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

# Region I

Report No. 50-318/78-24 50-317 Docket No. 50-318 DPR-53 License No. DPR-69 Priority -- Category C Licensee: Baltimore Gas and Electric Company Gas and Electric Building, Charles Center Baltimore, Maryland 21203 Facility Name: Calvert Cliffs Nuclear Power Plant, Units 1 and 2 Inspection at: Lusby, Maryland Inspection conducted: October 3-5, 1978 Inspectors: Q. 2 Annal date signed A. E. Finkel, Reactor Inspector GS 146 P.1.K. 11-1-78 P. J. Koltay, Reactor Inspector

Approved by:

S. D. Ebneter, Chief, Engineering Support Section No. 2, Reactor Construction and Engineering Support Branch

#### Inspection Summary:

50-317/78-27

Inspection on October 3-5, 1978 (Report Nos. 50-317/78-27 and 50-318/78-24) Areas Inspected: Routine, unannounced inspection to ascertain whether special work controls for fire prevention and protection during operation, modification, and maintenance activities continue to be implemented, in accordance with the licensee's response to IE Bulletins Nos. 75-04 and 75-C4A. The inspection involved 26 inspector-hours onsite by two NRC regional pased inspectors.

Results: Of the three areas inspected, no items of noncompliance were found in two areas; one apparent item of noncompliance was found in one area (Infraction - access controls, paragraph 11).

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# DETAILS

# 1. Persons Contacted

# Baltimore Gas and Electric Company

\*L. Russell, Nuclear Plant Engineer Operations
\*M. Bowman, Supervisor QA Audit Unit Operations
\*R. Denton, Supervisor, Technical Support
\*C. Woody, Assistant General Supervisor
\*D. Buf ington, Fire Protection Inspector
H. EggLeston, Assistant General Supervisor, Plant Services

\*denotes those present at the exit interview.

# 2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Items (317/77-29-02 and 318/77-26-02): Notification of Fire Protection Inspector when preventative maintenance (PM) and material request (MR) work on the fire safety system is to be performed. The inspector reviewed change 1 dated July 26, 1978 to CCI 133 titled Fire Protection Plan which states in part, "... the Fire Protection Inspection (FPI) when on site shall be consulted prior to deactivation, otherwise he shall be informed when he returns to the site..." This item is considered resolved.

# 3. Facility Inspection

The inspector participated in a tour of the Control Rooms, Switchgear Rooms, Cable Spreading Rooms, Battery Rooms, Electric and Diesel Pump Room, portions of the Turbine Building, and selected accessible Auxiliary Building areas. Items examined were randomly selected self contained breathing apparatus, cabinet interiors in the control room, fixed and portable fire fighting equipment in and outside of the buildings and the records of the licensee's inspection of this equipment.

The examined equipment was in acceptable physical condition, appeared operable, and contained evidence of the required inspections.

# 4. Work Control Procedures

- a. The inspector verified that there are work control procedures which define requirements for operations personnel, approval and control of modifications, maintenance, and repair activities. They are:
  - -- CC1-130, Outside Contractor Access Control Program Change 0.
  - -- CC1-200B, Maintenance Requests.
  - -- CC1-211A, Preventative Maintenance Program Change I.
  - -- QAP-14, Preventative and Corrective Maintenance.
  - -- QAP-16, Surveillance Tests.
- b. The inspector verified that there are work control procedures which require special authorization for activities involving welding, open flame, or other ignition sources. These procedures, require that a fire watch be established during these activities. There also are procedures describing plant communication equipment and its use. They are:
  - -- Site Emergency Plan Appendix A, Plant Communication Equipment.
  - -- CCI-124A, Fire Watch Program.
  - -- CC1-130, Outside Contractor Access Control Program, Change O.

In addition to the above procedures, a Fire Protection Program Evaluation Manual was issued in March 1977. This manual was prepared in accordance with NRC Branch Technical Position 9.5.1, Appendix A.

## 5. Quality Assurance Surveillance

- a. The inspector verified that there are quality assurance procedures that require periodic audit of work authorizations for modifications and maintenance activities to verify that operating personnel are controlling these activities. The procedures include:
  - -- QAP-21, Review and Audit of the Juality Assurance Program.
  - -- OQUAP-7, Quality Assurance Audi:s.
  - -- OQUAP-10, Review of Facility Change Requests.
- b. The inspector selectively reviewed the log of work requests and did not identify any related to penetrations.

The inspector reviewed the following audit report related to the fire protection system.

-- Audit Report FP-16-78, dated May 16-18, 1978.

The inspector verified that Quality Assurance audit FP-16-78 did verify that Quality Control inspections were periodically performed on modifications and maintenance activities to assure that they were authorized and that they conformed with the established plant fire procedures and controls.

- c. The inspector reviewed the following work request and surveillance test procedures.
  - -- MR 78-3198, Adding an in line isolation valve to the 6" fire main line Auxiliary Building.
  - -- STP No. 491, Fire Temperature Detectors.
  - -- STP No. 490-0, Smoke Detectors.
  - -- STP No. M492-0 Halon System Storage Tank Level and Pressure Verification.

