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NRC FORM 464 Part I (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST

FOIA/PA	RESPONSE NUMBER
2010-0050	1

RESPONSE TYPE ☑ FINAL ☐ PARTIAL

REQUESTER

DATE FEB 23 2010

PART I. -- INFORMATION RELEASED

☐ No additional agency records subject to the request have been located.

☐ Requested records are available through another public distribution program. S ee Comments section.

☐ APPENDICES Agency records subject to the request that are identified in the listed appendi ces are already available for public inspection and copying at the NRC Public Document Room.

☑ APPENDICES A Agency records subject to the request that are identified in the listed appendi ces are being made available for public inspection and copying at the NRC Public Document Room.

☐ Enclosed is information on how you may obtain access to and the charges for cop ying records located at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD 20852-2738.

☑ APPENDICES A Agency records subject to the request are enclosed.

☐ Records subject to the request that contain information originated by or of int erest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination a nd direct response to you.

☐ We are continuing to process your request.

☐ See Comments.

PART I.A -- FEES

AMOUNT * $

* See comments for details

☐ You will be billed by NRC for the amount listed.

☐ You will receive a refund for the amount listed.

☑ None. Minimum fee threshold not met.

☐ Fees waived.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

☐ No agency records subject to the request have been located.

☑ Certain information in the requested records is being withheld from disclosure pursuant to the exemptions described in and for the reasons stated in Part II.

☑ This determination may be appealed within 30 days by writing to the FOIA/PA Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Clearly state on the envelope and in the letter tha t it is a "FOIA/PA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

SIGNATURE - FREEDOM OF INFORMATION ACT AND PRIVACY ACT OFFICER

Donna L. Sealing

NRC FORM 464 Part II (2-2008) U.S. NUCLEAR REGULATORY COMMISSION	FOIA/PA	DATE
RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) / PRIVACY ACT (PA) REQUEST	2010-0050	FEB 23 2010

PART II.A -- APPLICABLE EXEMPTIONS

APPENDICES A & B

Records subject to the request that are described in the enclosed Appendices are being withheld in their entirety or in part under the Exemption No.(s) of the PA and/or the FOIA as indicated below (5 U.S.C. 552a and/or 5 U.S.C. 552(b)).

- [x] Exemption 1: The withheld information is properly classified pursuant to Executive Order 12958.
- [x] Exemption 2: The withheld information relates solely to the internal personnel rules and procedures of NRC.
  - [ ] Low 2 Internal matters of a relatively trivial nature.
  - [x] High 2 Disclosure would risk circumvention of a legal requirement.
- [x] Exemption 3: The withheld information is specifically exempted from public disclosure by statute indicated.
  - [ ] Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
  - [x] Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
  - [ ] 41 U.S.C., Section 253b, subsection (m)(1), prohibits the disclosure of contractor proposals in the possession and control of an executive agency to any person under section 552 of Title 5, U.S.C. (the FOIA), except when incorporated into the contract between the agency and the submitter of the proposal.
- [ ] Exemption 4: The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated.
  - [ ] The information is considered to be confidential business (proprietary) information.
  - [ ] The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
  - [ ] The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
  - [ ] Disclosure will harm an identifiable private or governmental interest.
- [ ] Exemption 5: The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Applicable privileges:
  - [ ] Deliberative process: Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency.
  - [ ] Attorney work-product privilege. (Documents prepared by an attorney in contemplation of litigation)
  - [ ] Attorney-client privilege. (Confidential communications between an attorney and his/her client)
- [ ] Exemption 6: The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- [ ] Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
  - [ ] (A) Disclosure could reasonably be expected to interfere with an enforcement proceeding (e.g., it would reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow recipients to take action to shield potential wrongdoing or a violation of NRC requirements from investigators).
  - [ ] (C) Disclosure would constitute an unwarranted invasion of personal privacy.
  - [ ] (D) The information consists of names of individuals and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
  - [ ] (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
  - [ ] (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- [ ] OTHER (Specify)

PART II.B -- DENYING OFFICIALS

Pursuant to 10 CFR 9.25(g), 9.25(h), and/or 9.65(b) of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The person responsible for the denial are those officials identified below as denying officials and the FOIA/PA Officer for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL		
			EDO	SECY	IG
James Wiggins	**Director, NSIR**	**Appendices A & B**	✓		

Appeal must be made in writing within 30 days of receipt of this response. Appeals should be mailed to the FOIA/Privacy Act Officer, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, for action by the appropriate appellate official(s). You should clearly state on the envelope and letter that it is a "FOIA/PA Appeal."

