



February 27, 2007

10 CFR 50.90

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

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Response to Request for Additional Information Regarding Proposed C* License
Amendment Request for Steam Generator Tube Repair in the Tubesheet
(TAC No. MD2125)

By letter dated May 30, 2006, Nuclear Management Company, LLC (NMC) requested Nuclear Regulatory Commission (NRC) review and approval of a proposed license amendment request for the Palisades Nuclear Plant (PNP). The proposed amendment modifies the PNP technical specifications related to steam generator tube repair. The changes would revise the repair criteria for the portion of the tubes within the hot-leg region of the tubesheet.

By letter dated December 15, 2006, the NRC sent a request for additional information (RAI) on the proposed amendment. Enclosure 1 provides responses to the RAI questions for PNP.

Enclosure 2 provides the revised TS pages that address the RAIs. Enclosure 3 provides the annotated TS page showing the proposed changes. Enclosure 2 and Enclosure 3 supersede Enclosure 2 and Enclosure 3 that were provided by letter dated May 30, 2006. The revisions to the TS pages did not affect the finding of no significant hazards determination as provided in the original license amendment request.

Enclosure 4, LTR-CDME-07-22-P, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," provides responses to RAI questions 5, 6 and 8. Enclosure 4 contains information that is proprietary to Westinghouse Electric Company, LLC. The information 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 10 CFR 2.390 (b)(4). Accordingly, it is requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390. Also provided in Enclosure 4 is Westinghouse authorization letter CAW-07-2239, accompanying affidavit, proprietary information notice and copyright notice.

A001

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse affidavit should reference CAW-07-2239 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.

Enclosure 5, LTR-CDME-07-22-NP, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," provides nonproprietary responses to RAI questions 5, 6 and 8.

Summary of Commitments

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 27, 2007.



Paul A. Harden
Site Vice President, Palisades Nuclear Plant
Nuclear Management Company, LLC

Enclosures (5)

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades USNRC

**ENCLOSURE 1
RAI RESPONSE ON C* LAR
PALISADES NUCLEAR PLANT**

NRC Request

1. *The proposed amendment is intended to allow tubes with flaws to remain in service if the flaws are located below a certain depth in the hot-leg region of the tubesheet. This will require proposing an alternative to the 40-percent, through-wall depth criteria in the Palisades' Technical Specifications (TSs). Please discuss your plans to revise TS 5.5.8.c as follows:*
 - A. *Indicate there is an alternative to the 40-percent repair criteria.*
 - B. *Define the repair criteria in the hot-leg tubesheet region (i.e., depth below which flaws may remain in service, and the starting point for the depth measurement).*
 - C. *Define the repair criteria for the region of the hot-leg tubesheet in which neither the alternate repair criteria nor the 40-percent through-wall criteria apply (i.e., tubes with flaws within the C* distance will be plugged on detection).*
 - D. *State that all flaws located below this depth may remain in service, regardless of size.*

NMC Response

1. *Palisades proposes to revise Technical Specification (TS) 5.5.8.c, to address the four items above. Enclosure 2 provides the revised TS pages. Enclosure 3 provides the annotated TS page showing proposed changes. Enclosure 2 and Enclosure 3 supersede Enclosure 2 and Enclosure 3 that were provided by letter dated May 30, 2006.*

NRC Request

2. *Proposed TS 5.5.8.d defines the portion of tube that must be inspected, "from 12.5 inches below the tube-to-tubesheet expansion transition inlet to the tube-to-tubesheet weld at the tube outlet . . ." Since the C* criteria is an alternate repair criteria rather than an inspection criteria, it does not change the objective in the current TS 5.5.8.d to detect flaws from the inlet tube-to-tubesheet weld to the outlet tube-to-tubesheet weld. If the C* criteria is properly defined as an alternate repair criteria (as discussed in #1 above), then inspection below the C* distance in the hot-leg region would no longer be required because of the phrase, ". . . and that may satisfy the applicable tube repair criteria" in TS 5.5.8.d. Please discuss your plans to modify proposed TS 5.5.8.d to remove the reference to the C* distance and restore the wording approved in the Technical Specifications Task Force 449 amendment (i.e., ". . . from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy. . ."). In addition, the staff notes that the 12.5-inch C* distance is measured from the top of the tubesheet or the bottom of the expansion transition, whichever is lower.*

NMC Response

2. Palisades proposes to revise Technical Specification (TS) 5.5.8.d, to remove the reference to the C* distance and restore the wording approved in the Technical Specifications Task Force 449 amendment. Enclosure 2 provides the revised TS pages. Enclosure 3 provides the annotated TS page showing the proposed changes. Enclosure 2 and Enclosure 3 supersede Enclosure 2 and Enclosure 3 that were provided by letter dated May 30, 2006.

