

October 11, 2001

Mr. David A. Christian  
Senior Vice President - Nuclear  
Virginia Electric and Power Company  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060

SUBJECT: SURRY POWER STATION UNITS 1 AND 2 RE: ASME SECTION XI,  
INSERVICE INSPECTION (ISI) PROGRAM RELIEF REQUEST (TAC NOS.  
MB2769 and MB2770)

Dear Mr. Christian:

This letter grants the relief you requested from the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code Section XI for Surry Power Stations, Units 1 and 2. The relief relates to alternative requirements for the functional testing of snubbers.

By letter dated August 22, 2001, Virginia Electric and Power Company proposed relief from the requirements of the ASME B&PV Code Section XI to use alternative requirements for the functional testing of snubbers. The alternative requirements proposed are those of Technical Specification (TS) 4.17. The relief proposals were identified as SH-4 for Unit 1 and SH-3 for Unit 2.

The staff concludes that with respect to relief Request SH-4 for Unit 1 and SH-3 for Unit 2, you have presented an adequate justification for your request for relief from the requirements of ASME Code, 1989 Edition, Section XI, with regard to snubber functional testing of Code Class 1, 2, and 3 snubbers. The staff concurs with you that the proposed alternative using TS requirements ensures that the overall level of plant quality and safety has not been, and will not be compromised, and that the completion of Code requirements is considered impractical. In addition, the staff finds that the TS snubber testing requirements provide reasonable assurance of structural integrity. Therefore, the proposed alternative is authorized pursuant to Title 10 of the *Code of Federal Regulations* Section 50.55a(g)(6)(i) for snubber functional testing performed to date for the Surry 1 and 2 third 10-year ISI inspection interval. The relief granted is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

David A. Christian

- 2 -

The staff has completed its evaluation of this request; therefore, we are closing TAC Nos. MB2769 and MB2770.

Sincerely,

*/RA/*

Richard J. Laufer, Acting Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure: Safety Evaluation

cc w/encl: See next page

The staff has completed its evaluation of this request; therefore, we are closing TAC Nos. MB2769 and MB2770.

Sincerely,

**/RA/**

Richard J. Laufer, Acting Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELIEF REQUESTS FOR SNUBBER INSERVICE INSPECTION PROGRAM  
VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION UNITS 1 AND 2  
DOCKET NO. 50-280/281

## 1.0 INTRODUCTION

By letter dated August 22, 2001, Virginia Electric and Power Company (VEPCO, the licensee) requested relief from the functional testing requirements of the 1989 Edition of the American Society of Mechanical Engineers (ASME) Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," IWF-5200 and IWF-5300, and IWA-2110, for Surry Units 1 and 2 (Surry 1 and 2). The submittal contains Relief Request SH-4 for Unit 1 and an identical Relief Request SH-3 for Unit 2.

## 2.0 BACKGROUND

The inservice inspection (ISI) of the ASME Code Class 1, 2, and 3 components is to be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code (ASME Code) and applicable addenda as required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission, pursuant to 10 CFR 50.55a(g)(6)(i). Section 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if: (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) will meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b), 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The applicable edition of Section XI of the ASME Code for the Surry 1 and 2 third 10-year ISI inspection interval is the 1989 Edition.

Pursuant to 10 CFR 50.55a(g)(5), if the licensee determines that conformance with an examination requirement of Section XI of the ASME Code is not practical for its facility, information will be submitted to the Commission in support of that determination and a request

Enclosure

must be made for relief from the ASME Code requirement. After evaluation of the determination, pursuant to 10 CFR 50.55a(g)(6)(i), the Commission may grant relief and/or may impose alternative requirements that are determined to be authorized by law, will not endanger life, property, or the common defense and security, and are otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed.

### 3.0 EVALUATION

ASME Code, 1989 Edition, Section XI, requires inservice testing to be performed on Class 1, 2, and 3 snubbers in accordance with Subsections IWF-5200 and IWF-5300, and the associated snubber testing review performed by the Authorized Nuclear Inservice Inspector (ANII) per IWA-2110.

