut.

Stresses for the Main Steam Nozzle

Westinghouse Steam Generator Stress Report (a proprietary report) provides the results of the stress and fatigue analysis of the main steam nozzles. These nozzles do not include the typical nozzle inner radius configuration since they were fabricated from a solid blank with seven drilled holes. A review of the results indicates that the stresses in the nozzle inner radius region are less than 68 percent of the ASME Code allowable stress for each of the design conditions. In addition, the fatigue usage factor at this location was calculated to be 0.01 which indicates that the expected fatigue life of the component is approximately 1 percent of the total allowed by the ASME Code. These stresses and the fatigue usage factor are significantly lower than those of other nozzles, such as the feedwater nozzle as described in the Westinghouse Steam Generator Stress Report.

Based on the above, it is concluded that the magnitude of the applied stresses and the fatigue usage factor at the steam outlet nozzle inner radius are low compared to that of other nozzles with typical inner radius configurations. Therefore, the probability of cracking at this location as a result of the applied loads is expected to be low through the end of the nozzle's design life.

We believe the above information, coupled with the information provided in our December 16, 1994, submittal, provides a complete basis for approval of the requested relief. NNECO requests that the proposed relief request, IR-19, be reviewed and approved by April 12, 1995, to support the upcoming refueling outage.

Should the Staff require any additional information, please contact Mr. R. G. Joshi at (203) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

J. F. Opeka
Executive Vice President

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

Northeast
Utilities System

107 Selden Street, Berlin, CT 06037

Northeast Utilities Service Company
P.O. Box 270
Hartford, CT 06141-0270
(203) 665-5000

April 26, 1995

Docket No. 50-423
B15208

Re: 10CFR2.790

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

Millstone Nuclear Power Station, Unit No. 3
Supplementary Information for Relief Request for
Performing Volumetric Examination of Inner Radius of
Steam Generator Nozzle - Additional Information

The purpose of this letter is to request that the NRC Staff withhold from public disclosure the material transmitted via Northeast Nuclear Energy Company's (NNECO) letter of March 29, 1995.[1] The March 29, 1995, letter transmitted information which is proprietary to Westinghouse Electric Corporation but did not include all the appropriate support material. Subsequent to that submittal, as a result of discussions between NNECO and the NRC Staff, the NRC Staff has agreed to withhold that information which is identified as proprietary to Westinghouse Electric Corporation from public disclosure, provided NNECO supply the necessary support material. Therefore, enclosed with this letter is the following information:

1. 5 copies of "Steam Generator Schematic Flow Diagram" (Enclosure 1 - Proprietary).

2. 5 copies of "Steam Generator Schematic Flow Diagram" (Enclosure 2 - Non-Proprietary).

Also enclosed in Attachment 1 are a Westinghouse authorization letter, CAW-95-814, accompanying affidavit, Proprietary Information Notice, and Copyright Notice.

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(1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Relief Request for Performing Volumetric Examination of Inner Radius of Steam Generator Nozzle, Additional Information," dated March 29, 1995.

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As Enclosure 1 contains information proprietary to Westinghouse Electric Corporation, 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 10CFR2.790 of the Commission's regulations.

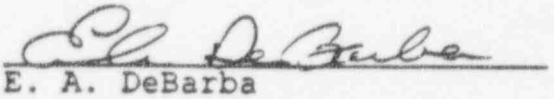
Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR2.790 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse Affidavit should reference CAW-95-814 and should be addressed to Nicholas J. Liparulo, Manager, Nuclear Safety Regulatory and Licensing Activities, Westinghouse Electric Corporation, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355. Questions or comments on any other aspect of this issue should be directed to Mr. R. G. Joshi at (203) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: J. F. Opeka
Executive Vice President

BY: 
E. A. DeBarba
Vice President

cc: T. T. Martin, Region I Administrator
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3
P. D. Swetland, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

Docket No. 50-423
B15208

Attachment 1

Millstone Nuclear Power Station - Unit No. 3

Westinghouse Authorization Letter, Affidavit,
Proprietary Information Notice, and Copyright Notice

April 1995

Westinghouse Electric Corporation
Energy Systems

Box 355
Pittsburgh Pennsylvania 15230-0355

Document Control Desk
US Nuclear Regulatory Commission
Washington, DC 20555

April 20, 1995
CAW-95-814

Attention: Mr. William T. Russell

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: "Steam Generator Schematic Flow Diagram", Proprietary

Dear Mr. Russell:

The proprietary information for which withholding is being requested in the above-referenced letter is further identified in Affidavit CAW-95-814 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 Northeast Utilities Service Company.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-95-814, and should be addressed to the undersigned.

Very truly yours,

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

ULB/bbp

Enclosures

cc: K. Bohrer/NRC (12H5)
V.L. Rooney/NRC

NSRLA193L/NEU621

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CAW-95-814

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

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 20th day
of April, 1995

Notarial Seal
Denice K. Henderson, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Oct. 28, 1996
Member, Pennsylvania Association of Notaries

Notary Public

1630C-ULB-1:042095

(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 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 "Steam Generator Schematic Flow Diagram", April 1995, (Proprietary), being transmitted by Northeast Utilities Service Company letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk, to the Attention of Mr. William T. Russell. The proprietary information as submitted for use by Northeast Utilities Service Company for Millstone Unit 3 is expected to be applicable in other license submittals in response to certain NRC requirements for justification for obtaining relief from performing the volumetric examination of the inner radius of the steam generator nozzle.