Re: FOIA/PA-2010-0050

APPENDIX A
RECORDS BEING WITHHELD IN PART

NO.	DATE	DESCRIPTION/(PAGE COUNT)/EXEMPTIONS
1.	09/11/07	Letters from Dale Klein to The Honorables Barbara Boxer and John Dingell transmitting Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update, Annual Report for Calendar Year 2006. 62 pages total, 43 pages released. **EX. 2 & EX. 3**
2.	07/01/08	Letters from Dale Klein to The Honorables Barbara Boxer and John Dingell transmitting Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update, Annual Report for Calendar Year 2007. 68 pages total, 44 pages released. **EX. 2 & EX. 3**
3.	06/30/09	Letters from Gregory Jaczko to The Honorables Barbara Boxer, Thomas Carper, Henry Waxman, and Edward Markey, transmitting Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update, Annual Report for Calendar Year 2008. 70 pages total, 48 pages released. **EX. 2 & EX. 3**

APPENDIX B
RECORDS BEING WITHHELD IN THEIR ENTIRETY

NO.	DATE	DESCRIPTION/(PAGE COUNT)/EXEMPTIONS
1.	No date	Letters from Chairman Dale Klein to Senator Boxer and Representative Dingell attaching Classified Results and Discussion of CAT 1 FOF Findings. (8 pages) **EX. 1 and EX. 2**

~~SAFEGUARDS INFORMATION~~

43

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

September 11, 2007

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Madam Chairman:

(U) Section 651 (a) of the Energy Policy Act of 2005 requires the Commission to submit a report to Congress, in both classified and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercises) conducted and any relevant corrective action taken by a licensee during the previous year. On behalf of the Commission, I am transmitting the second such report addressing inspections conducted during calender year 2006. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I fuel cycle facilities to keep you informed of the Nuclear Regulatory Commission's (NRC) efforts to protect a key segment of our Nation's electric power infrastructure against terrorist attacks. The unclassified version of this report, as well as a Confidential addendum to the enclosed report, will be transmitted under separate cover.

(U) The NRC is committed to protecting the public health and safety, promoting the common defense and security, and protecting the environment. Conducting FOF exercises and implementing the security inspection program are just two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive materials by the commercial nuclear power industry.

~~(OUO)~~ During calendar year 2006, the NRC conducted 312 security inspections (of which 23 were FOF inspections at nuclear power plants and CAT I fuel cycle facilities). These inspections identified 82 findings of which 73 were of very low security significance and 9 were of low to moderate security significance. Whenever a finding is identified during a security inspection, the NRC ensures that the licensee implements adequate compensatory measures immediately to correct the problem. Compensatory measures can be, for example, additional armed personnel and/or physical barriers to strengthen a licensee's response capabilities. Compensatory measures are usually effective short-term fixes until a more comprehensive analysis can be conducted to identify long-term, permanent solutions.

~~Enclosure 1 contains Safeguards Information. When separated from Enclosures 1, this cover document is OFFICIAL USE ONLY~~

~~SAFEGUARDS INFORMATION~~

A/1

(U) The NRC will make available for any member of Congress, or Congressional oversight committee staff, the unclassified and classified inspection reports, as appropriate, for any FOF inspection in their State or Congressional District through the Office of Congressional Affairs. The same offer will be extended, as appropriate under existing protocols and requirements, to governor-appointed State Liaison Officers.

(U) The Commission is confident that nuclear power plants and Category I fuel cycle facilities continue to be among the best protected private sector facilities in the Nation and, through our inspection and oversight processes, the NRC is committed to ensuring strong security at these facilities. Please do not hesitate to contact me if you need additional information.

Sincerely,

Dale E. Klein

Enclosure: As stated

cc: Senator James M. Inhofe

~~SAFEGUARDS INFORMATION~~

CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 11, 2007

The Honorable John D. Dingell
Chairman, Committee on Energy
and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

(U) Section 651 (a) of the Energy Policy Act of 2005 requires the Commission to submit a report to Congress, in both classified and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercises) conducted and any relevant corrective action taken by a licensee during the previous year. On behalf of the Commission, I am transmitting the second such report addressing inspections conducted during calender year 2006. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I fuel cycle facilities to keep you informed of the Nuclear Regulatory Commission's (NRC) efforts to protect a key segment of our Nation's electric power infrastructure against terrorist attacks. The unclassified version of this report, as well as a Confidential addendum to the enclosed report, will be transmitted under separate cover.

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Sincerely,

Dale E. Klein

Enclosure: As stated

cc: Representative Joe Barton

Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update

Annual Report for Calendar Year 2006

Manuscript Completed: August 2007
Date Published: September 2007

Safeguards Information determination made by:
Name/Title: RP Correia, Deputy Division Director
Organization: NSIR/DSO
Basis: Exempt under 10 CFR 2.390
Signature: [signature]
Date: 09/07/2007

Division of Security Operations
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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ABSTRACT

(U) This report fulfills the requirements of Chapter 14, Section 170D of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states, "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This is the second annual report which covers calendar year 2006. In addition to information on the security response evaluation program (force-on-force exercises), the NRC is providing additional information regarding the overall security performance of the commercial nuclear power industry and selected fuel cycle facilities to keep Congress and the public informed of the NRC's efforts to protect the nation's electric power infrastructure and special nuclear material against terrorist attacks, by guarding against theft and diversion and radiological sabotage.

