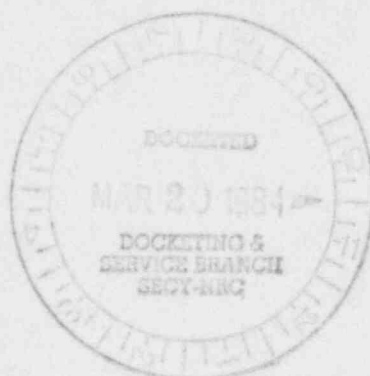


Appointments Exh. 36

A-36  
11/11/83



PRESERVICE INSPECTION PLAN

CATAWBA NUCLEAR STATION

UNITS 1 AND 2

LOCATION: YORK COUNTY, SOUTH CAROLINA

NRC DOCKET NOS. 50-413 AND 50-414

EXPECTED COMMERCIAL SERVICE DATE: MARCH 1, 1985 (Unit 1)  
JUNE 1, 1987 (Unit 2)

OWNER: DUKE POWER COMPANY  
422 S. CHURCH ST.  
CHARLOTTE, N. C. 28242

REVISION 2

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PREPARED BY	<u>J. E. Chung</u>	<u>6/27/83</u> DATE
REVIEWED BY	<u>B. Chien</u>	<u>6/29/83</u> DATE
APPROVED BY	<u>J. Bullock</u>	<u>6/29/83</u> DATE

8405240373 831111  
PDR ADOCK 05000413  
G PDR

COPY NO. 2  
CONTROLLED X

ASSIGNED TO L.C. SHROPSHIRE  
UNCONTROLLED \_\_\_\_\_

COPY  
FOR INFORMATION ONLY

PROGRAM: RUNB7179-QAISI02  
FILE: C007133  
PLANT: CATAWBA UNIT 1  
KEY: ITEM NUMBER

DUKE POWER COMPANY  
QUALITY ASSURANCE DEPARTMENT  
PRE-SERVICE AND IN SERVICE INSPECTION SYSTEM  
CATAWBA 1 PRESEVICE INSPECTION PLAN REVISION 2

PAGE 7  
08/24/88

ITEM NUMBER	ID NUMBER	DRAWING NUMBERS	INSP. REQ.	PROCEDURE NUMBER	MATERIAL TYPE	DIAM. SIZE	THICKNESS (LENGTH)	CALIB. BLOCK	***** COMMENTS *****
B4.05.597	1NI162-01	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.598	1NI162-02	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.599	1NI162-03	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600	1NI162-04	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600A	1NI162-25	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600B	1NI162-24	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600C	1NI162-23	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600D	1NI162-22	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.600E	1NI162-21	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.601	1NI162-20	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.602	1NI162-26	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.603	1NI162-27	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.604	1NI162-07	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.605	1NI162-08	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.605A	1NI162-28	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----
B4.05.606	1NI162-48	CN-1NI-162 CN-1562-1.1	UT	ISI-120	SS	6.00	0.719	50308	-----

ASME BOILER AND PRESSURE VESSEL CODE

An American National Standard

SECTION XI

Rules for Inservice Inspection of  
Nuclear Power Plant Components

1974 EDITION

July 1, 1974



ASME BOILER AND PRESSURE VESSEL COMMITTEE  
SUBCOMMITTEE ON NUCLEAR POWER  
SUBGROUP ON INSERVICE INSPECTION

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
UNITED ENGINEERING CENTER  
345 EAST FORTY-SEVENTH STREET, NEW YORK, N.Y. 10017

Where less than all the components are required to be inspected in the first inspection interval, a similar percentage of components not previously inspected (other than the preservice examinations) shall be required in each successive inspection interval.

When inspections are conducted only during assembly of components, the same inspection requirements that apply during the first inspection interval shall apply during successive inspection intervals.

