



FirstEnergy Nuclear Operating Company

Beaver Valley Power Station  
P.O. Box 4  
Shippingport, PA 15077-0004

Low W. Myers  
Senior Vice President

June 9, 2001  
L-01-080

724-682-5234  
Fax: 724-643-8069

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

**Subject: Beaver Valley Power Station, Unit No. 2**  
**BV-2 Docket No. 50-412, License No. NPF-73**  
**Supplement to License Amendment Requests 158 and 161**

Pursuant to 10 CFR 50.90, FirstEnergy Nuclear Operating Company (FENOC) requested an amendment to the above license in the form of changes to the technical specifications. License Amendment Request (LAR) 158, transmitted by FENOC letter L-00-143 dated December 27, 2000, proposed utilization of the Revised Thermal Design Procedure (RTDP) to generate additional Departure from Nucleate Boiling (DNB) margin. Justification for the use of the RTDP methodology was provided in WCAP-15265 Revision 2, "Westinghouse Revised Thermal Design Procedure Instrument Uncertainty Methodology for FirstEnergy Nuclear Operating Company Beaver Valley Unit 2" (Proprietary Class 2), which was transmitted by FENOC letter L-00-143. Following this transmittal, LAR 161 was submitted by FENOC letter L-01-006 dated January 18, 2001, which proposed a 1.4% power increase for Beaver Valley Power Station (BVPS) Unit 2. The power increase requested by LAR 161 was justified through the use of the Caldon Leading Edge Flow Meter (LEFM) CheckPlus™ System for feedwater flow measurement.

During the review of LAR 161 it became necessary to revise some of the uncertainty allowances associated with the use of the LEFM CheckPlus™ System for BVPS Unit 2. The revised uncertainty allowances provide consistency with the allowances utilized for the LEFM✓™ System, which is used on BVPS Unit 1. This has resulted in the submittal of Revision 3 to WCAP-15265. A summary of the changes made to Revision 2 of WCAP-15265 that necessitated Revision 3, are provided in Attachment A of this transmittal. It is noted that all of the changes discussed in Attachment A are changes to proprietary information contained in WCAP-15265. As a result, the non-proprietary version of this WCAP, i.e., WCAP-15337 Revision 2, "Westinghouse Revised Thermal Design Procedure Instrument Uncertainty Methodology for FirstEnergy Nuclear Operating Company Beaver Valley Unit 2" (Non-proprietary Class 3) which was submitted with letter L-00-143, is not affected by the changes made to WCAP-15265.

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The Proprietary Information Notice, Copyright Notice, a Westinghouse application for withholding proprietary information (CAW-01-1458), applicable to WCAP-15265, Revision 3, is provided in Attachment C.

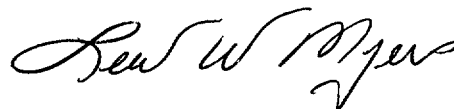
As WCAP-15265 Revision 3 contains information proprietary to Westinghouse Electric Company, it is supported by an affidavit signed by Westinghouse, the owner of the information. This affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.790 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 10 CFR Section 2.790 of the Commission's regulations.

Correspondence with respect to the copyright or proprietary aspects of WCAP-15265 Revision 3 or the supporting Westinghouse Affidavit should reference CAW-01-1458 and should be addressed to H. A. Sepp, Regulatory and Licensing Engineering, Westinghouse Electric Company, LLC, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

FENOC requests NRC approval of WCAP-15265, Revision 3, and License Amendment Requests 158 and 161 to support implementation of the power uprate for the summer of 2001. An implementation period of up to 60 days is requested following the effective date of this amendment.

If there are any questions concerning this matter, please contact Mr. Thomas S. Cosgrove, Manager, Regulatory Affairs at 724-682-5203.

Sincerely,

A handwritten signature in cursive script, appearing to read "Lew W. Myers".


Lew W. Myers

- c: Mr. L. J. Burkhart, Project Manager  
Mr. D. M. Kern, Sr. Resident Inspector  
Mr. H. J. Miller, NRC Region I Administrator  
Mr. D. A. Allard, Director BRP/DEP  
Mr. L. E. Ryan (BRP/DEP)

**Subject: Beaver Valley Power Station, Unit No. 2  
BV-2 Docket No. 50-412, License No. NPF-73  
Supplement to License Amendment Requests 158 and 161**

I, Lew W. Myers, being duly sworn, state that I am Senior Vice President of FirstEnergy Nuclear Operating Company (FENOC), that I am authorized to sign and file this submittal with the Nuclear Regulatory Commission on behalf of FENOC, and that the statements made and the matters set forth herein pertaining to FENOC are true and correct to the best of my knowledge and belief.

