

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8210130290      DOC. DATE: 82/10/04      NOTARIZED: NO      DOCKET #  
 FACIL: 50-269 Oconee Nuclear Station, Unit 1, Duke Power Co.      05000269  
 50-270 Oconee Nuclear Station, Unit 2, Duke Power Co.      05000270  
 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co.      05000287

AUTH. NAME      AUTHOR AFFILIATION  
 TUCKER, H. B.      Duke Power Co.  
 RECIPIENT NAME      RECIPIENT AFFILIATION  
 DENTON, H. R.      Office of Nuclear Reactor Regulation, Director  
 STOLZ, J. F.      Operating Reactors Branch 4

SUBJECT: Requests relief from inservice insp requirements  
 (hydrostatic) of Section XI of ASME Boiler & Pressure Vessel  
 Code.

DISTRIBUTION CODE: A047S      COPIES RECEIVED: LTR   1   ENCL   1   SIZE:   20    
 TITLE: OR Submittal: Inservice Inspection/Testing

NOTES: AEOD/Ornstein:1cy.      *w/check \$4800.00.*      05000269  
 AEOD/Ornstein:1cy.      05000270  
 AEOD/Ornstein:1cy.      05000287

	RECIPIENT			RECIPIENT		
	ID CODE/NAME	COPIES		ID CODE/NAME	COPIES	
	NRR ORB4 BC 01	LTR	ENCL	NRR TAM,P	LTR	ENCL
INTERNAL:	ELD/HDS4	1	0	NRR/DE/MEB	15	1
	NRR/DE/MTEB 14	1	1	<u>REG FILE</u>	04	1
	RGN2	1	1			
EXTERNAL:	ACRS 16	10	10	LPDR 03	1	1
	NRC PDR 02	1	1	NSIC 05	1	1
	NTIS	1	1			
NOTES:		1	1			

DUKE POWER COMPANY

P.O. BOX 33189  
CHARLOTTE, N.C. 28242

TELEPHONE  
(704) 373-4531

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

October 4, 1982

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Mr. John F. Stolz, Chief  
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287

Dear Sir:

Pursuant to 10 CFR 50, §50.55a, please find attached a request for relief from the inservice inspection requirements of Section XI of the ASME Boiler and Pressure Vessel Code. The attached requests concern inservice inspections at Oconee Units 1, 2, and 3 being performed during the current 10-year interval.

These requests for relief have been determined to consist of one Class III and two Class I license fees. Accordingly, please find attached a check in the amount of \$4800.

Very truly yours,

*H. B. Tucker / HBT*

Hal B. Tucker

JFN/php  
Attachment

*A047*

*w/check:  
\$ 4800.00*

8210130290 821004  
PDR ADOCK 05000269  
PDR

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

A. 1. Component for Which Relief Is Requested:

- (a) Name and Number: For Unit 1, the piping from the flanges on the #1 seal leak off, the #1 seal bypass, the seal injection and seal return lines to the Reactor Coolant Pump seal packages (PO-100A-1, K-7).
- (b) Function: Provides a flow path for seal injection and return water for the Unit 1 Reactor Coolant Pumps.
- (c) ASME Section XI Code Class: Class 3
- (d) Valve Category: N/A

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWD-5000

3. Basis for Requesting Relief:

Unit 1 Reactor Coolant Pump seal packages cannot be hydrostatically tested because there is no way to block water from going into the Reactor Coolant System; therefore, there is no boundary for pressurization.

4. Alternate Examination:

Alternate NDE is not required for Class 3 piping. The piping will be inspected under normal operating conditions prior to startup after refueling.

5. Implementation Schedule:

The inspection will be performed prior to startup after the next refueling outage for Unit 1 (Cycle 8).

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

B.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 1, 2, and 3, the piping between valves RC-4 and RC-66 (PO-101A, J-5).

(b) Function:

Pressurizer relief line.

(c) ASME Section XI Code Class:

Class 1

(d) Valve Category:

EMO valve and relief valve

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWA-5000, Subsection IWB.

3. Basis for Requesting Relief:

Personnel safety requirements call for valve RC-4 to be closed during mini-hydro inspections.

4. Alternate Examination:

Unit 1 - Welds have been ultrasonically tested.

Unit 2 - No alternate inspection will be performed.

Unit 3 - Welds have been ultrasonically tested.

Tests were performed pursuant to Article IWB-2411 of the ASME Code. For Unit 2 the 25% inspections required by IWB-2411 did not include these welds.

