



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

Attachment 2 contains proprietary information and should be withheld from public disclosure in accordance with 10 CFR 2.390

April 24, 2015
NOC-AE-15003250
10 CFR 50.55a
10 CFR 2.390
File No.: D43.01

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

South Texas Project Unit 1
Docket No. STN 50-498
Request for Relief from Code Case N-770-1, Subsection 2400 and Table 1 Inspection
Frequency of Reactor Vessel Cold Leg Nozzle to Safe-end Welds with Flaw Analysis
(Relief Request RR-ENG-3-17)

In accordance with the provisions of 10 CFR 50.55a(a)(3)(ii), STP Nuclear Operating Company (STPNOC) requests relief for South Texas Project (STP) Unit 1 for performing the reactor vessel Cold Leg nozzle to safe-end weld inspections, covered by ASME Code Case N-770-1, by the currently scheduled outage 1RE19 (Fall 2015, Unit 1). This relief request proposes extending the inspection period by one operating cycle and performing the Code Case N-770-1 inspections in conjunction with the implementation of an approved stress improvement process to mitigate primary water stress corrosion cracking (PWSCC) in the Hot and Cold Leg nozzle to safe-end welds. The purpose of this relief request is to extend the Code Case N-770-1 inspection period by one refueling cycle, approximately 18 months, until Refueling Outage 1RE20 scheduled for Spring 2017.

10CFR50.55a(g)(6)(ii)(F)(1), effective July 21, 2011, requires that the STP Inservice Inspection (ISI) program implement ASME Code Case N-770-1, related to examination requirements for Class 1 piping and nozzle dissimilar-metal butt welds. STPNOC has determined that compliance with these Code inspection requirements would result in unnecessary hardship without a compensating increase in the level of quality and safety.

By performing the Cold Leg weld inspections in conjunction with an approved stress improvement process during Refueling Outage 1RE20, STPNOC would reduce unnecessary radiation exposure to personnel and the need to perform a critical lift of the core barrel.

STPNOC requests NRC review and approval of this relief request by September 1, 2015 to support the use of the proposed inspection date extension when authorized, as required by 10 CFR 50.55a(a)(3).

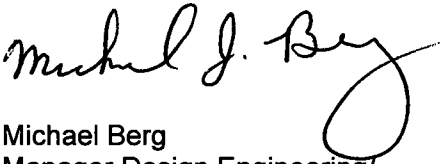
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NRC

This letter contains two attachments. Attachment 1 is non-proprietary; and Attachment 2 is the proprietary version of Attachment 1 and contains proprietary material that should be withheld from public disclosure as documented by the affidavits in Enclosure 2.

There are no commitments in this letter.

If there are any questions, please contact Rafael Gonzales at 361-972-4779, or me at 361-972-7030.



Michael Berg
Manager Design Engineering/
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rjg

Enclosures:

1. SOUTH TEXAS PROJECT UNIT 1, Request for Relief from Code Case N-770-1, Subsection 2400 and Table 1 Inspection Frequency of Reactor Vessel Cold Leg Nozzle to Safe-end Welds with Flaw Analysis (Relief Request RR-ENG-3-17)
2. Application for Withholding Proprietary Information From Public Disclosure

Attachments:

1. LTR-PAFM-15-27-NP, Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds, April 2015 (Non-Proprietary).
2. LTR-PAFM-15-27-P, Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds, April 2015 (Proprietary).

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Enclosure 1

SOUTH TEXAS PROJECT UNIT 1, Request for Relief from Code Case N-770-1, Subsection 2400 and Table 1 Inspection Frequency of Reactor Vessel Cold Leg Nozzle to Safe-end Welds with Flaw Analysis (Relief Request RR-ENG-3-17)

SOUTH TEXAS PROJECT UNIT 1
 Request for Relief from Code Case N-770-1, Subsection 2400 and Table 1 Inspection Frequency of
 Reactor Vessel Cold Leg Nozzle to Safe-end Welds with Flaw Analysis
 (Relief Request RR-ENG-3-17)

A. ASME Component(s) Affected

The affected components are STP Unit 1 reactor vessel Cold Leg nozzle to safe-end welds (Table 1), which are Alloy 600 welds subject to Code Case N-770-1 (Reference 1).