NRC Request

3. *The basic premise of the C* amendment is that there is a 12.5-inch, non-flawed portion of the tube fully expanded into the tubesheet. To ensure the region remains free of flaws, an inspection of 100 percent of the inservice tubes in the upper region of the tubesheet will need to be performed every 24 effective full-power months, or one refueling outage interval, whichever is less. As a result, please discuss your plans to revise your proposed TS 5.5.8.d to add this inspection requirement (e.g., by adding a paragraph 5.5.8.d.4). The staff notes that if an additional paragraph 5.5.8.d.4 is added, it will need to be referenced in 5.5.8.d (i.e., "In addition to meeting the requirements of d.1, d.2, d.3, and d.4 below . . .").*

NMC Response

3. Palisades proposes to revise TS 5.5.8.d, to add this inspection requirement. Enclosure 2 provides the revised TS pages. Enclosure 3 provides the annotated TS page showing the proposed changes. Enclosure 2 and Enclosure 3 supersede Enclosure 2 and Enclosure 3 that were provided by letter dated May 30, 2006.

NRC Request

4. *Please confirm that structural and leakage integrity will be assessed if significant indications are found within the inspected region of the tubesheet. The staff recognizes that the current approach of plugging flaws on detection within the C* distance should provide a high level of confidence that no potential leaking or structurally significant flaws are identified in this region. However, such an approach can not ensure it with certainty.*

NMC Response

4. Palisades conducts SG condition monitoring and operational assessments per NEI 97-06, "Steam Generator Program Guidelines," and associated EPRI SG guideline and assessment documents. SG conditioning monitoring and operational assessments include assessing the structural and leakage integrity, thereby ensuring the structural and leakage integrity if significant indications are found within the inspected region of the tubesheet.

NRC Request

5. *The calculation of the inspection distance for the hot-leg tubesheet region used the lower 95-percent prediction bound for the measured and projected smooth-bore, "first-slip" pullout values plotted in Figure 3 of Enclosure 4 to your May 30, 2006 letter. As discussed in the RAI responses to previous C* reviews (i.e., Section 2.1.4 in Enclosure 6 of your May 30, 2006 letter), use of the load at "first slip" assumes that the "first move" results from gripper slippage or other movement besides movement of the tube within the tubesheet. Since this assumption about the "first move" was not verified, and given that all tubes should resist pullout from the tubesheet, confirm that if the force-per-unit-length for the most limiting specimen, based on load at "first move," were used to determine the required length of expanded tube needed to resist pullout, this length would still be less than the proposed inspection distance (12.5 inches).*

The staff notes that in Section 2.4.3 of Enclosure 6 (which addresses the first-slip criteria for smooth-bore samples), the final two paragraphs explain that even if there were no expansion residual contact pressure between a tube and tubesheet in the Palisades steam generators, a length of 6.75 inches is enough to resist the three-times normal operating differential pressure. The discussion identifies differential thermal expansion and expansion from the tube internal pressure as the sources of the resistance to tube pullout. Although this was referred to as the "most extreme case," it is not clear if the effect of tubesheet bow was included. Please discuss whether your evaluation considered the effect of tubesheet bow.

NMC Response

5. The response to this question is provided in Enclosure 4, LTR-CDME-07-22-P, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant." Enclosure 4 contains information that is proprietary to Westinghouse Electric Company, LLC. Accordingly, it is requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390. Enclosure 5, LTR-CDME-07-22-NP, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," provides the nonproprietary response to this question.

