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SUBJECT: Forwards rev 1 to request for relief 93-01 reflecting Duke's request & justification to use this Code Case.

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DUKE POWER

August 09, 1994

U.S. Nuclear Regulatory Commission
Attention Document Control Desk
Washington, DC 20555

Subject: Duke Power Company
Oconee Nuclear Station, Unit 2
Docket No. 50-270
Second Ten Year Inservice Inspection Interval
Request for Relief No. 93-07, Rev. 1

On November 10, 1993 Duke Power submitted Request For Relief 93-07. Through conversation between NRC and Duke, it is Duke's understanding that this request would be denied by NRC. Since the last discussions between NRC and Duke on this request, Code Case N-416-1 has been approved by ASME and issued for use. The attached revision 1 to Request for Relief 93-01 reflects Duke's request and justification to use this Code Case. The contents of the request have been modified to address only Unit 2 and additional justification to use Code Case N-416-1. Please replace the original request with the attached revision 1.

The upcoming refueling outage for Unit 2 is the last scheduled outage for the Second Inservice Inspection Interval. In order to support this outage this request needs to be reviewed and approved by September 23, 1994.

If there are any questions or further information is needed you may contact D. A. Nix at (803) 885-3634.

Very truly yours,

JWH

J. W. Hampton
Site Vice President

Attachment

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U. S. Nuclear Regulatory Commission
Page 2

xc : Mr. L. A. Wiens
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

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U. S. Nuclear Regulatory Commission

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OCONEE NUCLEAR STATION

Unit - 2

Second Ten Year Request

Request # 93-07, Rev. 1

1. Component for which relief is requested:

(a) Name and Number:

2 inch socket welds on the Core Flood Tank (CFT)
side of valves 2CF-20 and 2CF-22(CFT Drain Line Block
Valves).

(b) Function: CFTs A & B maintenance drains.

(c) ISI Class/Duke Class: ASME Class 2/Duke Class B

(d) IWV-2200 Valve Category (If Applicable): N/A

(e) Reference documents:

Flow Diagram OFD-102A-2.3
NRC SER Dated June 17, 1992
Relief Request 93-07, Submitted November 10, 1993

2. Reference Code Requirement that has been determined to be impractical or excessively burdensome:

ASME Boiler and Pressure Vessel Code Section XI, 1980 Edition with addenda through Winter 1980 Article IWC-5210(2) requires a hydrostatic pressure test for replaced components or altered portions of systems. Article IWC-7200 and IWA-4400(a) requires replacements by welding be hydrostaticly tested.

3. Basis for requesting relief:

Performing a hydrostatic test to examine both of these 2" socket welds would result in an undue burden without a compensating increase in the level of quality or safety.

Code Case N-416-1 has been approved and issued for use by ASME. This Code Case allows the combination of NDE and a system leakage test as an acceptable alternative to a hydrostatic test following repairs and replacements by welding. The use of this Code Case will alleviate the burden while providing a technically approved alternative to assure an acceptable level of quality or safety is maintained.

Although the valve line-up for performing a hydrostatic pressure test would not violate the Technical Specification Low Temperature Over Pressurization (LTOP) requirements, LTOP would be challenged. The window of time to perform this test is limited to a small period due to the restrictions of operability, LTOP, containment integrity, personal safety, and production of the borated water for the test medium.

A hydrostatic test would dictate the generation of an additional 6,000 gallons of borated water to be added to the 16,600 gallons presently in the CFTs. During the time of the test most of the borated water would have been depleted from the Bleed Holdup tanks for defueling or refueling. Therefore, the majority of the 6,000 gallons would have to be produced from the Boric Acid Mixing Tank with a capacity of about 500 gallons. It takes about one day to produce the 500 gallon batch of borated water and approximately 10 to 12 days to produce the 6,000 gallons needed to perform the test. This would extend the refueling outage several days. Each day the refueling outage is extended costs Duke Power approximately \$260,000 in power replacement costs. After the test, Oconee would have to process this 6,000 gallons of borated liquid waste. The boron would have to be extracted and processed for burial and the water processed to acceptable radiation levels for release.

