June 22, 2001

EA-01-141

Mr. Ronald J. DeGregorio
Vice President, Oyster Creek
AmerGen Energy Company, LLC
P.O. Box 388
Forked River, New Jersey 08731

SUBJECT: OYSTER CREEK GENERATING STATION - NRC INSPECTION REPORT 05000219/2001-011

Dear Mr. DeGregorio:

On May 10, 2001, the NRC completed an Operational Safeguards Response Evaluation (OSRE) at your Oyster Creek power reactor facility. The enclosed report presents the results of that evaluation. The preliminary results of this inspection were discussed on May 10, 2001, with you and other members of your staff. Subsequently, a final exit was conducted with you and members of your staff by telephone conference on May 30, 2001.

This evaluation was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the evaluation consisted of a selective examination of physical security plans, procedures and representative records; review and walk-down of selective portions of the Oyster Creek facility; conduct of table-top exercises; examination and review of target sets; observations of force-on-force response exercises and exercise critiques; observation of firearms proficiency by security officers; and interviews with selected personnel.

Based on the results of this inspection, one preliminary finding of low to moderate safety significance was identified. On May 8-9, 2001, the NRC OSRE team observed and evaluated four force-on-force exercises. In one force-on-force exercise, your response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a loss of a complete target set that was necessary to prevent or mitigate core damage. In this particular force-on-force exercise, your response strategy was considered inadequate. We understand that you have implemented compensatory measures and subsequently initiated review of this matter to determine corrective measures. Notwithstanding this performance strategy issue, all other evaluated elements of your physical protection system were considered acceptable.

We applied the Interim Physical Protection Significance Determination Process to establish the safety bearing and importance of this issue. The circumstances were such that the demonstrated failure to protect a complete target set in a force-on-force exercise may be viewed as having a credible impact on safety, and a reasonable precursor to a significant event. The issue impacts the Physical Protection Cornerstone relative to the intended function of the physical protection system with regard to performance, design, and implementation. The preliminary finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not

the result of a broad programmatic problem with the physical protection system. Accordingly, the finding was assessed to have low to moderate safety significance, and is presently considered as a preliminary WHITE finding pending a final significance determination. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise.

We believe we have sufficient information to make a final significance determination for this finding. However, in accordance with the current NRC Enforcement Policy, you may provide a written statement of your position on the significance of this finding, including any supporting information or reference to previously submitted material. You may also request a Regulatory Conference to present your own assessment and evaluation of this matter for the consideration of the NRC staff. A Regulatory Conference on this matter would be closed to public observation because Safeguards Information may need to be discussed, and it is required to be protected in accordance with 10 CFR 73.21.

Please contact Mr. John R. White at (610) 337-5114 within 7 days of the date of this letter to notify the NRC of your intentions in this matter. If a response is not received within 10 days, excepting a granted extension, we will continue with our significance determination process and subsequently inform you of our final significance determination.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

We appreciate your cooperation. Please contact Mr. White if you have any questions regarding this letter.

Sincerely,

/RA/

Wayne D. Lanning, Director
Division of Reactor Safety

Docket No. 05000219
License No. DPR-16

Enclosure: NRC Inspection Report No. 05000219/2001-011

cc w/encl:
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NAME	GSmith		JRogge		VOrdaz (ViaPhone) (J. Arildsen for)		JWhite		WLanning	
DATE	06/21/01		06/21/01		06/19/01		06/21/01		06/22/01	

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Summary of Findings

IR 05000219-01-011; on 5/7-10/2001; Oyster Creek Generating Station; Operational Safeguards Response Evaluation.

The inspection was conducted by two NRC Region I Safeguards/Security inspectors, one Nuclear Reactor Regulation Safeguards Specialist, and three contractors. The inspection identified one preliminary White finding of low to moderate safety significance. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

A. Inspector Identified Findings

Cornerstone: Physical Protection

- Preliminary White. During the conduct of a force-on-force exercise, the licensee's security response strategy was insufficient to successfully interdict an adversary force. Consequently, there was a presumed loss of a complete target set that was necessary to prevent or mitigate core damage. Accordingly, the physical protection response strategy for this specific circumstance was considered inadequate.

