NEXTera ENERGY SEABROOK

September 16, 2009

SBK-L-09168

Docket No. 50-443

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Seabrook Station

Response to Request for Additional Information
Regarding Permanent H* Alternate Repair Criteria for Steam Generator Inspections

References:

1. NextEra Energy Seabrook letter SBK-L-09118, License Amendment Request 09-03, Revision to Technical Specification 6.7.6.k, "Steam Generator (SG) Program," for Permanent Alternate Repair Criteria; May 28, 2009

2. NRC letter Seabrook Station, Unit No.1 – Request for Additional Information Regarding Steam Generator Program (TAC NO. ME1386), August 13, 2009

3. NRC Letter Seabrook Station, Unit No. 1 – Second Request for Additional Information (RAI) Regarding Steam Generator Program (TAC NO. ME1386), September 1, 2009

In Reference 1, NextEra Energy Seabrook, LLC (NextEra) submitted a request for an amendment to the Technical Specifications (TS) for Seabrook Station. The request proposed changes to the inspection scope and repair requirements of TS section 6.7.6.k, "Steam Generator (SG) Program" and to the reporting requirements of TS section 6.8.1.7, "Steam Generator Tube Inspection Report." The proposed changes would establish a permanent alternate repair criterion to exclude portions of the SG tubes below the SG tube sheet from periodic tube inspections. Westinghouse WCAP-17071-P, "H*: Alternate Repair Criteria for the Tubesheet Expansion Region in Steam Generators with Hydraulically Expanded Tubes (Model F) was submitted as Attachment 4 with the request and provides the basis for the proposed change.

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In Reference 2, the NRC issued a request for additional information (RAI) in order to complete its review of the amendment request. Reference 3 revised three of the previously issued RAI questions (RAI 4, RAI 21, and RAI 24) to provide additional information and added one new question, RAI 25. The attachments to this letter provide NexEra's response to the requested information.

Attachment 1 provides responses to RAI questions 22, 23, and 25.

Attachment 2 contains proprietary Westinghouse Electric Company LLC LTR-SGMP-09-100 P-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," which provides responses to RAI questions 1 through 3, 5 through 21, and 24.

Attachment 3 contains proprietary Westinghouse Electric Company LLC LTR-SGMP-09-109 P-Attachment, "Response to NRC Request for Additional Information on H*; RAI #4; Model F and Model D5 steam Generators," which responds to RAI question 4.

Attachment 4 provides a revised markup of changes to the Seabrook Station Technical Specifications (TS).

Attachments 2 and 3 contain information proprietary to Westinghouse Electric Company LLC, and are supported by affidavits in Attachments 5 and 6, respectively, signed by Westinghouse, the owner of the information. The affidavits set 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 2.390 of the Commission's regulations. Accordingly, it is respectfully requested that the information that is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390 of the Commission's regulations. Correspondence with respect to the copyright or proprietary aspects of the information contained in Attachments 2 and 3 or the supporting Westinghouse affidavits should reference CAW-09-2531 and CAW-09-2658, respectively, and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Attachment 7 contains Westinghouse Electric Company LLC LTR-SGMP-09-100 NP-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," which provides non-proprietary information in response to RAI questions 1 through 3, 5 through 21, and 24.

Attachment 8 contains Westinghouse Electric Company LLC LTR-SGMP-09-109 NP-Attachment, "Response to NRC Request for Additional Information on H*; RAI #4; Model F and Model D5 steam Generators," which provides non-proprietary information in response to RAI question 4.

The response to RAI question 24 is provided in Attachment 2 (Westinghouse Letter-SGMP-09-100-P-Attachment). As described in the response to question 24, a change is being made to increase the leak rate factor from 2.03 to 2.50. The leak rate factor is applied to the operational leak rate to determine the accident induced leakage due to tube flaws contained within the tubesheet below the H* depth. The basis for the leak rate factor change is to ensure that accident leakage from a feedwater line break (FLB) accident, when it is assumed to be a heat up event, remains bounded by the site accident leakage limit of 0.347 gpm (500 gpd) at room temperature (gpmRT) for the faulted steam generator. The increased leak rate factor results in changes to the proposed reporting requirements in TS 6.8.1.7.j, Steam Generator Tube Inspection Report, and Attachment 4 provides a markup of the proposed change to the TS.

