U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-317/82-12
50-318/82-14

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 and Corporate Offices, Baltimore, Maryland

Inspection Conducted: May 17-21 and 25-27

Inspectors: G. W. Meyer 8-18-82
G. W. Meyer, Reactor Inspector date

Approved by: D. L. Caphton 8/19/82
D. L. Caphton, Chief, date
Management Programs Section, DETP

Inspection Summary:

Inspection on May 17-21 and 25-27, 1982 (Report No. 50-317/82-12; 50-318/82-14)

Areas Inspected: A routine, unannounced inspection by the region-based reactor inspector of licensee action on previous inspection findings; receipt, handling, and storage; procurement; quality assurance review; and document control. The inspection involved 42 hours onsite and 12 hours at the corporate offices.

Results: Violations: None in four areas.

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DETAILS

1. Persons Contacted

G. Brobst, General Supervisor, Chemistry
E. Campo, Supervisor, Quality Control (QC) - Surveillance and Receipt Inspection
J. Carroll, General Supervisor, Operations
J. Dahlquist, Principal Engineer, Instrumentation and Control Engineering
W. Evans, Supervisor, Storeroom
R. Hiebel, Principal Engineer, Technical Support Group
G. Hinton, Supervisor, Quality Assurance (QA) Auditing
R. Lloyd, Supervisor, QC - Mechanical
P. McGrane, Technical Librarian
** B. O'Connor, Engineering Technician, Nuclear Plant Engineering (NPE)
** R. Olson, Principal Engineer, Nuclear Licensing and Analysis
* L. Russell, Plant Superintendent
*** L. Sundquist, Supervisor, Engineering Quality Assurance
* T. Snydor, General Supervisor, Operations QA
** D. Thomas, Engineering Technician, NPE
** A. Thornton, Principal Engineer, NPE
** R. Zumbrum, Engineering Technician, NPE

USNRC

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

* Present at site exit interview on May 27, 1982.
** Present at corporate engineering exit interview on May 20, 1982.
*** Present at corporate quality assurance exit interview on May 21, 1982.

2. Licensee Action on Previous Inspection Findings

a. Performance Appraisal Inspection

NRC Performance Appraisal Inspection 50-317/82-01; 50-318/82-01 was completed on February 11, 1982, and reported on April 14, 1982, by the Performance Appraisal Section (PAS). The Baltimore Gas and Electric (BG&E) response to the inspection was documented in a letter to the NRC dated May 13, 1982. The following items represent findings and observations from the PAS inspection.

(Closed) Potential Enforcement Finding (Paragraph 3.a.7). Failure to audit corrective action systems. Technical Specification paragraph 6.5.2.8.c states that the Off Site Safety Review Committee (OSSRC) shall audit "the results of actions taken to correct deficiencies occurring in facility equipment, structures, systems, or methods of operation that affect nuclear safety at least once per six months."

Contrary to the above, PAS found that "the only subject audited to fulfill this requirement . . . was the Licensee Event Report (LER) system. Other systems used to identify and correct nuclear safety deficiencies, such as Maintenance Requests (MR's) and Non-Conformance Reports (NCR's), were not included."

The licensee's representative stated that in 1981 the above requirement was met by the following audits:

-- Audit LER-1-81, Licensee Event Reports, January 30, 1981;

-- Audit 14-17-81, Plant Maintenance, July 15, 1982 (included MR's);

-- Audit 26-16-81, Non-Conformance Reports, August 20, 1981; and,

-- Audit LER-28-81, Licensee Event Reports, October 13, 1981.

Further, the licensee's representative stated that corrective actions were reviewed as part of the audits of individual organizations (i.e., chemistry, training, etc.).

The inspector agreed that the licensee actions complied with the Technical Specification requirements. This item is closed.

(Closed) Potential Enforcement Finding (Paragraph 6.a.4.). Failure to perform quality control surveillances of operations. Quality Assurance Procedure (QAP) 25, "Plant Operations," states that the General Supervisor, Operations Quality Assurance "is responsible for planning and performing surveillance and surveillance audits of plant operations to verify compliance with this Procedure." Contrary to 10 CFR 50, Appendix B, Criterion V, "Procedures," PAS found that the activities described in the above procedure were not being accomplished in that "surveillances or independent inspections of plant operations had not been planned or performed as required."

