

**U.S. NUCLEAR REGULATORY COMMISSION
REGION I
INSPECTION REPORT**

Docket Nos.: 50-317; 50-318
Report Nos.: 50-317/94-12; 50-318/94-12
Licenses: DPR-53, DPR-69
Licensee: **Baltimore Gas and Electric Company**
Post Office Box 1475
Baltimore, Maryland 21203
Facility: **Calvert Cliffs Nuclear Power Plant, Units 1 and 2**
Inspection At: Lusby, Maryland
Dates: **March 2-3, 1994**

Inspectors: *E. C. McCabe, Jr., for*
R. J. Albert, Security Specialist, Safeguards Section

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J. H. Joyner, Chief,
Facilities Radiological Safety and Safeguards Branch

INSPECTION SCOPE

Control of Supplementary Designated Licensee Vehicles (SDLVs) and the licensee's review process for submittal to the NRC of Revision 29 to the Security Plan.

INSPECTION FINDINGS

An apparent violation of Security Plan controls for SDLVs was identified. However, at the time of this inspection, the licensee was found to have established SDLV controls meeting Security Plan provisions. An apparent violation of 10 CFR 50.9 requirements was identified for inaccurate information in the licensee's submittal of Security Plan Revision 29 to the NRC.

DETAILS

1.0 Key Persons Contacted

1.1 Licensee

J. Alvey, Assistant General Supervisor
M. Burrell, Supervisor, Security Screening
G. Detter, Director - Nuclear Regulatory Matters
J. Entz, Security Shift Supervisor
J. Frost, Security Shift Supervisor
L. Gibbs, Director - Nuclear Security
J. Kennedy, Supervisor, Security Training and Support
J. Lemons, Manager - Nuclear Support Services Department
M. Milbradt, Compliance Engineer
M. Neyman, Security Program Specialist
J. Pasko, Security Technician

1.2 U.S. Nuclear Regulatory Commission

F. Lyon, Resident Inspector
R. Fuhrmeister, Project Engineer

The inspectors also contacted other licensee personnel.

2.0 Background

On December 15, 1993, pursuant to 10 CFR 50.54(p), the licensee submitted Revision 29 of the Physical Security Plan (the Plan) for Units 1 and 2. NRC in-office review indicated that:

- Revision 29 did not appear accurate in all material respects.
- Revision 29 specified that Supplementary Designated Licensee Vehicles could be parked outside the protected area. This seemed contrary to the NRC-approved Security Plan and the reference regulation, and to degrade Plan effectiveness.
- Security Plan Revision 29 appeared to also degrade Plan effectiveness by reducing Protected Area lighting, by removing the minimum stay time in the Protected Area for designation of Supplementary Designated Licensee Vehicles, and by reducing personnel search requirements.

By telephone, the NRC discussed Revision 29 with the licensee Director of Nuclear Security and with the Security Program Specialist who was its primary author. Also, on

February 28, 1994, the NRC telephoned the Plant Manager, expressed its concerns, established that measures would be taken to assure regulatory compliance, and announced this inspection to review the circumstances leading to Revision 29 of the Plan.

3.0 Revision 29 to the Plan

This inspection reviewed sections of Revision 29 to the Plan with the licensee. The purpose of the change was described in the licensee's forwarding letter, which stated in part:

- "The changes made do not decrease the effectiveness of the Plan and are being submitted under the provisions of 10 CFR 50.54(p)."
- "This Security Plan revision incorporates the new Nuclear Security Facility, expanded perimeter, and interim perimeter to support the Diesel Generator Project. The Plan has been extensively reviewed and rewritten to reduce redundancies and eliminate unnecessary terminology. Additional details of the changes made by this revision are provided in an enclosure to this letter."

The Summary of Changes enclosure to the transmittal letter for Revision 29 identified two global nomenclature changes to the Plan and further stated:

- "Changes which were made to consolidate or remove redundant information are bar marked. Paragraphs changed to accommodate above global changes are not marked."

3.1 Section 4.2 - Lighting

Revision 29 revised Section 4.2 of the Plan to read as follows:

"The yard lighting provides illumination of the Protected Area barrier/isolation zones and portions of the Protected Area not occupied by buildings, vehicles, equipment or stationary structures of sufficient level to detect a person by direct observation or CCTV."

This sentence was identified by a vertical bar in the right margin of the submitted Plan text.

For this change, the following phrase was identified in the Summary of Changes enclosure as being added to the Security Plan:

"portions of the Protected Area not occupied by buildings, vehicles, equipment or stationary structures."