In its submittal of August 22, 2001, the licensee provided the following account of its understanding of the recent rulemaking requirements with regard to the snubber functional testing:

The Final Rulemaking included in the *Federal Register* dated November 22, 1999 endorsed the 1995 ASME Section XI Code through the 1996 Addenda for use by licensees when performing 10-year Inservice Inspection Program updates. Within the *Federal Register* discussion [62 FR 51389; September 22, 1999], references were made that the new rules, as well as the old, required the testing of snubbers per ASME [Code], Section XI, IWF-5000. This discussion acknowledged that previous *Federal Register* Rulemaking discussions (reference 62 FR 63903, December 3, 1997) on snubber testing may have been confusing with regard to the applicability of 10 CFR 50.55a [on] snubber testing. The discussion in the earlier *Federal Register* Notice (1997) appeared to direct licensees to Technical Specifications for testing requirements for snubbers. The discussion in the 1999 notice, however, directs licensees to follow the requirements of IWF-5000 noting that the requirement has been in effect since 1978.

The staff found the above licensee's account to be reasonable.

The licensee stated that Surry 1 and 2 are currently in the third period of the third 10-year ISI interval. The licensee stated that the Surry ISI Program for the third interval was previously submitted to the NRC with the following statement in section 3.2, "The program does not cover the functional testing of snubbers. Snubbers will be tested to the functional testing requirements described in Technical Specifications." The licensee stated that no relief request was developed by the licensee as none was thought necessary based upon earlier interpretations of the *Federal Register* Rulemaking discussion (reference 57 FR 34666, August 6, 1992), which explicitly stated that 10 CFR 50.55a does not specify requirements for the testing of snubbers. The licensee noted that the *Federal Register* Notice states that requirements for the testing of snubbers are generally governed by plant Technical Specifications.

The licensee stated that the Class 1, 2, and 3 snubbers of Surry 1 and 2 have been functionally tested as required by plant Technical Specification 4.17. Technical differences between the Code and Technical Specifications requirements are minor (e.g., size of sample populations, the Technical Specifications has a larger initial sample for testing, additional examination

requirements as a result of failures are different, but accomplish the same purpose), and the testing being performed continues to assure component operability. In addition, testing results were reviewed as required by the plant quality assurance program. However, there was no ANII involvement since none was thought necessary.

The licensee stated that given the direct reference to Article IWF-5000 in the 1999 *Federal Register* Notice, a relief request from Code requirements became necessary to permit the functional testing requirements of the Technical Specifications to serve as the sole requirement for snubber testing performed to date for the Surry 1 and 2 third 10-year ISI interval.

In lieu of the Code requirements specified in Subsections IWF-5200 and IWF-5300 for snubber functional testing, and IWA-2110 concerning the ANII review of snubber testing results, the licensee requested that functional testing requirements of Surry Technical Specification 4.17 be followed.

The staff has reviewed the licensee's submittal of August 22, 2001, and determined that the alternative testing requirements of the Technical Specifications meet the intent of the requirements of ASME Code, Section XI. Since no IWF-5000 snubber testing has been performed, completion of the referenced Code requirements is considered impractical. In addition, the staff finds that the Technical Specifications snubber testing requirements provide reasonable assurance of structural integrity. Therefore, pursuant to 10 CFR 50.55a(g)(6)(i), the licensee's relief requests are approved for the snubber functional testing performed to date for the Surry 1 and 2 third 10-year ISI inspection interval.

#### 4.0 CONCLUSION

The staff concludes that with respect to Relief Request SH-4 for Unit 1 and SH-3 for Unit 2, the licensee has presented an adequate justification for its request for relief from the requirements of ASME Code, 1989 Edition, Section XI, with regard to snubber functional testing of Code Class 1, 2, and 3 snubbers. The staff concurs with the licensee that the proposed alternative using Technical Specification requirements ensures that the overall level of plant quality and safety has not been, and will not be, compromised, and that the completion of Code requirements is considered impractical. In addition, the staff finds that the Technical Specification snubber testing requirements provide reasonable assurance of structural integrity. Therefore, the proposed alternative is authorized pursuant to 10 CFR 50.55a(g)(6)(i) for the snubber functional testing performed to date for the Surry 1 and 2 third 10-year ISI inspection interval. The relief granted is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

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Date: October 11, 2001

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Surry Power Station

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