Where the extent of inspections requires examination of a percentage of the areas of the component during each inspection interval, the areas selected for successive examination shall include (1) those whose preservice examination revealed allowable flaw indications (see IWB-3112) and (2) those whose inservice examination reveals additional allowable flaw indications (see IWB-3122), to the extent necessary to meet the percentage requirement.

#### IWB-2430 ADDITIONAL EXAMINATIONS

Examinations performed during any one inspection interval shall reveal indications exceeding the allowable standards of Table IWB-2500, in a component of an

examination category shall be extended to include an additional number (or areas) of components within the same category, approximately equal to the number (or areas) initially examined during the inspection.

In the event further indications in excess of the allowable standards are revealed, all of the remaining number (or areas) of the components shall be examined to the extent specified in Table IWB-2500 for the inspection interval.

#### IWB-2500 EXTENT OF EXAMINATION

Components shall be examined to the extent specified in Table IWB-2500.

#### IWB-2600 EXAMINATION METHOD REQUIREMENTS

The method of examination for the components and parts of the pressure-retaining boundaries shall comply with those tabulated in Table IWB-2600 except where alternate examination methods are used that meet the requirements of IWA-2240.

**TABLE IWB-2500 (CONT'D)  
EXAMINATION CATEGORIES**

**AREAS SUBJECT TO EXAMINATIONS****EXTENT AND FREQUENCY OF EXAMINATIONS****B-J****PRESSURE-RETAINING WELDS IN PIPING**

The areas shall include longitudinal and circumferential welds and the base metal for one wall thickness beyond the edge of the weld. Longitudinal welds shall be examined for at least 1 ft from the intersection with the edge of the circumferential weld selected for examination.

In the case of pipe branch connections, the areas shall include the weld metal, the base metal for one pipe wall thickness beyond the edge of the weld on the main pipe run, and at least 2 in. of the base metal along the branch run.

The examinations performed during each inspection interval shall cover all of the area of 25% of the circumferential joints including the adjoining 1 ft sections of longitudinal joints and 25% of the pipe branch connection joints.

The areas  
wall thick

**B-K-1****SUPPORT MEMBERS FOR PIPING, VALVES AND PUMPS**

The areas shall include the integrally-welded external support attachments. This includes the welds to the pressure-retaining boundary and the base metal beneath the weld zone and along the support attachment member for a distance of two support thicknesses.

The examinations performed during each inspection interval shall cover 25% of the integrally-welded supports.

The areas  
on valves or

**B-K-2****SUPPORT COMPONENTS FOR PIPING, VALVES AND PUMPS**

The areas shall include the support components that extend from the piping, valve, and pump attachment to and including the attachment to the supporting structure.

The examination performed during each inspection interval shall cover all support components.

The support settings of constant and variable spring type hangers, snubbers, and shock absorbers shall be verified.

The areas si  
core that is  
components

**B-L-1****PRESSURE-RETAINING WELDS IN PUMP CASING**

The areas shall include the weld metal and the base metal for one wall thickness beyond the edge of the weld.

The examinations performed during each inspection interval shall include 100% of the pressure-retaining welds in at least one pump in each group of pumps performing similar functions in system (e.g., recirculating coolant pumps).

The examinations may be performed at or near the end of the inspection interval.

INTE  
The areas sh  
welded to th

**B-L-2****PUMP CASINGS**

The areas shall include the internal pressure boundary surfaces.

One pump in each of the group of pumps performing similar functions in the system shall be examined during each inspection interval. This examination may be performed on the same pump selected for the Category B-L-1 examinations.

The examinations may be performed at or near the end of the inspection interval.