The revised wording exempted portions of the protected area (PA) occupied by buildings, vehicles, equipment and stationary structures from meeting lighting requirements specified in the Code of Federal Regulations and the licensee's Security Plan.

The licensee's NRC-approved Security Plan and 10 CFR 73.55(c)(5) specified that all exterior areas in the PA were to be illuminated to levels sufficient to monitor and observe unauthorized activities, persons, vehicles or materials, and at not less than 0.2 footcandles measured horizontally at ground level. The Revision 29 lighting exemptions, and particularly the exemption of vehicles, were found by NRC review to degrade the effectiveness of the lighting requirements of the Plan. Therefore, this revision should have been submitted to the NRC under 10 CFR 50.90.

This change in Revision 29 is of particular concern to the NRC because a May 1993 NRC inspection found deficient lighting under a vehicle parked in the PA. That inspection also concluded that the licensee's post instructions for PA patrols and security implementing procedures were not clear about identifying and reporting lighting deficiencies. In addition, the post instructions and security procedures did not preclude the assumption that a periodic patrol was adequate compensation for a lighting deficiency, and that reporting it to management was not necessary. The licensee stated that adequate compensatory measures (increased security patrols) had been implemented, but, based on the inspector's concern, also placed temporary lighting under this vehicle. In September 1993, follow-up NRC review found that the licensee's corrective measures, which included revisions to post instructions and procedures, provided guidance sufficient to ensure that minor lighting deficiencies would be identified, reported and properly compensated (e.g., by temporary lighting) until repairs could be made. The licensee did, however, voice concern about the electrical safety of temporary lighting strung under vehicles.

During this inspection, in regard to the exemption from lighting requirements submitted in Revision 29 to the Security Plan, the licensee stated that the intent of this revision was to address lighting requirements for areas not accessible to personnel. NRC review of the revision did not find the revised wording consistent with that intention.

3.2 Section 5.4.B.1 - Exception to Search Procedure

This section of the Plan was changed, in Revision 29, to read as follows:

"Federal, State, and Local law enforcement personnel, non-licensee fire fighting and emergency personnel, as well as licensee fire fighting, emergency, and security personnel, are exempt from search requirements when on official duty or responding to an emergency."

A vertical bar in the right margin of the licensee's submittal marked this entire sentence.

The Summary of Changes enclosure described this change as:

"Consolidation of Emergency Access paragraphs 5.4.A.2.a and 5.4.A.2.b."

In contrast, this revision changed the exemption from search requirements as follows:

- From: on official duty "and" responding to an emergency
- To: on official duty "or" responding to an emergency

The resulting exemption was found to decrease the Plan's effectiveness by exempting security personnel on duty and other specified persons from all searches, including searches for explosives. Therefore, this revision should have been submitted to the NRC under 10 CFR 50.90.

Exempting security personnel from searches was a previously identified NRC concern at Calvert Cliffs. In September 1993, NRC inspection found that the licensee had exempted armed security officers from searches other than explosives searches. When then informed by the NRC that doing so was not in compliance with existing regulatory requirements, the licensee took immediate corrective measures. During the 1993 inspection, the implementation of this search exemption was made an unresolved item (URI 50-317/93-29-01 and 50-318/93-29-01) pending further NRC review.

During this inspection, the licensee noted that on-duty armed security officers also have access to other weapons within the plant, and that searching individuals who meet the criteria for and are carrying arms on-site did not appear to provide a substantial safeguard.

NRC review concluded that this revision decreased the effectiveness of the Security Plan without clear identification to the NRC of both this specific change and the reason why it was not considered a plan degradation.

3.3 Section 5.5.F., Designated, Supplemental and Low Gross Weight Vehicles

3.3.1 Section 5.5.F.2.b.

Revision 29 Section 5.5.F.2.b specified the following:

"Supplemental vehicles are designated for short periods."

Revision 29 Section 5.5.F.2.b was not marked by a bar in the margin.

Revision 29 Section 5.5.F.2.b was not identified in the Summary of Changes enclosure to the licensee's submittal.

The previous version specified, in Section 5.5.C.2.c, that:

"Supplemental vehicles are designated for short periods, but not less than 24 hours."

The licensee stated, during this inspection, that the "24 hours" was "additional wording" and that the "short period" of time could be from 24 hours to 24 days, but less than 365 days. In addition, the licensee stated that the revision was to make the Plan more readable and usable. NRC review of Revision 29 did not find the revised wording consistent with that statement.

This revision was found to degrade the effectiveness of the Plan by allowing licensee and contractor vehicles to enter the PA without escort, regardless of the brevity of the stay period. Therefore, this revision to the Plan should have been submitted under the provisions of 10 CFR 50.90.