The use of the revised leak rate factor continues to ensure that the site accident induced leak rate limit of 0.347 gpmRT is not exceeded, even when leakage reaches the maximum allowable operational leak rate limit of 0.104 gpm (150 gpd). The maximum accident leak rate would be 0.104 gpmRT X 2.50 = 0.26 gpmRT, which is less than the 0.347 gpmRT accident leak limit for the faulted steam generator. Therefore, the consequences as previously described in LAR 09-03 are not affected by this change.

The revised leak rate factor does not affect the structural H* analysis because the H* structural analysis is bounded by normal operating conditions and not by accident conditions. The leak rate factor is not used in the structural H* analysis and there is no change to the normal operating conditions as previously evaluated, therefore the H* length does remains unchanged.

The additional information provided by this response clarifies information provided in the application, does not expand the scope of the application as originally noticed, and does not impact the conclusion in Reference 1 that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c) and, accordingly, a finding of "no significant hazards consideration" is justified.

The commitments contained in this letter are provided in Attachment 9.

A copy of this letter has been forwarded to the New Hampshire State Liaison Officer pursuant to 10 CFR 50.91(b).

If you have any questions regarding this response, please contact Mr. Michael O'Keefe, Licensing Manager, at (603) 773-7745.

Sincerely,

NextEra Energy Seabrook, LLC

Gene St. Pierre
Vice President North

Attachments:

1. Response to Request for Additional Information
2. Westinghouse Electric Company LLC LTR-SGMP-09-100 P-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators"
3. Westinghouse Electric Company LLC LTR-SGMP-09-109 P-Attachment, "Response to NRC Request for Additional Information on H*; RAI #4; Model F and Model D5 steam Generators"
4. Revised markup of Technical Specification 6.8.1.7
5. Westinghouse Electric Company LLC Letter CAW- 09-2631, "Application for Withholding Proprietary Information from Public Disclosure"
6. Westinghouse Electric Company LLC Letter CAW- 09-2658, "Application for Withholding Proprietary Information from Public Disclosure"
7. Westinghouse Electric Company LLC LTR-SGMP-09-100 NP-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators"
8. Westinghouse Electric Company LLC LTR-SGMP-09-109 NP-Attachment, "Response to NRC Request for Additional Information on H*; RAI #4; Model F and Model D5 steam Generators"
9. List of Regulatory Commitments

cc: S. J. Collins, NRC Region I Administrator
D. L. Egan, NRC Project Manager
W. J. Raymond, NRC Resident Inspector

Mr. Christopher M. Pope, Director Homeland Security and Emergency Management
New Hampshire Department of Safety
Division of Homeland Security and Emergency Management
Bureau of Emergency Management
33 Hazen Drive
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John Giarrusso, Jr., Nuclear Preparedness Manager
The Commonwealth of Massachusetts
Emergency Management Agency
400 Worcester Road
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NEXTera ENERGY SEABROOK

SEABROOK STATION UNIT 1

Facility Operating License NPF-86

Docket No. 50-443

Response to Request for Additional Information
Regarding Permanent H* Alternate Repair Criteria for Steam Generator Inspections

The following information is enclosed in support of this response to request for additional information:

1. Response to Request for Additional Information
2. Westinghouse Electric Company LLC LTR-SGMP-09-100 P-Attachment
3. Westinghouse Electric Company LLC LTR-SGMP-09-109 P-Attachment
4. Revised markup of Technical Specification 6.8.1.7
5. Westinghouse Electric Company LLC Letter CAW- 09-2631
6. Westinghouse Electric Company LLC Letter CAW- 09-2658
7. Westinghouse Electric Company LLC LTR-SGMP-09-100 NP-Attachment
8. Westinghouse Electric Company LLC LTR-SGMP-09-109 NP-Attachment
9. List of Regulatory Commitments

