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Docket Nos. 50-317
50-318

Baltimore Gas and Electric Company
Calvert Cliffs Nuclear Power Plant
ATTN: Mr. George C. Creel
Vice President, Nuclear Energy
MD Rts 2 and 4, Post Office Box 1535
Lusby, Maryland 20657

Dear Mr. Creel:

Subject: NRC Region I Resident Inspection Report Nos. 50-317/91-13 and 50-318/91-13

This refers to your letter dated July 29, 1991, in response to our letter dated June 27, 1991.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

ORIGINAL SIGNED BY:
CURTIS J. COWGILL
Curtis J. Cowgill, Chief
Reactor Projects Branch No. 1
Division of Reactor Projects

cc:
G. Dettler, Director, Nuclear Regulatory Matters (CCNPP)
R. McLean, Administrator, Nuclear Evaluations
J. Walter, Engineering Division, Public Service Commission of Maryland
K. Burger, Esquire, Maryland People's Counsel
R. Gchs, Maryland Safe Energy Coalition
K. Abraham, PAO
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of Maryland (2)

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bcc w/BG&E Letter Dated 7/29/91:
Region I Docket Room (with concurrences)
J. Joyner, DRSS
C. Cowgill, DRP
J. Yerokun, DRP
L. Nicholson, DRP
S. Greenlee, DRP
R. Lobel, EDO
R. Capra, NRR
D. McDonald, NRR

RI:DRP
LNicholson/mjc
12/10/91

RI:DRP
CCowgill
12/14/91

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CHARTERS CENTER • P.O. BOX 1475 • BALTIMORE, MARYLAND 21203-1475

GEORGE C. CREEL
Vice President
Sales & Marketing

July 29, 1991

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318
NRC Region I Resident Inspection Reports Nos. 50-317/91-13 and
50-318/91-13 (May 5, 1991 to June 1, 1991)

REFERENCES: (a) Letter from Mr. C. W. Hehl (NRC) to Mr. G. C. Creel (DG&E),
dated June 27, 1991, same subject

Gentlemen:

Reference (a) Appendix A forwarded a Notice of Violation regarding inadequate implementation of
our cleanliness control program at Calvert Cliffs. Attachment (1) provides our response to the
Notice of Violation as requested in Reference (a).

Should you have any further questions regarding this matter, we will be pleased to discuss them with
you.

Very truly yours,

GCC/RCG/hjd

Attachment

- cc: D. A. Brune, Esquire
- J. E. Silberg, Esquire
- R. A. Capra, NRC
- D. G. McDonald, Jr., NRC
- T. T. Martin, NRC
- L. E. Nicholson, NRC
- R. J. McLean, DNR
- J. G. Walter, PSC

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ATTACHMENT (1)

REPLY TO A NOTICE OF VIOLATION INSPECTION REPORT 50-317/91-13; 50-318/91-13

I. DESCRIPTION AND CAUSE OF THE VIOLATION

The Notice of Violation (Appendix A) of Reference (a) cites four licensee identified examples as evidence that our cleanliness controls were not being adequately implemented in accordance with established procedures.

Examples cited were:

The presence of foreign material found in and around the Spent Fuel Pool.

The presence of foreign material and debris found in the Unit 1 and Unit 2 Containment Emergency Sumps and Safety Injection Lines.

Work performed within the Unit 2 Containment Sump without adequate cleanliness or foreign material controls.

A plastic bottle found inside the Unit 2 Pressurizer.

We have identified that the cause of the violation was due to an insufficient level of personnel awareness to cleanliness controls.

The applicable procedures were Quality Assurance Procedure No. 14 "Plant Maintenance," Calvert Cliffs Instruction (CCI)-107 "Area Cleanliness," and CCI-206 "Personnel and Material Accountability."

II. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

In 1990 we recognized the need to upgrade our cleanliness controls and improve personnel accountability. A thorough review of CCI-107 and CCI-206 was conducted to enhance these procedures to specifically focus on system cleanliness criteria and foreign material exclusion controls, respectively. Extensive training was provided to personnel to increase their level of awareness to these controls and their responsibility and need to protect system integrity.

We have taken the following corrective actions to address the concerns associated with our foreign materials exclusion and cleanliness controls programs.

- A. Following the extensive review and upgrade process initiated in 1990, significant procedural revisions to CCI-107, Revision J "System Cleanliness Criteria" and CCI-206, Revision I "Foreign Material Controls" were implemented on March 15, 1991. CCI-107 was changed from "Area Cleanliness Requirements" to "System Cleanliness Criteria." This change was made, in part, to better define the boundaries of control between CCI-107 and CCI-206. CCI-107 was changed to limit its scope to criteria for system cleanliness and flushing requirements for returning a system to service. Area Cleanliness Classes and Clean Area Requirements were moved to CCI-206. CCI-206 defines and establishes administrative controls, responsibilities, work planning and the implementation of foreign material exclusion, recovery and evaluation. Increased personnel awareness of foreign material controls is now provided by the Foreign Material Control Checklist of CCI-206 which is posted and reviewed at the job site. A central listing of general good housekeeping requirements for work in all foreign material control zones is provided in CCI-206. These two

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REPLY TO A NOTICE OF VIOLATION INSPECTION REPORT 50-317/91-13, 50-318/91-13

instructions now more explicitly state the foreign materials exclusion and cleanliness controls programs.

