FENOC
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August 13, 2010
L-10-237

10 CFR 50.55a

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:
Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
Supplemental Information in Support of 10 CFR 50.55a Request for Alternative Weld Repair Method for Reactor Vessel Head Penetration J-Groove Welds
(TAC No. ME2608)

By correspondence dated June 21, 2010 (Accession Number ML101740436), FirstEnergy Nuclear Operating Company (FENOC) submitted a 10 CFR 50.55a request for approval of a proposed alternative to certain requirements associated with reactor vessel weld repair methods. A Nuclear Regulatory Commission (NRC) letter dated August 6, 2010 requested supplemental information to enable the NRC staff to complete its technical review of the request. This submittal provides the current status of the associated corrective actions as well as the requested root cause analysis report which includes a description of welding issues, welding conditions, power ratio information, and 52 and 52M weld wires.

The root cause report evaluating welding issues encountered during the fall 2009 refueling outage is included as Enclosure A. As Enclosure A contains information proprietary to Westinghouse Electric Company LLC (Westinghouse), it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit, included as Enclosure B, sets forth the basis on which the information may be withheld from public disclosure by the NRC and addresses the considerations listed in 10 CFR Section 2.390(b)(4). Westinghouse's Proprietary Information Notice and Copyright Notice are provided as Enclosure C. Accordingly, it is respectfully requested that the Westinghouse proprietary information be withheld from public disclosure.

The root cause report provides a description of the welding issues in Section 2.3, welding conditions and power ratio information in Section 3.1, 52 and 52M weld wires in Attachment D, and corrective actions in Section 5. The Attachment to this letter

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provides a summary and the completion status of corrective actions to prevent recurrence for the welding issues.

There are no regulatory commitments contained in this submittal. If there are any questions or if additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at 330-761-6071.

Sincerely,

for Paul A. Harden

Daniel J Murray

Attachment:
Status of Corrective Actions to Prevent Recurrence

Enclosures:
A. Root Cause Analysis Report, RCA-09-320-P001, Revision 4 (Proprietary)
B. Affidavit
C. Proprietary Information Notice and Copyright Notice

cc: NRC Region I Administrator
NRC Resident Inspector
NRC Project Manager
Director BRP/DEP
Site BRP/DEP Representative

ATTACHMENT
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Status of Corrective Actions to Prevent Recurrence

Corrective actions to prevent recurrence (CATPRs) are presented in the root cause analysis report, included as Enclosure A. The CATPRs have been completed, and are summarized below.

CATPR 1

A repair plan was established for embedded flaw weld repairs. This plan includes requirements for a barrier layer of ER309L filler material. The barrier layer will consist of a minimum of three weld passes, each using ER309L filler material in accordance with parameters specified in the governing American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, Welding Procedure Specification (WPS).

CATPR 2

Weld parameters including voltage, amperage, travel speed and wire feed speed were established to maintain heat index rates and power ratios. These parameters were integrated into the WPS.

Parameters were established for the sequence of welding to apply the following materials:

- ER309L mitigation beads
- Inconel to the ER309L
- Inconel to the Inconel
- Inconel to the outside diameter of the penetration tube

CATPR 3

A full scale mockup was prepared to perform testing of reactor vessel head penetration welds using J-weld equipment and the parameters/instructions developed in CATPRs 1 and 2. This mockup demonstrated repair effectiveness for future production welding applications. The mockup testing was performed on the Jamesport reactor vessel head.

The ER309L mitigation barrier described in CATPR 1 was successfully applied to the mockup using the weld parameters developed in response CATPR 2.

ENCLOSURE B
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Affidavit
Seven (6) pages follow

CAW-10-2761

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

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COUNTY OF ALLEGHENY:

Before me, the undersigned authority, personally appeared J. A. Gresham, 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 Company LLC (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:

J. A. Gresham, Manager
Regulatory Compliance and Plant Licensing

Sworn to and subscribed before me
this 18th day of February 2010

Notary Public

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Renee Giampole, Notary Public
Penn Township, Westmoreland County
My Commission Expires September 25, 2013

(1) I am Manager, Regulatory Compliance and Plant Licensing, in Nuclear Services, Westinghouse Electric Company LLC (Westinghouse), 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 rule making proceedings, and am authorized to apply for its withholding on behalf of Westinghouse.

(2) I am making this Affidavit in conformance with the provisions of 10 CFR Section 2.390 of the Commission's regulations and in conjunction with the Westinghouse Application for Withholding Proprietary Information from Public Disclosure accompanying this Affidavit.

(3) I have personal knowledge of the criteria and procedures utilized by Westinghouse 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 2.390 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 that 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 2.390; 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 "RVH Penetration Embedded Flaw Repair at Beaver Valley 2" (RCA-09-320-P001 Rev. 4) (Proprietary) dated February 17, 2010, for submittal to the Commission, being transmitted by FENOC letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse is that associated with the Reactor Vent Head Penetration Repair performed by Westinghouse as contracted by FENOC and executed at the Beaver Valley Nuclear Power Station during the fall 2009 outage and the resultant Root Cause Analysis to evaluate the issues encountered in completion as expected and may be used only for that purpose.

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

(a) Identify and evaluate the issues related to the inability of Westinghouse to complete the planned repairs as expected by Beaver Valley and in accordance with the Beaver Valley Relief Request to the NRC.

(b) Define corrective actions to address the Apparent and Root Causes that are acceptable to FENOC.

(c) Complete the commitments identified in the Root Cause Analysis and to implement the corrective actions to provide capability for success in the upcoming Reactor Vent Head Penetration repairs expected in the next Beaver Valley refueling outage.

Further this information has substantial commercial value as follows:

(a) Westinghouse plans to sell the use of similar information to its customers for purpose of Reactor Vent Head Penetration Repairs for FENOC and other utilities.

(b) Westinghouse can sell support and defense of processes associated with the Reactor Vent Head Penetration Repairs.

(c) The information requested to be withheld reveals the distinguishing aspects of a methodology which was developed by Westinghouse.

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 processes, methods and equipment to perform the repair of the Reactor Vent Head Penetration 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.

Further the deponent sayeth not.

ENCLOSURE C
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Proprietary Information Notice and Copyright Notice
One (1) page follows

PROPRIETARY INFORMATION NOTICE

Transmitted herewith are proprietary versions of documents furnished to the NRC in connection with requests for generic and/or plant-specific review and approval. The documents are to be considered proprietary in their entirety.

COPYRIGHT NOTICE