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EXECUTIVE SUMMARY

(U) This report fulfills the requirements of Chapter 14, Section 170D of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states, "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This is the second annual report which covers calendar year (CY) 2006. In addition to information on the security response evaluation program (force-on-force inspections), the NRC is providing additional information regarding the overall security performance of the commercial nuclear power industry and selected fuel cycle facilities to keep Congress and the public informed of the NRC's efforts to protect the nation's nuclear facilities and materials against terrorist attacks, by guarding against theft and diversion and radiological sabotage.

(U) The NRC is committed to protecting public health and safety, promoting the common defense and security, and protecting the environment. Conducting the security inspection program, which includes performance-based force-on-force (FOF) inspections, is one of a number of regulatory oversight activities the NRC performs to ensure the secure, safe use and management of radioactive materials by the commercial nuclear industry. In support of these activities, the NRC employs relevant intelligence information and vulnerability analyses to determine realistic and practical security requirements and mitigative strategies. Further, a risk-informed, graded approach is used to establish appropriate regulatory controls, enhance NRC inspection efforts, assess the significance of issues, and to influence timely and effective corrective action by licensees of commercial nuclear power plants for identified deficiencies. These practices utilize interagency cooperation in the development of an integrated approach to the security of nuclear facilities and contribute to NRC's comprehensive evaluation of licensee security performance.

(U) This report describes the results of the NRC's security inspection program, including the nuclear reactor security baseline inspection program, security of Category I (CAT I) fuel cycle facilities, and exercises conducted as part of FOF inspections. The reporting period included herein is January 1, 2006, through December 31, 2006.

(~~S~~) During CY 2006, the NRC conducted 312 security inspections (of which 23 were FOF inspections at power reactors and CAT I fuel cycle facilities). These inspections identified 82 findings of which 73 were of very low security significance and 9 were of low to moderate security significance.

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ABBREVIATIONS

ASM	additional security measure
BWXT	BWX Technologies
CAF	Composite Adversary Force
CAS	Central Alarm Station
CAT I	Category I
CY	Calendar Year
DBT	Design Basis Threat
DOD	Department of Defense
DOE	Department of Energy
EPA	Energy Policy Act
FFD	Fitness-for-Duty
FOF	Force-on-Force
HEU	Highly Enriched Uranium
IDS	Intrusion Detection System
MC&A	Material Control and Accounting
MILES	Multiple Integrated Laser Engagement System
NCV	Non-cited Violation
NFS	Nuclear Fuel Services
NPP	Nuclear Power Plant
NR	Office of Naval Reactors
NRC	U.S. Nuclear Regulatory Commission
OCA	Owner Controlled Area
PA	Protected Area
PI	Performance Indicator
PPSDP	Physical Protection Significance Determination Process
PSP	Physical Security Plan
ROP	Reactor Oversight Process
SAS	Secondary Alarm Station
SDP	Significance Determination Process
SL	Severity Level
SNM	Special Nuclear Material
SSNM	Special Nuclear Material
URI	Unresolved Item
VBS	Vehicle Barrier System

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1. INTRODUCTION

(U) The Energy Policy Act of 2005 amended Chapter 14, Section 170D of the Atomic Energy Act to require, in part, that "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This report fulfills the requirement for an unclassified report.

(U) Last year, the U.S. Nuclear Regulatory Commission (NRC) provided to Congress the first annual report on the results of the NRC's security inspection program. In addition to outlining the results of the overall security inspection program for Calendar Year (CY) 2005, the report described the evolution of the NRC's security inspection program from the days preceding September 11, 2001, to the current program. This report for CY 2006 conveys the results of inspections for the reporting period, but will not describe the evolution of the program. For that background information, the 2005 report is included as Appendix A of the unclassified version of this report as a reference. For a summary of inspection findings at sites, sorted by state, please see Appendix A of this report.

(U) This report provides an overview of the NRC's security inspection program and force-on-force (FOF) program and summaries of the results of those inspections. NRC's communications and outreach activities with the public and other stakeholders (including other federal agencies) will also be described. Unless otherwise noted, this report does not include security activities or initiatives of any class of licensee other than power reactors or Category I fuel cycle facilities. Category I fuel cycle facilities are those which use or possess formula quantities of strategic special nuclear material (SSNM). SSNM is defined in 10 CFR as uranium-235 (contained in uranium enriched to 20 percent or more in the U235 isotope), uranium-233, or plutonium.

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2. REACTOR SECURITY OVERSIGHT PROCESS

2.1 Overview

(U) The NRC continues to implement the Reactor Oversight Process (ROP) which is the agency's program for ensuring plant and radiological safety, security, and emergency preparedness at operating nuclear power plants. The basic principles and philosophy of the ROP are to ensure that a defined, repeatable, and objective process is applied to identify findings, determine their significance, and document results in accordance with ROP program guidance. Program instructions and inspection procedures help provide assurance that licensee actions and regulatory response are commensurate with the safety or security significance of the particular event, deficiency, or weakness. Within each ROP cornerstone (see Figure 1), NRC residents and regional specialist inspectors conduct inspections using detailed inspection procedures whose results, in the aggregate, contribute to an overall assessment of licensee performance.