The inspector determined that Facility Change Request (FCR-78-11) which generated MR-78-3198, was reviewed by quality control. The inspector also verified that the material request was executed according to governing procedures.

## 6. Design Change Control

- a. The inspector verified that administrative procedures have been established to control plant modification and repairs. These procedures provide control to preclude the use of flammable materials in the event seal repair or modification is necessary. They are:
  - -- E-406, Design and Construction Standards.
  - -- EEDP-2, Control of Changes, Tests, and Experiments.
  - -- QAP-15, Changes, Tests, and Experiments.
  - -- OQAUP-10, Review of Facility Change Requests.
- b. The inspector reviewed the log of modifications and determined that no changes to penetrations were made up to this inspection period.

## 7. Fire Training, Procedures and Drills

- a. The inspector verified that the following procedures were established for fire control and that fire drills are required.
  - -- Site Emergency Plan, dated May 5, 1977.
  - -- SEPIP-10, Emergency Teams Duties and Procedures.
  - -- SEPIP-11, Fire.
  - -- SEP1P-15, Emergency Training.
  - -- CC1-124A, Fire Watch Program.
  - -- CC1-133, Fire Protection Plan.
- b. The inspector verified that fire training was periodically conducted. The verifying records included:
  - -- CCTM No. 0-77-8, Duties of Emergency Fire Team.
  - -- CCTM No. 0-77-9, Emergency Fire Team.
  - -- CCTM No. 0-77-7 Site Emerging Plan-Emergency Fire Team.
  - -- Fire Brigade Training Record Book for 1978.

- c. The inspector reviewed the written preventative maintenance program for fire protection systems.
  - (1) The following procedures have been approved and issued.

#### Monthly PM

- -- Portable Fire Extinguishers No. 1-13-FP-M-1.
- -- Sprinkler Inspection, No. 13-FP-M-2.

#### Semi-Annual PM

- -- Yard Fire Hydrants, No. 1-13-FP-SA-1.
- -- Steel Rolling Curtains (Fusible Link Test), No. 13-FP-SA-2.
- -- Water Motor Gongs, No. 1-13-FP-SA-3.
- -- Foam Systems, No. 1-13-FP-SA-4.
- -- Halon System Inspection No. 1-13-FP-SA-6.

#### Annual PM

- -- Fire Hoses, No. 1-13-FP-A-1.
- -- Automatic Sprinkler, No. 1-13-FP-A2.
- DeLuge System Check, No. 13-FP-A3.
- Post Indicating Valve and Outside Screw Yoke Valves. No. 1-13-FP-A-4 defines 1-13-L-A-4 which lists Valve Nos. and Site Locations.
- -- Dry Pipe Valves, No. 1-13-FP-A-5.
- -- Portable Ansul Fire Extinguishers, No. 1-13-FP-A-6.
- -- Hydrostatic Test of Portable Fire Extinguishers, No. 1-13-FP-5 yr-1 and No. 1-13-FP-12 yr-1.

The inspector examined the weekly, monthly, semi-annual, and annual preventative maintenance records for January through September, 1978. The fire protection inspector maintains a record of the required and performed maintenance of the fire sytem in a Preventative Maintenance Manual (no number on manual). A review of the data in the PMM by the inspector indicated that the fire protection inspector was maintaining the equipment in accordance with the requirements listed above.

## 8. Emergency Shutdown Procedures

The inspector verified that there were plant procedures that provide alternate methods for accomplishing an orderly plant shutdown in the event of loss of normal and preferred alternate coolant. They include:

- -- AOP-2, Loss of Salt Water, Revision 1.
- -- AOP-3, Loss of Service Water, Revision 1.
- -- AOF-11, Loss of Shutdown Cooling, Revision 1.
- -- EOP-3, Loss of Main Feedwater, Revision 2.
- -- CCOM No. 75-228, Steam Line Rupture.
- -- CCOM No. 77-106, Loss of Reactor Coolant.
- -- EOP-8, Control Room Evacuation, Revision 1.
- Ol-3, Safety Injection, Shutdown Cooling and Containment Spray.

#### 9. Fire Inspection Report

The inspector reviewed the most recent fire inspection report of NEL-PIA, the licensee's fire insurer (File N-137, dated October 11, 25, 26, 27, 1977 for Calvert Cliffs Nuclear Power Plant Units 1 and 2). The recommendations of this report are under evaluation by the licensee.

The inspector reviewed Fire Protection Memo dated November 14, 1977 which requested that No Smoking signs be placed in the following areas.

- -- Cable Spreading and Switchgear Rooms.
- -- Control Rooms
- -- Control Room Cabinets

During a tour of the areas, the inspector verified that No Smoking Signs were placed in the areas requested in the Fire Protection Memo dated November 14, 1977.

The inspector had no further questions on the status of outstanding NEL-PIA recommendations at this time.

# 10. Exit Interview

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At the conclusion of the inspection on October 5, 1978, a meeting was held with the licensee representatives (denoted in paragraph 1). The inspector summarized the scope of the inspection and the findings.

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