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

(a) Provide documentation of steam generator internal construction.

(b) Provide a basis for obtaining relief from performing volumetric examination of the inner radius of the steam generator nozzle.

(c) Assist customers in obtaining 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 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 design 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 testing and analytical methods and performing tests.

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 2.790 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) 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)(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 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 2.790 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 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.

Docket No. 50-423
B15208

Enclosure 2

Millstone Nuclear Power Station - Unit No. 3

Steam Generator Schematic Flow Diagram

Non-Proprietary

April 1995

Westinghouse Non-Proprietary Class 3

STEAM GENERATOR SCHEMATIC FLOW DIAGRAM

APRIL 1995

Westinghouse Electric Corporation
Nuclear Energy Systems
P.O. Box 355
Pittsburgh, Pennsylvania 15230

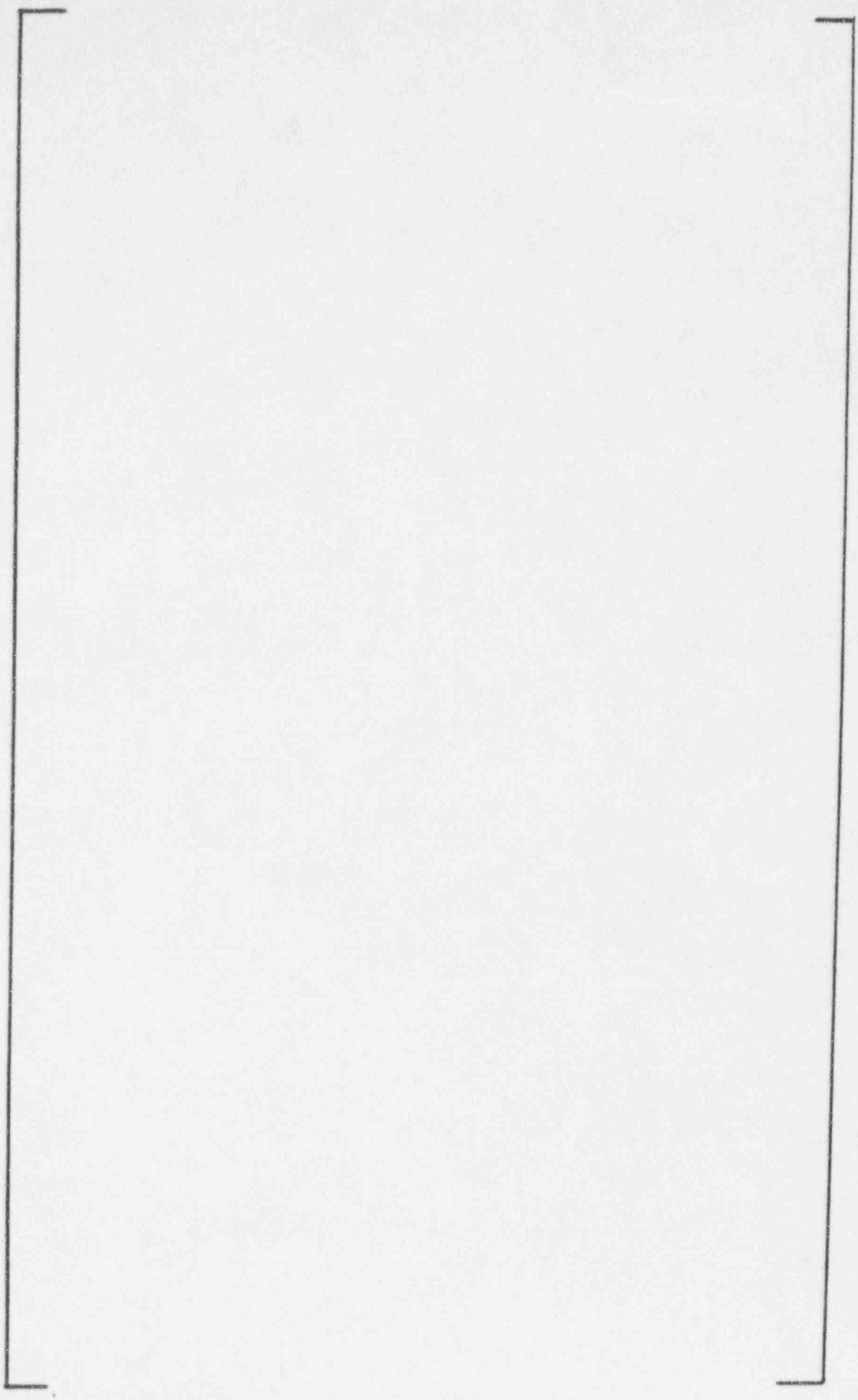

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FIGURE 2-1 – Schematic Flow Diagram

NOTE: INSPECTION PORTS NOT SHOWN.
SEE FIGURE 1-1.