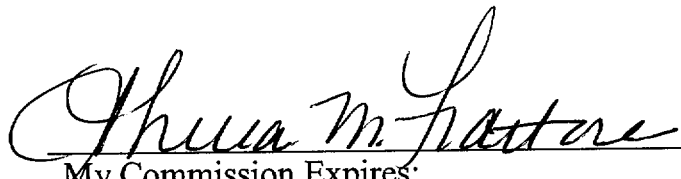
FirstEnergy Nuclear Operating Company

  
Lew W. Myers  
Senior Vice President - FENOC

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF BEAVER

Subscribed and sworn to me, a Notary Public, in and for the County and State above named, this 9 th day of June, 2001.

  
My Commission Expires:

Notarial Seal  
Sheila M. Fattore, Notary Public  
Shippingport Boro, Beaver County  
My Commission Expires Sept. 30, 2002  
Member, Pennsylvania Association of Notaries

### Background

Per telephone discussions on 5/22/01 between NRC, FENOC and Westinghouse personnel, WCAP-15265, Revision 2 has been revised. The BVPS Unit 2 Caldon Leading Edge Flow Meter (LEFM) CheckPlus™ System uncertainty on mass flow, has been revised to credit the allowance in the Unit 1 LEFM✓™ System. To provide compensation for the increase in LEFM uncertainty allowance, the drift allowances for the Steam Generator Blowdown Flow transmitters and indicators have been revised to offset the increase in the LEFM allowance. These new allowances for the blowdown instrumentation were incorporated into both the venturi and LEFM calculations.

The initial larger drift allowances for the steam generator blowdown flow transmitters appearing in WCAP-15265, Revision 2, were due to the limited sample size of available data. The lower drift allowance in WCAP-15265, Revision 3, is obtained by taking credit for an increased calibration frequency of six (6) months in place of the existing eighteen (18) months calibration frequency. The six (6) month calibration frequency will remain in place until such time that the eighteen (18) month calibration frequency can be justified by either the accumulation of sufficient data to extend the frequency to eighteen (18) months, or the installation of more accurate instrumentation. This commitment is detailed in Attachment B.

The following list provides a summary of the changes made to WCAP-15265 Revision 2 to produce Revision 3.

- Page 25, next to the last paragraph, the uncertainty allowance of the Annubar flow coefficient was editorially corrected to the values used in the calculation, which was properly reported on page 27.
- Page 27, Equation 12, incorporates the revised value for the Steam Generator blowdown flow.
- Page 28, Table 7, contains four changes to values under the Steam Generator blowdown flow column. The drift allowances for SD and INDDRIFT were revised. The CSA and INST UNC. values were revised to reflect the impact of the revised drift allowances. The nominal value was previously the same as the value on Table 10 for an uprated power level of 2689 Mwt. This value has been revised to reflect the current operating power level of 2652 Mwt. The change is due to the difference in the Steam Pressure Nominal values shown in Tables 7 and 10 which provides a slightly different density when converted from gpm to lbm/hr. This change is classified as an editorial correction.

## Attachment A to L-01-080

- Page 30, Table 9, both the INSTRUMENT UNCERTAINTY, and the POWER UNCERTAINTY columns for the DELTA P ( $SG_{\Delta p}$ ) value were revised to reflect the changes in the Steam Generator blowdown flow uncertainty.
- Page 33, second paragraph, the uncertainty allowance of the Annubar flow coefficient was editorially corrected to the value used in the calculation, which was properly reported on page 34.
- Page 34, Equation 15, incorporates the revised values for the Steam Generator blowdown flow and the LEFM mass flow uncertainty.
- Page 35, Table 10, SG BLOWDOWN FLOW column values for SD and  $RD_{IND}$  were revised to reflect the new drift allowances. The CSA value was revised to reflect the impact of the revised drift allowances. Also, under the FW(header) column, the LEFM and CSA values were revised to reflect the Unit 1 value of mass flow.
- Page 36, FW(header) column the INST UNC. (RANDOM) value was revised to reflect the Unit 1 value and under the SG BLOWDOWN FLOW column, the INST UNC. (RANDOM) value was revised to reflect the impact of the revised drift allowances.
- Page 38, Table 12, INSTRUMENT UNCERTAINTY and POWER UNCERTAINTY values for the COMPONENT value of the FEEDWATER FLOW LEFM and the DELTA P ( $SGBF_{\Delta p}$ ) were revised. These revisions reflect the requested change to the mass flow uncertainty of the Unit 2 LEFM and the corresponding revision in the Steam Generator Blowdown Instrumentation drift allowances.

