

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-317/85-26
50-318/85-24

Docket Nos. 50-317 License Nos. DPR-53
50-318 DPR-69

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 18-20, 1985

Date of Last Physical Security Inspection: March 18-22, 1985

Type of Inspection: Routine, Unannounced Physical Security

Inspectors: Roland J. Bailey 11-21-85
Roland J. Bailey, Physical Security Inspector date

for Roland J. Bailey 11-21-85
Walter J. Martin, Physical Security Inspector date

Approved by: R. R. Keimig 11/26/85
R. R. Keimig, Chief, Safeguards date
Section, Division of Radiation Safety and
Safeguards

Inspection Summary: Routine, Unannounced Physical Security Inspection on
September 18-20, 1985 (Combined Inspection Nos. 50-317/85-26 and 50-318/85-24)

Areas Inspected: Security Plan and Implementing Procedures; Management Effectiveness; Security Organization; Records and Reports; Testing and Maintenance; Locks, Keys, and Combinations; Physical Barriers (Protected and Vital Areas); Security System Power Supply; Lighting; Compensatory Measures; Assessment Aids; Access Control (Personnel, Packages and Vehicles); Detection Aids (Protected and Vital Areas); Alarm Stations; Training and Qualification; Exercise of Security Contingency Plans and followup on security event reports. The inspection involved 41 hours onsite by two region-based inspectors during regular hours and eight during non-regular hours.

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Results: The licensee was in compliance with NRC requirements in the areas examined. Several program enhancements were found to have been implemented as a result of generic Regulatory Effectiveness Review (RER) findings at nuclear power plants.

DETAILS

1. Key Personnel Contacted

L. P. Gibbs, General Supervisor, Security Operations
L. N. Blankenship, Assistant General Supervisor, Security Operations
M. R. Cox, Supervisor, Support Unit, Nuclear Security
B. F. O'Connor, Security Planning Specialist
E. P. Gwiazdowski, Supervisor, Security Training and Education
J. H. Alvey, Nuclear Security Supervisor
T. K. Lund, Nuclear Security Supervisor
M. T. Harris, Nuclear Security Supervisor
D. Dean, Security Training Specialist
K. R. Costello, Security Training Specialist

The inspectors also interviewed other members of the licensee's proprietary security force and several contract security watchpersons employed by Globe Security Services.

2. MC 30703 - Exit Interview

The inspectors met with licensee representatives listed in Paragraph 1 at the conclusion of the inspection on September 20, 1985. The purpose and scope of the inspection were reviewed and the findings presented.

At no time during this inspection was written material provided to the licensee by the inspectors.

3. MC 92700 - Followup on Security Program Event Reports

During this inspection, the inspectors reviewed two security event reports that had been submitted by the licensee to the NRC in accordance with 10 CFR 73.71(c). The inspectors conducted in-office and onsite review of Security Program Event Report Numbers 85-01 and 02 to verify that adequate compensatory measures had been taken with followup corrective measures to prevent recurrence. The licensee adequately documented each event, including closeout actions.

4. MC 81018 - Security Plan and Implementing Procedures

The inspectors found that the physical security plan implementing procedures were adequate and appropriate to meet general performance requirements. The procedures were generally well integrated with plant safety with one potential exception which is identified in paragraph 9 of this report.

5. MC 81020 - Management Effectiveness

The inspectors determined that corporate and onsite security management staff provided effective management of the security program. This was evidenced by the delegation of various duties and responsibilities to

qualified personnel and by the collective participation of security staff personnel in the review, followup and decision making process on security related matters. Security personnel were observed performing their assigned duties in a professional manner. During the last region-based inspection, the inspector related to the licensee several generic findings from Regulatory Effectiveness Reviews conducted at other nuclear power plants. During this inspection, the inspectors found that the licensee, on its own initiative, had implemented the following security program enhancements:

- a. Reinforced the lower portion of the protected area barrier.
- b. Reinforced the outriggers mounted on top of the protected area barrier.
- c. Replaced numerous fence fabric "ties," and "tapped" fence fasteners and bolts.
- d. Installed a vehicle restraint device at the main vehicle gate.
- e. Reinforced all vital area doors to prevent forced entry.
- f. Surveyed, and corrected where necessary, the alignment of all closed circuit television cameras located throughout the site.
- g. Installed new protected area badge racks in the main guard house.

