

August 29, 2008

Mr. Charles G. Pardee
Chief Nuclear Officer (CNO) and Senior Vice President
Exelon Generation Company, LLC
Chief Nuclear Officer (CNO)
AmerGen Energy Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION - NRC SUPPLEMENTAL
INSPECTION REPORT NOS. 05000277/2008406 AND 05000278/2008406

Dear Mr. Pardee:

On July 25, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection pursuant to Inspection Procedure 95001 at your Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3, to follow up on a previous security inspection finding regarding inattentive security officers. The enclosed inspection report documents the inspection results, which were discussed on July 25, 2008, with Mr. Gary Stathes, Acting Plant Manager, and other members of your staff. The NRC was informed of your readiness for the inspection on May 13, 2008.

The NRC performed this inspection to assess your activities to address a White finding associated with security officer inattentiveness that was identified during an AIT follow-up inspection in November 2007.

The inspection examined activities conducted under your licenses as they relate to security and compliance with the Commission's rules and regulations and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified.

C. Pardee

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Sincerely,

/RA by Marsha K. Gamberoni for/

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-277, 50-278
License Nos. DPR-44, DPR-56

Enclosure: NRC Inspection Report Nos. 05000277/2008406 and 05000278/2008406
w/Attachment: Supplemental Information

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w/Attachment: Supplemental Information

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DATE	08/27/08	08/28/08	08/28/08	08/29/08		

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*See Previous Concurrence Page

cc w/encl:

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R. Hovey, Senior Vice President, Nuclear Oversight
G. Stathes, Acting Plant Manager, Peach Bottom
J. Armstrong, Regulatory Assurance Manager, Peach Bottom
J. Bardurski, Manager, Financial Control & Co-Owner Affairs
B. Franssen, Acting Director, Operations
P. Cowan, Director, Licensing
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R. Fletcher, Dir, MD Environmental Program Manager, Radiological Health Program
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-277, 50-278

License Nos: DPR-44, DPR-56

Report Nos: 05000277/2008406 and 05000278/2008406

Licensee: Exelon Generation Company, LLC (Exelon)

Facility: Peach Bottom Atomic Power Station, Units 2 and 3

Location: Delta, PA

Dates: July 21 - 25, 2008

Inspectors: Dana Caron, Senior Physical Security Inspector
Joe Willis, Security Specialist, NSIR

Approved by: James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000277/2008406 and 05000278/2008406; 07/21/2008 - 07/25/2008; Peach Bottom Atomic Power Station, Units 2 & 3; Supplemental Inspection 95001

The announced inspection was conducted by a region-based senior physical security inspector and a security specialist from the NRC's Office of Nuclear Security and Incident Response (NSIR). No findings of significance were identified during the inspection. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Physical Protection

The U.S. Nuclear Regulatory Commission (NRC) performed this supplemental inspection to assess the licensee's evaluation associated with inattentive security officer events discovered in September 2007. This performance issue was previously characterized as having low to moderate risk significance (White) in NRC Enforcement Letter EA-07-296, dated February 12, 2008. During this supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspectors determined that the licensee performed a comprehensive evaluation of the security officer inattentiveness issue. The licensee's evaluation identified three root causes; 1) inadequate Exelon management oversight and leadership of Wackenhut Nuclear Security (WNS) management to ensure appropriate security force performance; 2) WNS failed to provide adequate management and supervisory oversight of security force performance; and 3) an adverse culture of inattentiveness and non-compliance with the behavior observation program (BOP) existed within the Peach Bottom Atomic Power Station (PBAPS) security organization. The root causes and corrective actions were expanded through extent-of-condition and extent-of-cause reviews to evaluate other departments and contractors for safety culture, reporting issues, and potential attentiveness aids. The licensee has completed two safety culture surveys to trend problem areas and improvements.

Given the licensee's acceptable performance in addressing the inattentive officer's issue, the white finding associated with this issue will be considered in assessing plant performance for a total of four quarters in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program." Consideration of this finding in addressing plant performance began in the 4th quarter of 2007 and will end following the 3rd quarter of 2008.

REPORT DETAILS

01 INSPECTION SCOPE

The NRC performed this supplemental inspection to assess Exelon's evaluation associated with inattentive security officers. This performance issue was previously characterized as "white" in NRC Enforcement Letter EA-07-296, dated February 12, 2008, and is related to the physical protection cornerstone in the safeguards strategic performance area.