Table 1 - STP Unit 1 reactor vessel Cold Leg nozzle to safe-end welds

UNIT 1				
CATEGORY	ITEM_NO	STP SUMMARY_NO	COMP ID	COMP_DESC
N-770-1	B	101350	RPV1-N2ASE	SAFE END TO RPV LOOP A INLET NOZZLE
N-770-1	B	101485	RPV1-N2BSE	SAFE END TO RPV LOOP B INLET NOZZLE
N-770-1	B	101635	RPV1-N2CSE	SAFE END TO RPV LOOP C INLET NOZZLE
N-770-1	B	101775	RPV1-N2DSE	SAFE END TO RPV LOOP D INLET NOZZLE

B. Applicable ASME Code Edition and Addenda

ASME Section XI 2004 Edition (Reference 2)
 Code Case N-770-1 as referenced in 10CFR50.55a(g)(6)(ii)(F)(1).

C. Applicable ASME Code Requirement

Table 1 of Code Case N-770-1 requires volumetric examination of essentially 100% of Inspection Item B pressure retaining welds once every second inspection period, not to exceed 7 years. This is the third In-service Inspection (ISI) interval beginning September 25, 2010 through September 24, 2020.

D. Reason for Relief from Code Requirements

STPNOC is requesting a relief to extend the Cold Leg weld inspections one cycle (approximately 18 months) to Spring 2017 during Refueling Outage 1RE20. During 1RE20, STPNOC will be performing mitigation of primary water stress corrosion cracking (PWSCC) in the Cold Leg nozzle to safe-end welds using a stress improvement process which requires the performance of a critical core barrel lift. If relief is granted for the Cold Leg weld inspection extension, STP can perform the inspections and the mitigation of PWSCC during the same evolution, reducing the risk for performing two separate critical lifts and adhering to best "As Low As Reasonably Achievable" (ALARA) practices.

E. Proposed Alternative and Basis for Use:

10CFR50.55a(a)(3) states in part:

Any proposed alternatives must be submitted and authorized prior to implementation. The applicant or licensee shall demonstrate that:

- (i) the proposed alternatives would provide an acceptable level of quality and safety, or
- (ii) compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

STPNOC believes that the proposed alternative inspection schedule presented in this request provides an acceptable level of quality and safety. STPNOC proposes a one-time extension to Code Case N-770-1, Table 1, Inspection Item B, volumetric examinations from a period not to exceed 7 years to a one time period not to exceed 8 years for STP Unit 1.

During the Unit 1 Spring 2017 refueling outage, STPNOC will perform the mitigation of PWSCC on the reactor vessel inlet and outlet nozzle to safe end Alloy 82/182 dissimilar metal (DM) welds. STPNOC plans to use a non-welded stress improvement method (meeting the performance criteria of Code Case N-770-1 Appendix 1) as the mitigation process to minimize the potential of PWSCC by permanently eliminating the tensile stress through approximately 50% of the inner DM weld wall thickness.

Examination of Code Case N-770-1 Item B (Cold Leg) welds are performed from the Inside Diameter (ID) in Unit 1 due to limited access from the outside surface of the pipe. The inspection of Item B (Cold Leg) welds from the ID requires removal of the reactor vessel core barrel.

Removing the reactor vessel lower internals assembly (core barrel) is considered to be a critical lift due to the weight of the component, the tight clearances involved, and the radiation emitted by the assembly. For these reasons, only personnel directly involved with the movement of the internals are typically allowed in containment during the evolution. Remote cameras are utilized to allow most personnel involved with the lift to be outside of the refueling cavity area to minimize personnel radiation exposure. The lower internals lifts are performed solely by viewing cameras. If the need arises the Polar Crane operator is instructed to sit on the floor of the cab or behind shielding and not to raise his head above the cab area of the crane to maintain his radiation dose as low as reasonably achievable (ALARA).

For STP, removing the core barrel requires that it be raised above the refueling cavity water level during transfer from the reactor vessel to the storage stand location. The radiation exposure levels for this activity can be high and necessitate evacuation of personnel from containment and installation of shielding for the polar crane operator(s). In addition, the dose rates in the area would increase due to the presence of the reactor vessel in the temporary storage location. Aligning the N-770-1 inspection with the non-welded stress improvement method activity would reduce unnecessary radiation exposure to personnel. Eliminating the need to remove the core barrel and lower internals during 1RE19 could save approximately 610.5 mrem of dose.

