

**DUKE POWER COMPANY**

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

HAL B. TUCKER  
VICE PRESIDENT  
NUCLEAR PRODUCTION

TELEPHONE  
(704) 373-4531

June 14, 1988

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

Subject: Catawba Nuclear Station, Units 1 and 2  
Docket Nos. 50-413 and 50-414  
Inservice Inspection Program

Dear Sir:

Please find enclosed items related to the Inservice Inspection (ISI) Program for Catawba Unit 1 and Unit 2. These items arose from a telecon on January 26, 1988.

- o Enclosure 1: Catawba Nuclear Station Inservice Inspection Plan for Units 1 and 2 for 1st ten year interval (Revision 4).
- o Enclosure 2: Answer to questions raised during telecon.
- o Enclosure 3: Relief request for pressurizer skirt.

The application fee, pursuant to 10 CFR 170.21, for approval of our relief request was previously submitted on April 30, 1987.

Very truly yours,

*Hal B. Tucker, for*  
Hal B. Tucker

PGL/25/sbn

Enclosures

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1/4*

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June 14, 1988  
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xc: (w/o Enclosure 1)

Dr. J. Nelson Grace, Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30323

Mr. P. K. Van Doorn  
NRC Resident Inspector  
Catawba Nuclear Station

(w/all Enclosures)

Boyd W. Brown  
EG&G Idaho  
INEL Research Center  
2151 North Blvd.  
P.O. Box 1625  
Idaho Falls, ID 83415-2209

Questions/Response from Telecon

1. Section 9 of ISI plan states only relief request is for surface examination of the pressurizer skirt. Reviewers had not received any relief requests.

Relief request was submitted April 30, 1987 and is resubmitted as enclosure 3.

2. The operating license date for Unit 1 is December 6, 1984, the applicable code edition is 1980 with addenda Winter 1981. The operating license date for Unit 2 is February 24, 1986, the applicable code edition is 1983 with addenda Summer 1983. Both plants are using 1980 edition with addenda Winter 1981. We have not given approval for this. What is the basis for this usage?

10 CFR 50.55a(g)(4)(i) states:

Inservice examinations of components, inservice tests to verify operational readiness of pumps and valves whose function is required for safety, and system pressure tests, conducted during the initial 120-month inspection interval shall comply with the requirements in the latest edition and addenda of the Code incorporated by reference in paragraph (b) of this section on the date 12 months prior to the date of issuance of the operating license, subject to the limitations and modifications listed in paragraph (b) of this section.

The Winter 1981 Addenda was incorporated into the regulations on March 9, 1983 (reference 48 FRN 5532). No further addendum were incorporated until October 28, 1985 when Winter 1982 Addenda and Summer 1983 Addenda were incorporated into Section XI (reference 50 FRN 38970). Twelve (12) months prior to the date of issuance of both Unit 1 and Unit 2 operating licenses, the applicable code edition is 1980 with addenda Winter 1981.

3. System flow diagrams for Unit 1 are to be in Volume 2 of Appendix B of the ISI plan - Volume 2 is empty. We do not have the flow diagrams. System flow diagrams for Unit 2 are in Volume 3 of the ISI plan. Are the system flow diagrams of Unit 2 applicable to Unit 1? If so, we need a docketed statement.

Enclosure 1 contains a copy of the Unit 1 and Unit 2 color-coded flow diagrams that show the Class 1 and Class 2 NDE boundaries.

4. Chemical Volume and Control (NV) System is inadequately examined. Only 4 Class I welds are to be examined and then only surface examined. No Class 2 welds are to be examined. We need the basis for this. A clarification or an expanded explanation/justification is needed.

The Catawba Inservice Inspection Plan shows the following Chemical and Volume Control System (NV) welds scheduled for examination:

Unit 1

Category B09.021 - 4 welds  
Category B09.040 - 30 welds

Unit 2

Category B09.021 - 4 welds  
Category B09.040 - 31 welds

NV system contains no Class 2 piping welds that require inservice inspection.

5. Paragraph 1.1.3 of the ISI plan states that Regulatory Guide 1.150 will be used to the extent that Duke Power has committed to use. Describe the extent of commitment and exception to this Regulatory Guide. We need a docketed response.

The Regulatory Guide requirements of Sections C 2.1, C 2.2, and C 2.3 do not apply to the type of inspection Duke will do (automated scanning with defects sized and recorded with the transducers in a static position).

Section C 5 of the Regulatory Guide requires scanning with a transducer  $\pm 15^\circ$  from perpendicular to the weld base metal interface. The most critical area for this scan is near the surface of the weld. Due to the long sound path required to scan the full thickness (up to 12 inches), it is impractical to inspect beyond the 2 in. near-surface area.

Section C 6 of the Regulatory Guide requires recording of indications of 20% of DAC. This would produce a large volume of data on minor reflectors and an unacceptable large increase in inspection time. By recording 20% DAC information only if the peak amplitude exceeds 50% DAC, the volume of data and inspection time will be reduced, while the most useful data will still be recorded. Also, Duke records indications at scan intervals of 0.9x transducer width, plus minimum and maximum through wall and end points; and Duke records indications at 20%, 50%, and 100% DAC.

Section C.7a of the Regulatory Guide recommends that the best estimate of error band involved in sizing of flaws be included in the report. Duke takes exception to this recommendation on the basis that unless actual flaw dimensions are known, error band cannot be reliably calculated. No estimates of error band will be made.

6. Verify that the first ten-year inspection interval for Unit 1 started June 29, 1985 and for Unit 2 started in August 19, 1986.