On September 10, 2007, the NRC was contacted by representatives of WCBS-TV (New York City), stating that videotapes of inattentive security officers (SOs) at the Peach Bottom Atomic Power Station (PBAPS) were in their possession. The NRC immediately informed Exelon management of the information and initiated enhanced oversight of security activities at Peach Bottom. On September 19, 2007, after viewing the videos, the NRC determined an Augmented Inspection Team (AIT) was warranted to gather facts related to these events. On September 21, 2007, the AIT began on-site inspection activities. On September 27, 2007, the NRC issued a Security Advisory (SA-07-06) to the nuclear industry regarding inattentive security officers and related fitness for duty and behavior observation issues.

On October 9, 2007, the NRC held a public exit for the AIT inspection. The team identified the facts related to this event and concluded that immediate corrective actions were adequate. On October 19, 2007, the NRC issued a confirmatory action letter (CAL) to ensure immediate compensatory measures were maintained and to document a schedule for planned long term corrective actions. On October 24, 2007, the NRC instituted a weekly status call with Exelon to discuss CAL actions and the status of transitioning from a contract security force to an Exelon-managed force. On November 5, 2007, the AIT inspection report was issued and an AIT follow-up inspection began to review issues identified by the AIT and assess the significance of any performance deficiencies.

On November 28, 2007, the NRC's Executive Director of Operations approved a Deviation Memorandum which provided additional NRC inspection and oversight of Peach Bottom security beyond what would normally be prescribed by the reactor oversight process. On December 21, 2007, the NRC issued the AIT follow-up inspection report with a preliminary significance of "Potentially Greater than Green" for inattentive officers and an ineffective BOP. On February 12, 2008, the NRC issued enforcement action letter EA-07-296 with a violation of low to moderate security significance (White) for failure to maintain the minimum number of armed responders and an ineffective BOP.

This supplemental inspection focused on whether: (1) root causes and contributing causes were understood; (2) extent-of-condition and extent-of-cause were evaluated; and (3) sufficient corrective actions were taken to prevent recurrence.

The inspectors reviewed the root cause evaluation, corrective actions, corrective action priority and scheduling, effectiveness reviews, and self-assessment documentation. The inspectors also conducted interviews with key managers and members of the security force.

02 EVALUATION OF INSPECTION REQUIREMENTS

02.01 Problem Identification

- a. Determination of who (i.e., licensee, self-revealing, or NRC) identified the issue and under what conditions.

The inattentive security officer issue was brought to the attention of Exelon by the NRC after the NRC was informed by the media of inattentive officers on a video tape on September 10, 2007. Exelon was also informed of the potential for inattentive security officers on April 30, 2007, after the NRC received an allegation regarding inattentive security officers.

- b. Determination of how long the issue existed and prior opportunities for identification.

PBAPS evaluation identified that the inattentive security officer issue had existed since at least March 12, 2007, which was the date of the first video tape. Additionally, the evaluation identified three other incidents related to failure to report behavior observation issues involving inappropriate weapons handling in January 2007.

PBAPS evaluation documented prior opportunities for identification. These opportunities included inadequate actions taken for negative safety conscious work environment (SCWE) survey results of the security organization in late 2006, inadequate evaluation of behavioral observation reporting issues for inappropriate weapons handling in early 2007, a failure to adequately investigate and substantiate an allegation referred to PBAPS by the NRC in March 2007, and inadequate follow up actions taken for of a lack of reporting human performance events by security Team 1 that was identified during a Common Cause Analysis in August 2007.

- c. Determination of the plant-specific risk consequences (as applicable) and compliance concerns associated with the issue.

Due to the nature of these issues, there were no plant-specific risk consequences (to core damage). The potential consequences were that inattentive security officers could have an adverse impact on elements of the defense-in-depth strategy. PBAPS evaluation determined that the level of security at PBAPS was not significantly degraded as a result of these security officer performance issues because of the defense-in-depth methodology of the site strategy. The AIT and follow-up AIT reached a similar conclusion regarding security significance based on the information collected during these inspections.

02.02 Root Cause and Extent of Condition Evaluation

- a. Evaluation of methods used to identify root causes and contributing causes.