The total dose attributed to removal of the core barrel and lower internals was estimated based on data from 2RE14, the most recent outage when the core barrel was removed. The total dose for the actual work activities to remove and install the reactor core barrel and lower internals during 2RE14 was 123 mrem. The core barrel was transferred to the Lower Internal Storage Area (LISA) where it was stored underwater for 13 days. The dose rates in the vicinity of the LISA with the core barrel present were compared to the dose rates without the core barrel present, and the approximate increase in dose rates in the general area walkway was 1.3 mrem per hour. Dose rates were measured on the South end of the 68' elevation of the Reactor Containment Building (RCB), which is a general area walkway and a common travel path for workers inside containment. During the 13 days that the core barrel was stored in the LISA, workers could have received additional dose of approximately 487.5 mrem¹ (see assumptions below). Therefore, the total dose associated with moving and storing the core barrel and lower internals is 610.5 mrem.

Assumptions

1. The total time the core barrel remained in the LISA, and thus, caused increase dose rates in the general area walkway was 13 days.
2. The total RWP-hours during those 13 days was approximately 37,500 hours.
3. The total number of hours that workers may have spent in the vicinity of the 68' with higher dose rates is approximately 1% of the total RWP-hours = 375 hours.
4. The average increase in dose rates in the general area walkway was 1.3 mrem/hour.

Calculation: $375 \text{ hours} \times 1.3 = 487.5 \text{ mrem}$

Operating experience on Primary Water Stress Corrosion Cracking (PWSCC) of Alloy 82/182 welds shows that weld repairs performed during original plant construction are a significant contributor in the initiation and propagation of cracking. A review of the construction records and a weld repair search performed for the STP Unit 1 Reactor Vessel nozzle Alloy 82/182 welds did not identify any weld repairs performed on these welds during original plant construction.

During the Fall 2009 Unit 1 refueling outage, a volumetric examination was performed to the specifications of ASME XI Appendix VIII along with a supplemental eddy current test. In April 2014, ultrasonic (volumetric) and eddy current (surface) exams were performed on the STP Unit 1 Hot Leg welds and no indications were identified. In fall 2015, ultrasonic (volumetric) and eddy current (surface) exams are scheduled to be performed on the STP Unit 1 Cold Leg welds to meet the requirement of N-770-1. The absence of any indications in the Hot Leg welds in 2014 provides added assurance that the one time extension of the inspection of the Cold Leg welds by approximately 18 months provides an acceptable level of quality and safety.

STP will perform non-welded stress improvement method on the reactor vessel inlet and outlet nozzle to safe end welds during the 1RE20 refueling outage scheduled for spring 2017. This proposed approach reduces radiological exposure and personnel safety hazards associated with critical lifting of the reactor vessel lower internals assembly (core barrel). Therefore, deferral of the Cold Leg Nozzle inspections for STP Unit 1 refueling outage would eliminate the increased radiation exposure associated with the removal of the core barrel.

Technical Basis

Electric Power Research Institute (EPRI) Technical Report for Materials Reliability Program: PWR Reactor Coolant System Cold-Loop Dissimilar Metal Butt Weld Reexamination Interval Extension, MRP-349 (Reference 3) provides the basis for extension of the current volumetric inspection interval for the Reactor Pressure Vessel (RPV) Cold Leg DM welds from every second inspection period or 7 years, as currently required by Code Case N-770-1, to 8 years in the current inspection interval. In summary, the basis for one time extension of Code Case N-770-1, Table 1, Inspection Item B, volumetric examinations is: (1) there has been no service experience with cracking found in RPV Cold Leg DM welds, (2) crack growth rates in RPV Cold Leg DM welds are small, and (3) likelihood of cracking or through wall leaks is very small in RPV Cold Leg DM welds. This technical basis demonstrates that the re-examination interval can be extended to 8 years while maintaining an acceptable level of quality and safety.

In addition, a site specific flaw tolerance analysis has been performed to determine the largest initial axial and circumferential flaws that could be left behind in service and remain acceptable between the planned examinations (Reference 4). This maximum allowable flaw size could then be compared to any flaw size detected during inlet nozzle DM weld examinations. The attachment (Attachment 1 Non-proprietary and Attachment 2 Proprietary) to this enclosure contains the flaw tolerance analysis in Reference 4.

