



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609

June 19, 2000

10 CFR 50.55a(a)(3)(ii)

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

In the Matter of ) Docket No. 50-260  
Tennessee Valley Authority )

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 2 - AMERICAN SOCIETY  
OF MECHANICAL ENGINEERS (ASME) SECTION XI, INSERVICE  
INSPECTION PROGRAM, SECOND TEN-YEAR INSPECTION INTERVAL,  
REQUEST FOR RELIEF 2-ISI-11 (TAC NO. MA9055)**

In accordance with 10 CFR 50.55a(a)(3)(ii), TVA is requesting relief from specified inservice inspection requirements in Section XI of the ASME Boiler and Pressure Vessel Code. The enclosure to this letter contains request for relief 2-ISI-11 for NRC review and approval.

TVA is requesting relief from the ASME Section XI Code, 1986 Edition (no Addenda) requirement to disassemble an operable valve for the sole purpose of performing a visual examination (VT-3) of the internal pressure retaining boundary surface. The examinations are limited to one valve from each group of valves that are of the same type/design (such as globe, gate or check valve) and manufacturing method, and that perform similar functions in the system. TVA believes that disassembly of the valve for the sole purpose of the VT-3 surface examination is unjustified. The possibility of additional wear or damage to the internal surfaces of the valves occurring during disassembly along with excessive levels of radiation exposure to plant personnel to meet the Code requirements would result in hardship and unusual difficulty without a compensating increase in the level of quality and safety.

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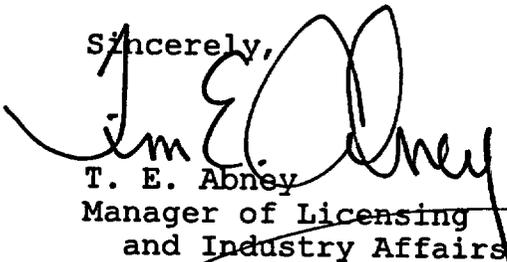
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As an alternative, TVA is proposing that when a valve from a particular valve group is disassembled for maintenance or repair purposes, the internal pressure boundary surface of the valve body will be examined (VT-3) to meet the ASME Section XI requirements for that group of valves. This alternative is consistent with the requirements of later editions of the ASME Section XI Code, i.e., the 1995 Edition with the 1996 Addenda, which was incorporated by reference in 10 CFR 50.55a, effective November 22, 1999.

The enclosed request for relief is consistent with alternate examination requirements accepted for use at Nine Mile Point Nuclear Station by NRC letter to Niagra Mohawk Power Corporation, dated March 29, 2000.

TVA requests review of this request for relief by January 31, 2001, to support the Unit 2 Cycle 11 (Spring 2001) refueling outage. There are no commitments contained in this letter. If you have any questions, please telephone me at (256) 729-2636.

Sincerely,



T. E. Abney  
Manager of Licensing  
and Industry Affairs

Enclosure

cc: See Page 3

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Enclosure

cc: (Enclosure):

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ENCLOSURE

TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNIT 2  
AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) SECTION XI  
INSERVICE INSPECTION (ISI) PROGRAM  
(SECOND TEN-YEAR INSPECTION INTERVAL)

REQUEST FOR RELIEF 2-ISI-11

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(See Attached)

TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNIT 2  
ASME SECTION XI INSERVICE INSPECTION PROGRAM  
(SECOND TEN-YEAR INSPECTION INTERVAL)

REQUEST FOR RELIEF 2-ISI-11

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Executive Summary: In accordance with 10 CFR 50.55a(a)(3)(ii), TVA is requesting relief from inservice inspection requirements of the 1986 Edition, no addenda, Section XI of the ASME Boiler and Pressure Vessel Code for valve bodies exceeding four inch nominal pipe size (NPS 4). The examination requirement is a visual (VT-3) of the internal pressure boundary surface of the valve body. The examination may be performed on the same valve selected for volumetric examination of welds; and examinations are limited to at least one valve within each group of valves that are of the same size, type/design (such as globe, gate, or check valves), and manufacturing method, and that perform similar functions in the system (such as containment isolation and system overpressure protection).

The ASME Section XI Code, 1986 Edition, no Addenda, requires that certain valves be disassembled for the purpose of performing VT-3 examinations of the internal surface of the valve body. Disassembly of the valves for the sole purpose of performing a visual examination would result in a hardship and unusual difficulty without a compensating increase in the level of quality and safety.

As an alternative, TVA proposes to perform a visual (VT-3) examination on valves that are disassembled for maintenance and/or repair. Furthermore, later editions of the ASME Section XI Code, notably the 1995 Edition with the 1996 Addenda, which was incorporated by reference in 10 CFR 50.55a, effective November 22, 1999, requires a visual examination only when a valve is disassembled for maintenance, repair, or volumetric examination.

This request for relief is consistent with alternate examination requirements accepted for use at Nine Mile Point Nuclear Station by NRC letter to Niagra Mohawk Power Corporation, dated March 29, 2000.

