

ENCLOSURE 1 CONTAINS PROPRIETARY INFORMATION –
WITHHOLD FROM PUBLIC DISCLOSURE IN ACCORDANCE WITH 10 CFR 2.390



Monticello Nuclear Generating Plant
2807 W County Rd 75
Monticello, MN 55362

March 7, 2013

L-MT-13-027
10 CFR 50.90

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

Monticello Nuclear Generating Plant
Docket 50-263
Renewed License No. DPR-22

Monticello Extended Power Uprate: Replacement Steam Dryer – Responses to
Requests for Additional Information (TAC MD9990)

- References:
- 1) Letter from T J O'Connor (NSPM) to Document Control Desk (NRC), "License Amendment Request: Extended Power Uprate (TAC MD9990)," L-MT-08-052, dated November 5, 2008. (ADAMS Accession No. ML083230111)
 - 2) Letter from T J O'Connor (NSPM) to Document Control Desk (NRC), "Monticello Extended Power Uprate: Replacement Steam Dryer Supplement (TAC MD9990)," L-MT-10-046, dated June 30, 2010. (ADAMS Accession No. ML102010462)
 - 3) Letter from T J O'Connor (NSPM) to Document Control Desk (NRC), "Monticello Extended Power Uprate: Updates to Docketed Information (TAC MD9990)," L-MT-10-072, dated December 21, 2010. (ADAMS Accession No. ML103570026)
 - 4) Letter from M A Schimmel (NSPM) to Document Control Desk (NRC), "Monticello Extended Power Uprate: Supplement to Revise Technical Specification Setpoint for the Automatic Depressurization System Bypass Timer (TAC MD9990)," L-MT-12-091, dated October 30, 2012. (ADAMS Accession No. ML12307A036)
 - 5) Email from T Beltz (NRC) to J Fields (NSPM), "Monticello Nuclear Generating Plant - Draft Requests for Additional Information re: Extended Power Uprate Steam Dryer Review (TAC MD9990)," [RAIs 42 – 53] dated November 8, 2012.

A001
NRC

- 6) Email from T Beltz (NRC) to J Fields (NSPM), "Monticello Nuclear Generating Plant - Draft Requests for Additional Information re: Extended Power Uprate Steam Dryer Review (TAC MD9990)," [RAIs 54 – 67] dated December 13, 2012.
- 7) Email from K Feintuch (NRC) to J Fields (NSPM), "Monticello Nuclear Generating Plant - Draft Requests for Additional Information re: Extended Power Uprate Steam Dryer Review (TAC MD9990)," [RAI 67e] dated December 17, 2012. (ADAMS Accession No. ML12353A053)
- 8) Email from T Beltz (NRC) to J Fields (NSPM), "Monticello Nuclear Generating Plant - Draft Requests for Additional Information re: Extended Power Uprate Steam Dryer Review (TAC MD9990)," [RAIs 68 – 80] dated January 4, 2013.
- 9) Letter from T Beltz (NRC) to J Fields (NSPM), "Monticello Nuclear Generating Plant - Draft Requests for Additional Information re: Extended Power Uprate Steam Dryer Review (TAC MD9990)," [RAIs 81 – 84] dated January 16, 2013.

Pursuant to 10 CFR 50.90, the Northern States Power Company, a Minnesota corporation (NSPM), doing business as Xcel Energy, requested in Reference 1 an amendment to the Monticello Nuclear Generating Plant (MNGP) Renewed Operating License (OL) and Technical Specifications (TS) to increase the maximum authorized power level from 1775 megawatts thermal (MWt) to 2004 MWt.

In Reference 2 NSPM provided a supplement to Reference 1 to provide detailed design and analysis results for a replacement steam dryer (RSD) for MNGP. Reference 3 was provided to correct reactor internal pressure differential information provided in Reference 2.

In References 5, 6, 7, 8 and 9 the NRC provided NSPM draft requests for additional information (RAIs). Conference calls regarding these draft RAIs were held on December 4, 2012, January 18, 2013 and February 19, 2013.

The purpose of this letter is to provide the NRC with responses to the EPU-EMCB-RSD-RAI-43, 45, 46, 48, 54, 59, 60, 63, 64, 72(a), 74, 75 and 79. This is the second in a series of letters that will provide responses to all the NRC RAIs included in References 5 through 9.