NRC Request

6. *For the Ringhals test data, the first-slip pullout values plotted in Figure 3 of Enclosure 4 were projected from the measured, maximum-load values. Please discuss the effect on Figure 3 and your leakage analyses if a conservative bound (i.e., 95-percent prediction interval) were used to project the first-slip load values for the Ringhals data.*

NMC Response

6. The response to this question is provided in Enclosure 4, LTR-CDME-07-22-P, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant." Enclosure 4 contains information that is proprietary to Westinghouse Electric Company, LLC. Accordingly, it is requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390. Enclosure 5, LTR-CDME-07-22-NP, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," provides the nonproprietary response to this question.

NRC Request

7. *The staff notes that the page numbers listed on the cover sheets of Enclosures 2 and 3 (pages 5.5.8-11 and 5.5.8-12) do not match the page numbers on the bottom of the enclosed TS pages (pages 5.0-11 and 5.0-12). Please clarify which are the correct page numbers for these TS pages. In addition, the staff notes that proposed TS page 5.0-12 should identify the "Provisions for SG tube inspections. (continued)" as item "d" rather than item "e."*

NMC Response

7. The correct page numbers are 5.0-11 and 5.0-12. The attached enclosures (Enclosures 2 and 3) have been revised and reflect the correct page numbers. In addition, "Provisions for SG tube inspections (continued)" has been revised, deleting the reference to an item "e." These changes are administrative and do not affect inspection requirements.

NRC Request

8. *According to Section 2.5 of Enclosure 4, the proposed inspection distance of 12.5 inches is based on adding the 0.28-inch non-destructive examination axial-position uncertainty to the values of "Joint Length that Meets Leakage Criteria," (12.24 and 12.25 inches). However, since $12.25 + 0.28 = 12.53$, it would be conservative to use a value of 12.6 inches rather than 12.5 inches. Please discuss your plans to modify your proposal to use 12.6 inches as the proposed distance for the alternate repair criteria (and inspection) in the hot-leg region of the tubesheet.*

NMC Response

8. The response to this question is provided in Enclosure 4, LTR-CDME-07-22-P, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant." Enclosure 4 contains information that is proprietary to Westinghouse Electric Company, LLC. Accordingly, it is requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR 2.390. Enclosure 5, LTR-CDME-07-22-NP, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," provides the nonproprietary response to this question.

ENCLOSURE 2

**LICENSE AMENDMENT REQUEST REGARDING
TUBESHEET INSPECTION DEPTH FOR STEAM GENERATOR TUBE
INSPECTIONS AT PALISADES NUCLEAR PLANT**

REVISED TECHNICAL SPECIFICATION PAGES 5.0-11 and 5.0-12
AND
OPERATING LICENSE PAGE CHANGE INSTRUCTIONS

3 Pages Follow

ATTACHMENT TO LICENSE AMENDMENT NO.

FACILITY OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Remove the following pages of Appendix A Technical Specifications and replace with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

5.0-11

5.0-12

INSERT

5.0-11

5.0-12

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

- b. Performance criteria for SG tube integrity. (continued)
 - 1. Structural integrity performance criterion: All in-service SG tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.
 - 2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 0.3 gpm.
 - 3. The operational LEAKAGE performance criterion is specified in LCO 3.4.13, "PCS Operational LEAKAGE."
- c. Provisions for SG tube repair criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged. There is an alternative to the repair criteria in the hot leg tubesheet. Starting at the top of the tubesheet or the bottom of the expansion transition, whichever is lower, to the C* depth of 12.5 inches, flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged. Starting below the C* depth of 12.5 inches to the inlet tube-to-tubesheet weld, flaws may remain in service regardless of size.
- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

d. Provisions for SG tube inspections. (continued)

tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, d.3 and d.4 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.
2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.
3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.
4. Inspect 100% of the inservice tubes to the C* depth in the hot leg tubesheet every 24 effective full-power months, or one refueling outage interval, whichever is less.

e. Provisions for monitoring operational primary to secondary LEAKAGE.

