UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

EVALUATION OF RELIEF REQUEST

OCONEE NUCLEAR STATION, UNITS 1, 2 AND 3

INSERVICE INSPECTION PROGRAM

DOCKETS NOS. 50-269, 50-270 AND 50-287

I. INTRODUCTION

By letter dated October 4, 1982, Duke Power Company (the licensee) requested relief from specific requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through Summer 1975 Addenda (the Code), that are mandated for the Oconee Nuclear Station pursuant to 10 CFR 50.55a. The licensee subsequently revised and supplemented the initial request for relief by letters dated November 23, 1982, February 17, 1983, April 20, 1983 and July 6, 1983. This report provides a safety evaluation of the licensee's requests and our basis for approval or denial of each request pursuant to 10 CFR 50.55a.

II. BACKGROUND

In compliance with 10 CFR 50.55a, the licensee has committed to subject the pressure retaining components of the three Oconee Nuclear Station Units to the system pressure tests required by Articles IWB-5000, IWC-5000, or IWD-5000 of Section XI of the Code. These tests, for ASME Code Class 1, 2, and 3 components, are defined in Article IWA-5000 of the Code. The licensee has determined that the requirement for specified (components) piping runs are not practical and has proposed alternate methods for examining this piping's leak integrity.

III. EVALUATION OF RELIEF REQUESTS

The licensee has requested written relief from an examination requirement that he has determined to be impractical in accordance with paragraph 10 CFR 50.55a(g)(6)(i). We have evaluated the information in the referenced letters and have determined that the examination requirement, from which relief is requested, is impractical.

The following paragraphs discuss details of the specific relief requests.

A. Component: 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). This piping provides a flow path for seal injection and return water for the Unit 1 Reactor Coolant Pumps.

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

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.

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

B. Component: for Units 1, 2, and 3, the pressurizer relief line piping between valves RC-4 and RC-66 (PO-101A, J-5).

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

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

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 one of the two welds involved in the modification will be ultrasonic inspected during the next outage. These inspections have been completed for Units 1 and 3.

C. Component: 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 and boundaries at HPSW-4 and HPSW-7 (PO-124A-1) (PO-124C-1). This piping is used to provide suction from the CCW system to the LPSW system.

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

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.

Alternate Examination: Piping will be inspected under normal operating conditions. Alternate inspections will be completed prior to or during the next Unit 1 refueling outage.

D. Component: 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	LPSW-37
LPSW-19	LPSW-69	LPSW-140	LPSW-80
LPSW-22	LPSW-70	LPSW-206	
LPSW-27	LPSW-71	1LPSW-136	
LPSW-30	LPSW-72	2LPSW-136	
LPSW-35	LPSW-85	1LPSW-347	

This includes the LP packing lines to the pumps and all vent and drain valves within these boundaries. (PO-124A, PO-124B, PO-1158). The piping provides cooling water to the following equipment: HPI motor coolers, Units 1 and 2 Emergency feedwater pump cooling water jackets, and Reactor Building Component Coolers.

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

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.

Alternate Examination: Piping will be inspected under normal operating conditions. This inspection will be completed prior to or during the next Unit 1 refueling outage.

E. Component: 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). The piping provides flow from the HPI pumps to seal injection and auxiliary spray lines.

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

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.

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 Paragraph IW-1220(d). This inspection will be conducted prior to the next refueling outage for the respective units.

F. Component: For Units 1, 2 and 3, piping between valves LP-1 and LP-2 (PO-102A, E-3). This is the decay heat line from the Reactor Coolant System.

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

Basis for Requesting Relief: There are no vent or drain lines in this piping run to connect to hydrostatic test equipment.

Alternate Examination: These welds will be ultrasonic tested. The alternate inspections will be done during the next refueling outage for each unit.

G. Component: 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). This piping system is used to prevent over-pressurization of the LPI system and core flood tanks.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization above RCS pressure.

Alternate Examination: Ultrasonic testing performed in accordance with Subarticle IWB-2400, Paragraph 2411 of the ASME Code has been completed and has shown no indication of piping degradations.