Enclosure 1 contains Westinghouse Electric Company, LLC (WEC) letter LTR-A&SA-13-2, P-Attachment, Revision 1, "Monticello Replacement Steam Dryer RAI Responses for Acoustic/Structural Analyses Set #2," dated March 4, 2013. Enclosure 1 provides responses to RAIs 43, 45, 46, 48, 54, 59, 60, 63, 64, 72(a), 74, 75 and 79. Enclosure 1 contains proprietary information.

Enclosure 2 contains WEC letter LTR-A&SA-13-2, NP-Attachment, Revision 1, "Monticello Replacement Steam Dryer RAI Responses for Acoustic/Structural Analyses Set #2," dated March 4, 2013. This is a non-proprietary version of the responses provided in Enclosure 1.

Enclosure 3 contains a WEC affidavit executed to support withholding Enclosure 1 from public disclosure. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the NRC and addresses with specificity the considerations listed in 10 CFR 2.390(b)(4). NSPM requests that the proprietary information in Enclosure 1 be withheld from public disclosure in accordance with 10 CFR 2.390(a)4, as authorized by 10 CFR 9.17(a)4. Accordingly, it is respectfully requested that the information which is proprietary to WEC be withheld from public disclosure in accordance with 10 CFR 2.390.

Correspondence with respect to the copyright or proprietary aspects of WEC information or the supporting WEC affidavit in Enclosure 3 should be addressed to J. A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company LLC, Suite 428, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

The RAI responses provided herein do not change the conclusions of the No Significant Hazards Consideration and the Environmental Consideration evaluations provided in Reference 1 as revised by References 3 and 4.

In accordance with 10 CFR 50.91(b), a copy of this application supplement, without enclosures is being provided to the designated Minnesota Official.

Summary of Commitments

This letter makes no new commitments and no revisions to existing commitments.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: March 21, 2013

A handwritten signature in black ink, appearing to read "Mark A. Schimmel", written over a horizontal line.

Mark A. Schimmel
Site Vice-President
Monticello Nuclear Generating Plant
Northern States Power Company-Minnesota

Enclosures (3)

cc: Administrator, Region III, USNRC (w/o enclosures)
Project Manager, Monticello Nuclear Generating Plant, USNRC
Resident Inspector, Monticello Nuclear Generating Plant, USNRC (w/o
enclosures)
Minnesota Department of Commerce (w/o enclosures)

ENCLOSURE 2

**WESTINGHOUSE LETTER, LTR-A&SA-13-2, NP-ATTACHMENT, REVISION 1
MONTICELLO REPLACEMENT STEAM DRYER
RAI RESPONSES FOR ACOUSTIC/STRUCTURAL ANALYSES SET #2**

This Enclosure covers the following NRC Requests for Additional Information:

- 1) MNGP EPU-EMCB-RSD-43
- 2) MNGP EPU-EMCB-RSD-45
- 3) MNGP EPU-EMCB-RSD-46
- 4) MNGP EPU-EMCB-RSD-48
- 5) MNGP EPU-EMCB-RSD-54
- 6) MNGP EPU-EMCB-RSD-59
- 7) MNGP EPU-EMCB-RSD-60
- 8) MNGP EPU-EMCB-RSD-63
- 9) MNGP EPU-EMCB-RSD-64
- 10) MNGP EPU-EMCB-RSD-72(a)
- 11) MNGP EPU-EMCB-RSD-74
- 12) MNGP EPU-EMCB-RSD-75
- 13) MNGP EPU-EMCB-RSD-79

22 pages follow

LTR-A&SA-13-2 NP-Attachment

Revision 1

Monticello Replacement Steam Dryer

RAI Responses

for

Acoustic/Structural Analyses Set #2

March 4, 2013

Westinghouse Electric Company LLC
1000 Westinghouse Drive
Cranberry Township, PA 16066 USA

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Monticello Replacement Steam Dryer
RAI Responses for Acoustic/Structural Analyses Set #2

MNGP EPU-EMCB-RSD-RAI-43 (a, b)

As described on page 3-16 of section 3.3 of WCAP-17540-P, Rev. 0, the licensee utilizes the acoustic model parameters, including bias and uncertainties (B&U) derived from [

