

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-317/88-24
50-318/88-24

Docket Nos. 50-317
50-318

License Nos. DPR-53 Priority --- Category C
DPR-69

Licensee: Baltimore Gas and Electric Company
P. O. Box 1475
Baltimore, Maryland 21203

Facility Name: Calvert Cliffs Nuclear Power Plant Units 1 & 2

Inspection At: Lusby, Maryland

Inspection Conducted: October 11-13, 1988

Inspectors: Craig Z. Gordon 11/2/88
C. Z. Gordon, Emergency Preparedness date
Section, FRSSB, DRSS
S. Peleschak, EPS

Approved By: W. J. Lazarus 11/8/88
W. J. Lazarus, Chief, EPS, date
FRSSB, DRSS

Inspection Summary: Inspection on October 11-13, 1988 (Report Nos. 50-317/88-24 & 50-318/88-24)

Areas Inspected: Routine, announced safety inspection of the emergency preparedness program including review of previously identified inspection findings, changes to the emergency preparedness program, review of organization and management control, inspection of independent program audits, and inspection of emergency response organization training.

Results: No violations were identified. The Emergency Plan, Emergency Response Plan Implementing Procedures (ERPIP), and the emergency planning program are being implemented in a manner to adequately protect public health and safety.

DETAILS

1.0 Persons Contacted

- * A. Anuje, Supervisor, Quality Audits Unit
- * V. Bradley, Security Coordinator
- * J. Carroll, General Supervisor, Quality Assurance
- D. Dean, Security Training Specialist
- * R. Denon, Manager, Quality Assurance and Staff Services
- J. Dickerson, Quality Assurance Engineer
- * T. Forgette, Supervisor, Emergency Planning Unit
- W. Fræesland, Supervisor, Safety and Fire Protection
- * D. Shaw, Licensing Engineer
- * A. Vogel, Supervisor, Technical Training

* Denotes attendance at exit meeting

2.0 Licensee Actions on Previously Identified Items

OPEN (50-317/88-04-01 and 50-318/88-05-01) During the loss of annunciator event which occurred on February 1, 1988, the inspector found that some Emergency Action Levels (EAL) did not conform to the guidance of NUREG-0654 while others were inappropriate for the levels of intended response. The licensee agreed to evaluate accident related symptoms, events, and compatibility with existing Emergency Operating Procedures.

The licensee established a task force of department representatives from radiation safety, operations training, emergency preparedness, and fuel cycle management to review current EAL's and compare them with the criteria and initiating conditions of NUREG-0654. Task force recommendations and EAL revisions were issued to the Plant Operations and Safety Review Committee (POSRC) and operations personnel for review and comment. Following resolution of comments, ERPIP 3.0, "Immediate Actions" was revised to include updated EAL changes and presented to POSRC on September 28, 1988. The inspector noted significant changes in initiating conditions relative to emergency classifications for fission product barrier degradation, radioactivity release, and containment degradation. The changes, which are currently implemented, do not appear to decrease the overall effectiveness of the Emergency Plan. However, classroom training and performance training (demonstration by key response personnel in drills or exercises) has not been completed.

CLOSED (50-317/88-04-02 & 50-318/88-05-02) During the loss of annunciator event, a deviation from ERPIP 3.0 was made by the licensee in that a partial staff augmentation and facility activation in response to the emergency was authorized by the Site Emergency Coordinator (SEC). A Notice of Violation was issued for failure to implement established Emergency Plan Procedures.

In the licensee's response of April 21, 1988 to the NRC, they believed that the actions taken for partial organization and facility activation were satisfactory to meet the intent of ERPIP 3.0, but were not strictly in accordance with the procedure. The need for full activation following declaration of an Alert classification was emphasized to all departments in training and correspondence and the loss of annunciator EAL changed as part of the licensee's comprehensive EAL review.

3.0 Changes to Emergency Preparedness Program

The inspector reviewed the licensee's records of changes to the Calvert Cliffs Emergency Response Plan Implementing Procedures made during 1987 and 1988. Aside from EAL revisions, no major changes were noted in the Plan. Implementing procedures were evaluated during the 1987 exercise and are adequate and up to date.