Attachment B to L-01-080

The calibration procedures for the Beaver Valley Power Station (BVPS) Unit 2 Steam Generator Blowdown Flow transmitters will be revised to specify a calibration frequency of at least once every six (6) months, plus or minus a 25% grace period. The six (6) months frequency shall remain in effect until such time that an eighteen (18) month calibration frequency can be justified by either the accumulation of sufficient data to extend the frequency to eighteen (18) months, or the installation of more accurate instrumentation.

Attachment C to L-01-080

Attached are the following items:

1. Proprietary Information Notice
2. Copyright Notice
3. Application for Withholding Proprietary Information from Public Disclosure

## **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.



Westinghouse Electric Company, LLC

Box 355  
Pittsburgh Pennsylvania 15230-0355

May 31, 2001

CAW-01-1458

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

Attention: Mr. Samuel J. Collins

APPLICATION FOR WITHHOLDING PROPRIETARY  
INFORMATION FROM PUBLIC DISCLOSURE

Subject: "Westinghouse Revised Thermal Design Procedure Instrument Uncertainty Methodology for  
Beaver Valley Unit 2, WCAP-15265, Revision 3" [Proprietary]

Dear Mr. Collins:

The proprietary information for which withholding is being requested in the above-referenced reports are further identified in Affidavit CAW-01-1458 signed by the owner of the proprietary information, Westinghouse Electric Company LLC. 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 FirstEnergy Nuclear Operating Company.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-01-1458 and should be addressed to the undersigned.

Very truly yours,

H. A. Sepp, Manager  
Regulatory and Licensing Engineering

Enclosures

cc: S. Bloom/NRR/OWFN/DRPW/PDIV2 (Rockville, MD) 1L

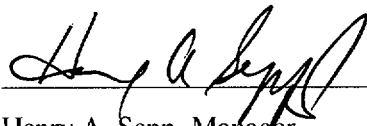
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COMMONWEALTH OF PENNSYLVANIA:


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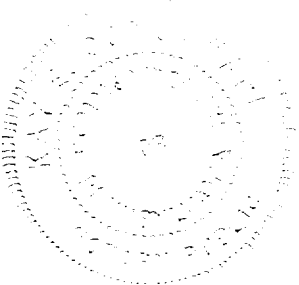
COUNTY OF ALLEGHENY:

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 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:

  
Henry A. Sepp, Manager  
Regulatory and Licensing Engineering

Sworn to and subscribed  
before me this 31<sup>st</sup> day  
of May, 2001

  
Notary Public



Notarial Seal  
Kay E. Gongaware, Notary Public  
Monroeville Boro, Allegheny County  
My Commission Expires Feb. 7, 2005  
Member, Pennsylvania Association of Notaries

- (1) I am Manager, Regulatory and Licensing Engineering, in Nuclear Services at 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 rulemaking 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 2.790 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 Electric Company LLC 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 10 CFR 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 Revised Thermal Design Procedure Instrument Uncertainty Methodology for Beaver Valley Unit 2, WCAP-15265, Revision 3" [Proprietary] being transmitted by FirstEnergy Nuclear Operating Company letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk, Attention Mr. Samuel J. Collins. The proprietary information as submitted for use by FirstEnergy Nuclear Operating Company for the Beaver Valley Units is expected to be applicable in other licensee submittals in response to certain NRC requirements for uprating.

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

- (a) Provide documentation of the analysis, methods, used for determining technical specification setpoints, utilizing the instrumentation uncertainties.
- (b) Calculate the instrumentation uncertainties for the Technical Specification setpoints.
- (c) Establish systematic and random uncertainties in providing Technical Specification setpoints.
- (d) Provide the methods in determining the instrumentation uncertainties.
- (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 calculation, evaluation 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 knowledge 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 performing tests.

Further the deponent sayeth not.