Modification of the system has been used on Units 1 and 3 to provide an alternative means to test these welds. The cost to perform this system modification has been approximately \$3200 for each weld. In addition to the cost, this modification creates 5 needless welds on each CFT drain line solely to test one weld on each valve.

The burden incurred to perform the test with the system in the current configuration or to modify the system configuration in order to perform the test is unnecessary in light of the availability of a technically approved Code alternative.

4. Alternate Examination:

The subject 2" socket welds have received a surface, nondestructive examination (PT) and a VT-2 pressure test inspection at normal operating pressure.

5. Acceptability of proposed alternate testing with respect to the level of quality and safety as well as public health and safety:

Duke Power's Repair and Replacement Program meets the requirements of ASME Section XI. As a part of this program, Duke Power's Welding Program meets the requirements of ASME Section IX. The Welding Procedures and Welders are also qualified in accordance with ASME Section IX. The welds were visually inspected throughout the welding operation at the intervals and to the acceptance criteria of ANSI B31.7, the Construction Code for this system, and Duke Power's Piping Specification. These processes and programs are all under the control of Duke Power's Quality Assurance Program. Repairs and Replacements are also monitored by, and subject to, independent inspection and/or review by the Authorized Nuclear Inservice Inspector to assure compliance with ASME Section XI. These processes and programs provide assurance the welds were made under controlled conditions and in a quality manner.

Code Case N-416-1 has been approved and issued for use by ASME. This Code Case allows the combination of NDE and a System Leakage Test as an alternative to a Hydrostatic Test following repairs or replacements by welding. By approving this Code Case, ASME is confirming these alternate examinations are acceptable substitutes for the existing Code requirements. The proposed alternate examinations will satisfy Code Case N-416-1 thereby providing an equivalent level of assurance of a hydrostatic test as to the structural integrity, quality, and leak tightness of the welds and that they will perform their intended safety function.

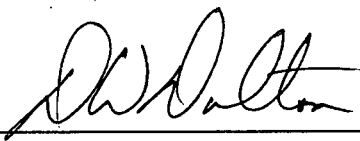
Additionally, the CFT pressure is checked twice daily as required by Oconee Technical Specifications. The CFT pressure is under surveillance by operators in the control room and is monitored by audio and visual alarms. These checks and alarms will provide early warning to allow operators to take the appropriate actions should these welds begin to leak. The pressure required to be maintained in the CFT is 600 ± 25 PSIG.

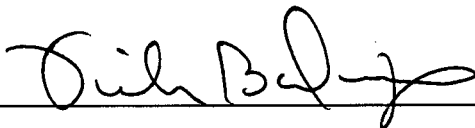
In the unlikely event these welds should fail, it would result in the loss of inventory and pressure of the CFT. The Reactor Coolant system would be maintained intact through two series check valves which maintain Reactor Coolant separation from the CFTs. The Reactor would be required to shut down until such time the failure is repaired, but would remain in a safe, controlled condition.

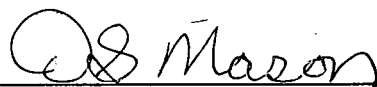
The use of Code Case N-416-1, the constant monitoring and daily pressure checks performed on the CFTs, and Oconee's repair and replacement program provides an acceptable level of assurance that the health and safety of the general public will be not be diminished by this deviation from ASME Section XI.

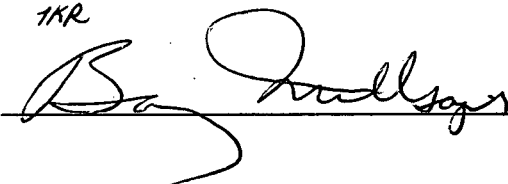
6. Implementing Schedule:

The nondestructive examinations and the VT-2 examinations have been performed.

Requested By:  Date: 8/1/94

Reviewed By:  Date: 8/1/94

QA Reviewed:  Date: 8-1-94
TKR

Approved By:  Date: 8/4/94

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