A licensee's representative stated that the QAP-25 requirements had been met by the following:

-- Inspections of maintenance activities included witnessing the tagout, testing of equipment, and tag clearance performed by operators.

-- Surveillances had been performed by QA personnel in the areas of surveillance testing and water treatment, involving operations personnel.

-- QA audits of plant operations included observations, such as verification of proper shift manning levels.

The inspector verified the above actions had been performed. Accordingly, the inspector concluded that this item was not a violation. This item is closed.

(Closed) Potential Enforcement Finding (Paragraph 7.a.4.). Failure to properly complete Non-Conformance Reports (NCR's). Criterion V of 10 CFR 50, Appendix B, states that activities affecting quality shall be accomplished in accordance with documented procedures. Procedure OQASP-1, Control of Non-Conformance Reports (NCR's) specifies that the long term corrective action to prevent recurrence is to be described in Part B of the NCR form. Contrary to the above, the PAS inspector found that Part B of several NCR's, including NCR 2594, was not filled out with corrective action to prevent recurrence.

A licensee representative stated that the above finding was corrected by means of correcting the identified examples, by checking additional NCR's for possible omissions in Part B, and by reinstructing applicable personnel in the proper NCR completion procedure. The representative stated that the licensee was currently in compliance with this requirement.

The inspector verified that the identified discrepancy (NCR 2594) had been corrected. Further, the inspector reviewed nine completed NCR's and verified proper NCR completion. Based on adequate corrective action of the identified example and the lack of other discrepancies, this item is closed and no further licensee response is required.

(Closed) Inspector Follow-up Item (317/82-01-07). Lack of audit report distribution to all Off Site Safety and Review Committee (OSSRC) members and lack of thorough discussion of individual audits at OSSRC meetings. In OSSRC meeting 82-05 on March 19, 1982, the OSSRC approved a change in the OSSRC Charter that all OSSRC members receive copies of audit reports and each audit report will be individually reviewed at an OSSRC meeting. The inspector verified that on three 1982 audit reports all OSSRC members had been listed on the distribution list. This item is closed.

(Closed) Inspector Follow-up Items (317/82-01-08), (317/82-01-31) and (317/82-01-32). Need to upgrade OSSRC review of audit program and need for OSSRC review of findings of Joint Utility Management Audits. In OSSRC meeting 82-05 on March 19, 1982, the OSSRC approved changes to the OSSRC Charter to upgrade OSSRC review of the quality assurance (QA) audit program, as noted under item (317/82-01-07) and to require that the OSSRC review the findings and finding resolutions of any Joint Utility Management Audits.

The inspector reviewed the records of the OSSRC review of Audit 25-7-82, Plant Operations, May 11, 1982, and found that the OSSRC reviewed the audit coverage, findings, effectiveness, and overall acceptability. Further, the OSSRC review included seven comments which were resolved. These items are closed.

(Closed) Inspector Follow-up Item (317/82-01-25). Failure of Plant Operations and Safety Review Committee (POSRC) to review all audit report recommendations. The POSRC Charter specifies that the POSRC review QA audit reports. The PAS inspector found that the POSRC reviewed only the findings of audit reports and overlooked any recommendations or other conclusions in the audit report. The chairman, POSRC, stated that the POSRC currently reviews all conclusions from QA audit reports (findings, recommendations, observations, etc.). The chairman further commented that POSRC review of QA audit reports is not part of any Technical Specification required review. Based upon these findings the item is closed.

(Closed) Inspector Follow-up Item (317/82-01-28). Need for greater depth in QA audits. A licensee representative stated that efforts to provide greater depth in QA audits have included an increase in auditing staff (currently six auditors and two supervisors between on site and off site audit groups), revised audit scopes having increased depth in the areas audited, and emphasis to auditors to observe performance of work in the audited areas where practical and meaningful. The inspector reviewed Audit TS-2-82, Technical Specifications, March 11, 1982, to verify that the audit contained adequate depth of review. This item is closed.