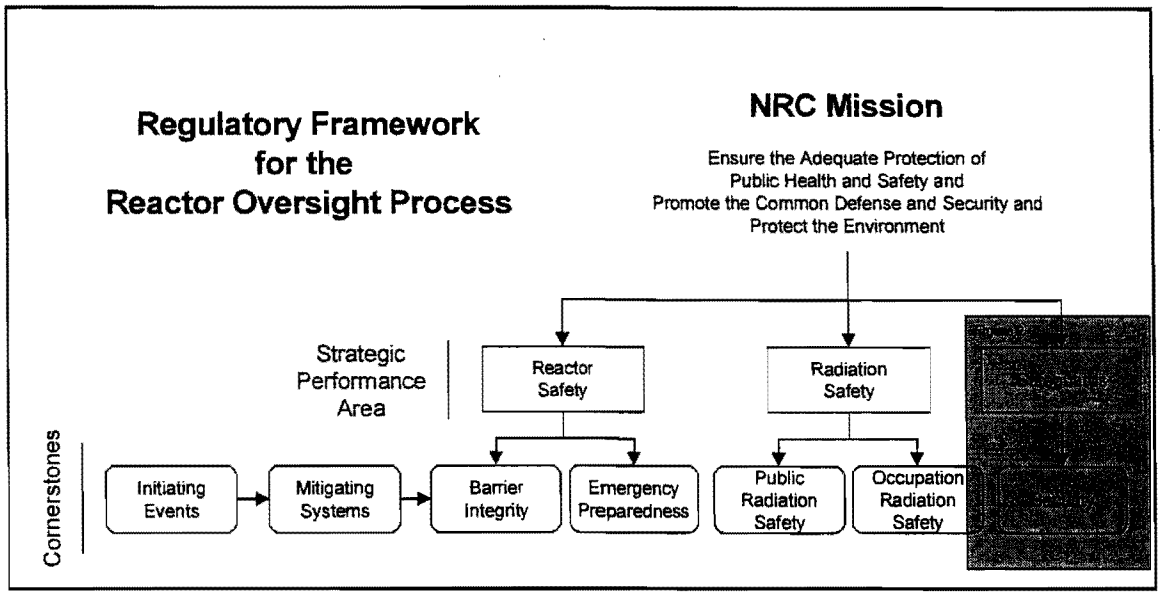

Figure 1: Cornerstones of the Reactor Oversight Process

(U) As part of post 9/11 actions, the NRC issued a number of Orders requiring licensees to strengthen security programs in a number of areas. Based on these Orders, the NRC significantly enhanced its baseline security inspection program for commercial nuclear power plants (NPP). This inspection effort resides within the "Security Cornerstone" of the agency's ROP. The Security Cornerstone focuses on five key licensee performance attributes: access authorization; access control; physical protection; material control and accounting (MC&A); and response to contingency events. Through the results obtained from all oversight activities, including baseline security inspections and performance indicators (PI), the NRC determines whether licensees comply with requirements and can provide assurance of adequate protection against the design basis threat (DBT) for radiological sabotage.

(U) The Security Cornerstone has four objectives: (1) to obtain information providing objective evidence that the security and safeguards at NRC-licensed NPPs are maintained in a manner that contributes to public health and safety and promotes the common defense and security; (2) to determine that licensees have established measures to deter, detect, and protect against the DBT of radiological sabotage as required by regulations and other Commission mandates such as orders; (3) to determine the causes of declining performance in the physical protection arena before such performance reaches a level that may result in a degradation to reactor safety or undue risk to public health and safety; and (4) to identify those significant issues that may have generic or cross-cutting applicability. These objectives help ensure the secure use and management of radioactive materials.

(U) Licensees currently report data on three performance indicators in security: (1) Protected Area Equipment; (2) Personnel Screening Program; and (3) Fitness-for-Duty/Personnel Screening Program. The data reported by the licensees are compared to an established set of thresholds to determine their significance, which is represented by the colors green, white, yellow, and red (in order of increasing severity). The PIs measure aspects of the licensees' security programs that are not specifically inspected by the NRC's baseline inspection program.

(U) The baseline inspection program requires 12 "inspectable areas" to be reviewed periodically at each facility (see Figure 2). One of the inspectable areas, contingency response, is assessed through the conduct of FOF inspections, described in detail in a later section. In addition, MC&A inspections are conducted to ensure that licensees take adequate measures to control the risk of loss, theft, or diversion of SNM.