I, Paul Freeman, Plant General Manager of NextEra Energy Seabrook, LLC hereby affirm that the information and statements contained within this response to request for additional information are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this
16 day of September, 2009

Shirley Sweeney
Notary Public

SHIRLEY SWEENEY NOTARY PUBLIC NEW HAMPSHIRE MY COMMISSION EXPIRES ON 6/2/2009

Paul Freeman
Plant General Manager

Attachment 1

Response to Request for Additional Information

NRC RAI #1

Reference 1, Page 6-21, Table 6-6. This table contains a number of undefined parameters and some apparent inconsistencies with Table 5-2 on page 5-6. Please define the input parameters in Table 6-6.

NextEra Response:

The question 1 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #2

Reference 1, Section 6.2.2.2. Why was the FEA analysis not run directly with the modified temperature distribution rather than running with the linear distribution and scaling the results?

NextEra Response:

The question 2 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #3

Reference 1, Section 6.2.3. Why is radial displacement the "figure of merit" for determining the bounding segment? Does circumferential displacement not enter into this? Why is the change in tube hole diameter not the "figure of merit?"

NextEra Response:

The question 3 response in Westinghouse LTR-SGMP-09-100-P-Attachment (attachment 2) provides the response to this request.

NRC RAI #4

Reference 1, Page 6-69. In Section 6.2.5.3, it is concluded that the tube outside diameter and the tubesheet tube bore inside diameter always maintain contact in the predicted range of tubesheet displacements. However, for tubes with through wall cracks at the H* distance, there may be little or no net pressure acting on the tube for some distance above H*. In Tables 6-18 and 6-19, the

fourth increment in the step that occurs two steps prior to the last step suggests that there may be no contact between the tube and tubesheet, over a portion of the circumference, for a distance above H*. Is the conclusion in 6.2.5.3 valid for the entire H* distance, given the possibility that the tubes may contain through wall cracks at that location? Additionally, please address the following issues:

a. **Clarify the nature of the finite element model ("slice" model versus axisymmetric SG assembly model) used to generate the specific information in Tables 6-1, 2, and 3 (and accompanying graph entitled "Elliptical Hole Factors") of Reference 6-15. What loads were applied? How was the eccentricity produced in the model? (By modeling the eccentricity as part of the geometry? By applying an axisymmetric pressure the inside of the bore?) Explain why this model is not scalable to lower temperatures.**

b. **Provide a table showing the maximum eccentricities (maximum diameter minus minimum diameter) from the 3 dimensional (3-D) finite element analysis for normal operating and steam line break (SLB) for model F.**

c. **In Figure 2 of the White Paper, add a plot for the original relationship between reductions in contact pressure and eccentricity as given in Reference 6-15 in the graph accompanying Table 6-3. Explain why this original relationship remains conservative in light of the new relationship. Explain the reasons for the differences between the curves.**

d. **When establishing whether contact pressure increases when going from normal operating to steam line break conditions, how can a valid and conservative comparison be made if the normal operating case is based on the original delta contact pressure versus eccentricity curve and the SLB case is based on the new curve?**

NextEra Response:

The question 4 response in Westinghouse LTR-SGMP-09-109 P-Attachment (attachment 3) provides the response to this request.

NRC RAI #5

Reference 1, Section 6.3. Are the previously calculated scale factors and delta D factors in Section 6.3 conservative for steam line break (SLB) and feed line break (FLB)? Are they conservative for an intact divider plate assumption?

Are they conservative for all values of primary pressure minus crevice pressure that may exist along the H* distance for intact tubes and tubes with through wall cracks at the H* distance?

NextEra Response:

The question 5 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #6

Reference 1, Page 6-87. How is tube temperature (T_T) on page 6-87 determined? For normal operating conditions, how is the T_T assumed to vary as function of elevation?