(Closed) Inspector Follow-up Item (317/82-01-29). Need for greater review of audit checklists for adequacy of audit depth prior to the audit and for completion and documentation after the audit. A licensee representative stated that an Operations Audit Status Checklist, approved January 25, 1982, is used to review and approve audit checklists before and after the audit. The inspector reviewed the Operations Audit Status Checklists for two completed audits to verify proper implementation. This tem is closed.

(Closed) Inspector Follow-up Item (317/82-01-30). Lack of trending of audit findings. A licensee representative stated that trending of audit findings has been implemented under procedure OQASP-19, Trending of NCR's and OQA Audits. Further, the analysis of 1981 and 1982 audit findings has not yet revealed any significant trends but the data will form good bases for future trend analyses. The inspector reviewed the trend analysis results and input data dated May 13, 1982. This item is closed.

(Closed) Inspector Follow-up Item (317/82-01-34). Potential for reduced audit program effectiveness due to reduced audit staff. A licensee representative stated that no reduction in audit program effectiveness occurred due to the assignment and certification of an additional lead auditor to ANSI N45.2.23 requirements. The inspector reviewed the lead auditor's certification. Further, the inspector reviewed the status of Operations QA audits and concluded that the 44 scheduled audits were being performed by the four assigned lead auditors in a timely manner. This item is closed.

(Open) Inspector Follow-up Item (317/82-01-33). Need to formalize audit report "recommendations," i.e., conclusions and suggested improvements in quality assurance program functions that are in addition to findings, to achieve better management attention and follow-up. A licensee representative stated that "recommendations" would be included in procedure OQASP-7, QA Audits, to specify what constitutes a recommendation, proper format for describing one, inclusion in audit summaries, and follow-up. The inspector reviewed a draft revision to OQASP-7 to achieve the above. This item is open pending issuance of OQASP-7 procedures for audit "recommendations" and subsequent NRC:RI inspection.

b. Other Findings

(Open) Unresolved Item (318/82-05-05). Licensee Event Report (LER) 2/82-14 reported that lubrication oil for diesel generator 21 had been found unacceptable by operator visual examination, although the procurement records for the lube oil documented its quality. The licensee instituted an analytical test of lube oils, hydraulic fluids, and bulk chemicals that are commercial grade, consumable items used in safety-related or important plant systems. The inspector reviewed Procedure RCP 1-223, Petroleum Consumables - QC Specification, which details the testing of lube and hydraulic oils. The inspector questioned whether the licensee had reviewed testing of bulk gases (e.g., hydrogen, nitrogen, etc.) used in safety-related systems. The licensee's representative stated that no evaluation had been done of testing of bulk gases, but stated that an evaluation would be completed and appropriate testing, if applicable, would be instituted. This item remains open pending completion of licensee evaluation of analytical testing of bulk gases prior to use and incorporation of any applicable testing.

3. Receipt, Handling, and Storage

a. Requirements

The requirements governing the receipt, handling, and storage of safety-related equipment and materials are specified in the following documents:

-- 10 CFR 50, Appendix B; Quality Assurance Criteria

-- Technical Specifications, Section 6; Administrative Controls

-- Regulatory Guide 1.33, Rev.2/ANSI N18.7-1976; Quality Assurance Program Requirements

-- Regulatory Guide 1.38, Rev. 2/ANSI N45.2.2-1972; Packaging, Shipping, Receiving, Storage, and Handling Requirements

b. Program Review

The above documents specify that during the receipt, handling, and storage of safety-related equipment and material, the following conditions be achieved:

-- Receipt inspections of all incoming safety-related material are performed according to detailed instructions and are documented.

-- Incoming material is checked for conformance to the requirements specified on the procurement documents.

-- Procedures exist for control and resolution of nonconforming material.

-- Material is stored according to the proper level of storage conditions, including environmental controls.

-- Items with finite shelf life are properly maintained and controlled.

-- Procedures exist for control of access, conditional release of material, and return of material to the storage area.

-- Procedures exist for routine and special handling measures.