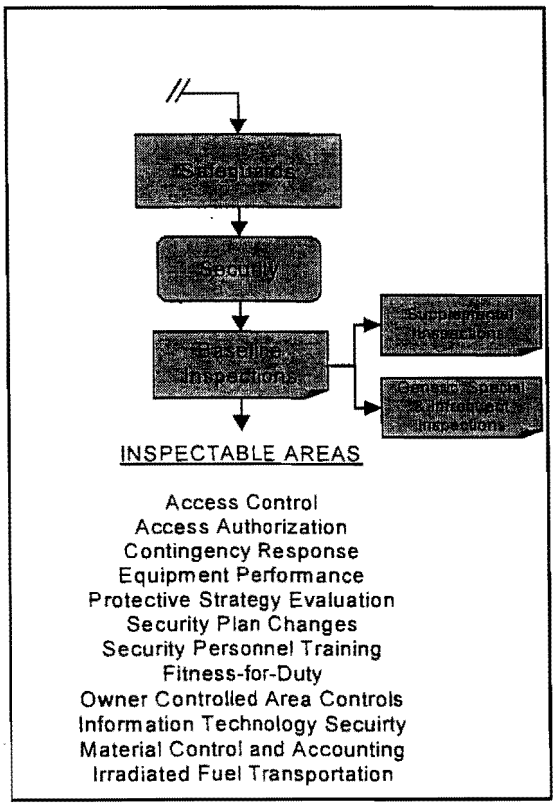

Figure 2: Inspectable Areas of the Safeguards Cornerstone

(U) Where performance issues have been identified at a particular licensee, supplemental inspections may be conducted to further investigate a particular deficiency or weakness. In certain situations, the NRC may conduct a generic, special, or infrequent inspection. Such an inspection is not part of the baseline or supplemental inspection program and would only be conducted after a review and assessment of a particular security or safeguards event or condition. These types of inspections include, but are not limited to: resolution of employee concerns, security matters requiring particular focus, licensee plans for coping with strikes, and inspection of international safeguards. During this reporting period, there were three special inspections at NPPs. These special inspections covered topics such as: blast vulnerabilities, inadequate searches of packages and materials, and improper compensatory measures.

2.2 Significance Determination Process

(U) The Significance Determination Process (SDP) for NPPs uses risk insights, where appropriate, to help NRC inspectors and staff determine the security significance of inspection findings. Security-related findings are evaluated using the baseline Physical Protection Significance Determination Process (PPSDP). These findings include both programmatic and process deficiencies. The PPSDP provides the security significance of any security program deficiency. If it is unclear whether or not an observation is a finding, it will be documented in the inspection report as an unresolved items (URI) until clarifying information can be gathered. A URI is an issue about which more information is required to determine if it is acceptable, if it is a finding, or if it constitutes a deviation or violation. Such a matter may require additional information from the licensee or may require additional guidance or clarification/interpretation of the existing guidance. Certain violations that cannot be evaluated by the PPSDP are assigned a severity level based on the NRC's Enforcement Policy.

(U) FOF findings are evaluated using the FOF SDP. The significance of findings associated with FOF adversary actions are dependent on how far into the plant the mock adversary force progresses, their impact on critical equipment (referred to as a target set), and a determination of whether or not these actions could have had an adverse impact on public health and safety. Other security-related findings identified during FOF activities are also evaluated using the baseline PPSDP. These findings may include programmatic and process deficiencies that are not directly related to a FOF inspection outcome, but are identified during the FOF exercise. In situations where the NRC cannot clearly determine the outcome of an exercise, the exercise will be considered indeterminate and an additional exercise scheduled, if appropriate.

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3. FORCE-ON-FORCE INSPECTION PROGRAM

3.1 Overview

(U) A full FOF inspection, spanning several days, includes both table-top drills and exercises that simulate combat between a mock commando-type adversary force and the licensee security force. At a nuclear power plant, the adversary force may attempt to reach and damage key safety systems and components that protect the reactor's core or the spent fuel pool, potentially causing a radioactive release to the environment. At other facilities, the adversary force may attempt theft or diversion of SNM. The licensee's security force, in turn, seeks to prevent the adversaries from causing such a release or theft. In addition to significant participation of plant operators and NRC personnel, these exercises may include observers from an array of Federal, state, and local law enforcement agencies and emergency planning officials.

(U) In conducting FOF inspections, NRC notifies the licensee in advance for safety and logistical purposes. This notification provides adequate planning time for licensee coordination of two sets of security officers - one for maintaining actual plant security and the other for participating in the exercise. In addition, arrangements must be made by the licensee for a group of individuals who will control and monitor each exercise. A key goal of the NRC is to balance safety (both personnel and operational) while maintaining actual plant security during an exercise that is as realistic as possible.

(U) In preparation for an FOF exercise, information from table-top drills, which probe for potential deficiencies in the licensee's protective strategy, other baseline security inspections, and security plan reviews are factored into a number of commando-style attack scenarios. The objective of the site's responders is to prevent the attackers from destroying or damaging (simulated in an FOF exercise) critical equipment (target sets) or the theft and diversion of SNM. Any potential deficiencies in the protective strategy identified during FOF exercises are promptly reviewed and corrected before NRC inspectors leave the licensee's site.[1]

3.2 Program Activities in 2006

(U) In 2006, the FOF inspection program focused on effectively evaluating licensee protective strategies while maintaining regulatory stability and consistency in the evaluation process. The staff continued to work with the nuclear industry to improve the standard of training and qualification for exercise controllers. In 2007, the staff endorsed industry's revised controller guidance document for the remainder of the current inspection cycle which ends in December 2007. The NRC remains committed to working with the industry to improve the realism and effectiveness of the FOF inspection program and will continue to pursue methods to improve certain exercise simulations and the controller responses to those simulations.

