

July 27, 2009

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

Attention: Michael McCoppin

Subject: Project No. 704 – License Renewal Appendix to “BWRVIP-183: BWR Vessel and Internals Project, Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines”

Reference: 1. BWRVIP Letter 2008-016 from Rick Libra (BWRVIP Chairman) to Document Control Desk (NRC), “Project No. 704 – BWRVIP-183: BWR Vessel and Internals Project, Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines,” dated January 15, 2008
2. Letter from J. E. Dyer (NRC) to Rick Libra (Chairman, BWRVIP) dated May 1, 2009

Enclosed are five (5) copies of the document “Appendix C, Top Guide Grid Beam Demonstration of Compliance with the Technical Information Requirements of the License Renewal Rule [10 CFR 54.21].” The enclosed document is being submitted as Appendix C of BWRVIP-183 that was transmitted to the NRC by the Reference 1 BWRVIP letter identified above. This document is being submitted as a means of exchanging information with the NRC for the purpose of supporting generic regulatory improvements related to demonstrating compliance with license renewal information requirements. Since the parent document (BWRVIP-183) of the enclosed Appendix C is being reviewed on a fee exempt basis, a letter to the NRC CFO requesting a fee waiver for review of the enclosed appendix is not being submitted. A copy of the NRC letter waiving the review fees for BWRVIP-183 is attached (Reference 2 above).

Please note that the enclosed appendix contains proprietary information. A letter requesting that the report be withheld from public disclosure and an affidavit describing the basis for withholding this information are provided as Attachment 1. Proprietary information is identified by vertical bars in the margin. The letters “TS” next to each vertical bar indicate that the information requested to be withheld is “Trade Secrets” as defined in 10 CFR 2.390.

Two (2) copies of a non-proprietary version of “Appendix C, Top Guide Grid Beam Demonstration of Compliance with the Technical Information Requirements of the License

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Add 1 copies
have been sent to PM

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BWRVIP 2009-224

Renewal Rule [10 CFR 54.21]" are also enclosed. This non-proprietary appendix is identical to the enclosed proprietary appendix except that the proprietary information has been deleted.

The BWRVIP expects that when BWRVIP-183 is approved by the NRC staff, the enclosed Appendix C will be included in the "-A" version of BWRVIP-183.

If you have any questions on this subject, please call Bob Geier (Exelon Corporation, BWRVIP Assessment Committee Technical Chairman) at 630.657.3830.

Sincerely,

A handwritten signature in black ink that reads "Rick Libra". The signature is written in a cursive, slightly slanted style.

Rick Libra
Exelon
Chairman, BWR Vessel and Internals Project

CHRISTIAN B. LARSEN
Vice President and
Chief Nuclear Officer

July 27, 2009

Document Control Desk
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Request for Withholding of the following Proprietary Document:

BWRVIP Letter 2009-224. Dated July 27, 2009, from Rick Libra (BWRVIP Chairman) to Document Control Desk (NRC), Transmittal of License Renewal Appendix to "BWRVIP-183: BWR Vessel and Internals Project, Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines"

To Whom It May Concern:

This is a request under 10 C.F.R. §2.390(a)(4) that the U.S. Nuclear Regulatory Commission ("NRC") withhold from public disclosure the information identified in the enclosed Affidavit consisting of the proprietary information owned by Electric Power Research Institute, Inc. ("EPRI") identified above (the "Correspondence"). Proprietary and non-proprietary versions of the Report and the Affidavit in support of this request are enclosed.

EPRI desires to disclose the Correspondence in confidence as a means of exchanging technical information with the NRC. The Correspondence is not to be divulged to anyone outside of the NRC or to any of its contractors, nor shall any copies be made of the Correspondence provided herein. EPRI welcomes any discussions and/or questions relating to the information enclosed.

If you have any questions about the legal aspects of this request for withholding, please do not hesitate to contact me at (650) 855-2329. Questions on the content of the Correspondence should be directed to Randy Stark of EPRI at (650)855-2122.

Sincerely,



AFFIDAVIT

RE: Request for Withholding of the Following Proprietary Document:

BWRVIP Letter 2009-224. Dated July 27, 2009, from Rick Libra (BWRVIP Chairman) to Document Control Desk (NRC), Transmittal of License Renewal Appendix to "BWRVIP-183: BWR Vessel and Internals Project, Top Guide Grid Beam Inspection and Flaw Evaluation Guidelines"

I, CHRISTIAN B. LARSEN, being duly sworn, depose and state as follows:

I am a Vice President and the Chief Nuclear Officer of Electric Power Research Institute, Inc. whose principal office is located at 3420 Hillview Avenue, Palo Alto, California ("EPRI") and I have been specifically delegated responsibility for the above-listed Correspondence that is sought under this Affidavit to be withheld (the "Correspondence"). I am authorized to apply to the U.S. Nuclear Regulatory Commission ("NRC") for the withholding of the Correspondence on behalf of EPRI.