5. Implementation Schedule:

These inspections have been completed for Units 1 and 3, and are not required on Unit 2.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

C. 1. Component for Which Relief Is Requested:

(a) Name and Number: For Units 1 and 2, the Low Pressure Service Water Pump Suction piping from valves CCW-72 and CCW-73 to the inlet of the A, B, and C LPSW pump including all vent valves, drain valves, and inline valves (PO-124A).

(b) Function:

Provide suction from the CCW system to the LPSW system.

(c) ASME Section XI Code Class:

Class 3

(d) Valve Category:

N/A

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWD-5000.

3. Basis for Requesting Relief:

Both units would have to be shut down and defueled to perform this hydrostatic test since this portion of the system is shared by both units and is required to be operable for decay heat removal or component cooling or both except as described above.

4. Alternate Examination:

Piping will be inspected under normal operating conditions.

5. Implementation Schedule:

Alternate inspections will be completed prior to or during the next Unit 1 refueling outage.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

D.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 1 and 2, the Low Pressure Service Water Pump discharge piping from the A, B, and C LPSW pumps bounded by the following valves:

LPSW-6	LPSW-67	LPSW-87	2LPSW-347
LPSW-16	LPSW-68	LPSW-139	1LPSW-348
LPSW-19	LPSW-69	LPSW-140	2LPSW-348
LPSW-22	LPSW-70	LPSW-206	1LPSW-43
LPSW-27	LPSW-71	1LPSW-136	2LPSW-44
LPSW-30	LPSW-72	2LPSW-136	HPSW-4
LPSW-35	LPSW-85	1LPSW-347	HPSW-7

This includes the LP packing lines to the pumps and all vent and drain valves within these boundaries. (PO-124A, PO-124B, PO-1158).

(b) Function:

Provides cooling water to the following equipment:

HPI motor coolers  
Unit 1 and 2 Emergency feedwater pump cooling water jackets  
LPI decay heat removal coolers  
Reactor Building Component Coolers

(c) ASME Section XI Code Class:

Class 3

(d) Valve Category:

N/A

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWD-5000.

3. Basis for Requesting Relief:

Both units would have to be shut down and defueled to perform this hydrostatic test since this portion of the system is shared by both units and is required to be operable for decay heat removal or component cooling or both except as described above.

4. Alternate Examination:

Piping will be inspected under normal operating conditions.

5. Implementation Schedule:

Alternate inspections will be completed prior to or during the next Unit 1 refueling outage.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

E.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 1, 2, and 3, the piping from the discharge flanges on the A, B, and C HPI pumps to discharge valves HP-106, HP-110, HP-114, LWD-339, LWD-341, and LWD-343 through HP-251 including the discharge block orifices and to HP-252, and from HP-249 through the block orifice to HP-250, and from HP-247 to HP-248. (PO-101-A; G-4, E-4, and B-4).

(b) Function:

Provides flow from the HPI pumps to seal injection and auxiliary spray lines.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Manual valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Installation of required flanges at the discharge of the A, B, and C HPI pumps would require cutting and removing HPI piping and hanger restraints.

4. Alternate Examination:

The piping will be inspected at pump discharge pressure (~3,000 psig) rather than the hydrostatic test pressure (3813 psig), when the HPI pumps are run for their Quarterly Performance Test. No other NDE is required in accordance with Article IWC, Paragraph 1220D.

5. Implementation Schedule:

This inspection will be conducted prior to the next refueling outage for the respective units.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

F. 1. Component for Which Relief Is Requested:

(a) Name and Number: For Units 1, 2, and 3, piping between valves LP-1 and LP-2. (PO-102A, E-3)

(b) Function:

Decay heat line from the Reactor Coolant System.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Electric motor operated valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

There are no vent or drain lines in this piping run to connect to hydrostatic test equipment.

4. Alternate Examination:

These welds will be Penetrant Tested.

5. Implementation Schedule:

The alternate inspections will be done during the next refueling outage for each unit.



Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

G.1. Component for Which Relief Is Requested:

(a) Name and Number: For Units 1, 2, and 3, piping bounded valves CF-13, CF-14, CF-31, LP-48, and LP-77 (PO-102A, H-4). Piping bounded valves CF-9, CF-11, CF-12, LP-47, and LP-76 (PO-102A, H-2).

(b) Function:

Prevents over-pressurization of the LPI system and core flood tanks.

(c) ASME Section XI Code Class:

Class 1

(d) Valve Category:

Check valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 edition through Summer 1975 Addenda, Article IWB-5000.

3. Basis for Requesting Relief:

Check valve arrangement prevents pressurization above RCS pressure.