(U) The composite adversary force (CAF) used for NPP inspections continued to meet expectations for a credible, well-trained and consistent mock adversary force. In order to meet security clearance requirements, the staff enlisted a composite adversary team from the Office of Naval Reactors (NR) to conduct FOF exercises at CAT I fuel cycle facilities instead of the CAF, who are only cleared for safeguards information. The NR adversary team all had Department of Energy (DOE) Q clearances.

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[1] See "Protecting Our Nation," and Office of Public Affairs "Backgrounder" on Force-on-Force. http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0314/

(U) In improving its own processes internally, the NRC took part in benchmarking efforts with other agencies that conduct similar security performance assessments. NRC staff observed FOF exercises conducted by the DOE and the Department of Defense (DOD). DOE and DOD representatives observed NRC FOF exercises as well. These interagency observations were in an effort to share best practices among agencies.

3.3 Results of FOF Inspections - Commercial NPPs

(U) Between January 1, 2006, and December 31, 2006, FOF inspections were conducted at 21 commercial NPPs. During the conduct of FOF inspections, two findings related to other areas of the security baseline program were identified. These findings included: failure to provide adequate detection at a barrier; and failure to adequately evaluate the effectiveness of a change to the Physical Security Plan.

(U) As of the end of 2006, FOF inspections have been conducted at 45 out of a total of 66 sites[2] (including both commercial power reactors and CAT I fuel cycle facilities). Table 1 summarizes the 21 FOF inspections at NPPs and Table 2 summarizes the inspections chronologically, by site. For a summary of inspection findings during CY 2006 at commercial NPPs, sorted by state, please see Appendix A of this report. A summary of the CAT I inspections is included in the classified addendum.

(U) Violations and non-cited violations (NCV) of NRC requirements are categorized by significance, and are given corresponding color or severity level (SL) codes. For inspection findings evaluated with the SDP, violations are assigned colors, as follows: green (very low security significance); white (low to moderate security significance); yellow (substantial security significance); and red (high security significance). White, yellow and red findings are considered greater than green and are described as such in inspection report cover letters to licensees.

(U) Violations that are not evaluated through the SDP are categorized in terms of four levels of severity to show their relative importance or significance. SL I has been assigned to violations that are the most significant and SL IV violations are the least significant. SL I and II violations are of very significant regulatory concern. In general, violations that are included in these severity categories involve actual or high potential consequences on public health and safety. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. Violations at SL IV involve noncompliance with NRC requirements that are not considered significant based on risk.

[2](U) NOTE: For the purposes of the security inspection program, Salem and Hope Creek are counted as one site, as they share a common security program, bringing the total number of reactor sites to 64.

(U) **Table 1:** CY 2006 FOF Inspection Program Summary at NPPs	
21	Total number of inspections conducted.
2	Total number of inspection findings.
1	Total number of Green findings
0	Total number of greater than Green findings.
1	Total number of SL IV violations.
0	Total number of greater than SL IV violations.

Ex 3

Ex 3

(U) Table 3 summarizes the cumulative results of the FOF inspections conducted at NPPs since the current cycle began in November 2004. During a FOF inspection, three FOF exercises are scheduled. If an exercise is canceled due to severe weather or other reasons, NRC management may consider less than three exercises only when a licensee has successfully demonstrated an effective protective strategy in at least two exercises, with no significant issues identified. If those conditions are not met, the team may have to expand the schedule or schedule a subsequent visit.

(U) Of the total number of exercises conducted, four exercises were inconclusive and deemed indeterminate. An indeterminate exercise is one where the NRC inspectors are prevented from effectively gathering sufficient information to evaluate the licensee's protective strategy or to

(U) form a cogent conclusion. These exercises were indeterminate due to: excessive safety or administrative holds; insufficient exercise control; or extreme malfunctions of exercise simulation systems. Another four exercises were canceled because of potential safety concerns associated with dangerous weather conditions or a plant transient.

(U) **Table 3:** Cumulative FOF Inspection Program Results at NPPs	
44	Total number of inspections conducted.
43	Total number of inspection sites.
128	Total number of exercises conducted.
0	Total number of times a complete target set damaged or destroyed.
5	Total number of inspection findings.
4	Total number of Green findings.
0	Total number of greater than Green findings.
1	Total number of SL IV violations.
0	Total number of greater than SL IV violations.

3.4 Discussion of Findings - Commercial NPPs

Ex 3

Ex 3

3.5 Results of FOF Inspections - CAT I Facilities

(~~OUO~~) In CY 2006, FOF inspections were conducted at the 2 CAT I fuel cycle facilities. Table 4 below summarizes those inspections.