The inspector reviewed the following procedures to verify that the licensee maintains an administrative system to meet the above requirements:

-- Procurement and Storage Manual

-- Operations Quality Assurance Section Procedure (OQASP)-1, Control of Non-Conformance Reports

-- OQASP-2, Receiving and Inspecting Safety-Related Material

-- Purchasing and Stores Procedure (P&SP)-2, Receiving, Storage, and Issue of Safety-Related Items

c. Implementation

The inspector reviewed the following areas to verify compliance with the receipt, handling, and storage program procedures:

-- Tour of warehouses

-- Nine Receipt Inspection Reports

-- Two procurement files (18418-GX and 53517-GX) including specification, order requirements, and Receipt Inspection Reports

-- Outside Operators Log, March 18, 1982 - check of delivered fuel oil

d. Findings

The inspector did not identify any violations.

4. Procurement

a. Requirements

The requirements governing the procurement of safety-related materials and equipment are specified in the following documents:

-- 10 CFR 50, Appendix B; Quality Assurance Criteria

-- Technical Specifications, Section 6; Administrative Controls

-- Regulatory Guide 1.33, Rev. 2/ANSI N18.7-1976; Quality Assurance Program Requirements

-- Regulatory Guide 1.123, Rev. 1/ANSI N45.2.13-1976; Quality Assurance for Procurement of Items and Services

b. Program Review

The above documents specify that during the procurement of safety-related equipment and material, the following conditions be achieved:

-- Items procured shall have appropriate technical requirements and sufficient documentation to demonstrate compliance with the requirements.

-- Suppliers shall have QA programs consistent with 10 CFR 50, Appendix B.

-- Licensee shall evaluate and approve suppliers based on their capability to supply acceptable products with proper QA programs and documentation.

-- Administrative controls must exist for quality classification and method of procurement with appropriate design and quality assurance review of procurement requirements.

The inspector reviewed the following procedures to verify the licensee maintains an administrative system to meet the above requirements:

-- Procurement and Storage Manual

-- Purchasing and Stores Procedure (P&SP)-1; Procurement of Safety-Related Power Plant Systems, Components, Material, or Services

-- Electric Engineering Department Procedure (EEDP)-4, Establishment and Control of the List of Safety-Related Items

-- EEDP-5, Procurement

-- EEDP-11, Specifications

-- Engineering Quality Assurance Unit Procedure (EQAUP)-3, Approval of Suppliers

-- EQAUP-4, Review and Approval of Procurement Documents

-- EQAUP-5, Quality Assurance Audits

c. Implementation

The inspector reviewed the following areas to verify compliance with the procurement program procedures:

-- List of Safety-Related Items

-- Four specifications (SP-51, -80, -393, and -402)

-- Supplier Approval Log

-- File of Suppliers with Acceptable QA Program

-- Four auditor certifications of supplier auditors

-- Two supplier audits

-- Two supplier surveillances for a specific procurement

-- Supplier Audit Schedule for April to June, 1982

d. Findings

The inspector did not identify any violations.

5. Quality Assurance Program Review

a. Requirements

The Calvert Cliffs Operations Quality Assurance Manual provides the NRC approved licensee policy to meet the quality assurance (QA) requirements of 10 CFR 50, Appendix B, and Regulatory Guide 1.33/ANSI N18.7-1976.

b. Review

The inspector reviewed the following areas to verify that the QA policy was being properly implemented in licensee procedures and activities:

-- Interviews with ten site personnel and six corporate office personnel to verify that they understood their responsibilities under the current quality assurance program.

-- Procedures reviewed in other sections of the report to verify consistent application of QA policy.

-- Ten QC Inspection Reports

-- QC Inspection Report Log for 1982

-- Open Audit Finding Summary Report, April 30, 1982

-- Six QC Surveillance Reports sampled from the 70 performed between March 22, 1982, and May 17, 1982

c. Findings

The inspector did not identify any violations.