Page 1-4 of the Emergency Response Plan was revised to reflect that ERPIP's are to be used at the Alert (or higher) classification. Review of the ERPIP's indicate that in some cases initiating conditions also relate to the Unusual Event classification. The Supervisor, EP Unit stated that the ERP would be clarified to cover all emergency classifications.

One facility change occurred during 1988 by the addition of the Nuclear Emergency Facility (NEF) located on the first floor conference room of the NEF building. The function of the NEF as an emergency response facility is to provide systems engineering and design engineering support to the control room and TSC during emergencies beginning at the Alert classification. These functions have been transferred from the TSC because most engineering staff, supplies, drawings, etc. are permanently located in the NEF and therefore more readily accessible at any time. Communication links and a separate equipment locker have been designated for NEF use during emergencies. In order to assess its adequacy, NEF capabilities and function should be evaluated during the next scheduled exercise.

On September 21, 1988, the licensee transmitted a letter to NRC indicating relocation of the Operations Support Center (OSC) from the South Service Building to the Interim Office Building. The inspectors observed the proposed facility and found it to be adequate in size and space. The licensee provided a schedule of dates when the design, construction, and transfer of the facility will be completed. Official use of the new OSC is expected in 1989.

A major upgrade in the licensee's onsite emergency communications system was completed in September 1988. The system, entitled "Emergency Response Speed Dial Network", provides individual speed-dial telephones for directors, managers, communicators, and key responders in each emergency response facility. To ensure communication efficiency, each phone has speed dialing (two-digit code) and 3-way conferencing.

The system appears to have the capability to improve information flow within and between facilities.

The inspector found that to satisfy the requirements of 10 CFR 50, Appendix E.IV.B. regarding annual review of the EAL's with State and local authorities, the licensee schedules annual meetings with key officials from the Maryland Department of Environment, Center for Radiological Health and Calvert and St. Mary's counties. Such meetings were conducted in 1986 and 1987, but for 1988 the Supervisor, EPU indicated that the 1988 meeting was delayed due to changes being made in the EAL scheme, and expected the meeting to be held sometime in November 1988.

4.0 Independent Reviews/ Audits

Independent quality assurance reviews of the EP Unit are performed by the Quality Audits Unit and have been adequately conducted to meet the requirements of 10 CFR 50.54(t). The inspector reviewed the results of audits conducted during 1986 and 1987 and discussed the preliminary findings of the 1988 audit with EP and QA staffs.

Specific checklists were used by the QA staff to perform the audits in 1986 and 1987. In 1988, the checklists were supplemented by INPO guidance and resulted in a more comprehensive program audit. The inspectors reviewed the upgraded audit criteria/ checklist and noted that auditors must interpret NRC rules if those items of the checklist which relate to key EP program areas are to be used. For other programmatic areas, audit criteria are directly associated with the planning standards of 10 CFR 50.47 (b) and 10 CFR 50, Appendix E. Any findings or recommendations identified by auditors could be considered either as items of non-compliance or violations of NRC requirements. The inspector found that the checklist design is in need of clarification for those items which auditors have linked to NRC rules. Further, discussions with members from the QA staff and EP staff revealed that a difference of opinion exists in the manner in which review criteria are to be applied.

The licensee has maintained in effect an Emergency Plan and EP program to satisfy NRC regulations. The inspector explained that it was necessary for both EP and QA staffs to concur in what criteria would be used to perform future audits. The Manager, QA & SS, who has authority over both Units, agreed that improved coordination between the two staffs was needed and indicated that review criteria acceptable to each Unit would be identified.

Results of audits identified only minor EP Unit deficiencies. A corrective action system is in place to resolve program deficiencies and the actions taken by the EP staff appeared timely and technically adequate.