6. MC 81022 - Security Organization

The inspectors found that the licensee's security management structure and chain of command were in conformance with the approved Physical Security Plan, Contingency Plan, security procedures and were adequate and appropriate for their intended function. The General Supervisor, Security Operations, stated that Mr. Daniel Latham had replaced Mr. John Schlee as the Director of Security Services. Mr. Schlee had been promoted.

7. MC 81038 - Records and Reports

The inspectors audited logs, records and related material generated since the last inspection for accuracy, completeness, unusual conditions, significant events and trends, required entries, and proper reporting. The following logs, records and related material were reviewed: Security Procedures and Post Orders; Security Event Report Logs; Engineering Department Memorandum; Armed Response Checklist; Contingency Event Tactical Agenda; Plant Familiarization Lesson Plan; and Security Requalification Training Program Agenda. No unacceptable conditions were identified.

8. MC 81042 - Testing and Maintenance

The inspectors observed the licensee perform the weekly intrusion detection alarm test. The equipment met NRC regulatory general performance requirements and objectives and the licensee's Physical Security Plan and procedures.

9. MC 81046 - Locks, Keys, and Combinations

The inspectors noted that plant operating personnel were required to obtain a metal key from the plant control room to gain access to vital areas when computerized security access control devices are inoperable. The inspectors stated the licensee should review this matter in an effort to provide for expedited emergency access to those areas. The licensee acknowledged this and stated that a review would be conducted. This is an Inspector Followup Item. (IFI 50-317/85-26-01 and 50-318/85-24-01)

10. MC 81052 - Physical Barriers (Protected Area)

The inspectors verified that the licensee maintained the physical barriers surrounding the entire protected area in accordance with the Security Plan. The barriers were adequate and appropriate for their intended function. The inspectors observed that a vehicle restraint device had been installed at the main vehicle gate and that "razor ribbon" had been added to several locations along the top of the protected area perimeter barrier for added protection.

The inspectors reviewed the interim compensatory measures that the licensee implemented during the construction of the new Sewage Treatment Facility located outside of the protected area (PA). The licensee notified Region I by letter of August 26, 1985 that a revision was necessary to the Sewage Treatment Facility Construction implementation schedule previously submitted to Region I by letters of December 21, 1984 and May 29, 1985. The impact of the revision on security concerned extending the time period for use of the temporary access control point established to facilitate contractor access to the protected area. No discrepancies were noted.

11. MC 81054 - Physical Barriers (Vital Areas)

The inspectors verified that the licensee maintained the physical barriers surrounding the vital areas in accordance with the Security Plan. The barriers were adequate and appropriate for their intended function.

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A review of previous Region I Inspection Report Numbers 50-317/80-12 and 50-318/80-11 revealed that similar concerns on some of the same equipment were identified by a security inspector. These concerns were considered unresolved at that time and were subsequently addressed in Region I Inspection Report Numbers 50-317/82-08 and 50-318/82-08. The inspector's concerns were submitted to NRC:HQ on August 25, 1980. Region I was advised that the concerns would be included in the NRC's Vital Area Study.

In a telephone discussion between Mr. B. Manili, Division of Safeguards, NMSS and Mr. R. Bailey, Region I on September 23, 1985, Mr. Manili stated that these concerns would be reviewed by the NRC's Regulatory Effectiveness Review Team. That team was scheduled to visit the Calvert Cliffs plant during the week of October 7-11, 1985. This is an Inspector Followup Item. (IFI 50-317/85-26-02 and 50-318/85-24-02)

12. MC 81058 - Security System Power Supply

The inspectors observed the Central Alarm Station Operator demonstrate the audible and visual alarms generated when the security system automatically transferred to auxiliary power. The alarms were as described in the related security procedures.

