

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-317/82-20
50-318/82-17

Docket No. 50-317
50-318

License No. DPR-53 & 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, Units 1 and 2

Inspection at: Lusby, Maryland

Inspection Conducted: July 19-23, 1982

Inspectors: *D. L. Capiton for*
N. Blumberg, Reactor Inspector

8/19/82
date signed

Approved by: *D. L. Capiton*
D. L. Capiton, Chief Management
Programs Section

8/19/82
date signed

Inspection Summary:

Inspection on July 19-23, 1982 (Combined Inspection Report 50-317/82-20 and 50-318/82-17)

Areas Inspected: Routine, unannounced inspection by one region based inspector of administrative controls for facility procedures and facility operating procedures for technical adequacy and conformance to Technical Specifications and administrative controls. The inspection involved 34 inspector hours onsite by one region based inspector.

Results: Violations: None in one area and one in another area (Violation - Inadequate establishment of procedures - paragraph 3.C(1)).

DETAILS

1. Persons Contacted

- * J. Carroll, General Supervisor - Operations
- * G. Davis, Operations Engineer
- J. Lagiewski, Operations Engineering Technician
- * P. Rizzo, Electric and Controls Engineering Analyst
- * L. Russell, Plant Superintendent

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- R. Architzel, Senior Resident Inspector
- * D. Trimble, Resident Inspector

The inspector also interviewed other licensee personnel including reactor operators, staff engineers and technicians and clerical personnel.

* Denotes those present at exit interview.

2. Administrative Controls for Facility Procedures

Administrative procedures governing the preparation, review, approval, and control of facility procedures were inspected to determine their conformance with the requirements of 10 CFR 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants..."; Technical Specifications, Section 6, "Administrative Controls"; ANSI 18.7 - 1972 and 1976, "Administrative Controls for...Nuclear Power Plants"; and Regulatory Guide 1.33 - 1972 and 1978, "Quality Assurance...Requirements (Operation)". The following procedures were reviewed:

- CCI-100E, Calvert Cliffs Nuclear Power Plant Instructions and Notices, Change 3, April 12, 1982
- CCI-101H, Review and Approval Procedures for Proposed Calvert Cliffs Procedures, Change 1, December 10, 1981
- CCI-103E, Organization and Operation of the Plant Operations and Safety Review Committee POSRC, September 29, 1981
- CCI-106A, Special Orders by the Plant Superintendent, July 1, 1980
- CCI-114C, Plant Logs, Change No. 1, November 18, 1981
- CCI-119B, Shop/Lab Memos, July 10, 1980
- CCI-122B, Control of Technical Manuals, November 18, 1981
- CCI-132D, Requirements for Preparation and Use of Technical Support and Plant Engineering Procedures, February 26, 1982

- CCI-139C, Plant Operating Experience Assessment Committee, Change 2, March 30, 1982
- CCI-143, Administrative Control and Implementation of Technical Specification Changes, Change 1, February 16, 1982
- CCI-201C, Calvert Cliffs Nuclear Power Plant Maintenance Procedures, July 10, 1980
- CCI-204C, Functional Test Procedures, July 15, 1980
- CCI-205E, Setpoint Control Procedure, July 14, 1980
- CCI-300F, Calvert Cliffs Operating Manual (CCOM), Change No. 2, April 23, 1982
- CCI-302B, Calvert Cliffs Alarm Manual, July 2, 1980
- CCI-304B, Operations Unit Records Control, August 3, 1981
- CCI-306, Alarm Annunciator Control, March 13, 1981
- CCI-308, Temporary Notes in the Operating Spaces, January 6, 1982

No violations were observed.

3. Facility Procedures

- a. A sampling of facility operating, emergency, abnormal, and alarm response procedures were inspected for adherence to administrative controls specified in the procedures listed in paragraph 3 and for technical adequacy. The following items were verified:
 - Procedures, plus any changes, were properly reviewed and approved;
 - Overall procedure format and content were correct;
 - Checklists, when used, were compatible with instructions in the procedure;
 - Appropriate Technical Specification limitations had been included or referenced in the procedure;
 - Procedures were technically correct and conformed to the Technical Specifications or other appropriate reference documents;
 - Temporary changes were correctly implemented; and,
 - Procedures were properly controlled.

b. The following procedures were reviewed:

Note: When a Unit number is not specified in a procedure title, the procedure is applicable to both Units 1 and 2.

(1) General Operating Procedures

- OP-1, Plant Startup From Cold Shutdown to Hot Shutdown, Revision 19, June 25, 1982
- OP-6, Pre-Startup Checkoff, Revision 24, June 14, 1982

(2) System Operating Procedure

- OI-3, Safety Injection, Shutdown Cooling and Containment Spray Unit 1, Revision 25, July 14, 1982
- OI-5A, Containment Cooling, Revision No. 3, June 25, 1982
- OI-12A, Feedwater System Unit 1, Revision 12, June 18, 1982
- OI-15, Service Water System, Revision 14, June 21, 1982
- OI-20, Fire Protection System (Common), Revision 6, June 25, 1982
- OI-21, Emergency Diesel Generators, Revision 17, June 21, 1982
- OI-24, Spent Fuel Pool Cooling System, Revision 11, June 18, 1982
- OI-32, Auxiliary Feedwater System Unit 1, Revision 16, July 7, 1982
- OI-37, Loose Parts Monitoring System, Revision 6, March 17, 1982
- OI-42, CEDM System Operation, Revision 8, May 14, 1982