Findings and recommendations are discussed by the auditor with the QA Supervisor and senior auditor. This appears to be the only QA management involvement since results are transmitted directly from the auditor to the Supervisor, EP Unit. The inspector noted that although QA management maintains the status of open items within its Unit, reports do not receive authorization from either the Supervisor, QA Unit or General Supervisor, QA prior to issuance.

5.0 Organization and Management Control

The inspector held discussions with cognizant licensee management and reviewed documents on the emergency response organization and emergency preparedness program management. The inspection also focused on interfaces and coordination between onsite, offsite, and corporate organizations and adequacy of management effectiveness.

Reorganization of the Nuclear Energy Division (NED) resulted in a change in reporting chain of the EP Unit. Under the new organization the EP Unit will report to the Vice President, NED through the Radiation Safety General Supervisor and QA & SS Manager. Although this change provides an additional level of management in the EPU reporting chain, the Manager, QA & SS stated that upper level management attention and support for the EP Unit would continue.

A licensee Facility Change Request (FCR) has been made to remove the organization charts from the technical specifications to the FSAR. This will designate the FSAR as the controlling document for future changes of the onsite organization and subject any change to FSAR review.

6.0 Knowledge and Performance of Duties

The inspectors reviewed the licensee's program for emergency response training and noted that Attachment 1 of ERPIP 5.4 identifies a training matrix of specific initial training for different categories of personnel within the Emergency Response Organization (ERO). These include Site Emergency Coordinators (SEC), emergency response facility directors, and team members for technical support, dose assessment, radiation surveys, inplant repair, first aid and rescue, and chemistry.

Discussions were held with the Technical Training Unit (TTU) Supervisor who provided training lesson plans, examination material, examination results, and attendance records of site personnel. Composite training records are maintained via the TTU database files. The TTU conducts General Orientation Training for new personnel and site visitors. Onsite ERO training is shared among the TTU, EP Unit, and Operations Training Unit as follows:

The EP Unit is responsible for training of key ERO personnel and providing instruction in emergency classification, protective action recommendations, technical support, and immediate actions training; the TTU is responsible for inplant team training including teams to carry

out onsite/offsite surveys, chemistry, first aid, and dosimetry. Both Units provide classroom training in the radiological assessment area.

Training of offsite fire departments and local law enforcement personnel is provided by the Safety and Fire Protection Unit and Security Unit, respectively. At least three (3) individuals are qualified in each ERO position. Following interviews with the Supervisor, TTU the inspectors determined that the background and experience of instructors appeared adequate to provide most ERO instruction. Instructors, who are most knowledgeable about implementing procedures, conducting walkthroughs, and developing scenarios, are used during drills and exercises only as controllers or observers and do not participate as responders. Since instructors are considered qualified to function in many different response roles, the inspectors discussed with the Supervisors, EP Unit and TT Unit, the possibility of designating training instructors as part of the ERO and provide them the opportunity to participate in drills and exercises.

Lesson plans are detailed and focus on important response elements or implementing procedures. Self-study guides are used to supplement lesson plans to provide refresher training for inplant teams. Practical factor checklist which require individuals to perform specific tasks associated with their response function are also used for offsite monitoring, post-accident sampling, and dose assessment teams during walkthrough exercises.

Inspection of licensee training records indicated that they were complete and up to date. Exam questions relate directly to lesson plan material. The inspectors reviewed results of ERO training performed in 1988 (approximately 300-400 records) and noted a 100% pass rate of all examinees, i.e., all scores exceeded the 80% passing criteria. Although performance of response personnel has consistently been demonstrated in drills and walkthrough exercises, the inspector questioned whether or not administration of exams is meaningful given the high pass rate. The TT Unit Supervisor stated that training materials would be evaluated to make examinations more challenging.

7.0 Exit Meeting

The inspectors met with the licensee personnel denoted in Section 1 at the conclusion of the inspection to discuss the findings as presented in this report. The inspectors also discussed some areas for improvement. The licensee acknowledged the findings and agreed to evaluate them and institute corrective actions as appropriate.

At no time during the inspection did the inspectors provide any written information to the licensee.