Unit: Two (2)

System(s): Valves in Feedwater (FW), Recirculation (RECIR), Residual Heat Removal (RHR), Control Rod Drive (CRD), Core Spray (CS), Reactor Water Clean Up (RWCU), Reactor Core Isolation Cooling (RCIC), and High Pressure Coolant Injection (HPCI) Systems

Components: Valve Bodies, Exceeding NPS 4

ASME Code Class: ASME Code Class 1

Section XI Edition: 1986 Edition, no Addenda

Code Table: IWB-2500-1

Examination Category: B-M-2

Examination Item Number: B12.50, Valve Body, Exceeding NPS 4

Code Requirement: The 1986 Edition, no Addenda, ASME Section XI, Table IWB-2500-1, Examination Category B-M-2, Item B12.50, requires a Visual (VT-3) examination of the internal surface of valve bodies. The examination may be performed on the same valves selected for volumetric examination of welds; and examinations are limited to at least one valve within each group of valves that are of the same size, type/design (such as globe, gate, or check valves), and manufacturing method, and that perform similar functions in the system (such as containment isolation and system overpressure protection).

(Note: This implies, that as a minimum, the internal surfaces of one valve of each group must receive a visual (VT-3) examination requiring disassembly of the valve for the

sole purpose of performing the visual examination if not disassembled for other purposes).

**Code Requirements  
From Which Relief  
Is Requested:**

Relief is requested from the requirement to disassemble valves for the sole purpose of performing a visual (VT-3) examination of the internal surface of the valve body.

**List Of Items  
Associated With**

**The Relief Request:** TVA has classified the BFN Unit 2 Class 1 Valves, NPS 4 and larger, into 21 Groups.\* Table IWB-2500-1 requires that one valve per group be examined each interval. Listed below are the Groups and valves contained in each Group that were not disassembled for maintenance and/or repair and did not receive a visual (VT-3) examination:

<u>Group</u>	<u>Valve No.</u>	<u>Size</u>	<u>System</u>	<u>Mat'l Spec.</u>	<u>Valve Type</u>
2	HCV-3-66	24"	FW	A-216 WCB	Gate
2	HCV-3-67	24"	FW	A-216 WCB	Gate
3	FCV-68-01	28"	RECIR	A-351 CF8	Gate
3	FCV-68-77	28"	RECIR	A-351 CF8	Gate
4	FCV-68-03	28"	RECIR	A-351 CF8	Gate
4	FCV-68-79	28"	RECIR	A-351 CF8	Gate
5	FCV-68-33	22"	RECIR	A-351 CF8	Gate
5	FCV-68-35	22"	RECIR	A-351 CF8	Gate
8	HCV-74-69	24"	RHR	A-351 CF8M	Gate
8	HCV-74-55	24"	RHR	A-351 CF8M	Gate
11	HCV-74-49	20"	RHR	A-351 CF8M	Gate
13	HCV-75-27	12"	CS	A-351 CF8M	Gate
13	HCV-75-55	12"	CS	A-351 CF8M	Gate
16	69-500	6"	RWCU	A-351 CF8M	Gate
18	FCV-71-40	6"	RCIC	A-216 WCB	Check
21	FCV-74-48	20"	RHR	A-351 CF8M	Gate

\*Table IWB-2500-1, Category B-M-2, Item B12.50, footnote (3) describes how groups are established.

**Basis For Relief  
Request:**

Disassembly of valves for the sole purpose of performing a VT-3 examination of the internal pressure retaining boundary imposes undue hardship without a compensating increase in the level of quality and safety and subjects plant

personnel to unnecessary radiation exposure. Also, the NRC Staff has endorsed the alternative of examining valve internals only when the valves are disassembled for maintenance, repair, or for volumetric examination by approving the ASME Section XI Code, 1995 Edition with the 1996 Addenda, which was incorporated by reference in 10 CFR 50.55a effective November 22, 1999.

Alternate Examination:

TVA will perform a visual (VT-3) examination of at least one valve within each group of valves when the valves are disassembled for maintenance and/or repair in accordance with the ASME Section XI Code, the 1995 Edition with the 1996 Addenda. (Note: BFN Unit 2 has no valve bodies that contain welds requiring disassembly for volumetric examination).

In addition, the valves receive a visual (VT-2) examination for leakage when the system pressure tests of ASME Section XI, IWA-5000 are conducted in accordance with the requirements of Table IWB-2500-1, Category B-P components.

Justification For The Granting Of Relief:

Disassembling valves for the sole purpose of performing a VT-3 examination of the internal pressure retaining boundary imposes undue hardship without a compensating increase in the level of quality and safety and subjects plant personnel to unnecessary radiation exposure. The possibility of additional wear or damage to the internal surfaces of the valves occurring during disassembly along with excessive levels of radiation exposure to plant personnel to meet the Code requirements would result in hardship and unusual difficulty without a compensating increase in the level of quality and safety. Also, the NRC Staff has endorsed the alternative of examining valve internals only when the valves are disassembled for maintenance, repair or for volumetric examination by accepting the

requirements of the ASME Section XI Code, 1995 Edition with the 1996 Addenda, which was incorporated by reference in 10 CFR 50.55a effective November 22, 1999.

The proposed alternative to perform the VT-3 examination when valves are disassembled for maintenance and/or repair (BFN Unit 2 has no valve bodies that contain welds requiring disassembled for volumetric examination) will provide an acceptable level of quality and safety.

At least one valve within each group of valves shall be VT-3 examined when the valves are disassembled for maintenance and/or repair (BFN Unit 2 has no valve bodies that contain welds requiring disassembly for volumetric examination). Also, the valves receive a visual, VT-2 examination for leakage when the system pressure tests of ASME Section XI, IWA-5000 are conducted in accordance with the requirements of Table IWB-2500-1, Category B-P components

Implementation  
Schedule:

This request for relief is applicable to the Second Ten-Year ASME Section XI Inservice Inspection Interval for BFN Unit 2.