13. MC 81062 - Lighting

The inspectors observed the lighting of the isolation zones and exterior areas within the protected area during daylight and the hours of darkness. The lighting was sufficient to meet the minimum requirements set forth in the physical security plan.

14. MC 81064 - Compensatory Measures

The inspectors reviewed licensee security records and conducted interviews with alarm station operators on the implementation of compensatory security measures for inoperative security related systems and equipment. These personnel were familiar with the correct procedures to follow in the event those systems and equipment became inoperable.

15. MC 81066 - Assessment Aids

Assessment aids utilized by the licensee were observed by the inspectors from the central and secondary alarm stations during day and night conditions. They conformed to security plan requirements and were adequate for their intended function except as identified below:

During night conditions on September 19, 1985, cameras 3 and 15 were observed by the inspectors to be inoperable. However, the zones they were covering were monitored by other cameras. The licensee was aware of these two cameras being out of service and a work order had been requested to perform repairs. Additionally, cameras 5, 11 and 19 only provided the CAS operator marginal surveillance. However, those zones were also covered by other cameras. The licensee took immediate action on September 20, 1985 to improve the imagery on cameras 5, 11 and 19. The inspectors stated that all camera coverage must conform to the description in the Physical Security Plan. This is an Inspector Followup Item. (IFI 50-317/85-26-03 and 50-318/85-24-03)

16. MC 81070 - Access Control (Personnel)

The inspectors observed personnel access to the protected area and vital areas to be controlled in accordance with the security plan. Search equipment was adequate and appropriate for detection of firearms and explosives during searches of personnel entering the protected area.

17. MC 81072 - Access Control (Packages)

The inspectors observed the entry of packages and material into the protected area and found the procedure to be controlled by the licensee in conformance with the security plan.

18. MC 81074 - Access Control (Vehicles)

The inspectors observed the control of vehicles entering the protected area and found the procedure to be in accordance with the security plan. Vehicles were properly searched and escorted when required.

19. MC 81078 - Detection Aids (Protected Area)

The perimeter intrusion detection system (IDS) detected inspector requested penetration tests of the IDS zones in accordance with the physical security plan and security procedures.

The inspectors observed the licensee testing a new explosives detection device for use in the main access control point. Also, a new intrusion detection device was being tested for use on the service water structure. The licensee stated that they had received favorable results from each of these devices and would soon make a decision regarding their purchase.

20. MC 81080 - Detection Aids (Vital Areas)

The intrusion detection system detected inspector requested penetration tests of all vital areas in accordance with the physical security plan.

21. MC 81084 - Alarm Stations

The inspectors confirmed through observation of the central alarm station (CAS) and the secondary alarm station (SAS) that they were in conformance with the physical security plan and were adequate and appropriate for their intended functions. CAS and SAS operators demonstrated adequate skill and knowledge in the performance of their duties.

22. MC 81501 - Training and Qualification Plan (T&Q)

The inspectors observed several training program enhancements as follows:

1. The site training department, which administers the nuclear security force training, has published training schedules for two years in advance to alleviate problems and conflicts with scheduling of personnel for required training.
2. Each security shift is trained as a unit for qualification, requalification and security contingency training.
3. The training supervisor is developing a program to bring in security professionals from the outside to augment classroom instruction.
4. Members of the security force are receiving a four hour block of training on plant familiarization with emphasis on safety related equipment.

23. MC 81601 - Security Contingency Plan (SCP)

The licensee's program for responding to the security threats and other contingencies, as outlined in the approved SCP, was reviewed by the inspectors.

The inspectors witnessed the licensee conduct a drill of several security contingencies that are described in the SCP. The tactical agenda included a graduated threat scenario starting with a civil disturbance, followed by a bomb threat, implementation of emergency response procedures, loss of a response team member, internal disturbance, taking of a hostage, an internal attack threat, an external attack threat and the implementation of compensatory security measures for degraded security systems.

Nuclear security officers performed very well and professionally. The drill participants were dressed in distinguishing clothing and were equipped with disabled firearms while performing these drills. The inspectors attended a critique on the drill where constructive analysis and criticisms were fully exchanged. This drill was well developed and executed.