NextEra Response:

The question 6 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #7

Reference 1, Page 6-97, Figure 6-75. Contact pressures for nuclear plants with Model F steam generators are plotted in Figure 6-75, but it is not clear what operating conditions are represented in the plotted data, please clarify.

NextEra Response:

The question 7 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #8

Reference 1, Page 6-112, Reference 6-5. This reference seems to be incomplete; please provide a complete reference.

NextEra Response:

The question 8 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #9

Reference 1, Page 6-113, Reference 6-15. Table 6-3 in Reference 6-15 (SM-94-58, Rev 1) appears inconsistent with Table 6-2 in the same reference. Explain how the analysis progresses from Table 6-2 to Table 6-3.

NextEra Response:

The question 9 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #10

Reference 1, Page 8-9, Figure 8-1. There is an apparent discontinuity in the plotted data of the adjustment to H* for distributed crevice pressure, please provide any insight you may have as to why this apparent discontinuity exists.

NextEra Response:

The question 10 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #11

Reference 1, Page 8-6, Section 8.1.4. Clarify whether the "biased" H* distributions for each of the four input variables are sampled from both sides of the mean H* value during the Monte Carlo process, or only on the side of the mean H* value yielding an increased value of H*.

NextEra Response:

The question 11 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #12

Reference 1, Page 8-14, Figure 8-6. The legend for one of the interactions shown between α_{TS} and E_{TS} appears to have a typo in it, please review and verify that all values shown in the legend are correct.

NextEra Response:

The question 12 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #13

Reference 1, Page 8-20, Case S-4. Why does the assumption of a 2-sigma value for the coefficient of thermal expansion of the tube (αT) and the tubesheet (αTS) to determine a "very conservative biased mean value of H*" conservatively bound the interaction effects between αT and αTS? Describe the specifics of how the "very conservative biased mean value of H*," as shown in Table 8-4, was determined.

NextEra Response:

The question 13 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #14

Reference 1, Page 8-22, Case M-5. The description for this case seems to correspond to a single tube H* estimate rather than a whole bundle H* estimate. How is the analysis performed a whole bundle H* estimate?

NextEra Response:

The question 14 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #15

Reference 1, Page 8-22, Case M-5 states: "Interaction effects are included because the 4.285 sigma variations were used that already include the effective interactions among the variables." Case M-5 also states that the 4.285 sigma variations come from Table 8-2. However, Table 8-2 does not appear to include interactions among the variables. Explain how the 4.285 sigma variations include the effect of interactions among the variables.

NextEra Response:

The question 15 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #16

Reference 1, Page 8-22, Case M-6, first bullet. Should the words "divided by 4.285" appear at the end of the sentence?

NextEra Response:

The question 16 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #17

Reference 1, Page 8-23, Case M-7. Was the "2 sigma variation of all variables" divided by a factor of 2?

NextEra Response:

The question 17 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #18

Reference 1, Page 8-23, Case M-7. Explain how this case includes the interaction effects between the two principle variables, αT and αTS.

NextEra Response:

The question 18 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #19

Reference 1, Page 8-25, Table 8-4. Explain why the mean H* calculated in the fifth case does not require the same adjustments, as noted by the footnotes, that all other cases in the table require.

NextEra Response:

The question 19 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #20

Reference 1, Page 8-25, Table 8-4. Verify the mean H* shown in the last case in the table.

NextEra Response:

The question 20 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #21

Section 8 of Reference 1. The variability of H* with all relevant parameters is shown in Figure 8-3. The interaction between α_T and α_{TS} are shown in Figure 8-5. Please explain why the direct relationships shown in these two figures were not sampled directly in the Monte Carlo analysis, instead of the sampling method that was chosen. Also, please explain why the sampling method chosen led to a more conservative analysis than directly sampling the relationships in Figures 8-3 and 8-5. As part of the response to RAI 21, include discussion of main steam line break and whether it continues to be less limiting, from maximum H* perspective, than three times normal operating pressure.