EPRI requests that the Correspondence be withheld from the public on the following bases:

Withholding Based Upon Privileged And Confidential Trade Secrets Or Commercial Or Financial Information:

a. The Correspondence is owned by EPRI and has been held in confidence by EPRI. All entities accepting copies of the Correspondence do so subject to written agreements imposing an obligation upon the recipient to maintain the confidentiality of the Correspondence. The Correspondence is disclosed only to parties who agree, in writing, to preserve the confidentiality thereof.

b. EPRI considers the Correspondence and the proprietary information contained therein (the "Proprietary Information") to constitute trade secrets of EPRI. As such, EPRI holds the Correspondence in confidence and disclosure thereof is strictly limited to individuals and entities who have agreed, in writing, to maintain the confidentiality of the Correspondence. EPRI made a substantial economic investment to develop the Correspondence, and, by prohibiting public disclosure, EPRI derives an economic benefit in the form of licensing royalties and other additional fees from the confidential nature of the Correspondence. If the Correspondence and the Proprietary Information were publicly available to consultants and/or other businesses providing services in the electric and/or nuclear power industry, they would be able to use the Correspondence for their own commercial benefit and profit and without expending the substantial economic resources required of EPRI to develop the Correspondence.

c. EPRI's classification of the Correspondence and the Proprietary Information as trade secrets is justified by the Uniform Trade Secrets Act which California adopted in 1984 and a version of which has been adopted by over forty states. The California Uniform Trade Secrets Act, California Civil Code §§3426 – 3426.11, defines a "trade secret" as follows:

“Trade secret’ means information, including a formula, pattern, compilation, program device, method, technique, or process, that:

(1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and

(2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”

d. The Correspondence and the Proprietary Information contained therein are not generally known or available to the public. EPRI developed the Correspondence only after making a determination that the Proprietary Information was not available from public sources. EPRI made a substantial investment of both money and employee hours in the development of the Correspondence. EPRI was required to devote these resources and effort to derive the Proprietary Information and the Correspondence. As a result of such effort and cost, both in terms of dollars spent and dedicated employee time, the Report is highly valuable to EPRI.

e. A public disclosure of the Proprietary Information would be highly likely to cause substantial harm to EPRI's competitive position and the ability of EPRI to license the Proprietary Information both domestically and internationally. The Proprietary Information and Correspondence can only be acquired and/or duplicated by others using an equivalent investment of time and effort.

I have read the foregoing and the matters stated herein are true and correct to the best of my knowledge, information and belief. I make this affidavit under penalty of perjury under the laws of the United States of America and under the laws of the State of California.

Executed at 3420 Hillview Avenue, Palo Alto, California being the premises and place of business of Electric Power Research Institute, Inc.

July 27, 2009



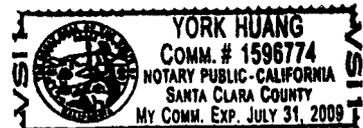
Christian B. Larsen

State of California)
County of Santa Clara)

Subscribed and sworn to (or affirmed) before me on this 27th day of July, 2009, by Christian B. Larsen, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Signature _____

(Seal)



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Appendix C

Top Guide Grid Beam

**Demonstration of Compliance with the Technical Information Requirements
of the License Renewal Rule [10 CFR 54.21]**

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Appendix C Top Guide Grid Beam

Demonstration of Compliance with the Technical Information Requirements of the License Renewal Rule [10 CFR 54.21]

The purpose of Appendix C is to demonstrate that this report provides the necessary information to comply with the technical information requirements pursuant to §54.21(a) and (c), §54.22, and the NRC's findings under §54.29(a) of the license renewal rule [Reference C.8 (1)]. It is intended that the NRC's review and approval of Appendix C will allow utilities the option to incorporate the report and Appendix by reference in a plant-specific integrated plant assessment (IPA) and time-limited aging analysis (TLAA) evaluation. If a license renewal applicant confirms that this report applies to their plant's current licensing basis (CLB) and that the results of the Appendix C IPA and TLAA evaluation are in effect at their plant, then no further review by the NRC of the matters described herein is needed.

C.1 Description of the Top Guide Grid Beams and Intended Functions

The top guide grid structure is a network of square openings sized to laterally support the upper ends of the fuel assemblies. Section 2.1 describes the top guide grid structure.

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C.2 Top Guide Grid Beam Components Subject to Aging Management Review

§54.21(a)(1) of the license renewal rule provides the requirements for identifying components that are subject to aging management review. The top guide grid structure license renewal evaluation boundary includes the subcomponents that are required to accomplish the intended functions described above in Section C.1.