(~~OUO~~) **Table 4:** CY 2006 FOF Inspection Program Summary at CAT I Fuel Cycle Facilities	
2	Total number of inspections conducted.
1	Total number of inspection findings.

Ex. 2

3.6 Discussion of Findings - CAT I Facilities

(~~SUU~~O) The detailed discussion of the findings for the CAT I fuel cycle facility FOF inspection results may be found in the classified addendum to this report.

3.7 Discussion of Corrective Actions

(U) If inspectors identify deficiencies during the conduct of FOF inspection activities that indicate a licensee cannot demonstrate the ability to protect against the applicable DBT or does not meet other regulatory requirements, that licensee must take immediate corrective actions. NRC inspectors review any proposed compensatory measures and/or corrective actions, and once determined acceptable, must verify that those actions have been completed by the licensee before leaving the site. As appropriate, the licensee must also plan for long term corrective actions, with oversight from the NRC.

(U) In many cases, though not required by regulation, licensees implement corrective actions in response to lessons learned from FOF inspections, even after demonstrating that their protective strategy can effectively protect against the DBT. Those corrective actions typically fall into one of three categories: procedural or policy changes; physical security and/or technology improvements and upgrades; and personnel or security force enhancements. In CY 2006, FOF inspectors have observed corrective actions taken in each of these categories.

(U) As an example of a procedural or policy change, one licensee kept keys for a security response vehicle in an unprotected area. During an FOF exercise, the CAF team acquired those keys and used the vehicle to facilitate its simulated attack. Although the licensee was not in violation of NRC requirements and demonstrated an effective protective strategy, the site's security management recognized the potential vulnerability, and made procedural changes to enhance its protective strategy based on the FOF exercise.

(U) Licensees will also commonly make improvements to or add physical security structures and technologies based on lessons learned from FOF exercises. For example, if a licensee determines that the adversary team did not encounter enough delay throughout the simulated attack, extra delay barriers, such as fences, or locks on doors or gates, may be added. As another example, if a licensee determines that earlier detection and assessment is necessary (even after demonstrating an effective protective strategy in FOF exercises), they may choose to add sensors, cameras, and/or lighting to the OCA (the area of the facility beyond the boundary of the protected perimeter).

(U) Finally, licensees may commit to additional security personnel as a result of lessons learned from FOF exercises. Inspectors have observed situations where licensees determined that additional margin was necessary to ensure that adversaries would be interdicted before completing their mission.

3.8 Future Planned Activities

(U) In CY 2007, 23 FOF inspections are scheduled to complete the current inspection cycle. Two of the twenty-three are follow-up inspections to test improvements resulting from previous FOF inspections. Although significant enhancements have been made, NRC will continue to seek additional methods to improve realism in FOF exercises during the third year of this 3-year inspection cycle.

(SUO) In the CY 2005 annual report, the NRC reported that an inspection had been postponed at [redacted] because of the impact of Hurricane Katrina and that the inspection would be rescheduled in 2006. The facility was, in fact, rescheduled for late 2006, but had to be rescheduled later in the cycle to make that time slot available for another facility that needed immediate assessment because of performance concerns in the area of security [redacted] The FOF inspection of [redacted] was completed in May 2007. The results of that inspection will be captured in the CY 2007 report to Congress. Ex 3

(U) In addition to completing the inspection cycle, in CY 2007, NRC staff will integrate beyond-DBT training exercises into the FOF program, with voluntary participation from the industry. For the licensees that volunteer, a beyond-DBT exercise will be substituted for the third evaluated exercise provided that the protective strategy was conclusively demonstrated with high assurance in the first two evaluated exercises, with no significant issues identified during those exercises. These training exercises will offer the opportunity for licensee security forces to face an increased threat, and for the NRC to observe how the licensees' protective strategies adjust to that increased threat.

4. BASELINE SECURITY INSPECTION PROGRAM

4.1 Overview

(U) The baseline security inspection program is a primary component of the Security Cornerstone of the ROP that the NRC uses to ensure plant and radiological safety, security, and emergency preparedness at operating NPPs. It is important to note that FOF inspections are just one piece of the NRC's overall security oversight process. In addition to FOF inspections, the baseline security inspection program includes: Access Authorization; Access Controls; Security Plan Changes; Equipment Performance, Testing and Maintenance; Protective Strategy and Evaluation; Security Training; the Fitness for Duty Program; Owner Controlled Area Controls; Information Technology Security; Material Control and Accounting; and Physical Protection of Shipments of spent nuclear fuel. These inspections are conducted by specialist inspectors from both regional offices and headquarters, as well as resident inspectors.

4.2 Results of Inspections

(U) Table 5 summarizes the overall results of the security baseline inspection program of NPPs, including MC&A inspection results, but excluding FOF inspection results (which were discussed in Section 3). This information provides a summary overview of licensee performance within the Security Cornerstone.