The first ten-year inspection interval started on:

Catawba Unit 1 - June 29, 1985  
Catawba Unit 2 - August 19, 1986

Serial No. CNS-001

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DUKE POWER COMPANY

Request for Relief from  
Inservice Inspection Requirement

Station: Catawba

Unit: 1 and 2

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI  
1980 Edition through Winter 1981 Addenda

I. Component for which exemption is requested:

a. Name and Identification Number:

Pressurizer Integrally Welded Attachments  
Pressurizer Support Skirt to Lower Head  
National Board Number W18589 (Unit 1)  
National Board Number W26949 (Unit 2)

b. Function:

Support of Class 1 Vessel

c. ASME Section III Code Class:

Class 1

d. Valve Category:

N/A

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

Section XI Table IWB-2500 Examination Category B-H, requires that 100% of the length of the integral attachment to vessel weld be included in the examination. The surface exam areas are shown in Figure IWB-2500-13. (Attachment IWB-2500-13 is included).

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III. Basis for Requesting Relief:

Relief requested from surface examination required on surface area C-D as shown in Figure IWB-2500-13. Surface area C-D is inaccessible for examination.

IV. Alternate Examination:

The weld will be examined from surface area A-B (OD surface) by magnetic particle testing.

V. Implementation Schedule:

Welds will be scheduled in accordance with ASME Section XI requirements.

REQUIREMENTS FOR CLASS I COMPONENTS

Fig. IWB-2500-13

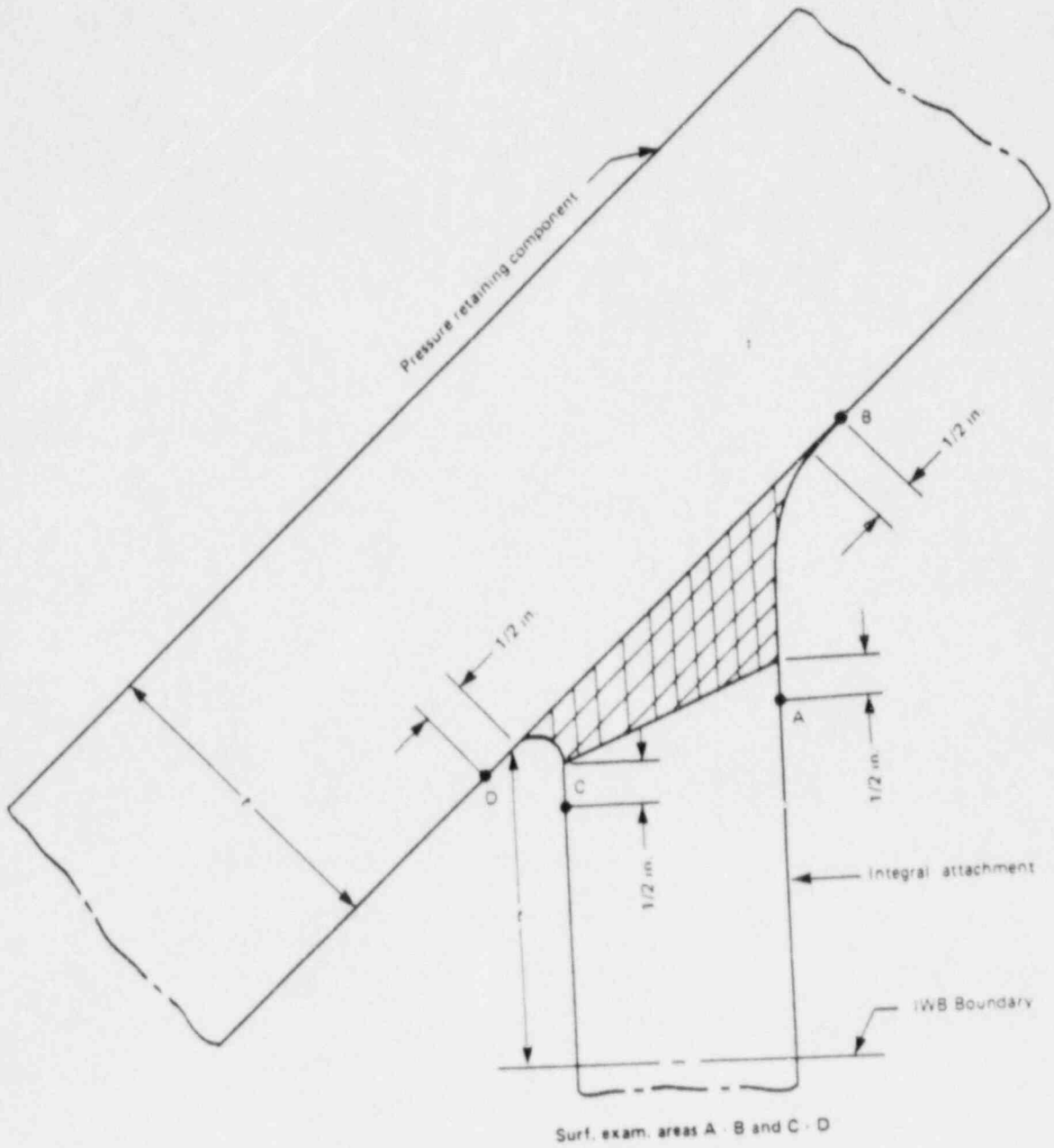


FIG. IWB-2500-13 INTEGRAL ATTACHMENT WELD

W81