H. Component: 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). These lines are steam generator and pressurizer drain lines one inch diameter.

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

Basis for Requesting Relief: There is no point in these piping runs to connect to hydrostatic test equipment.

Alternate Examination: There is a total of six (6) welds between these valves. The welds were liquid penetrant examined during construction. Unit 1 welds will be liquid penetrant examined during the 1983 outage. Similar welds in Units 2 and 3 will be examined in like manner during the next scheduled refueling outage.

I. Component: 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). This piping will provide auxiliary supply to the pressurizer from the HPI system.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization to hydrostatic test pressure.

Alternate Examination: All welds in the line section consist of socket welds 1" to 1" diameter. Twenty-five (25) percent of the welds within these boundaries will have surface examinations performed (PT). The inspections will be performed during the next refueling outage for Units 1, 2, and 3.

J. Component: For Units 1, 2, and 3, piping between valves SF-43 and SF-44 (PO-104A, G-10). This piping will take LPI pump suction from the Spent Fuel Pool.

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

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

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

L. Component: 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).

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

Basis for Requesting Relief: Check valve arrangement does not allow pressurization to hydrostatic test pressure.

Alternate Examination: Welds which were not radiographed during construction will be volumetrically examined to establish baseline data. Ultrasonic examination will be performed on two welds which had been radiographed during construction. These inspections will be completed during the next refueling outage for each unit.

M. Component:

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).

This piping provides auxiliary service water to emergency feedwater line connection piping (Units 1, 2 and 3).

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

Basis for Requesting Relief:

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

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

N. Component: 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). These pipes are a part of the Low Pressure Injection lines to Reactor Coolant System.

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

Basis for Requesting Relief: Check valve arrangement does not allow pressurization to hydrostatic test pressure.

Alternate Examination: Ultrasonic testing will be performed on two welds for Units 1 and 2, and two welds for Unit 3. These inspections will be completed during the next refueling outage for Units 1 and 3. This inspection has been completed for Unit 2.

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

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

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.

Alternate Examination: Minimum hydrostatic test of 50°F has been determined to be acceptable by Duke Power Company. This change will be implemented for affected systems.

P. Component: For Unit 2, the High Pressure Injection System discharge piping (PO-101A-2, PO-101B-2). The piping provides seal injection and makeup flow to the Reactor Coolant System.

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

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.

Alternate Examination: The hydrostatic test performed is considered satisfactory for this piping.

Q. Component: For Units 2 and 3, piping between valves HP-62 and HP-63. It provides makeup from letdown system to HPI pump suction.

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

Basis for Requesting Relief: Check valve and piping arrangement and design does not allow pressurization to hydrostatic test pressure.

Alternate Examination: Penetrant Test will be performed on these welds. These inspections will be performed during the next refueling outage for each unit.

R. Component: 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). It provides indication of reactor vessel seal O-Ring leakage.

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

Basis for Requesting Relief: Hydrostatic testing of this one inch diameter 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. In addition, surface examination of the socket welds in this line would cause additional radiation exposure to personnel.

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.

S. Component: For Units 1, 2, and 3 CCW System. The crossover piping from CCW-40, CCW-92 to the Low Pressure and High Pressure Service Water pumps and valves 2CCW-41, 2CCW-42 and the piping to Unit 3 (the CCW crossover line) LPSW Pumps 3A and 3B, to valve 3CCW-94. (PO-133A and PO-133B). This piping provides cooling water for plant heat exchangers.

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

Basis for Requesting Relief: This piping cannot be isolated for hydrostatic testing because of the continuous need for plant cooling water.

Alternate Examination: All above ground piping will be examined under normal system operating conditions. Prior to or during the next refueling outage.

T. Component: The CCW System for Units 1, 2, and 3 Emergency Discharge Piping from valves CCW-1, 2, 3, 4, 5 and 6, to valves CCW-240, 3CCW-240, CCW-93 and 2CCW-7 to the discharge at CCW-8 and CCW-9 (PO-133A and PO-133B). This piping provides emergency gravity flow conditions for condensers.