(3) Emergency Operating Procedures

- EOP-1, Reactor Trip, Revision 11, April 7, 1982
- EOP-6, Steam Generator Tube Rupture, Revision 7, May 7, 1982
- EOP-11, CEA Malfunctions, Revision 13, July 7, 1982

(4) Abnormal Operating Procedures

- AOP-2, Loss of Saltwater Cooling, Revision 3, September 9, 1981
- AOP-7, Inadvertent Boron Dilution, Revision 3, September 9, 1981
- AOP-11, Loss of Shutdown Cooling

(5) Miscellaneous Alarm Response procedures for Unit 1 Control Room annunciators. Individual procedures not listed.

c. Findings

(1) During the review of the above procedures, the inspector observed the following deficiencies:

- During this inspection an incident occurred in which system flow caused a saltwater discharge valve to shut, in turn, causing a complete loss of saltwater cooling to the service water system. The licensee was able to partially restore service water cooling by lining up saltwater through one service water cooler to an emergency saltwater discharge line. Complete details of this incident are included in Inspection Report 50-318/82-16.

Subsequent to the incident the inspector reviewed procedure AOP-2, "Loss of Saltwater Cooling". The discussion section of AOP-2 states that the loss of saltwater to an entire system is not a credible accident. It also discusses pump failure and system rupture as credible failures but fails to discuss the possibility of system blockage. Additionally, the system contains an emergency saltwater discharge line, yet, AOP-2 fails to address possible situations where this line may be needed. Based on these observations, the inspector considered AOP-2 inadequate in that it made incorrect assumptions and did not include reasonably expected failures or use of portions of the saltwater system designed for emergency use.

- T.S. 3.5.1.b states that Safety Injection Tank (SIT) volumes of 1,179 ft³ (8,820 gal.) and 1,113 ft³ (8,326 gal.) are equivalent to SIT levels of 199" and 187", respectively. Figure 2 of procedure O/I-3 shows a relationship of SIT level vs. volume. This figure shows 199" to equal 7,750 gallons and 187" to equal 7,125 gallons. The licensee concurred that the chart was incorrect and determined that it had failed to take into account 29" of level between the bottom of the level tap and the bottom of the tank. The chart had been included in the procedure without adequate review. The error was in the conservative direction and did not affect required levels in the tank or routine surveillances.

- OI-3, initial condition, paragraph X.A.3, states that Refueling Water Tank (RWT) level shall be greater than the low level alarm point (24"). The actual RWT low level alarm setpoint is 462".
- Regulatory Guide 1.33 - 1972, Appendix A, Paragraph E, states that each safety related annunciator should have its own written procedure. There was no procedure established for alarm H-3, "LPSI PUMP RA: OVERRIDE", on Unit 1 Control Room Annunciator Panel IC09.
- Precautions listed in procedures OI-21, "Emergency Diesel Generators"; OI-24, "Spent Fuel Pool Cooling System"; and OI-42, "CEDM Operation", stated to observe requirements of broad sections of the Technical Specifications, i.e., 3.6, 3.7 or 3.9. Each of these major sections contain many sub-sections of which only one or two may actually be applicable to procedure.

Because the specific Technical Specification sections were not referenced, these precautions could not be used effectively and were inadequate.

- OI-11, "Condensate System", and OI-32, "Auxiliary Feed-water System" both contain a Figure 1, Condensate Storage Tank Level vs. Volume. In each instance the curves were illegible rendering them virtually unusable.
- Records of past revisions to alarm response procedures were not being maintained, hence a procedure history file did not exist for these procedures.

Failure to establish procedures; failure to adequately establish procedures; and failure to maintain records of changes to operating procedures are contrary to Technical Specifications 6.8.1, and 6.10.1.f and constitute a violation (50-317/82-20-01, 50-318/82-17-01).

- (2) Procedure, CCI-308, "Temporary Notes in the Operating Spaces", specifies a tagging and logging procedure in order to control temporary notes, instructions and cautions in the operating spaces which affect plant equipment. The inspector observed that alarm setpoints were taped with label tape to most annunciators on the Control Room IC02 panels. In three instances the posted setpoints were not correct. These setpoint labels were not controlled, tagged, or logged as required. The licensee stated a determination initially had been made that CCI-308 did not apply to the labels, but concurred with the inspector that they did apply. The inspector observed that the labels were removed prior to the end of the inspection.

CCI-308 also requires that components shall be labeled with legible labels made of metal, mylar, "bakelite", or by painting.

Windspeed increment indicators for the 125' and 200' elevations for the windspeed recorders located in the Control Room were labelled with cardboard mark with pen and ink. The licensee stated that these indicators would be labeled in accordance with the requirements of CCI-308.

The inspector had no further questions at this time.

4. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, deviations or violations. No unresolved items were identified during this inspection.

5. Management Meetings

Licensee management was informed of the scope and purpose of the inspection at an entrance interview conducted on July 19, 1982. The findings of the inspection were periodically discussed with licensee representatives during the course of the inspection. An exit interview was conducted on July 23, 1982 (see paragraph 1 for attendees) at which time the findings of the inspection were presented.

A subsequent telephone discussion concerning the inspection findings was conducted between the inspector and Mr. J. Carroll on July 29, 1982.