  This finding was considered to be of low to moderate safety significance because the demonstrated failure to protect a complete target set in a force-on-force exercise may have a credible impact on safety and may be a reasonable precursor to a significant event. The preliminary finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set; and the loss was not the result of a broad programmatic problem with the physical protection system. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter since the finding was revealed through the conduct of a force-on-force exercise. (Section 40A5)

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	05000219
License No:	DPR-16
Report No:	05000219/2001-011
Licensee:	AmerGen Energy Company, LLC
Facility:	Oyster Creek Generating Station
Dates:	May 7 - 10, 2001
Inspectors:	Gregory C. Smith, Senior Security Inspector (Team Leader) Paul R. Frechette, Security Inspector David Orrik, Reactor Safeguards Specialist (NRR) NRC Contractors (3)
Approved by:	John R. White, Chief Radiation Safety and Safeguards Branch Division of Reactor Safety

Report Details

3. Safeguards

Cornerstone: Physical Protection

4OA5 Operational Safeguards Response Evaluation (OSRE)(81110)

.1 Management Overview of Protective Strategy (81110-02.01)

a. Inspection Scope

The inspectors met with the licensee and security contractor management to review:

(1) the licensee's fundamental strategy to protect against the design basis threat, in accordance with the requirements of 10 CFR 73.1;

(2) armed response force manning levels, in accordance with the NRC-approved Physical Security Plan;

(3) contingency equipment and deployment positions, in accordance with the NRC-approved Contingency Response Plan; and

(4) plant operations participation in defining and validating the protective strategy.

b. Findings

No findings of significance were identified.

.2 Preliminary and Onsite Target Analyses (81110-02.02)

a. Inspection Scope

The initial target sets, as submitted by the licensee on April 9, 2001, were reviewed for completeness and technical acceptability. The NRC review was in-office and included assessment by Region I and the Office of Nuclear Regulation. Upon subsequent revision, the target sets were confirmed to be acceptable on May 7, 2001; and were documented in the Oyster Creek Target Set Listing.

b. Findings

No findings of significance were identified.

.3 Protected and Vital Area Tour (81110-02.03)

a. Inspection Scope

A tour of the Protected and Vital areas was conducted to assess and evaluate potential Protected Area entry points that could be used by an adversary force, including routes, barriers, and distances to various target sets and associated equipment. Response personnel deployment positions, locations of response equipment, physical protection systems, and firearms were reviewed. The design and location of various response force defensive positions were evaluated for adequacy.

b. Findings

No findings of significance were identified.

.4 Table-Top Drills, Force-on-Force Exercises, and Licensee Exercise Critiques (81110-02.04)

a. Inspection Scope

Table-top drills and force-on-force exercises were used to evaluate the sufficiency of the design, performance, and implementation of the physical protection system to protect against a design bases threat of radiological sabotage. The evaluation considered the specifications of the licensee's Physical Security Plan, Tactical Defense Response Policy, and Target Set Listing; and assessed the licensee's ability to effectively deploy the required number of appropriately armed and equipped security response officers to various tactical positions, within certain time limits, to interdict adversaries and prevent damage or loss of target sets. The evaluation included:

(1) the conduct of four table-top drills with appropriately qualified security personnel to assess the number of responders to be deployed, deployment positions, defensive strategy, and response times;

(2) the observation of four force-on-force exercises to demonstrate the effectiveness of design, performance and implementation of the physical protection system; and,

(3) observation of the licensee's critique of each force-on-force exercise to determine the ability of the licensee to critically evaluate effectiveness, and identify problems in design, performance, or implementation of the physical protection system.

b. Findings

On May 8-9, 2001, the NRC OSRE team observed and evaluated four force-on-force exercises. In one of the four force-on-force exercises, the response force was unsuccessful in effectively interdicting the mock adversary force and preventing the loss of a complete target set that was necessary to prevent or mitigate core damage. Based on this performance strategy failure, the NRC OSRE team was unable to confirm that the design of the physical protection system was sufficient to protect against a design basis threat of radiological sabotage.

The selection of the four force-on-force exercise scenarios was based, in part, on the information gained from the table top drills to verify the appropriateness of the response strategies and identify suspected vulnerabilities. This particular force-on-force scenario was selected due to a suspected vulnerability. Based on the actual outcome of this individual exercise, the OSRE team determined that: (1) the specific response strategy was flawed in that one component, of a two component target set, was initially left undefended, by design; and (2) the response strategy was such that the security officers assigned to defend one of the target set components could be neutralized, leaving both components of the target set vulnerable to damage or destruction by an adversary force. Accordingly, the relative ease with which the adversary force was able to damage or destroy both components of the target set indicated a performance flaw in response strategy and implementation for this particular target set.

The licensee identified in a May 18, 2001 submittal, that some exercise artificialities were possible contributors to the loss of the complete target set. For example, the failure of the drill controllers to simulate a door alarm which would have, presumably, alerted the response organization to probable loss of one of the two target set components; and the light glare in a fire door window which required the responder to leave his protected position and increase his vulnerability to gain a better shooting advantage on the adversary force. However, the NRC OSRE team observed that: (1) there was radio communication between responders that should have provided sufficient indication that the one of the components was probably lost, even without the door alarm; and (2) the glare on the fire door window should not have been an issue, since even if the window was not in place, the responder would not have been in a protected defensive position.