NextEra Response:

The question 21 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #22

In the May 28, 2009, letter (ML091530539), Seabrook commits to monitor for tube slippage as part of the steam generator tube inspection program. The "due date/event" is prior to the start of Refueling Outage OR13. It is not clear whether the planned monitoring will be performed once. The commitment should be modified to indicate that the tube slippage will be monitored during every steam generator tube inspection outage.

NextEra Response:

In letter SBK-L-09118 requesting approval for license amendment request 09-03, Seabrook committed to monitoring for tube slippage:

> *NextEra Energy Seabrook, LLC commits to monitor for tube slippage as part of the steam generator tube inspection program.*

NextEra Energy Seabrook is modifying the commitment to state:

> *NextEra Energy Seabrook, LLC commits to monitor for tube slippage as part of the steam generator tube inspection program.* ***Slippage monitoring will occur for each inspection of the Seabrook Station steam generators.***

NRC RAI #23

In the May 28, 2009, letter, Seabrook commits to determine the position of the bottom of the expansion transition in relation to the top of the tubesheet and to enter "any significant deviation" into their corrective action program. This is a one-time verification prior to implementation of H*. The commitment should be modified to also include a commitment to notify the staff if significant deviations in the location of the bottom of the expansion transition relative to the top of the tubesheet are detected. The information provided (via the Steam Generator Tube Inspection Report or separate timely correspondence) will be evaluated against program assumptions and bases.

NextEra Energy Seabrook Response:

In letter SBK-L-09118 requesting approval for license amendment request 09-03, Seabrook Station committed to determining the position of the bottom of the expansion transition in relation to the top of the tubesheet and enter any significant deviations into the correct action program:

> *NextEra Energy Seabrook, LLC commits to perform a one-time verification of tube expansion locations to determine if any significant deviations exist from the top of tubesheet to the bottom of the expansion transition (BET). If any significant deviations are found, the condition will be entered into the plant's corrective action system and dispositioned.*

NextEra Energy Seabrook, LLC is modifying the commitment to state:

> *NextEra Energy Seabrook, LLC commits to perform a one-time verification of tube expansion locations to determine if any significant deviations exist from*

the top of tubesheet to the bottom of the expansion transition (BET). If any significant deviations are found, the condition will be entered into the plant's corrective action system and dispositioned. ***Additionally, if any significant deviations are found, those deviations will be reported to the NRC via the Steam Generator Tube Inspection Report or separate timely correspondence.***

NRC RAI #24

Reference 1, Page 9-6, Section 9.2.3.1. The feedwater line break heat- up transient is part of the plant design and licensing basis. Thus, it is the staff's position that H* and the "leakage factors," as discussed in Section 9.4, should include consideration of this transient. Explain why the proposed H* and leakage factor values are conservative, even with consideration of the feedwater line break heat-up transient. As part of the response, address the feed line break heatup transient in the FSAR, as this DBA is part of the licensing basis. Please provide a rationale to justify basing the leakage factor on steam line break, or commit to a leakage factor based on the feed line break heatup transient.

NextEra Response:

The question 24 response in Westinghouse LTR-SGMP-09-100 P-Attachment (attachment 2) provides the response to this request.

NRC RAI #25

During review of the Seabrook amendment request, it was noticed that wording, regarding use of the leakage factor, had been used in the body of the document (page 10 Attachment 1) but the licensee did not actually make a commitment to establish an administrative operational leakage limit on page 10 of Attachment 1, in the list of regulatory commitments in the cover letter, or in Attachment 7. Since the final leakage factor may change based on the FLB analysis (question C above), the proper factor will need to be used in the regulatory commitment. See below for an example of a complete commitment.