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

Basis for Requesting Relief: Station Technical Specification 3.4.5 requires this piping to be inservice when the Reactor Coolant System of each respectable unit is above 250°F. Also, valves CCW-1, 2, 3, 4, 5 and 6 are 12" Allis Chalmers valves which are not desirable to be operated for potential failure to operate.

Alternate Examination: Visual inspection under normal system operation.

U. Component: For Units 1, 2, and 3 CCW System. The piping from the condenser outlet waterbox to valves CCW-1, 2, 3, 4, 5 and 6 (PO-133A and PO-133B). This piping connects the emergency CCW discharge piping to the normal CCW discharge piping at the condenser outlets.

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

Basis for Requesting Relief: This safety-related piping joins non-safety-related piping at the condensers. It is not practical to attempt to pressurize the condenser.

Alternate Examination: Visual inspection under normal system operations.

V. Component: For Units 2 and 3. The piping of the seal injection and seal return lines, from the last flange to the RC pump seal packages, (PO-115M02 and PO-115M03). This piping provides water to and from the RC pump seals.

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

Basis for Requesting Relief: The RC pump seal packages cannot be hydroed.

Alternate Examination: Piping will be inspected under "mini" hydro conditions during unit restart during the next refueling outage for Units 2 and 3.

W. Component: Unit 3. The piping from the outlet of valve 3LPSW-125 to valves 3LPSW-129, 132, 260, 327, 348, 403, 675, 45, 70, 67, 22, 80, 109, 113, 72, and 3LPSW-6. (PO-124A-3, PO-124B-3, PO-115B). The piping provides cooling water to the component coolers, LPI coolers, RB cooling units, the Auxiliary Building coolers, the main turbine oil tank, and the cross connect header for Units 1 and 2.

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

Basis for Requesting Relief: Valve LPSW-67 is failed open and cannot be operated to the shut position or repaired; therefore, this piping cannot be isolated for hydrostatic testing.

Alternate Examination: This piping will be inspected under normal system operation. This inspection will be completed prior to or during the next refueling outage.

X. Component: For Unit 3. The piping from the LPSW A and B pumps to valves 3LPSW-125 and 3LPSW-122, including 3LPSW-192, 3LPSW-199, 3LPSW-194, 3LPSW-201 (PO-124A-3). The piping provides discharge flow to the LPSW A and B headers and cooling water for the LPSW pump bearing.

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

Basis for Requesting Relief: This piping cannot be isolated for pressurization to required pressure. Pressurization would over-pressurize pump suction piping. Piping downstream of 3LPSW-125 and 3LPSW-122 is embedded in concrete, therefore, preventing piping at pump discharge to be removed and blanked.

Alternate Examination:

This piping will be inspected under normal operating conditions. This inspection will be implemented prior to or during the next refueling outage.

Y. Component: Unit 2. The piping between SF-45 and SF-46 (PO-104A-1). The piping provides suction to LPI pumps from the Spent Fuel Pool demineralizer line.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization to hydrostatic test pressure.

Alternate Examination: A percentage of the welds will be liquid Penetrant Tested and visually inspected prior to or during the next Unit 2 refueling outage.

Z. Component: For Units 1, 2, and 3. The piping between AS-38 and AS-39 (PO-128A). It provides start-up steam for the turbine driven emergency feedwater pump.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization to hydrostatic test pressure.

Alternate Examination: Magnetic Particle Testing will be conducted for the two welds between the valves, during the next refueling outage for Units 1, 2, and 3.

AA. Component: For Units 1, 2, and 3. The piping from the inlet of MS-94, through MS-95 governor valve to the turbine driven emergency feedwater pump (PO-122A). It provides steam supply to the TDEFDW pump.

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

Basis for Requesting Relief: The piping and valves are built into the turbine and cannot be subjected to hydrostatic testing.

Alternate Examination: Accessible welds will be magnetic particle inspected prior to or during the next refueling outage for Units 1, 2, and 3.

BB. Component: For Units 1, 2, and 3. Piping from LPSW-136 to LPSW-687 (PO-124A and PO-115B). It provides cooling water for the turbine driven emergency feedwater pump bearings.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization to required hydrostatic pressure.