6. Document Control

a. Requirements

The requirements governing the control of safety-related instructions, procedures, and drawings are specified in the following documents:

-- 10 CFR 50, Appendix B; Quality Assurance Criteria

-- Technical Specifications, Section 6; Administrative Controls

-- Regulatory Guide 1.33, Rev. 2/ANSI N18.7-1976; Quality Assurance Program Requirements

b. Program Review

The above documents specify that for proper document control, the licensee's program shall:

-- Require that current as-built drawings, including piping and instrument drawings (P&ID's) be provided to the plant in a timely manner;

-- Require that proposed drawing changes and the revised drawings receive the same level of management review required of the original drawings;

-- Provide for the identification and marking of drawings that have outstanding revisions;

-- Establish control of obsolete drawings;

-- Require that discrepancies found between as-built drawings and the as-constructed facility are handled as design changes;

-- Require that procedure discrepancies are corrected by means of properly approved temporary changes;

-- Require master indicies to be maintained for drawings, manuals, technical specifications, procedures that indicate the current revision; and

-- Provide a mechanism for document issuance, distribution, use, and periodic review.

The inspector reviewed the following procedures to verify the licensee maintains an administrative system to meet the above requirements:

-- Electric Engineering Department Procedure (EEDP)-10, Drawing Control

-- EEDP-14, Document Control

-- Calvert Cliffs Instruction (CCI)-131B, Drawing Control

-- CCI-300F, Calvert Cliffs Operating Manual

-- Quality Assurance Procedure (QAP)-15, Changes, Tests, and Experiments

c. Implementation

The inspector reviewed the following areas to verify compliance with the document control procedures:

-- Senior Reactor Operator's copies of all six Operating Procedures (OP's) and a sample of 27 Operating Instructions

-- Control room Maintenance Request (MR) desk copies of 51 system drawings

-- Unit 1 copy of Alarm Manual, including verification of consistency between Alarm Manual and 17 alarm lights

-- Unit 1 Reactor Operator copies of 22 system drawings, including proper notation of Drawing Change Notices (DCN's)

-- Three copies of Electric Engineering Manual

d. Findings

1. During review of the Unit 2 copy of the Alarm Manual, the inspector found one example of a procedure change pencilled onto the copy. A licensee representative stated that the technical content of the change was correct, but that the procedure change did not comply with document control procedures. The licensee took the following corrective action:

   -- Reviewed other associated alarms for the applicability of the change and found one other alarm effected

   -- Issued Alarm Manual Change Reports 82-02 and 82-03

   -- Reviewed the above changes and approved them in POSRC meeting May 21, 1982

   -- Reinstructed control room personnel in proper method of changing procedures by means of shift turnover instructions

   The inspector verified the above corrective actions.

2. During review of control room drawing copies, the inspector found that the administrative method for control of the drawings was not being properly implemented. Specifically, on a sample of 51 drawings at the MR desk, the inspector found that 17 drawings had improper control, i.e., no control stamp, user control stamp, or temporary control stamp. The inspector confirmed that the 17 improperly controlled drawings were the proper revision and had been properly updated with DCN's.

   The licensee corrected the improper administrative control of control room drawings. The inspector later reviewed the control stamps or drawings at three control room locations to verify the corrective action.

   A licensee representative stated that administrative and technical control of drawings had been identified as an area needing improvement and that a Drawing Control Task Force had been established with representatives from applicable engineering, operations, and clerical organizations to recommend improvements. A target date of November 15, 1982 had been established to finalize the task force recommendations. Further the representative noted that an extensive effort was underway to confirm

the as-built configuration of safety-related systems and that the proper drawing updating and control was judged to be necessary to utilize the as-built review.

Based on the ongoing licensee effort to upgrade the administrative control of drawings, this item (317/82-12-01; 318/82-14-01) is unresolved pending implementation of the Drawing Control Task Force recommendations and subsequent NRC:RI review of the resulting drawing administrative control.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable, deviations or violations. One unresolved item was identified during this inspection and is detailed in paragraph 6.d.2.

8. Management Meetings

Licensee management was informed of the scope and purpose of the inspection at an entrance interview conducted on May 17, 1982. The findings of the inspection were periodically discussed with licensee representatives during the course of the inspection. The findings of the inspection were presented at exit interviews on May 20, 1982, at the corporate engineering office, on May 21, 1982, at the corporate quality assurance office, and on May 27, 1982, at the site (see Paragraph 1 for attendees).