For the Condition Monitoring assessment, the component of leakage from the prior cycle from below the H* distance will be multiplied by a factor of X.XX and added to the total leakage from any other source and compared to the allowable accident induced leakage limit. For the Operational Assessment, the difference between the allowable accident induced leakage and the accident induced leakage from sources other than the tubesheet expansion region will be divided by X.XX and compared to the observed operational leakage. An administrative operational leakage limit will be established to not exceed the calculated value

NextEra Response:

As discussed in response to RAI #24 (Question C) the leak rate factor for Model F steam generators has been revised to 2.50. Therefore, NextEra Energy Seabrook will add the following commitment:

For the Condition Monitoring assessment, the component of leakage from the prior cycle from below the H* distance will be multiplied by a factor of 2.50 and added to the total leakage from any other source and compared to the allowable accident induced leakage limit. For the Operational Assessment, the difference between the allowable accident induced leakage and the accident induced leakage from sources other than the tubesheet expansion region will be divided by 2.50 and compared to the observed operational leakage. An administrative operational leakage limit will be established to not exceed the calculated value

Attachment 5

Westinghouse Electric Company LLC Letter CAW- 09-2631, "Application for Withholding Proprietary Information from Public Disclosure"

Westinghouse Electric Company
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Pittsburgh, Pennsylvania 15230-0355
USA

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Washington, DC 20555-0001

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e-mail: greshaja@westinghouse.com

Our ref: CAW-09-2631

August 13, 2009

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: LTR-SGMP-09-100 P-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," dated August 2009 (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-09-2631 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 NextEra Energy Seabrook, LLC.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-09-2631, and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Very truly yours,

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

Enclosures

cc: G. Bacuta, (NRC OWFN 12E-1)

bcc: J. A. Gresham (ECE 4-7A) 1L
R. Bastien, 1L (Nivelles, Belgium)
C. Brinkman, 1L (Westinghouse Electric Co., 12300 Twinbrook Parkway, Suite 330, Rockville, MD 20852)
RCPL Administrative Aide (ECE 4-7A) 1L (letter and affidavit only)
G. W. Whiteman, Waltz Mill
H. O. Lagally, Waltz Mill
C. D. Cassino, Waltz Mill
J. T. Kandra, Waltz Mill
G. M. Turley, ECE 511A

CAW-09-2631

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

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 13th day of August 2009

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Joyce A. Szepessy, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires April 16, 2013
Member, Pennsylvania Association of Notaries

(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" 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 constitute Westinghouse policy and provide 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-SGMP-09-100 P-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," dated August 2009 (Proprietary), for submittal to the Commission, being transmitted by NextEra Energy Seabrook, LLC letter and Application for Withholding Proprietary Information from Public Disclosure to the Document Control Desk. The proprietary information as submitted for use by Westinghouse for Seabrook Station is expected to be applicable to other licensee submittals in support of implementing an alternate repair criterion, called H*, that does not require an eddy current inspection and plugging of steam generator tubes below a certain distance from the top of the tubesheet.

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

(a) Provide documentation of the analyses, methods, and testing which support the implementation of an alternate repair criterion, designated as H*, for a portion of the tubes within the tubesheet of the Seabrook Station steam generators.

(b) Assist the customer in obtaining NRC approval of the Technical Specification changes associated with the alternate repair criterion.

Further this information has substantial commercial value as follows:

(a) Westinghouse plans to sell the use of similar information to its customers for the 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 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

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Letter for Transmittal to the NRC

The following paragraphs should be included in your letter to the NRC:

Enclosed are:

1. 1 copy of LTR-SGMP-09-100 P-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," dated August 2009 (Proprietary).

2. 1 copy of LTR-SGMP-09-100 NP-Attachment, "Response to NRC Request for Additional Information on H*; Model F and Model D5 Steam Generators," dated August 2009 (Non-Proprietary).

Also enclosed is Westinghouse authorization letter CAW-09-2631 with accompanying Affidavit, Proprietary Information Notice, and Copyright Notice.