The areas sha  
water reactor

TABLE IWB-2600  
COMPONENTS, PARTS, AND METHODS OF EXAMINATION

Item No.	Examination Category Table IWB-2500	Components and Parts to be Examined	Method
<i>Reactor Vessel</i>			
B1.1	B-A	Longitudinal and circumferential shell welds in core region	Volumetric
B1.2	B-B	Longitudinal and circumferential welds in shell (other than those of Category B-A and B-C) and meridional and circumferential seam welds in bottom head and closure head (other than those of Category B-C)	Volumetric
B1.3	B-C	Vessel-to-flange and head-to-flange circumferential welds	Volumetric
B1.4	B-D	Primary nozzle-to-vessel welds and nozzle inside radiused section	Volumetric
B1.5	B-E	Vessel penetrations, including control rod drive and instrumentation penetrations	Visual (IWA-5000)
B1.6	B-F	Nozzle-to-safe end welds	Volumetric and Surface
B1.7	B-G-1	Closure studs, in place	Volumetric
B1.8	B-G-1	Closure studs and nuts, when removed	Volumetric and Surface
B1.9	B-G-1	Ligaments between threaded stud holes	Volumetric
B1.10	B-G-1	Closure washers, bushings	Visual
B1.11	B-G-2	Pressure-retaining bolting	Visual
B1.12	B-H	Integrally-welded vessel supports	Volumetric
B1.13	B-I-1	Closure Head Cladding	1) Visual and Surface, or 2) Volumetric
B1.14	B-I-1	Vessel Cladding	Visual
B1.15	B-N-1	Vessel Interior	Visual
B1.16	B-N-2	Interior attachments and core support structures	Visual
B1.17	B-N-3	Core support structures	Visual
B1.18	B-O	Control rod drive housings	Volumetric
B1.19	B-P	Exempted components	Visual (IWA-5000)
<i>Pressurizer</i>			
B2.1	B-B	Longitudinal and circumferential welds	Volumetric
B2.2	B-D	Nozzle-to-vessel welds and nozzle-to-vessel radiused section	Volumetric
B2.3	B-E	Heater penetrations	Visual (IWA-5000)
B2.4	B-F	Nozzle-to-safe end welds	Volumetric and Surface
B2.5	B-G-1	Pressure-retaining bolting, in place	Volumetric
B2.6	B-G-1	Pressure-retaining bolting, when removed	Volumetric and Surface
B2.7	B-G-2	Pressure-retaining bolting	Visual
B2.8	B-H	Integrally-welded vessel supports	Volumetric
B2.9	B-I-2	Vessel cladding	Visual
B2.10	B-P	Exempted components	Visual (IWA-5000)
<i>Heat Exchangers and Steam Generators</i>			
B3.1	B-B	Longitudinal and circumferential welds, including tube sheet-to-head or shell welds on the primary side	Volumetric
B3.2	B-D	Nozzle-to-head welds and nozzle inside radiused section on the primary side	Volumetric
B3.3	B-F	Nozzle-to-safe end welds	Volumetric and Surface
B3.4	B-G-1	Pressure-retaining bolting, in place	Volumetric
B3.5	B-G-2	Pressure-retaining bolting, when removed	Volumetric and Surface
B3.6	B-G-2	Pressure-retaining bolting	Visual
B3.7	B-H	Integrally-welded vessel supports	Volumetric
B3.8	B-I-2	Vessel Cladding	Visual
B3.9	B-P	Exempted components	Visual (IWA-5000)
<i>Piping Pressure Boundary</i>			
B4.1	B-F	Safe-end to piping welds and safe-end in branch piping welds	Volumetric and Surface
B4.2	B-G-1	Pressure-retaining bolting, in place	Volumetric
B4.3	B-G-1	Pressure-retaining bolting, when removed	Volumetric and Surface
B4.4	B-G-2	Pressure-retaining bolting	Visual
B4.5	B-J	Circumferential and longitudinal pipe welds	Volumetric
B4.6	B-J	Branch pipe connection welds exceeding six in. diameter	Volumetric

NUCLEAR REG. AGENCY COMMISSION

Document No. 50-713

In the matter of Catawba

Case No. 36

Received ☒ REJECTED ☒

Contractor Ron Graham

Date 4/11/83