- B. On November 8, 1990, the Spent Fuel Pool Area Coordinator position was established to provide additional oversight for improvement of cleanliness controls during work conducted in the Spent Fuel Pool Area.
- C. A maintenance procedure has been implemented to provide for the installation and removal of a temporary containment emergency sump cover to prevent the entry of foreign materials into the sump during periods of plant shutdown (MODIS 4, 5, and 6 or defueled condition).
- D. The Independent Safety Evaluation Unit (ISEU) conducted an evaluation of the effectiveness of existing clean area controls and the results were presented to the Plant Operations Safety Review Committee (POSRC) on April 15, 1991. The committee endorsed the ISEU recommendations by assigning two Outstanding Items (OIs) to address the concerns for:
1. The implementation of a training program for personnel who work in clean areas.
 2. Additional revisions of CCI 107 and CCI 206 to improve their usability in the field.
- E. In anticipation of the implementation of the March 1991 revisions of CCI 107 and CCI-206 (see Section II.A), Chemistry and the Training Support Unit (TSU) conducted training on the requirements of these instructions between December 13, 1990 and April 19, 1991. Over eight hundred plant personnel including Supervisors, Engineering, Maintenance, Operations and contractors attended these training sessions. The training provided an increased awareness and working knowledge of these recently changed CCIs. The training program emphasized the responsibility and need of individual to protect plant systems and components from foreign materials and to maintain system cleanliness.

In addition, the TSU reviewed twelve existing training programs for personnel who routinely enter or work in clean areas. Each program's current cleanliness control practices were evaluated for additional items which could enhance the training. An action plan was developed to include identified enhancements in these training programs which were determined to need upgrading. Implementation of training for personnel who work in clean areas was achieved on June 5, 1991.

Several items from the action plan have been implemented:

- The Lesson Plans for Part I General Orientation Training (GOT) and annual retraining for all plant personnel with access to the Protected Area have been revised to include awareness information concerning Clean Area Controls and System Cleanliness. This information includes: (1) the purpose of clean area controls, (2) the consequences of the lack of controls, and (3) control measures such as postings, access logs, watches, and entry requirements. Additionally, a "Clean Area" has been posted in the GOT Mock-up training facility. The effective date of inclusion of these items was June 27, 1991.

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- The initial operator training program (Basic Operator Orientation) has also been revised to include an overview and checkout on Foreign Materials Controls (CCI-206).
- A written qualification standard specific to Radiation Safety Technician responsibilities with respect to CCI-206 and the addition of a corresponding qualification signature to the Rad Safety Indoctrination Qualification Card was approved on May 30, 1991.

The above actions have strengthened our cleanliness controls program. The Non-Conformance Report (NCR) issued in November 16, 1989 based on an ISIU trend report documenting multiple failures to implement cleanliness controls was closed on June 29, 1991. Its closure included a review of the NCR data base which revealed a decreasing trend in the number and significance of cleanliness control issues. No cleanliness control related NCRs were identified for June, 1991.

III. CORRECTIVE ACTIONS WHICH WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

CCI-107 and CCI-206 are currently undergoing a review to improve their usability in the field. Revisions will be made to help clarify these instructions. The revisions are based upon recommendations made by supervisory, maintenance, technical and planning personnel during the training on CCI-107 and CCI-206 (see Section II.F). The Foreign Material Control Checklist of CCI-206 is being clarified and a guideline for use of the checklist will be included in CCI-206. The expected completion date for these changes is October 1, 1991.

A new instruction, CCI-231 "Conduct of Maintenance," has been written to clarify and formalize management expectations on the conduct of maintenance. It is intended to be used as a day to day guide for maintenance personnel. Specifically, they shall comply with the requirements of CCI-107 and CCI-206 concerning plant housekeeping. Currently, this new CCI is scheduled to be implemented on August 19, 1991.

Our ISIU currently trends cleanliness problems and is responsible for identifying adverse trends and reporting such trends to site management for corrective action.

Additional corrective actions for training are scheduled to be implemented. These include:

- Reference to CCI-206 will be added to the Confined Space and Job Supervisor Confined Space Training Programs, and one-half of the confined space mock up will be designated as a clean area. The expected completion date is August 1, 1991.
- Qualification checkout covering CCI-107 and CCI-206 will be added to the following Engineer Qualification Cards: Reliability, Performance, Systems, and Design Engineering. The expected completion date is December 31, 1991.
- The new proposed Certification of Level I Inspectors "Self Study Guide" and "Performance Evaluation" for Chemistry Technicians to perform major component close-out inspections will include specific reference to CCI-107 and CCI-206 as enabling objectives. The expected completion date is September 30, 1991.

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III. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

We are currently in full compliance based upon the actions that we have taken to enhance our cleanliness controls program. Furthermore, the scheduled enhancements and previously mentioned trending program will ensure continued compliance.