

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-317/85-27
50-318/85-25

Docket Nos. 50-317
50-318

License Nos. 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: September 23 - 26, 1985

Inspectors: P. Clemons
P. Clemons, Radiation Specialist

10/18/85
date

T. Tuccinardi
T. Tuccinardi, Radiation Specialist

10/18/85
date

Approved by: M. Shanbaky
M. Shanbaky, Chief
PWR Radiation Safety Section

10/18/85
date

Inspection Summary: Inspection September 23-26, 1985 (Report Nos.
50-317/85-27 and 50-318/85-25)

Areas Inspected: Routine, unannounced preoutage safety inspection of the Radiation Protection Program including: control room habitability; preplanning and preparation; selection, training and qualification of contractor personnel; procedures; outstanding items; posting and labeling; and a spent fuel shipment. This inspection involved 56 inspector hours on-site by two regional-based inspectors.

Results: No violations were identified.

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DETAILS

1.0 Persons Contacted

1.1 License Personnel

- *L. Russell, Plant Superintendent
- *N. Millis, General Supervisor - Radiation Safety
- *J. Carlson, Assistant General Supervisor - Radiation Safety
- *L. Smialek, Senior Plant Health Physicist

NRC Personnel

- T. Foley, Senior Resident Inspector
- D. Trimble, Resident Inspector
- *T. Tuccinardi, Radiation Specialist
- T. Dragoun, Radiation Specialist
- J. Hayes, NRR
- T. Quay, NRR - Accident Evaluation Branch
- H. Gilpin, NRR - Accident Evaluation Branch
- J. Driscoll, Argonne National Laboratory
- R. McCormack, Argonne National Laboratory
- C. Matthews, Argonne National Laboratory

Other licensee employees were contacted and interviewed during this inspection.

*Attended exit interview on September 26, 1985.

2.0 Purpose

- Review of control room habitability;
- Review of outage preplanning and preparations;
- Review of training;
- Review of resumes for contractor radiation protection personnel; and
- Review of a spent fuel shipment

3.0 Status of Previously Identified Items

(Closed) Inspector Followup Item (317-318/84-32-04). Verify that the conditions of the Certificate of Compliance are followed. The inspector noted that check lists had been modified incorporating the conditions of the Certificate of Compliance.

(Closed) Inspector Followup Item (317-318/85-12-02). One year outstanding deficiency identifying leakage problem on valve 2-CVC-376. The inspector determined that the valve leakage problem had been corrected.

4.0 Control Room Habitability

The licensee's program to ensure that the control room will be habitable under accident conditions was reviewed against criteria contained in:

- Technical Specification 3/4.7.6, "Control Room Emergency Ventilation System".
- 10 CFR 50, Appendix A, Criterion 19, "Control Room".
- Reg. Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against An Accidental Chlorine Release".
- Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release".

The licensee's performance relative to these criteria was determined by:

- Review of the control room ventilation system, P&ID drawings, operating procedures, emergency procedures, and surveillance tests.
- Walk-down of the ventilation system, and direct observation of automatic transfer into the isolation mode of operation.
- Interviews with control-room operators.
- Measurement of temperature and air flow in the control room, cable spreading room, inside instrumentation panels, and inside the ventilation ducts.

Within the scope of this review, no violations were identified. However, the inspector noted that some bellows gaskets were leaking, and some flange bolts were loose in the ventilation system. The inspector stated that inspection and repair of this system was needed to minimize in-leakage during an accident. This matter will be reviewed in a future inspection. (50-317/85-27-01 and 50-318/85-25-01)

5.0 Planning and Preparation

The licensee's effort in advanced planning and preparation for the upcoming outage were reviewed against the criteria contained in 10 CFR 20.201, "Surveys", Regulatory Guide 8.8, "Information Relevant To Ensuring That Occupational Radiation Exposures At Nuclear Power Stations Will Be As Low As Is Reasonably Achievable", and Regulatory Guide 8.10 "Operating Philosophy For Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable."

The licensee's performance relative to these criteria was determined by discussions with the Outage Coordinator, the Radiation Control-ALARA Supervisor and by reviewing documents. The major tasks reviewed included:

- a. Entries into steam generators to install and remove nozzle dam equipment.
- b. Entries into steam generators to install and remove eddy current test equipment.
- c. Work on reactor coolant pumps.
- d. Removal of incore instrumentation.