The circumstances in this matter were such that the demonstrated failure to protect a complete target set in a force-on-force exercise may be viewed as having a credible impact on safety, and a reasonable precursor to a significant event. Exploitation of the strategy flaw by a real adversary could potentially subject the facility to core damage, absent effective operator intervention.

The issue impacts the Physical Protection Cornerstone relative to the intended function of the physical protection system with regard to performance, design, and implementation. The OSRE demonstrated that the strategy designed for the protection of this particular target set was not sufficient to provide high assurance of successful interdiction by responders. Further, performance errors by the responders (i.e., failure to stand-off from an explosive charge, and the presumption of protection behind a

hollow core door) was contrary to training, and led to the neutralization of the initial responders and loss of the target set component they were protecting.

Applying the Interim Physical Protection Significance Determination Process, the finding involved a required safeguards contingency response in a force-on-force exercise in which there was the loss of at least one complete target set. Given the observed good performance in all other aspects demonstrated during the OSRE (i.e., successful interdiction of adversaries and protection of the complete target sets in all other force-on-force exercises; the demonstrated training and qualification of the response organization, and the overall quality of the facility's physical protection system), the weakness observed in this single force-on-force exercise does not appear to be the result of a broad programmatic problem with the physical protection system. Rather, the performance failure appears isolated to the protective strategy employed for this particular target set, and not specifically related to procedures or training. Notwithstanding, the strategy flaw appears to be potentially predictable or repeatable, i.e., the flaw could be exploitable by an informed adversary, and result in possible loss of the target set.

Accordingly, the finding was assessed to have low to moderate safety significance, and is presently considered as a preliminary WHITE finding pending a final significance determination. In accordance with Enforcement Guidance Memorandum (EGM) 01-001, no enforcement action is being considered in this matter because the finding was revealed through the conduct of a force-on-force exercise. Upon identification, this issue was entered into the licensee's corrective action program as CAP 02001-0796. **(FIN 05000219/2001-011-01)**

.5 Tactical Training (81110-02.06)

a. Inspection Scope

The tactical performance of the response officers, both individually and as a team, including command, control and communications, was observed during the onsite force-on-force exercises; and evaluated for its effectiveness.

b. Findings

No findings of significance were identified.

.6 Firearms Training (81110-02.07)

a. Inspection Scope

The firearms training was evaluated on May 9, 2001, by observing a live-fire demonstration by five armed response officers. The officers demonstrated firearms proficiency (safety, speed, and accuracy) on a tactical stress firing course that simulated actual in-plant response conditions and shooting situations. The firearms demonstration included firing from elevated positions and from behind barricades; and at fixed, moving and pop-up targets; and firing while wearing a respirator.

b. Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the preliminary inspection results to Mr. R. DeGregorio, Site Vice President, and other members of licensee management at the conclusion of the inspection on May 10, 2001. A final exit was conducted telephonically, with Mr. R. DeGregorio and other members of licensee management, on May 30, 2001.

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. DeGregorio	Site Vice President
D. LeQuia	Director, Site Support
R. Ewart	Manager, Nuclear Security
E. Harkness	Plant Manager
H. McNally	Regional Manager, Nuclear Security
R. Lane	Exelon Security Director
P. Scallon	Manager, Nuclear Oversight
M. Godknecht	Plant Engineer
L. Defbaugh	Security Training

Contractor - The Wackenhutt Corporation

G. Shannon	Project Manager
R. Cogdell	Director, Nuclear Operations

NRC

L. Dudes	Senior Resident Inspector
T. Hipschman	Resident Inspector
J. White	Chief, Radiation Safety and Safeguards Branch
G. Smith	Senior Security Specialist
P. Frechette	Security Specialist
D. Orrik	Reactor Safeguards Specialist

LIST OF ITEMS OPENED

Opened

05000219/2001-011-01	FIN	In an evaluated exercise (OSRE), the response strategy was insufficient to successfully interdict an adversary force. Based on this performance problem, the NRC OSRE team was unable to confirm that the design of the physical protection system was sufficient to protect against a design basis threat of radiological sabotage.

LIST OF INSPECTION PROCEDURES USED

IP 81110 Operational Safeguards Response Evaluation

LIST OF ACRONYMS

OSRE Operational Safeguards Response Evaluation

LIST OF DOCUMENTS REVIEWED

Oyster Creek Physical Security Plan, Revision 41, April 19, 2001
Oyster Creek Target Set listing, May 7, 2001
Oyster Creek Tactical Defensive Response Policy 39, Revision A-02, May 7, 2001