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SUBJECT: Forwards Request for Relief 89-10 from requirements of ASME Code, Section XI re exam of CRDMs.

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December 8, 1989

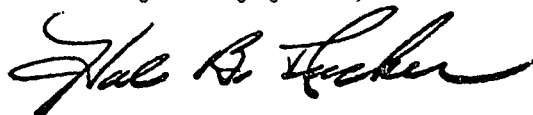
U. S. Nuclear Regulatory Commission  
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Washington, D. C. 20555

Subject: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287  
Second Ten Year Interval  
Request for Relief No. 89-10

Gentlemen:

Pursuant to 10 CFR 50, Part 50.55a, please find attached request for relief number 89-10 from the requirements of Section XI of the ASME Boiler and Pressure Vessel Code (with addenda through Winter 1980). This request is being submitted due to the impracticality of examining control rod drive mechanisms (CRDMs) as required by the code following disassembly. Request 89-10 concerns the inservice inspection at Oconee being performed during the second ten year interval. Unit 3 Cycle 12 initial criticality is currently scheduled for December 17, 1989.

Very truly yours,



Hal B. Tucker

PJN/77/1k

Attachments

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December 8, 1989  
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Duke Power Company  
Oconee Nuclear Station  
Second Ten Year Interval  
Request for Relief 88-10

I. Component for which relief is requested:

Control Rod Drive Mechanism (CRDM) motor tube to nozzle pressure retaining bolting.

ISI Class 1 Duke Class A

II. Reference Code requirement that has been determined to be impractical:

ASME Boiler and Pressure Vessel Code Section XI, 1980 Edition (with Addenda through Winter 1980) paragraph IWB 2430(a) which requires that bolting showing indications exceeding the standards allowed by IWB-3000 require an additional number of components equivalent in number to that initially sampled be examined. The purpose of this Code requirement is to assure other CRDM bolting material is not degraded due to the same cause.

III. Basis for requesting relief:

During each refueling outage since December 1980 all CRDMs have been visually examined for evidence of RCS leakage. This inspection is documented as part of the Oconee response to Generic Letter 88-05 and IE Bulletin 82-02. During the Unit 3 end of cycle 11 refueling outage, 11 CRDMs exhibited evidence of RCS leakage (see attached figures). Each of these CRDMs were disassembled and examined pursuant to the requirements of Table IWB 2500 Item B7.80. This process involved approximately 24 person-rem of exposure.

Of the 11 disassembled CRDMs only 1/2 of 1 nut ring exceeded the criteria of IWB-3000. Damage to this nut ring was specifically due to corrosion as a result of exposure to RCS leakage. As a result of this indication, IWB 2430(a) requires an additional 11 CRDMs be examined.

The requirements of IWB 2430(a) have been determined to be impractical, because it may unnecessarily require disassembly and VT-1 examination of CRDM bolting material which was not affected by RCS leakage. Further, disassembly and VT-1 examination of the additional CRDMs will involve approximately 20-25 person-rem of radiation exposure to personnel, as well as unnecessary extension of the Unit 3 end of cycle 11 refueling outage by approximately 15 days.