] ^{a,c}

(a) The licensee is therefore requested to include [

] ^{a,c}

Response

[

] ^{a,c}

The ACE Revision 2.0 model will be developed as such:

a,c

(b) All bias errors and uncertainties should also include frequencies below [

] ^{a,c}

The licensee is requested to provide measured pressure data [

] ^{a,c}

Response

[

] ^{a,c}

a, b



Figure RAI-43-1
PSDs for RSD Pressure Transducer Channel P01, All Power Levels

a, b

Figure RAI-43-2
PSDs for RSD Pressure Transducer Channel P03, All Power Levels

a, b

Figure RAI-43-3
PSDs for RSD Pressure Transducer Channel P04, All Power Levels

a, b

Figure RAI-43-4
PSDs for RSD Pressure Transducer Channel P08, All Power Levels

a, b

Figure RAI-43-5
PSDs for RSD Pressure Transducer Channel P10, All Power Levels



Figure RAI-43-6
PSDs for RSD Pressure Transducer Channel P13, All Power Levels



Figure RAI-43-7
PSDs for RSD Pressure Transducer Channel P14, All Power Levels



Figure RAI-43-8
PSDs for RSD Pressure Transducer Channel P17, All Power Levels



Figure RAI-43-9
PSDs for RSD Pressure Transducer Channel P18, All Power Levels



Figure RAI-43-10
PSDs for RSD Pressure Transducer Channel P21, All Power Levels



Figure RAI-43-11
PSDs for RSD Pressure Transducer Channel P22, All Power Levels

a, b

Figure RAI-43-12
RMS Pressure Around Peak at Approximately 18 Hz, P01

a,c

MNGP EPU-EMCB-RSD-RAI-45

The licensee is requested to provide details on the frequency and location [

] ^{a,c}

Response

[

] ^{a,c}

MNGP EPU-EMCB-RSD-RAI-46

Referring to Section 2.2 of report WCAP-17540-P, which discusses the acoustic circuit analysis, the licensee is requested to explain [

characteristics of these dipoles are determined. J^{a,c} Please explain how the

Response

Based on the approach mentioned in MNGP EPU-EMCB-RSD-RAI-43(a), [

$$J^{a,c}$$

MNGP EPU-EMCB-RSD-RAI-48

The discussion on Page 3-14 of WCAP-17540-P refers to pressure fluctuations due to vortex shedding from the lateral beams of the dryer. The licensee is requested to provide [

$$]^{a,c}$$

Response

a,c

MNGP EPU-EMCB-RSD-RAI-54

In response to RAI MNGP-EMCB-SD-RAI-35 (LTR-A&SA-12-10, Rev. 1), the licensee states that there are several non-structural fillet welds which are not critical to the design qualification of the dryer. Section 3.1 of WCAP-17549-P mentions non-structural components.

[

a,c

Response

I

J^{a,c}

a,c

a,c

a,c

a,c

MNGP EPU-EMCB-RSD-RAI-59 (a, b, c)

In Section 5.0 of WCAP-17549-P, the licensee discusses the modal analysis of the dryer performed in the frequency range of []^{a,c}. The staff requests the following additional information:

(a) Please explain the purpose of this []^{a,c}

Response

I

J^{a,c}

(b) Provide a comparison of []^{a,c}

Response

The measured RSD modes matched very well with the simulated modes and frequencies from the FEM. These results are summarized in the response to Action Item #6 from the NRC audit held on April 7-8, 2011. [

] ^{a,c}

(c) [

^{a,c}

Please include these low frequency pressure signals in the dryer stress analysis and submit the results for the staff's review.

Response

[] ^{a,c}

MNGP EPU-EMCB-RSD-RAI-60 (a, b)

Page 6-1 of WCAP-17549-P, Revision 0, dated May 2012, states the following:

[] ^{a,c}

Response

[] a,c

(b) Submit WCAP-17251-P for review by the NRC staff because it was not included in the previous submittals by the licensee.

Response

WCAP-17251-P was submitted to the NRC in Northern States Power - Minnesota (NSPM) letter L-MT-10-046, dated June 30, 2010 (ADAMS Accession No. ML102010462), Enclosure 5.