PBAPS used several formal systematic processes to identify root and contributing causes. Per LS-AA-125-1001, "Root Cause Analysis Manual," Exelon formed a root cause team consisting of a Mid-Atlantic corporate manager as the lead, supported by an Exelon fleet security manager, a PBAPS human performance manager, site regulatory and licensing personnel, and three external consultants. Time line analysis, cause and effect analysis, and barrier analysis methodologies were utilized in determining the root

causes. Key team members were trained in root cause methodology. The inspectors determined that PBAPS used appropriate methods to identify the root and contributing causes.

b. Level of detail of the root cause evaluation.

The inspectors determined the level of detail of the root cause analysis to be thorough and acceptable with a self-critical review of the station and its management of security. The licensee's evaluation identified three root causes and ten contributing causes. The licensee's evaluation identified three root causes: 1) inadequate Exelon management oversight and leadership of Wackenhut Nuclear Security (WNS) management to ensure appropriate security force performance; 2) WNS failed to provide adequate management and supervisory oversight of security force performance; and 3) an adverse culture of inattentiveness and non-compliance with the behavior observation program (BOP) existed within the PBAPS security organization.

c. Consideration of prior occurrences of the problem and knowledge of prior operating experience.

PBAPS evaluated information including past history, industry experience, and interview records of personnel. The root cause evaluation identified ten previous instances of inattentiveness at the station that occurred between 1987 and 2007, including the 1987 incident involving inattentive reactor operators. Several of these incidents involved individual security officers, but three involved other departments. Additionally, nuclear industry experience with security inattentiveness was evaluated using available data between 2000 and the present. Only one historical instance was identified at another site that involved more than one inattentive security officer at one time (two security officers at a checkpoint). A review of the corrective actions associated with that incident was conducted to evaluate applicability to the PBAPS inattentiveness issue. The inspectors determined that the consideration of prior occurrences and operating experience were appropriate.

d. Consideration of the extent-of-cause and extent-of-condition of the problem.

PBAPS evaluation considered extent-of-condition and extent-of-cause in a conservative manner. PBAPS verified that security officer inattentiveness in the ready room, inadequate supervisory oversight, and a trend of failure to report human performance issues were all identified for Team 1. Because some interview data suggested that there could have been inattentiveness on other teams and in other areas, PBAPS considered the entire security force and all security posts in their extent-of-condition for the evaluation.

PBAPS extent-of-cause involved reviewing other departments and contractors on-site with regards to adequate management oversight, isolated job sites, safety culture, and attentiveness aids. Corrective actions resulting from the extent-of-condition and extent-of-cause involved rigorous evaluations of these issues across the station as a whole and resulted in changes for departments other than security. The inspectors concluded that PBAPS extent-of-cause and condition evaluations were appropriate.

e. Consideration of the Safety Culture Components.

PBAPS evaluation addressed the safety culture components as described in NRC Inspection Manual Chapter (IMC) 0305. PBAPS conducted a thorough review of all of the Safety Culture Components and identified relevant contributing causes and root causes for many of them. The cross-cutting aspects of supervisory management oversight and the environment for raising concerns identified by the NRC and associated with the inattentive officers finding were addressed in the evaluation. The inspectors concluded that PBAPS evaluation of Safety Culture Components was appropriate.

02.03 Corrective Actions

a. Appropriateness of corrective actions.

PBAPS took immediate corrective actions to ensure security officer attentiveness when an issue of inattentiveness was identified. These actions included briefing all officers on fatigue and self-reporting responsibilities, enhanced Wackenhut and Exelon oversight, a security supervisor posted in the ready room 24 hours a day, removal of Team 1 from shift, and enhancement of radio checks. As a result of the root cause evaluation, PBAPS initiated five corrective actions to prevent recurrence (CAPRs) associated with the three root causes and over 97 corrective actions (CAs) and action tracking items (ACITs) associated with the 10 contributing causes. The inspectors reviewed all CAPRs, CAs, and ACITs to ensure that all of the items identified in the root cause were included and had been adequately addressed through PBAPS corrective action program. The inspectors identified some items that had been closed out without appropriate closure documentation or without the specified closeout action being completed. All of the items identified by the inspectors had previously been identified by the corrective action review board (CARB) made up of site management and supervisory personnel. The CARB is not a standard review process required by the PBAPS corrective action program, but was initiated for this issue due to its complexity and importance. The inspectors observed that without the CARB barrier in place, the corrective action program as currently configured may not have identified inadequate action closures for a period of months. The CARB barrier was an effective enhancement for this root cause evaluation. The inspectors concluded that PBAPS efforts in this area were adequate.

b. Prioritization of corrective actions.