4. Alternate Examination:

Ultrasonic Testing performed in accordance with Article IWB, Paragraph 2411 of the ASME code has been completed and has shown no indication of piping degradations.

5. Implementation Schedule:

Inspections completed.

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

H.1. Component for Which Relief Is Requested:

(a) Name and Number: For Units 1, 2, and 3, piping between valves RC-17 and RC-18, valves RC-22 and RC-23, and valves RC-41 and RC-42 (PO-100A, E-1, E-14, and H-14).

(b) Function:

Steam generator and pressurizer drain lines.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Manual valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article JWD-5000.

3. Basis for Requesting Relief:

There is no point in these piping runs to connect to hydrostatic test equipment.

4. Alternate Examination:

This piping will be examined during mini-hydrostatic at reduced pressure. This piping is exempt from volumetric testing per Article IWC. Paragraph 1220D of the ASME Code.

5. Implementation Schedule:

This piping will be inspected during the mini-hydrostatic test of the next refueling outage for Units 1 and 2. This inspection was performed for Unit 3 during the 1982 refueling outage.

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

I.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 1, 2, and 3, auxiliary spray line suction piping between valves LP-45 and LP-46, including vent line to LP-79 (PO-100A, J-5)

(b) Function:

Provide auxiliary supply to the pressurizer from the HPI system.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Manual valve and check valve

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Check valve arrangement prevents pressurization to hydrostatic test pressure.

4. Alternate Examination:

This piping will be inspected under normal system conditions during a mini-hydrostatic test.

5. Implementation Schedule:

The inspections will be performed during the next refueling outage for Units 1 and 2. This inspection was performed for Unit 3 during the 1982 refueling outage.

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

J.1. Component for Which Relief Is Requested:

- (a) Name and Number: For Units 1, 2, and 3, piping between valves SF-43 and SF-44 (PO-104A, G-10)
- (b) Function: LPI pump suction line from Spent Fuel Pool.
- (c) ASME Section XI Code Class:
- (d) Valve Category:  
Manual valve and check valve.

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWD-5000.

3. Basis for Requesting Relief:

The check valve and piping arrangement and design do not provide a connection point for hydrostatic test equipment.

4. Alternate Examination:

This piping will be inspected at the normal operating pressure of the Spent Fuel Pool System by opening SF-43 and allowing piping to see spent fuel pool pressure.

5. Implementation Schedule:

The alternate inspections will be completed prior to or during the next refueling outage for each unit.

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

K.1. Component for Which Relief Is Requested:

- (a) Name and Number:  
For Units 1, 2, and 3, the piping between valves LP-103 and LP-104 (PO-102A, D-1).
- (b) Function:  
Boron dilution valves
- (c) ASME Section XI Code Class:  
Class 1
- (d) Valve Category:  
Electric-motor operated valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

There is no point in this piping run to connect to hydrostatic test equipment.

4. Alternate Examination:

This piping will be inspected during a mini-hydrostatic test at 1.01 x operating system pressure. This piping is exempt from alternate NDE per Article IWC-1220D of the ASME Code.

5. Implementation Schedule:

The inspection will be completed during the next refueling outage for Units 1 and 2. The inspection has been completed during the current refueling outage on Unit 3.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

L. 1. Component for Which Relief Is Requested:

- (a) Name and Number: For Units 1, 2, and 3, piping bounded by valves CF-2, CF-13, and CF-26 (PO-102A, H-4). Piping bounded by valves CF-1, CF-11, and CF-24 (PO-102A, H-2).
- (b) Function:  
Core flood lines to reactor vessel
- (c) ASME Section XI Code Class:  
Class 2
- (d) Valve Category:  
Manual valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Check valve arrangement does not allow pressurization to hydrostatic test pressure.

4. Alternate Examination:

Ultrasonic Testing of two welds will be performed.

5. Implementation Schedule:

These inspections will be completed during the next refueling outage for each unit.

Duke Power Company  
Oconee Nuclear Station

Request for Relief from  
Inservice Inspection Requirements (Hydrostatic).

M.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Unit 1, piping between valves 1CCW-104 and 1CCW-105 (PO-115A, J-8).  
For Unit 2, piping between valves 2CCW-112 and 2CCW-113 (PO-115A, J-8).  
For Unit 3, piping between valves 3CCW-120 and 3CCW-121 (PO-115A, J-8).

(b) Function:

Auxiliary service water to emergency feedwater line connection piping  
(All units).

(c) ASME Section XI Code Class:

Class 3

(d) Valve Category:

Manual valve and check valve

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through  
Summer 1975 Addenda, Article IWD-5000.

3. Basis for Requesting Relief:

The check valve and piping arrangement and design do not provide a  
connection point for hydrostatic test equipment.