IV. Alternate Examination:

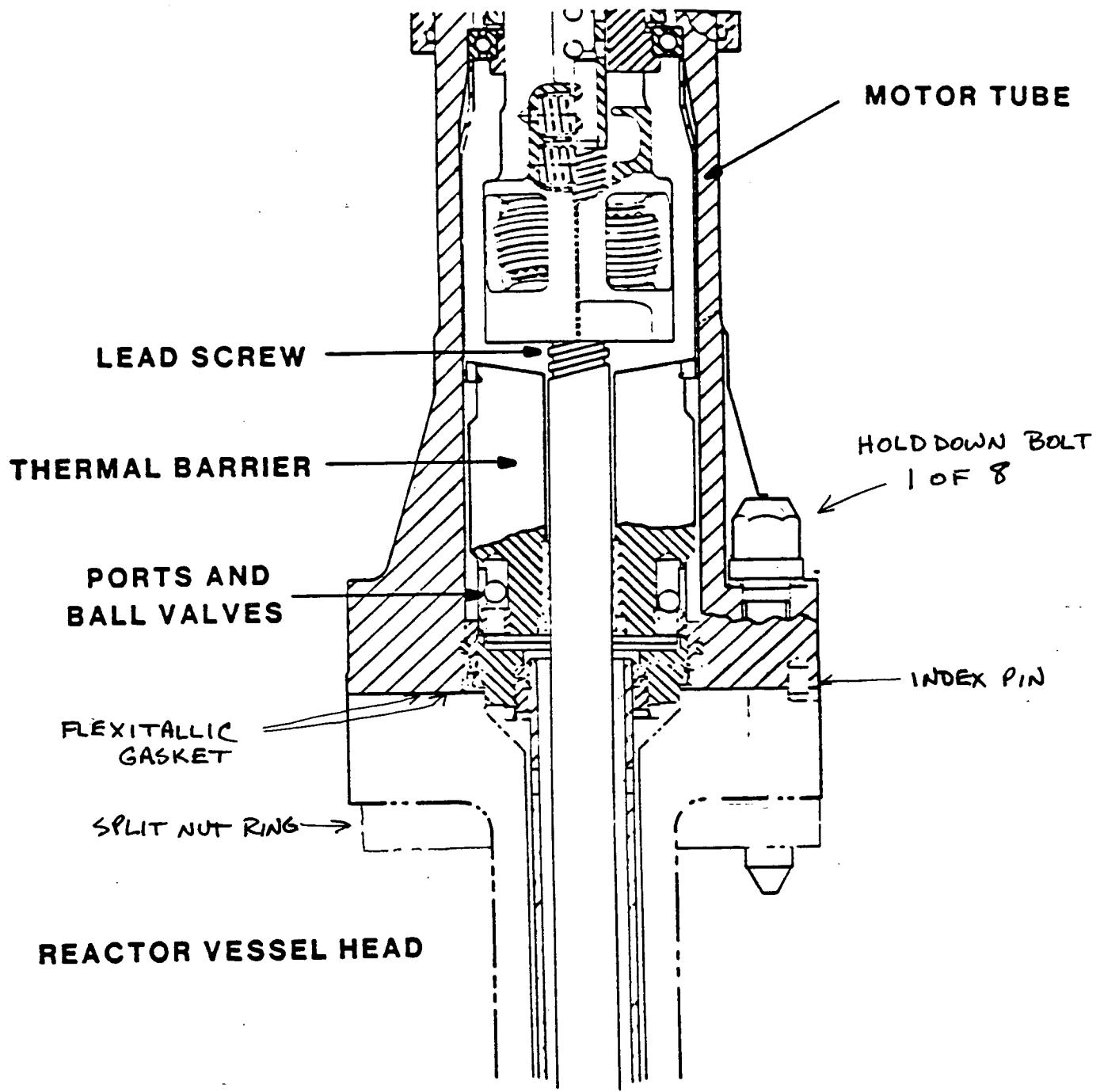
Each refueling outage all CRDM flanges will be visually examined per station procedures for evidence of leakage in compliance with the Oconee Nuclear Station response to NRC Generic Letter 85-05 and IE Bulletin 82-02. Corrective action will be based upon the results of those examinations, and will include replacement of all affected bolting. Inspection of any required additional samples of bolting material during CRDM maintenance not associated with flange leakage will be performed in accordance with the requirements of IWB-2430(a).

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

The Oconee Nuclear Station program for inspection of CRDMs for RCS leakage assures that CRDM bolting material exposed to RCS leakage will be replaced. Following CRDM disassembly for maintenance not associated with flange leakage, required additional samples will be examined in accordance with IWB-2430(a).

VI. Implementation schedule:

To be placed in effect for all Oconee units for the remainder of the interval commencing with the current Oconee Unit 3 end of cycle 11 refueling outage.



<p>TITLE:</p> <p><b>CONTROL ROD DRIVE MECHANISM</b></p>	<p>NOTES:</p> <p><b>THERMAL BARRIER</b></p>	<p>ID NO. OC-PNS-CRD-10 DATE: 12-3-86</p> <p>REF: Diamond Power 7032551058-H</p> <p>CHKD BY: DMC / ARB APR BY: <i>RFB</i></p> <p><b>TRAINING USE ONLY</b></p>
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