Service Experience

The STP Unit 1 Cold Leg welds were last examined in Fall 2009 using remote mechanized examinations from the ID. The examinations were performed in accordance with Appendix VIII using performance demonstrated methods where 100% of the flaws in the test specimens were detected. In addition, an eddy current examination was performed on the inside (or wetted) surface to inspect for surface connected flaws. No recordable indications were identified during the 2009 examinations. Additionally, all volumetric examinations of the STP Unit 1 Cold Leg welds prior to 2009 did not identify any indications requiring resolution. The technique used in site specific exams included 100% coverage for axial and circumferential flaws. In these exams, data is obtained using encoded techniques allowing the data to be reviewed by multiple qualified examiners. Site specific mock-ups were not used because of the flat, uniform surface associated with performance of these examinations from the ID. These techniques provide strong assurance that flaws will be detected

during inspections. Each STP Unit 1 Cold Leg is exposed to approximately 563°F (Cold Leg Temperature) during normal plant operation.

Crack Growth Rates (Flaw Tolerance)

All of the flaw tolerance analyses performed to date have shown that the critical crack sizes in large-diameter butt welds operating at Cold Leg temperatures are very large. Assuming that a flaw is initiated, the time required for the flaw to grow to through-wall is in excess of 20 years in most cases analyzed. The time to grow from a through-wall leak to a crack equal to the critical crack size can be in excess of 40 years.

More recent analyses have been performed for the RPV nozzles using through-wall residual stress distributions that were developed based on the most recent guidance (Reference 3). These analyses have shown that the flaw tolerance of these locations is high and postulated circumferential flaws will not reach the maximum ASME allowable depth in less than 10 years. Crack growth analysis is given for limiting plants part-circumferential through-wall flaws in Table 5-2 of MRP-349.

Probability of Cracking or Through Wall Leaks

Analyses have been performed to calculate the probability of failure for Alloy 82/182 welds using both probabilistic fracture mechanics and statistical methods. Both approaches have shown that the likelihood of cracking or through-wall leaks in large-diameter Cold Leg welds is very small. Furthermore, sensitivity studies performed using probabilistic fracture mechanics have shown that even for the more limiting high temperature locations, more frequent inspections than required by Section XI, such as that in MRP-139 (Reference 5) or Code Case N-770-1, have only a small benefit in terms of risk.

Though past service experience may not be an absolute indicator of the likelihood of future cracking, the experience provides an indication of the relative likelihood of cracking in Cold Leg temperature locations versus Hot Leg temperature locations. While there is a significant amount of PWSCC service experience in Hot Leg locations, the number of indications in large-bore butt welds is still small relative to the number of potential locations. Also, all indications have been detected before they were a safety concern. Therefore, if Hot Leg PWSCC is a leading indicator for Cold Leg PWSCC and the higher frequency of inspections will be maintained for the Hot Leg locations, it is reasonable to conclude that a moderately less rigorous inspection schedule would be capable of detecting any Cold Leg indications before they became large enough to be a significant concern.

Table 2 below provides a summary of the latest Nozzle to Safe-End Welds inspection for STP Unit 1 (1RE18) and evaluation of the recorded indications. This information confirms that satisfactory examinations have been performed on the STP Unit 1 Dissimilar Metal Welds.

Table 2: Information Pertaining to Class 1 Piping and Nozzle Dissimilar-Metal Butt Welds Inspection – STP Unit 1	
Inspection Methodology:	During the most recent inservice inspection, all Code Case N-770-1 Inspection Item A-2 (Hot Leg) welds, were governed by the ASME Section XI, 2004 Edition, with no Addenda, Code Case N-770-1 as incorporated by reference 10CFR50.55a.
Number of past inspections:	Cold Leg examinations were performed with 10-Year inservice inspections 1RE08 (1999) and 1RE15 (2009).
Number of indications found:	There were no recordable indications identified during the most recent inservice inspection.
Proposed inspection schedule for balance of plant life:	The third inservice inspection is currently scheduled to be performed in 2015 and 2020. Pending approval of this relief request, the Unit 1 inspection would be (Baseline Examination after Mitigation) 2017 and 2027.

F. Duration of Proposed Alternative

This request is applicable to STPNOC's ISI program for the third interval for STP Unit 1 and is not to exceed 18 months to Spring 2017 for Refueling Outage 1RE20.