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This report supplements previously published top guide assembly inspection and evaluation guidance contained in BWRVIP-26-A [Reference C.8 (6)]. See BWRVIP-26-A for inspection and evaluation guidance related to top guide assembly components other than the grid structure.

C.3 Management of Aging Effects [§54.21(a)(3)]

§54.21(a)(3) of the license renewal rule requires a demonstration that the effects of aging will be adequately managed so that the intended function will be maintained consistent with the CLB for the period of extended operation.

(a) Description of Aging Effects:

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(b) Assessment of Aging Effects and Programs

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Section 8.2.1 and 8.2.2 describe scope expansion requirements for the BWR/2-5 and BWR/6 designs, respectively.

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C.4 Time Limited Aging Analyses [§54.21(c)(1)]

The six criteria for time limited aging analyses (TLAA) contained in §54.3 were applied to identify TLAAs for the Top Guide assembly. For the purposes of this demonstration, TLAAs are those calculations and analyses that:

1. Involve the top guide grid structure assembly,
2. Consider the effects of aging,
3. Involve time-limited assumptions defined by the current operating term,
4. Were determined to be relevant in making a safety determination,
5. Involve conclusions or provide the basis for conclusions related to the capability of the top guide grid structure assembly to perform its intended function, and,
6. Are incorporated or contained by reference in the CLB.

Calculations involving determination of a fatigue cumulative usage factor for the top guide exist for some plants having internals components designed in accordance with Section III of the ASME

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Boiler and Pressure Vessel Code. These analyses include a 40-year operating life assumption and are considered to be a TLAA for license renewal. These analyses are evaluated on a plant-specific basis by the applicant.

C.5 Exemptions [§54.21(c)(2)]

Exemptions associated with the top guide grid structure that contain TLAA analysis issues will be identified and evaluated for license renewal by individual applicants.

C.6 Technical Specification Changes or Additions [§54.22]

There are no generic changes or additions to the technical specifications associated with the top guide grid structure as a result of this aging management review to ensure that the effects of aging are adequately managed. Justification for plant-specific changes or additions will be provided by the applicant.

C.7 Demonstration that Activities will Continue to be Conducted in Accordance with the CLB [54.29(a)]

Sections C.1, C.2, and C.3 address the requirements of §54.21(a) of the rule. The top guide grid structure components that are subject to aging management review are identified, and it is demonstrated that the effects of aging are adequately managed. Sections C.4 and C.5 address the requirements of §54.21(c) of the rule. Plant-specific TLAAs and exemptions that require evaluation will be evaluated by the applicant. Section C.6 addresses the requirements of §54.22. There are no generic technical specification changes or additions necessary to manage the effects of aging for the top guide grid structure during the period of extended operation. Plant-specific changes or additions will be justified by the applicant.

Therefore, actions have been identified and will be taken by utilities with BWR plants, such that there is reasonable assurance that aging will be managed such that the intended functions of the top guide grid structure will be maintained during the period of extended operation.

C.8 References

- (1) Title 10 of the Code of Federal Regulations, Part 54, *Requirements for License Renewal of Operating Licenses for Nuclear Power Plants*, (60 Federal Register 22461), May 8, 1995.
- (2) Nuclear Energy Institute Report NEI 95-10, Revision 6, *Industry Guideline for Implementing the Requirements of 10 CFR Part 54 the License Renewal Rule*, June 2005.
- (3) Nuclear Energy Institute Report NEI 03-08, Revision 1, *Guideline for the Management of Materials Issues*, April 2007.
- (4) Correspondence 2005-205: "Project No. 704 – Revised Section 4.0 'Consideration of Loose Parts' of BWRVIP-06-A: BWR Vessel and Internals Project, Safety Assessment of BWR

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- Reactor Internals,” EPRI BWRVIP (Eaton) to NRC (Khanna), May 11, 2005.
- (5) BWRVIP-06-A: *BWR Vessel and Internals Project, Safety Assessment of BWR Reactor Internals*, EPRI, Palo Alto, CA: 2002. 1006598.
 - (6) BWRVIP-26-A, *BWR Vessel and Internals Project, BWR Top Guide Inspection and Flaw Evaluation Guidelines*, EPRI, Palo Alto, CA: 2004. 1009946.
 - (7) BWRVIP-100-A, *BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Core Shrouds*, EPRI, Palo Alto, CA: 2006. 1013396.
 - (8) NUREG-1557, *Summary of Technical Information and Agreements from Nuclear Management and Resources Council Industry Reports Addressing License Renewal*, October 1996.
 - (9) General Electric Nuclear Energy Service Information Letter 462, Revision 1 (SIL-462, Rev. 1), *Access Hole Cover Cracking*, March 22, 2001.