As Item 1 contains information proprietary to Westinghouse Electric Company LLC, 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 Section 2.390 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 2.390 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-09-2631 and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Attachment 6

Westinghouse Electric Company LLC Letter CAW- 09-2658, "Application for Withholding Proprietary Information from Public Disclosure"

Westinghouse Electric Company
Nuclear Services
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

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

Direct tel: (412) 374-4643
Direct fax: (412) 374-3846
e-mail: greshaja@westinghouse.com

Our ref: CAW-09-2658

August 27, 2009

APPLICATION FOR WITHHOLDING PROPRIETARY INFORMATION FROM PUBLIC DISCLOSURE

Subject: LTR-SGMP-09-109 P-Attachment, "Response to NRC Request for Additional Information on H*; RAI # 4; Model F and Model D5 Steam Generators," dated August 2009 (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-09-2631 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 NextEra Energy Seabrook, LLC.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-09-2658, and should be addressed to J. A. Gresham, Manager, Regulatory Compliance and Plant Licensing, Westinghouse Electric Company LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

Very truly yours,

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

Enclosures

cc: G. Bacuta, (NRC OWFN 12E-1)

bcc: J. A. Gresham (ECE 4-7A) 1L
R. Bastien, 1L (Nivelles, Belgium)
C. Brinkman, 1L (Westinghouse Electric Co., 12300 Twinbrook Parkway, Suite 330, Rockville, MD 20852)
RCPL Administrative Aide (ECE 4-7A) 1L (letter and affidavit only)
G. W. Whiteman, Waltz Mill
H. O. Lagally, Waltz Mill
C. D. Cassino, Waltz Mill
J. T. Kandra, Waltz Mill
G. M. Turley, ECE 511A

CAW-09-2658

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

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 27th day of August, 2009

Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Sharon L. Markle, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Jan. 29, 2011
Member, Pennsylvania Association of Notaries

(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" 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 constitute Westinghouse policy and provide 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.

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Attachment 4

Revised Markup of Technical Specification 6.8.1.7

Mark-up of the Technical Specifications (TS)

Refer to the attached markup of the TS showing the proposed changes. The attached markups reflect the currently issued version of the TS and Facility Operating License. At the time of submittal, the Facility Operating License was revised through Amendment No. 122.

Listed below are the license amendment requests that are awaiting NRC approval and may impact the currently issued version of the Facility Operating License affected by this LAR.

LAR	Title	NextEra Energy Seabrook Letter	Date Submitted
None			

The following TS pages are included in the attached markup:

Technical Specification	Title	Page
TS 6.8.1.7	Steam Generator Tube Inspection Report	6-21

INSERT 3

i. The primary to secondary leakage rate observed in each SG (if it is not practical to assign the leakage to an individual SG, the entire primary to secondary leakage should be conservatively assumed to be from one SG) during the cycle preceding the inspection which is the subject of the report,

j. The calculated accident induced leakage rate from the portion of the tubes below 13.1 inches from the top of the tubesheet for the most limiting accident in the most limiting SG. In addition, if the calculated accident induced leakage rate from the most limiting accident is less than 2.50 times the maximum operational primary to secondary leakage rate, the report should describe how it was determined, and

k. The results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided.

6.8.1.6.c The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as SHUTDOWN MARGIN, and transient and accident analysis limits) of the safety analysis are met. The CORE OPERATING LIMITS REPORT for each reload cycle, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, to the NRC Document Control Desk with copies to the Regional Administrator and the Resident Inspector.

STEAM GENERATOR TUBE INSPECTION REPORT

6.8.1.7 A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with Specification 6.7.6.k, Steam Generator (SG) Program. The report shall include:

a. The scope of inspections performed on each SG,

b. Active degradation mechanisms found,

c. Nondestructive examination techniques utilized for each degradation mechanism,

d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,

e. Number of tubes plugged during the inspection outage for each active degradation mechanism,

f. Total number and percentage of tubes plugged to date,

g. The results of condition monitoring, including the results of tube pulls and in-situ testing,

INSERT 3

h. The effective plugging percentage for all plugging in each SG.

SPECIAL REPORTS

6.8.2 Special reports shall be submitted to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attn: Document Control Desk, with a copy to the NRC Regional Administrator within the time period specified for each report.

6.9 (THIS SPECIFICATION NUMBER IS NOT USED)