4. Alternate Examination:

The welds in this piping run will be Magnetic Particle Tested.

5. Implementation Schedule:

Units 1 and 2 will be inspected prior to or during the next refueling outage.  
Unit 3 has been inspected during the current refueling outage.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

N. 1. Component for Which Relief Is Requested:

- (a) Name and Number: For Units 1, 2, and 3, piping bounded by valves LP-17, LP-48, and LP-62 (PO-102A, G-5); and piping bounded by valves LP-18, LP-43, LP-47 and LP-63 (PO-102A, H-1).
- (b) Function:  
Low Pressure Injection lines to Reactor Coolant System
- (c) ASME Section XI Code Class:  
Class 2
- (d) Valve Category:  
Electric Motor Operated valve, Manual Valve, and Check Valve.

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Check valve arrangement does not allow pressurization to hydrostatic test pressure.

4. Alternate Examination:

Ultrasonic testing will be performed on one weld for Units 1 and 2, and two welds for Unit 3.

5. Implementation Schedule:

These inspections will be completed during the next refueling outage for Units 1 and 3. This inspection has been completed for Unit 2.



Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

0.1. Component for Which Relief Is Requested:

(a) Name and Number:

System test temperature requirements

(b) Function:

System hydrostatic tests to be conducted at a test temperature not less than 100°F.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

N/A

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000, Paragraph IWC-5220(a).

3. Basis for Requesting Relief: The fracture toughness requirements were not specified for these systems at Oconee Nuclear Station. The ASME Code 1980 Edition, through Winter 1980 Addenda, allows the owner to determine acceptable hydrostatic test temperature in these cases. Duke Power Company is in the process of converting to the 1980 Edition of the ASME Code and is requesting relief until implementation is completed.

4. Alternate Examination:

Minimum hydrostatic test of 50°F has been determined to be acceptable by Duke Power Company.

5. Implementation Schedule:

This change will be implemented for affected systems.

Duke Nuclear Station  
Request for Relief from  
Service Inspection Requirements (Hydrostatic)

P. 1. Component for Which Relief Is Requested:

(a) Name and Number:

For Unit 2, the High Pressure Injection System discharge piping  
(PO-101A-2, PO-101B-2).

(b) Function:

Provides seal injection and makeup flow to the Reactor Coolant System

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

N/A

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through  
Summer 1975 Addenda, Article IWC-5000, Paragraph IWC-5220.

3. Basis for Requesting Relief: The hydrostatic test of this piping was conducted at 1.1885 times the system design pressure (3625 psig) due to a pressure gage error identified after test completion. The ASME Code requirement specifies this test be performed at 1.25 times the system design pressure (3813 psig). Duke Power Company's design evaluation indicates a maximum attainable pressure in this piping of 3300 psig resulting from design events.

4. Alternate Examination:

The hydrostatic test performed is considered satisfactory for this piping.

5. Implementation Schedule:

N/A

Duke Power Company

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

Q.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 2 and 3, piping between valves HP-62 and HP-63.

(b) Function:

Provides makeup from letdown system to HPI pump suction.

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Manual valve and check valve.

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Check valve and piping arrangement and design does not allow pressurization to hydrostatic test pressure.

4. Alternate Examination:

Penetrant Test will be performed on these welds.

5. Implementation Schedule:

These inspections will be performed during the next refueling outage for each unit.

Duke Power Company  
Oconee Nuclear Station  
Request for Relief from  
Inservice Inspection Requirements (Hydrostatic)

R.1. Component for Which Relief Is Requested:

(a) Name and Number:

For Units 1, 2, and 3, Reactor Vessel O-Ring pressure line and drain to Reactor Building normal sump (PO-100A, G-7 and G-8).

(b) Function:

Provides indication of reactor vessel seal O-Ring leakage

(c) ASME Section XI Code Class:

Class 2

(d) Valve Category:

Manual valves

2. Reference Code Requirement That Has Been Determined to Be Impractical:

ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition through Summer 1975 Addenda, Article IWC-5000.

3. Basis for Requesting Relief:

Hydrostatic testing of this piping exceeds the maximum differential pressure of this O-Ring and testing could cause damage to the O-Ring. The O-Rings have a maximum differential pressure of 400 psig, whereas the hydrostatic test would impose a differential pressure of 3125 psig and, thus, exceed the O-Ring limit.

4. Alternate Examination:

Piping is exempt from additional NDE pursuant to Article IWC-1220(d) of the ASME Code; thus, no additional NDE will be performed.

5. Implementation Schedule:

N/A