The Radiation Control - ALARA group has been extensively involved in the appropriate phases of the outage preplanning and preparation.

Within the scope of this review, no violations were identified.

6.0 Posting and Labeling

The licensee's program for area posting and control was reviewed against the criteria in 10 CFR 20.203, "Caution signs, labels, signals and controls."

The licensee's performance relative to these criteria was determined from a tour of the Controlled Areas and from discussions with staff members.

Within the scope of this review, no violations were identified.

7.0 Selection, Training and Qualification of Contractor Personnel

The licensee's selection, qualification, and training of Contractor personnel for this outage were reviewed against criteria contained in 10 CFR 19.12, "Instructions to Workers" and ANSI 18.1 - 1971, "Selection and Training of Nuclear Power Plant Personnel".

The licensee performance relative to these criteria was determined by discussion with the Radiation Control Supervisors, Training Representatives and by reviewing documents.

Within the scope of this review, the following was identified.

The licensee expects about 250 trade contractors will be involved in outage activities. A formalized training program designed specifically for all expected additional personnel will be implemented. Twenty hours are required for General Employee Training. This training is comprised of site specific, security, emergency response, and radiation protection training. A two hour abbreviated training course is offered for personnel who can demonstrate prior knowledge of subject areas.

A practical factors (i.e. donning and removal of protective clothing, frisking) training segment is provided for each individual involved in the training program to permit familiarization with a typical work place and the work practices that are expected. Mock up training for Baltimore Gas and Electric (BG&E) personnel is provided for steam generator entry and exit, main coolant pump seal replacement, and refueling related head disassembly.

Approximately 65 contractor health physics technicians will be required to support outage activities. The licensee appears to have selected the personnel with consideration to previous academic and occupational experience.

Written examinations are to be given to verify that personnel have an understanding of the required subject material. An 80% passing grade is required.

At the time of this inspection, no contractor health physics personnel, hired for this outage, had arrived on site.

Within the scope of this review, no violations were identified.

8.0 Procedures

The adequacy and effectiveness of certain of the licensee's procedures were reviewed against the criteria contained in Technical Specification 6.8, "Procedures".

The licensee's performance relative to these criteria was determined by discussions with the Radiation Control Supervisor - ALARA and by reviewing certain procedures.

Procedures reviewed included the following:

- Procedure No. RSP 1-106, "Special Work Permit."
- Procedure No. RSP 1-115, "ALARA Procedure."
- Procedure No. RSP 2-301, "Respiratory Protection Device Maintenance."
- Procedure No. RSP 2-306, "Operation and Maintenance of the Containment Plant Breathing Air."
- Procedure No. RSP 2-305, "Selection, Issuance and Wearing of Respiratory Protection Devices Used at CCNPP."
- Procedure No. RSP 2-201, "Receipt and Tagging of Radioactive Material and Transport Packages."
- Procedure No. FH-33, "Procedure For Use Of Spent Fuel Shipping Cask Types NLI 1/2."

Within the scope of this review, no violations were identified.

9.0 Spent Fuel Shipment

The licensee's program for the transportation of spent fuel was reviewed against the criteria in 10 CFR 71.12, "General License: NRC approved packages."

The licensee's performance relative to these criteria was determined by interviewing a Fuel Cycle Engineer, a Quality Control Supervisor, and by reviewing appropriate documents.

Within the scope of this review, the follow was identified:

The inspector determined that on September 23, 1985, the Department of Energy (DOE), accepted for shipment from the licensee at the Lusby, Maryland site, a shipping cask identified as Model NLI 1/2. The cask contained one irradiated fuel assembly with an activity of 222,000 Curies.

The inspector determined that although the licensee was not the shipper, the licensee had prepared the cask for shipment, therefore the license would be expected to follow all regulatory requirements. The inspector determined that the licensee is a registered user; had a copy of the Certificate of Compliance (C of C), had a copy of all documents referenced by the certificate; and had complied with the conditions required by the C of C.

Within the scope of this review, no violations were identified.

10.0 Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on September 26, 1985. The inspector summarized the purpose and scope of the inspection, and the inspection findings.

At no time during this inspection, was written material given to the licensee.