U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION I

Report No. 50-318/79-16

Docket No. 50-318

License No. DPR-69 Priority -- Category C

Licensee: Baltimore Gas and Electric Company

P.O. Box 1475

Baltimore, Maryland 21203

Facility Name: Calvert Cliffs Nuclear Power Plant, Unit 2

Inspection At: Lusby, Maryland

Inspection Conducted: October 15-17 and 23-26, 1979

Inspectors: R Senig for 11-5-79
G. Kalman, Reactor Inspector date

date

date

Approved by: D. L. Caphton 11/7/79
D. L. Caphton, Chief, Nuclear Support date
Section No. 1, RO&NS Branch

Inspection Summary:
Inspection on October 15-17 and 23-26, 1979 (Report No. 50-318/79-16)

Areas Inspected: Routine, unannounced inspection of refueling preparations, refueling activities, refueling outage related maintenance and surveillance activities, and surveillance of pipe support and restraint systems. The inspection involved 50 inspector-hours onsite by one NRC regional based inspector.

Results: No items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Mr. E. Baur, Performance Engineer, Electrical
Mr. R. Denton, Nuclear Plant Engineer, Operations
Mr. J. Lemons, General Foreman, Nuclear
Mr. S. Lippold, Nuclear Engineer
Mr. W. Mendell, Quality Control Representative
Mr. M. Miernicki, Performance Engineer
*Mr. L. Russell, Chief Engineer

The inspector also interviewed other licensee and contractor personnel including members of the operations, maintenance, health physics, and engineering staffs.

*Present at exit interview.

2. Review of Licensee Event Report (LER), 79-43/IT (Unit 1)

On September 11, 1979, the fuel supplier informed the licensee that Figure 3.2-4 in the Technical Specifications was incorrect and depicted nonconservative Axial Shape Index (ASI) limits. The licensee had been operating with the nonconservative curve since Unit 1 Cycle 4 operations commenced. The licensee immediately promulgated the corrected curve to the operations personnel and initiated a review of computer generated incore flux records to determine whether the more conservative ASI limits had been exceeded during Cycle 4 operations. The licensee concluded that the more conservative ASI limits had not been exceeded.

The inspector reviewed the licensee's tabulation of computer generated ASI figures and for selected periods of maximum offset, confirmed through review of operator logs, that the ASI did remain within the more conservative limits.

As stated in the LER, the licensee plans to continue using the revised, more conservative ASI parameters until a Technical Specification change is issued. The inspector had no further questions concerning this matter.

3. Refueling Preparation

a. Scope

The receipt records and inspection reports for the 64 new fuel assemblies were reviewed. The fuel handling and core verification procedures were reviewed and it was ascertained that refueling related Technical Specification requirements were included in the refueling procedures. The containment polar crane inspection procedure and report were reviewed. The fuel handling equipment alignment checks were witnessed.

A fuel vendor document addressing the nuclear parameters of the new core was reviewed by the inspector. This submittal by the fuel vendor was made in anticipation of a licensee safety evaluation to support the position that operations with the new core will not require a change in the Technical Specifications and will not constitute an unreviewed safety question. The licensee safety evaluation is required by 10 CFR 50.59 and should be completed prior to reactor startup. This matter is unresolved pending review of the safety evaluation during a future inspection (318/79-16/01).

4. Document Reviewed

-- FH-1, Rev. 14, New Fuel Assembly and Control Element Assembly Handling, Inspection, and Storage

-- FH-1B, Rev. 1, Detwisting and Straightening of Fuel Bundles

-- FH-6, Rev. 4, Core Refueling Procedure

-- HE-4, Rev. 3, 10/25 Ton Polar Crane Shift and Daily Checkout

-- HE-5, Rev. 1, 180/25 Ton Polar Crance Periodic Checkout Procedure

-- Calvert Cliffs Unit 2 Cycle 3 Design Report by Combustion Engineering dated September 10, 1979.

c. Findings

The inspector noted that the containment polar crane inspection procedure, HE-5, Rev. 1, was extemely general and provided very little guidance to the crane inspector. In addition, crane inspector qualifications were not specified. These two concerns combined, result in a crane inspection of unknown thoroughness and quality.

Crane inspection records indicate that, in preparation for the 1979 refueling, the inspection was completed in two hours. A standard industry crane inspection, as described in ANSI B 30.2.0, would require considerably more than two hours to complete. Licensee representatives acknowledged these findings and agreed to revise the crane inspection procedure to conform to industry standards. This item is unresolved and will be reviewed prior to the next refueling (318/79-16-02).

5. Refueling Activities

a. Scope

The inspector verified that refueling prerequisite plant conditions, tests, and inspections were satisfied during the course of the refueling operations. Refueling activities were witnessed and compliance to Technical Specifications and applicable procedures was ascertained.

As part of the above inspection, fuel status boards were checked for accuracy and manning in the control room the refueling floor, and the spent fuel pool was compared to procedural requirements. Housekeeping and health physics practices on the refueling bridge and the refueling floor in general were inspected.

b. Findings

No items of noncompliance were identified.

6. Outage Maintenance and Surveillance

a. Scope

The procedures for maintenance and surveillance activities scheduled during the refueling outage were reviewed on a sampling basis to verify that the procedure format complied with the facility administrative requirements and that safety precautions, quality assurance and testing requirements were included. Where applicable, the maintenance related safety evaluation was reviewed to determine whether an unreviewed safety question was involved. Maintenance and surveillance activities were observed and maintenance workers were interviewed. Where applicable, material certification and welder qualification records were reviewed.

b. Document Reviewed

-- MR M-79-6036, Steam Generator Special Inspection Nozzle Fabrication

-- MR M-79-6043, #22B Reactor Coolant Pump Vent Line

-- Technical Support Procedure 27, Rev. 0, Reserve Battery Inspection and Service Test in Temporary Location

-- MR M-79-6021, Install 3/4" Mark 110 M3H Isolation Valve as Per FCR-78-126, Including Hanger Modification

c. Findings

No inadequacies were identified.

7. Pipe Supports and Restraints

a. Scope

The licensee snubber inspection procedures were reviewed and an inspection of containment snubbers was performed.

b. Documents Reviewed

-- STP M-13-2, Rev. 0, Snubber Inspection (Inaccessible)

-- STP M-12-2, Rev. 0, Snubber Inspection (Accessible)

-- STP M-11-2, Rev. 1, Snubber Functional Test

c. Findings

The inspector noted that the licensee had not revised the snubber functional test procedure to include temperature compensation factors (previous unresolved item 318/79-09-01). The snubber functional tests during the current outage will be performed without compensation for temperature differences at the test stand and the operating environment. The licensee has committed to include temperature compensation by January 1980.

A snubber visual inspection by the licensee is not scheduled during this refueling outage. A visual inspection by the inspector of containment snubbers and hangers did not identify any deficiencies.

8. Unresolved Items

Unresolved items are those items for which further information is required to determine whether they are acceptable or items of noncompliance. Unresolved items are contained in Paragraphs 4.a. and 4.c. of this report.

9. Exit

The inspector met with the licensee representative denoted in paragraph 1 on October 25, 1979 to summarize the scope and findings of the inspection. The two unresolved items were discussed at this time.