3.3.2 Section 5.5.F.2.c.

In regard to Supplemental Designated Licensee Vehicles (SDLVs), Revision 29 Section 5.5.F.2.c specified:

"These vehicles typically will remain in the Protected Area until the completion of the work assignment and may be parked outside the Protected Area."

In the licensee's submittal to the NRC, this subparagraph was highlighted in entirety by a vertical bar in the right margin.

The Summary of Changes enclosure specified that Section 5.5.F.2.c had been changed as follows:

"Returned 'and may be Parked outside the Protected Area' which was inadvertently omitted in previous revision."

10 CFR 73.55(d)(4) states in part that Designated Licensee Vehicles (DLVs) shall be limited in their use to on-site plant functions and shall remain in the protected area except for operational, maintenance, repair, security, and emergency purposes. For SDLVs, Security Plan Revision 29 Section 5.5.F.2.a specified, as did the preceding version, that:

"They will be searched prior to entry and are subjected to the same controls as licensee designated vehicles."

Revision 29 Section 5.5.F.1 also specified, as did the preceding version, that designated licensee vehicles remain in the protected area upon completion of use. However, unlike the previous version, Security Plan Revision 29 Section 5.5.F.2.c further specified, for SDLVs, that:

"These vehicles typically will remain in the Protected Area until the completion of the work assignment and may be parked outside the Protected Area."

The licensee stated, during this inspection, that they had parked SDLVs outside the Protected Area since the early 1980s. Further, the licensee noted that parking SDLVs outside the Protected Area could benefit Security because vehicles parked in the PA could be a security liability.

The prior lack of control of SDLVs is an apparent violation of the Security Plan (VIO 50-317/94-12-01 and 50-318/94-12-01).

Before and during this inspection, NRC review of prior revisions of the Security Plan did not confirm the existence of the wording "and parked outside of the Protected Area," with regard to SDLVs. Revision 3 of the Plan read "Supplementary Services Vehicles These vehicles will be treated as Plant Services Vehicles." The reference to plant services vehicles, which apparently evolved into designated licensee vehicles (DLVs), was that these and supplementary services vehicles, which apparently evolved into SDLVs, were found to be literally consistent with 10 CFR 73.55(d)(4). The date of Revision 3 was not definitively identified, but its contents were determined to be included in Revision 6 dated March 30, 1980.

Revision 10 of the Plan read "Supplementary Service Vehicles These vehicles will be treated as Plant Services Vehicles, but will remain in the Protected Area until the completion of the work." The licensee was not definitive on the impact that this revision had on the control of SDLVs. The date of Revision 10 also could not be determined, but it was part of Revision 12 dated February 1983.

The inspectors determined that Security Plan Implementing Procedures Revision 9, dated August 1986, contained the first specific procedural reference to SDLV parking. This revision read "Supplemental Designated Licensee Vehicles park outside of the Protected Area upon completion of use."

The inspectors could not substantiate that the parking of SDLVs outside the PA was inadvertently omitted from a previous revision to the Plan. Further, the licensee acknowledged that such a provision was not in a previous version of the Security Plan. Therefore, the associated statement in the Revision 29 submittal to the NRC was inaccurate. Inasmuch as that statement appeared to represent that the NRC had previously accepted such a Security Plan provision, the inaccuracy was material to NRC

acceptance of Revision 29. This is an apparent violation of 10 CFR 50.9(a), which requires that information provided to the NRC by a licensee shall be complete and accurate in all material respects (VIO 50-317/94-12-02 and 50-318/94-12-02).

4.0 Present Compliance With Security Plan

On March 2, 1994, the inspectors accompanied a licensee Security Force Member on a PA tour during which DLVs and SDLVs were physically accounted for. Further, the licensee's listing of DLVs and SDLVs and the accountability process were reviewed with licensee management, and the number of designated vehicles was noted to have been substantially reduced, from about 80 to about 28. The inspectors concluded that, at the time of this inspection, the licensee was in compliance with the NRC-approved Security Plan in regard to keeping SDLVs in the Protected Area.

5.0 Licensee Review Process for Security Plan Changes

Selected regulatory requirements and the licensee's process for developing Security Plan change submittals were reviewed.

5.1 NRC Requirements Related to Security Plan

NRC requirements that relate to the Security Plan and the significance of its provisions include the following.