G. References

1. *Code Case N-770-1, Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated with UNS N06082 or UNS W86182 Weld Filler Material With or Without Application of listed Mitigation Activities Section XI, Division 1.*
2. *ASME Boiler and Pressure Vessel Code, Section XI, 2004 Edition No Addenda, American Society of Mechanical Engineers, New York.*
3. *EPRI, Materials Reliability Program: PWR Reactor Coolant System Cold-Loop Dissimilar Metal Butt Weld Reexamination Interval Extension (MRP-349), August 2012, (1025852).*
4. *Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds, LTR-PAFM-15-27-P, Westinghouse, April 2015.*
5. *Material Reliability Program: Primary System Piping Butt Weld Inspection and Evaluation Guideline (MRP-139, Revision 1), December 2008, (1015009).*

H. Precedents

Relief from this examination requirement to apply the proposed alternative at the South Texas Project was previously approved by the NRC for the following (with ADAMS Accession No. references):

- (1) *Indian Point Nuclear Generating Unit No. 2 - Request for Relief Request No. IP2-ISI-RR-14, Code Case N-770-1, Reactor Coolant System Cold Leg Nozzle Weld Inspection Frequency Extension (TAC No. ME6801), dated February 2, 2012 (ML120260090).*
- (2) *Arkansas Nuclear One, Unit No. 1 – Request for Alternative ANO1-ISI-023 to ASME Code Case N-770-1 Volumetric Examination Frequency Requirements for the Fourth 10-Year Inservice Inspection Interval (TAC No. MF3176), dated October 29, 2014 (ML14282A479).*
- (3) *Joseph M. Farley Nuclear Plant, Units 1 and 2 – Request for Alternative FNP-ISI-13 Regarding Deferral of Inservice Inspection of Reactor Pressure Vessel Cold Leg Nozzle Dissimilar Metal Welds (TAC Nos. ME9739 and ME 9740), dated August 8, 2013 (ML13212A176).*

Attachments

- (1) *LTR-PAFM-15-27-NP, Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds, April 2015 (Non-Proprietary).*
- (2) *LTR-PAFM-15-27-P, Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds, April 2015 (Proprietary).*

Enclosure 2
NOC-AE-15003250

Enclosure 2

Application for Withholding Proprietary Information From Public Disclosure



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CAW-15-4167

April 22, 2015

**APPLICATION FOR WITHHOLDING PROPRIETARY
INFORMATION FROM PUBLIC DISCLOSURE**

Subject: LTR-PAFM-15-27-P, "Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds." (Proprietary)

The proprietary information for which withholding is being requested in the above-referenced report is further identified in Affidavit CAW-15-4167 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 STP Nuclear Operating Company

Correspondence with respect to the proprietary aspects of the Application for Withholding or the Westinghouse Affidavit should reference CAW-15-4167, and should be addressed to James A. Gresham, Manager, Regulatory Compliance, Westinghouse Electric Company, 1000 Westinghouse Drive, Building 3 Suite 310, 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

CAW-15-4167

April 22, 2015

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

ss

COUNTY OF BUTLER:

I, James A. Gresham, am 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 my knowledge, information, and belief.

A handwritten signature in cursive script, appearing to read "James A. Gresham", is written over a solid horizontal line.

James A. Gresham, Manager

Regulatory Compliance

- (1) I am Manager, Regulatory Compliance, 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 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) The proprietary information sought to be withheld in this submittal is that which is appropriately marked in LTR-PAFM-15-27-P, "Technical Justification to Support Extended Volumetric Examination Interval for South Texas Unit 1 Reactor Vessel Inlet Nozzle to Safe End Dissimilar Metal Welds" (Proprietary), for submittal to the Commission, being transmitted by STP Nuclear Operating Company 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 technical justification to support extended volumetric examination interval for south Texas Unit 1 reactor vessel inlet nozzle to safe end dissimilar metal welds, and may be used only for that purpose.
- (a) This information is part of that which will enable Westinghouse to:
 - (i) Provide technical justification to support extended volumetric examination interval for South Texas Unit 1 reactor vessel inlet nozzle to safe end dissimilar metal welds.

- (b) Further this information has substantial commercial value as follows:
- (i) Westinghouse plans to sell the use of similar information to its customers for the purpose of providing technical justification to support extended volumetric examination interval for reactor vessel nozzle to safe end dissimilar metal welds.
 - (ii) Westinghouse can sell support and defense of industry guidelines and acceptance criteria for plant-specific applications.
 - (iii) 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 non-proprietary versions of documents furnished to the NRC in associated with technical justification to support extended volumetric examination interval for south Texas Unit 1 reactor vessel inlet nozzle to safe end dissimilar metal welds, and may be used only for that purpose.

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.