

ENCLOSURE (1)
TO
BALTIMORE GAS AND ELECTRIC COMPANY'S
INSERVICE INSPECTION REPORT
FOR CALVERT CLIFFS UNIT 2

ASME BOILER AND PRESSURE VESSEL CODE
SECTION XI, FORM NIS-1

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FORM NIS-1

FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTIONS
(As Required by the Provisions of the ASME Code Rules)

1. **Owner:** Baltimore Gas and Electric Company
P.O. Box 1475
Baltimore, MD 21203
2. **Plant:** Calvert Cliffs Nuclear Power Plant
Lusby Post Office
Lusby, MD 20657
3. **Plant Unit:** #2 4. **Owner Certification of Authorization:** NA
5. **Commercial Service Date:** April 1, 1977 6. **National Board Number for Unit:** 20912
7. **Components Inspected:**

COMPONENT OR APPURTENANCE	MANUFACTURER OR INSTALLER	MANUFACTURER OR INSTALLER SERIAL #	STATE OR PROVINCE #	NATIONAL BOARD NUMBER
Reactor Pressure Vessel	Combustion Engineering	CE-67108	14001NV	20912
Reactor Pressure Vessel Closure Head	Combustion Engineering	CE-67208	14001NV	20912
Pressurizer	Combustion Engineering	CE-67603	14001NV	20916
Steam Generator #21	Combustion Engineering	CE-67506	14001NV	20925
Steam Generator #22	Combustion Engineering	CE-67507	14001NV	20924
Reactor Coolant Pipe	Combustion Engineering	Contract No. 72467		

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7. Components Inspected: (Continued)

COMPONENT OR APPURTENANCE	MANUFACTURER OR INSTALLER	MANUFACTURER OR INSTALLER SERIAL #	STATE OR PROVINCE #	NATIONAL BOARD NUMBER
Drain Lines	Bechtel			
#2iA Reactor Coolant Pump	Byron Jackson	SN-0441		68-1-N-0-441
#21B Reactor Coolant Pump	Byron Jackson	SN-0442		68-1-N-0442
#22A Reactor Coolant Pump	Byron Jackson	SN-0443		68-1-N-0-443
#22B Reactor Coolant Pump	Byron Jackson	SN-0444		68-1-N-0444
Safety Injection Piping	Bechtel			
Containment Spray Piping	Bechtel			
Shutdown Cooling Piping	Bechtel			
Main Steam Piping	Bechtel			
Feedwater Piping	Bechtel			
Charcoal Spray Piping	Bechtel			
Pressurizer Spray Piping	Bechtel			
Charging Piping	Bechtel			
Pressurizer Safety & Relief	Bechtel			
Regenerative Heat Exchanger	Whitlock	75252		
Letdown Piping	Bechtel			

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8. **Examination Dates:** January 18, 1983 to July 1, 1984
9. **Inspection Interval:** April 1, 1977 to April 1, 1987
10. **Abstract of Examinations:** (Include list of exams and statements concerning status of work required for current interval).

(See Enclosures 1, 2, and 3).

The examinations reported herein constitute the fifth such inservice examination performed at Calvert Cliffs Unit 2, and the first within the third 40-month period of commercial operation. Calvert Cliffs Unit 2 examinations were performed in accordance with the 1974 Edition of Section XI with Addenda through Summer 1975. Hydrostatic and System Pressure Testing Procedures are available at the plant site for review.

11. **Abstract of Conditions Noted:**

(See Enclosures 1, 2, & 3)

- a. Eddy current examination of Steam Generators #21 and #22 revealed signs of steam generator tube degradation. Indications of degradation were found on a total of 50 tubes from the approximately 13,800 tubes examined (7,300 #21 Steam Generator and 6,500 #22 Steam Generator). Six tubes were found to have service induced degradation which exceeded the Technical Specification plugging limit of 40% loss of nominal wall thickness, four in #21 Steam Generator and two in #22 Steam Generator. The indications were all of a small area, small volume in nature. The indications were not localized in a particular area of the tube bundle.

12. **Abstract of Corrective Measures Recommended and Taken:**

(See Enclosures 1, 2, & 3)

- a. Those tubes found to contain imperfections greater than 40% wall loss were removed from service by plugging each end with a mechanical tube plug.

We certify that the Statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

DATE: December 21, 1984

SIGNED:



R. E. Denton
General Supervisor -
Training & Technical Services

Baltimore Gas & Electric Company

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Certificate of Authorization No. NAExpiration Date NA

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Maryland and employed by Arkwright-Boston Manufacturer's Mutual Insurance Company have inspected the components described in this Owner's Data Report during the period January 18, 1983, to July 1, 1984, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

DATE:

DECEMBER 21, 1984.
INSPECTOR SIGNATURE

FACTORY MUTUAL SYSTEM

COMMISSION:

NB 8226, Md 647
National Board State
Province and No.

ENCLOSURE (2)
TO
BALTIMORE GAS AND ELECTRIC COMPANY'S
INSERVICE INSPECTION REPORT
FOR CALVERT CLIFFS UNIT 2
STEAM GENERATORS NO. 21 & 22
EDDY CURRENT EXAMINATION
REPORT

PREPARED BY
ZETEC, INCORPORATED

ENCLOSURE (3)

TO

BALTIMORE GAS AND ELECTRIC COMPANY'S
INSERVICE INSPECTION REPORT
FOR CALVERT CLIFFS UNIT 2

SOUTHWEST RESEARCH INSTITUTE REPORT

(VOLUMES I TO IV)