- 10 CFR 50.34(c) identifies a physical security plan as a requirement for application for an operating license.
- 10 CFR 73.55 specifies Commission approval of the amended (by December 2, 1986) security plan general performance objective and requirements, access authorization for individuals and vehicles, access controls for protected and vital areas, and alarm station requirements.
- 10 CFR 50.54(p) authorizes licensees to make changes that do not decrease the safeguards effectiveness of the Security Plan without prior Commission approval, and requires that changes that decrease such safeguards effectiveness are to be submitted as an application for an amendment to the licensee's license pursuant to 10 CFR 50.90.
- Calvert Cliffs Technical Specifications (TSs), in TS-6.8.1.d, require establishment, implementation and maintenance of written procedures covering Security Plan implementation.
- Calvert Cliffs TS-6.5.1.2 specifies that the site Plant Operations and Safety Review Committee (POSRC) shall have from seven to ten members who,

collectively, have experience in nuclear operations, electrical and controls maintenance, chemistry, mechanical maintenance, nuclear engineering, radiation safety, plant engineering, and design engineering. No security expertise is required on the POSRC.

- TS-6.5.1.6 specifies that a POSRC quorum shall consist of a majority of the members. Thus, even if there is security expertise on the POSRC, that expertise need not be present for POSRC to conduct its business.
- TS-6.5.1.7.a provides that, except for items designated for review by the Procedure Review Committee or Qualified Reviewer, the POSRC is responsible for review of all procedures required by TS-6.8. TS-6.5.1.7.a also specifies that cross-disciplinary reviews of these procedures are conducted in accordance with administrative procedures, in addition to the reviews conducted by POSRC, the Procedure Review Committee, or Qualified Reviewer. No utilization of the options for Security Procedure review by a Procedure Review Committee or Qualified Reviewer was identified incident to this inspection.
- TS-6.5.1.7.e specifies that the POSRC is responsible for reviewing the Plant Security Plan and its implementing procedures, and for submitting recommended changes to the Off-Site Safety Review Committee.

5.2 Findings Related to Licensee Security Plan and Procedure Change Reviews

Security Plan Revision 29 was distributed within the licensee's security organization for comment well before its submittal to the POSRC. An example of its contents was the deletion of specification of a 24-hour minimum period for making a vehicle an SDLV. The revision package distributed for licensee security organization review contained a specific question about whether this 24-hour provision should be deleted. In at least one set of comments received, this provision was marked for deletion. But, neither the distributed version nor the set of comments which marked the provision for deletion contained any rationale, pro or con, for retaining or deleting the provision. Nor was the impact of this potential deletion described as to why the deletion did or did not degrade Security Plan effectiveness. Further, the absence of a specific documented rationale and basis for specific plan changes appeared to be typical.

The versions of Security Plan Revision 29 distributed to the licensee security organization, to POSRC, and to the NRC were described in the submittals as revising the Plan to accommodate the Nuclear Security Facility and expanded PA perimeter, and to reduce redundancy and unnecessary wording. In addition, the POSRC presentation package specifically stated that the revision was not a degradation of the overall security program and would be submitted to the NRC under the criteria of 10 CFR 50.54(p).

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In discussing the absence of security expertise on the POSRC, the licensee stated that the POSRC was not expected to review Security Plan revisions to the depth required to detect the specific problems identified by the NRC. In addition, the presentation package for the POSRC appeared to be limited in the details presented, and was not classified as safeguards information. Further, no part of the licensee's Security Plan change review process was identified as being specifically tasked with questioning or confirming whether or not the specific changes degraded the effectiveness of the Plan.

Changing the Security Plan to reflect existing practice and security procedures is a valid process only insofar as the existing practices and procedures do not provide a lesser safeguard than the NRC-approved Security Plan, which the procedures and practices are required, by TS 6.8, to implement.

Cross-disciplinary reviews of Security Plan Implementing Procedures as required by TS-6.5.1.7.a were not reviewed during this inspection. In view of the apparent divergence of the implementing procedures from the Plan over time, this aspect was noted for further NRC follow-up. (IFI 50-317/94-12-03; 50-318/94-12-03)

In summary for Security Plan Revision 29, no licensee internal or cross-disciplinary review that was sufficiently detailed to identify potential plan degradations was found. Further, no specific licensee requirement to conduct such a detailed review was identified, and the licensee's process for developing Security Plan changes was assessed as overly dependent upon the individual preparing the change.

6.0 Exit Interview

The inspectors met with the licensee representatives denoted in Section 1 of this report at the end of the inspection on March 3, 1994. At that meeting, the inspectors summarized the inspection purpose, scope, and violation findings, and stated that the NRC would further review enforcement aspects of the inspection findings. The licensee acknowledged the inspection findings and the further NRC review.