Alternate Examination: Piping will be inspected during system normal operations, prior to or during the next refueling outage for Units 1, 2, and 3.

CC. Component: For Units 1, 2 and 3. The piping between CCW-265 and LPSW-502 (PO-115A, PO-115B). It provides cooling water flow to the HPI Pump motor bearing coolers from the Auxiliary Service Water System.

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

Basis for Requesting Relief: Check valve arrangement prevents pressurization to hydrostatic test pressure.

Alternate Examination: Piping will be inspected during normal operating conditions, prior to or during the next refueling outage for Units 1, 2, and 3.

DD. Component: For Units 1, 2, and 3. The discharge piping of the motor driven emergency feedwater pumps to valves FDW-370, 380 (PO-121D). It provides discharge flow to the emergency feedwater system and the OTSG's.

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

Basis for Requesting Relief: This piping cannot be subjected to the required hydrostatic test pressure because it is welded to the motor driven pumps. To pressurize this piping would overpressurize the pump suction piping.

Alternate Examination: This piping will be inspected during the monthly Performance Test at discharge pressure of approximately 1350 psig, prior to or during the next refueling outage for Units 1, 2, and 3.

EE. Component: For Units 1, 2, and 3. The piping from the turbine driven emergency feedwater pump to valves FDW-94, 96, 368, and 369 (PO-121D). It provides discharge flow from TDEFDW pump to the OTSGs.

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

Basis for Requesting Relief: The emergency feedwater pump turbine discharge piping cannot be blanked without cutting and removing piping and hanger restraints or removal of the pump and stand from its mounting.

Alternate Examination: The emergency feedwater pump turbine discharge piping will be inspected during the monthly performance test. This will subject the discharge piping to approximately 1350 psig. Testing will be prior to or during the next Units 1, 2, and 3 refueling outages.

FF. Component: For Unit 1 components between valves identified below:

Between 1HP-259 & 1HP-261, between 1HP-212 & 1HP-214, (PO-101B-1, J-3)
Between 1HP-219 & 1HP-221, between 1HP-205 & 1HP-207, (PO-101B-1, I-3)
Between 1HP-273 & 1HP-274, between 1HP-267 & 1HP-268, (PO-101B-1, H-3)
Between 1HP-270 & 1HP-271, between 1HP-264 & 1HP-265, (PO-101B-1, G-3)
(Limited to ≤design hydro of 2750 PSIG because of flow rotometers max hydro of 2250 PSIG), RC pump seal #1 leak off and seal #1 bypass line flow rotometers.

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

Basis for Requesting Relief: The in-line Brooks rotometers are 1500 PSI Class instruments. The Brooks instrument manufacturers could not provide appropriate assurances that the instrument could service a test pressure greater than 2250 psig. Section XI requirements were 2750 psig. Therefore, test instruments and piping between the above listed valves were hydroed at 2250 psig instead of 2750 psig.

IV. STAFF EVALUATION

Staff Evaluation: The subject relief requests are acceptable for Units 1, 2, and 3 based on the following considerations.

1. Requiring the ASME Code hydrostatic tests to be performed at this time would result in a substantial additional manpower expenditure and additional occupational radiation exposure. Therefore, hydrostatic testing at this time would result in hardships or unusual difficulties without a commensurate increase in the level of quality and safety.

2. Performance of alternative volumetric, surface or visual nondestructive examinations as applicable, would ensure adequate structural integrity of pipe welds identified in this submittal.

V. CONCLUSIONS

We have determined that relief from the preservice hydrostatic tests required by Section XI is justifiable. The alternative program, as proposed by Duke Power Company and incorporating our staff evaluation, of nondestructive examinations will provide an acceptable level of structural integrity. Specific requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition through Summer 1975 Addenda, are impractical and the implementation of the requirements would result in hardships or unusual difficulties without a compensating increase in the level of quality and safety.

We have determined that the granting of the relief does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that granting relief involves an action which is insignificant from the standpoint of environmental impact, and that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the granting of this relief.

Dated: February 14, 1984

The following NRC staff personnel have contributed to this Evaluation: N. Economos, J. Blake, G. Johnson, J. Suermann.