ENCLOSURE 3

**LICENSE AMENDMENT REQUEST REGARDING
TUBESHEET INSPECTION DEPTH FOR STEAM GENERATOR TUBE
INSPECTIONS AT PALISADES NUCLEAR PLANT**

MARK-UP OF TECHNICAL SPECIFICATION PAGES 5.0-11 and 5.0-12
(showing proposed changes)
(additions are highlighted; deletions are strikethrough)

2 Pages Follow

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

- b. Performance criteria for SG tube integrity. (continued)
1. Structural integrity performance criterion: All in-service SG tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.
 2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 0.3 gpm.
 3. The operational LEAKAGE performance criterion is specified in LCO 3.4.13, "PCS Operational LEAKAGE."
- c. Provisions for SG tube repair criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged. **There is an alternative to the repair criteria in the hot leg tubesheet. Starting at the top of the tubesheet or the bottom of the expansion transition, whichever is lower, to the C* depth of 12.5 inches, flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged. Starting below the C* depth of 12.5 inches to the inlet tube-to-tubesheet weld, flaws may remain in service regardless of size.**
- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

d. Provisions for SG tube inspections. (continued)

tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, **d.3 and d.4** below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.
2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.
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- 4. Inspect 100% of the inservice tubes to the C* depth in the hot leg tubesheet every 24 effective full-power months, or one refueling outage interval, whichever is less.**

e. Provisions for monitoring operational primary to secondary LEAKAGE.



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Our ref: CAW-07-2239

February 7, 2007

APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE

Subject: LTR-CDME-07-22-P, Revision 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant" (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced document is further identified in Affidavit CAW-07-2239 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 use of the accompanying affidavit by Nuclear Management Company.

Correspondence with respect to the proprietary aspects of the application for withholding or the Westinghouse affidavit should reference this letter, CAW-07-2239, 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,

A handwritten signature in cursive script that reads "J. A. Gresham for".

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

Enclosures

cc: J. Thompson (NRC)

bcc: J. A. Gresham (ECE 4-7A) 1L
R. Bastien, 1L, 1A (Nivelles, Belgium)
L. Ulloa (Madrid, Spain) 1L, 1A
C. Brinkman, 1L, 1A (Westinghouse Electric Co., 12300 Twinbrook Parkway, Suite 330, Rockville, MD 20852)
RCPL Administrative Aide (ECE 4-7A) 1L, 1A (letter and affidavit only)

AFFIDAVIT

STATE OF CONNECTICUT:

ss

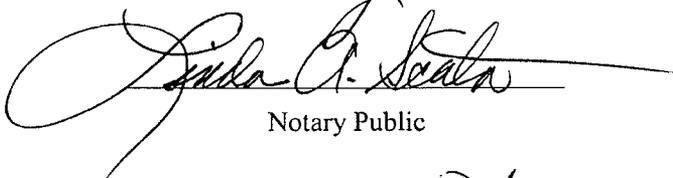
COUNTY OF HARTFORD:

Before me, the undersigned authority, personally appeared I. C. Rickard, 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:



I. C. Rickard, Licensing Project Manager
Systems and Safety Analysis, Nuclear Services
Westinghouse Electric Company, LLC

Sworn to and subscribed
before me this 7th day
of February, 2007



Notary Public

My Commission Expires: May 31, 2008

- (1) I am Licensing Project Manager, Systems and Safety Analysis, 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 other 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-CDME-07-22-P, Rev. 0, "Responses to NRC Requests for Additional Information Regarding the Application of WCAP-16208-P, Revision 1, 'NDE Inspection Length for CE Steam Generator Tubesheet Region Explosive Expansions,' to the Palisades Nuclear Power Plant," being transmitted by Nuclear Management Company letter and Application for Withholding Proprietary Information from Public Disclosure, to the Document Control Desk. The proprietary information as submitted by Westinghouse for use by the Palisades Nuclear Power Plant enables Westinghouse to support utilities in identifying and applying a steam generator tubesheet inspection model and, in particular, to determine the tubesheet inspection length appropriate for the Palisades Nuclear Power Plant steam generators, including:

- (a) The identification of important factors relevant to determining the recommended steam generator tubesheet inspection length, and
- (b) Development of a generic methodology for applying the inspection length model to utilities with NSSS plants.

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

Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of Westinghouse because it would enhance the ability of competitors to provide similar inspection models 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.

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