MNGP EPU-EMCB-RSD-RAI-63

The licensee is requested to validate the [

] a,c

Response

[] a,c

MNGP EPU-EMCB-RSD-RAI-64 (a, b, c)

In Section 3.4 of WCAP-17540-P, the licensee discusses end-to-end B/U. [

information:] a,c The staff requests the following additional

(a) Provide an example showing [

] a,c

Response

a,c

(b) Provide the final summed end-to-end bias and uncertainty determined at CLTP

Response

a,c

(c) [

] a,c

Response

[] a,c

MNGP EPU-EMCB-RSD-RAI-72

[

] ^{a,c}

Please provide the following information:

(a) Describe and show examples of how the [

] ^{a,c}

Response

[] a,c

MNGP EPU-EMCB-RSD-RAI-74

Plots of Measured and Predicted Strain

Figure 3-17 of WCAP-17540-P provides a comparison of measured strain and predicted strain

[

] ^{a,c}

Response

WCAP-17716-P will provide comparison of measured and predicted strain for all [

] ^{a,c}

MNGP EPU-EMCB-RSD-RAI-75 (a, b)

[

] ^{a,c}

The NRC staff notes that the magnitudes of the strain correction factors presented in Table 3.9 of WCAP-17540-P are [] ^{a,c}

Please provide the following information:

(a) []^{a,c}

(b) Explain whether the []

] ^{a,c}

Response

[]^{a,c}

MNGP EPU-EMCB-RSD-RAI-79

Pressure Amplitude for P2 and P3 Pressure Transducers

Figure 3-8 in WCAP-17540-P indicates that the []^{a,c} However, the pressure spectra given in Figure 5-23 of WCAP-17548-P suggest that the []^{a,c}

Please clarify the discrepancy between these two figures.

Response

[]

] ^{a,c}

L-MT-13-027

ENCLOSURE 3

**WESTINGHOUSE AFFIDAVIT FOR
WITHHOLDING PROPRIETARY INFORMATION**

7 pages follow



Westinghouse Electric Company
Nuclear Services
1000 Westinghouse Drive
Cranberry Township, Pennsylvania 16066
USA

U.S. Nuclear Regulatory Commission
Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

Direct tel: (412) 374-4643
Direct fax: (724) 720-0754
e-mail: greshaja@westinghouse.com
Proj letter: LTR-EP-13-008

CAW-13-3642

March 7, 2013

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: LTR-A&SA-13-2 P-Attachment, Revision 1 "Monticello Replacement Steam Dryer RAI Responses for Acoustic/Structural Analyses Set #2" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-13-3642 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 2.390 of the Commission's regulations.

Accordingly, this letter authorizes the utilization of the accompanying affidavit by Xcel Energy.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference CAW-13-3642, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, Suite 428, 1000 Westinghouse Drive, Cranberry Township, Pennsylvania 16066.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James A. Gresham', written over a horizontal line.

James A. Gresham, Manager
Regulatory Compliance

Enclosures

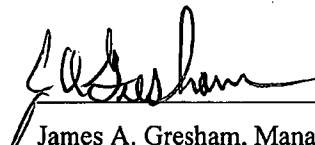
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COMMONWEALTH OF PENNSYLVANIA:

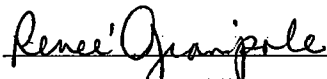
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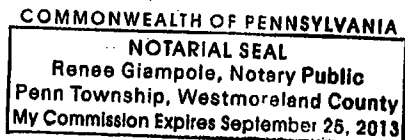
COUNTY OF BUTLER:

Before me, the undersigned authority, personally appeared James 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:


James A. Gresham, Manager
Regulatory Compliance

Sworn to and subscribed before me
this 7th day of March 2013


Notary Public



- (1) I am Manager, Regulatory Compliance, 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 in LTR-A&SA-13-2 P-Attachment, Revision 1, "Monticello Replacement Steam Dryer RAI Responses for Acoustic/Structural Analyses Set #2" (Proprietary), for submittal to the Commission, being transmitted by Xcel Energy 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 Monticello Replacement Steam Dryer Project, and may be used only for that purpose.

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

- (a) Provide Westinghouse recommendations related to the new steam dryer inspection following operation at EPU conditions presently scheduled for Spring 2015.

Further this information has substantial commercial value as follows:

- (a) Westinghouse plans to sell the use of the information to its customers for the purpose of the Monticello Replacement Steam Dryer Project.
- (b) 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 technical evaluation justifications 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.

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 2.390 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) 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 2.390(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 2.390 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.