PBAPS adequately prioritized immediate, mid-term, and long-term corrective actions. Immediate actions were taken to ensure attentiveness among security officers on shift, enhance radio checks, and brief security officers on behavior observation and self-reporting responsibilities. Mid-term and long term corrective actions were entered into the station corrective action program and prioritized in accordance with that process. The inspectors considered the prioritization of the established corrective actions to be consistent with the security and safety significance of the action.

c. Corrective Action Schedule.

At the time of the supplemental inspection, the majority of PBAPS corrective actions had been implemented with the remainder scheduled in the corrective action program. Corrective actions to prevent recurrence (CAPRs) were complete. A significant number of lower-tier corrective and preventive actions identified in the root cause evaluation had

also been completed or were in-progress. The inspectors concluded that the remaining schedule for completion of corrective actions to be appropriate and consistent with their respective significance.

- d. Measures of success for determining the effectiveness of the corrective actions to prevent recurrence

PBAPS completed effectiveness reviews for all CAPRs utilizing qualitative and quantitative measures to ensure corrective actions would prevent recurrence. The inspectors reviewed the CAPR effectiveness reviews and determined that they had been adequately completed. PBAPS has a total effectiveness review for the entire root cause evaluation scheduled for completion by July 24, 2009.

03 MEETINGS, INCLUDING EXIT

The results of the inspection were discussed with Mr. Gary Stathes and other staff members at the conclusion of this inspection on July 25, 2008. Following the exit meeting, a Regulatory Performance meeting was conducted in accordance with IMC 0305, "Operating Reactor Assessment Program," and IMC 0320, "Operating Reactor Security Oversight Process," which focused on the performance deficiencies associated with this issue and corrective actions to prevent recurrence.

A-1

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Kovalchick, Manager of Nuclear Security
S. Craig, Supervisor Security Operations
R. Smith, Regulatory Assurance

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Procedures

SY-AA-1016, Rev. 6, "Watchstanding Practices and Communications", 1/2/08

SY-AA-150-1002, Rev. 0, "Security Drill and Exercise Manual", 2/4/05

WC-AA-106, Rev. 8, "Work Screening and Processing", 7/7/08

LS-AA-125, Rev. 12, "Corrective Action (CAP) Procedure, 6/30/08

TQ-PB-121-1002, Rev. 0, "Security Operations Supervisor, Security Shift Supervisor, & Security Supervisor Transition", 4/4/08

LS-AA-125-1001, Rev. 6, "Root Cause Analysis Manual", 2/9/07

SY-PB-500-126-1001, Rev. 1, "Security Improvement Focus Team", 6/30/08

Other Documents

FASA, #775933-03, "NRC Security Supplemental IP 95001 Readiness"

Security Group Work Hour Averages from February 2008 to June 2008

Condition Reports

AR 00673505	Root Cause Evaluation (Assignments 1 – 97)
AR 00682545	October 4 Letter Commitments (Assignments 1 – 17)
AR 00688313	CAL Commitments (Assignments 1 – 8)
AR 00760525	Operator Watchstanding Practices Not Followed
AR 00760287	Ineffective Interim Corrective Action
AR 00723205	Insufficient Information in Case File
AR 00630353	ECP Implementation Issue
AR 00752794	Perceptions of ECP at Peach Bottom
AR 00752993	Provide Reinforcement of Security Actions

LIST OF ACRONYMS

ACIT	Action Tracking Items
ADAMS	Agencywide Documents Access and Management System
AIT	Augmented Inspection Team
AR	Action Request
BOP	Behavior Observation Program
CAL	Confirmatory Action Letter
CAPR	Corrective Action to Prevent Recurrence
CARB	Corrective Action Review Board
CFR	Code of Federal Regulations
IMC	Inspection Manual Chapter
NRC	Nuclear Regulatory Commission
NSIR	Nuclear Security and Incident Response
PARS	Publicly Available Records
PBAPS	Peach Bottom Atomic Power Station
ROP	Reactor Oversight Process
SCWE	Safety Conscious Work Environment
SO	Security Officer
WNS	Wackenhut Nuclear Security