(U) Detailed information about individual plants, such as inspection findings from baseline inspections, special inspections, and MC&A inspections, can be found in Table 6. For a summary of inspection findings at commercial NPPs in CY 2006, with the sites sorted by state, please see Appendix A of this report.

(U) For the purpose of this report, an inspection is considered complete after: (1) the inspection report is issued with no findings; or, (2) any findings have been dispositioned or any applicable enforcement action has been taken.

(U) Violations and non-cited violations (NCV) of NRC requirements are categorized by significance, and are given corresponding color or severity level (SL) codes. For inspection findings evaluated with the SDP, violations are assigned colors, as follows: green (very low security significance); white (low to moderate security significance); yellow (substantial security significance); and red (high security significance). White, yellow and red findings are considered greater than green and are described as such in inspection report cover letters to licensees.

(U) Violations that are not evaluated through the SDP are categorized in terms of four levels of severity to show their relative importance or significance. SL I has been assigned to violations that are the most significant and SL IV violations are the least significant. SL I and II violations are of very significant regulatory concern. In general, violations that are included in these severity categories involve actual or high potential consequences on public health and safety. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. Violations at SL IV involve noncompliance with NRC requirements that are not considered significant based on risk.

(U) **Table 5:** CY 2006 NPP Baseline Security Inspection Program Results (Without FOF)	
277	Total number of inspections conducted across the industry.
71	Total number of inspection findings across the industry.
60	Total number of Green findings.
2	Total number of greater than Green findings.
5	Total number of SL IV violations.
4	Total number of greater than SL IV violations.
3	Total number of special inspections conducted.

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EX. 3

5. OVERALL REACTOR SECURITY ASSESSMENT

5.1 Overview

(U) The previous two sections described the results of FOF inspections and the rest of the baseline security inspection program. The security assessment process collects the information from those inspections and other performance indicators provided by NPP licensees to enable the NRC to arrive at objective conclusions about a licensee's performance in security. Based on this assessment information, the NRC determines the appropriate level of agency response.

5.2 Performance Indicators

(U) Licensees voluntarily report data on three performance indicators in security: (1) Protected Area Equipment; (2) Personnel Screening Program; and (3) Fitness-for-Duty/Personnel Screening Program. The data reported by the licensees are compared to an established set of thresholds to determine their significance, which is represented by the colors green, white, yellow, and red (in order of increasing severity). The PIs measure aspects of the licensees' security programs that are not specifically inspected by the NRC's baseline inspection program.

(U) As of the end of CY 2006, all licensees reported that each security performance indicator was categorized as green.

5.3 Security Cornerstone Action Matrix

(U) Similar to the ROP action matrix, the security cornerstone has five response columns: Licensee Response; Regulatory Response; Degraded Cornerstone; Repetitive Degraded Cornerstone; and Unacceptable Performance. Table 7 summarizes the security cornerstone action matrix.

(~~OUO~~) Most licensees fall into the Licensee Response column, which indicates that all assessment inputs (PIs and inspection findings) were green and the cornerstone objectives were fully met. Licensees that fall into the Regulatory Response column have assessment inputs that resulted in no more than one white input, and the cornerstone objective was met with minimal reduction in security performance. In CY 2006, three sites fell into this column. Ex.2 Ex3

(U) The Degraded Cornerstone column describes licensees that had multiple white inputs or one yellow input, with the cornerstone objective met with moderate degradation in security performance. If a licensee falls into the Repetitive Degraded Cornerstone column, they have received multiple yellow inputs or one red input, while meeting the cornerstone objective with longstanding issues or significant degradation in security performance. The most significant column in the security action matrix is the Unacceptable Performance column. Licensees in this column have overall unacceptable performance and margin for security. In CY 2006, no licensees fell into the Degraded Cornerstone, Repetitive Degraded Cornerstone, or Unacceptable Performance categories.

(U) **Table 7:** Summary of Security Action Matrix[3]	
Number of Sites	**Response Band**
61	Licensee Response
3	Regulatory Response
0	Degraded Cornerstone
0	Repetitive Degraded Cornerstone
0	Unacceptable Performance

[3](U) NOTE: For the purposes of the security inspection program, Salem and Hope Creek are counted as one site, as they share a common security program, bringing the total number of reactor sites to 64.

6. CAT I SECURITY INSPECTION PROGRAM

6.1 Overview

(U) The NRC implements regulatory oversight of safeguards and security programs of two CAT I fuel cycle facilities. BWX Technologies (BWXT), located in Lynchburg, Virginia, and Nuclear Fuel Services (NFS), located in Erwin, Tennessee, manufacture fuel for government reactors. They also downblend highly-enriched uranium (HEU) into low-enriched uranium (LEU) for use in commercial reactors. Each CAT I facility stores and processes strategic special nuclear material (SSNM), which must be reliably protected against unauthorized access, and theft and diversion. The facilities have significantly enhanced their security posture since September 11, 2001. NFS is currently implementing a major program of additional security upgrades.

(U) The primary objectives of the CAT I security oversight program are to ensure that the fuel cycle facilities are operating safely and securely in accordance with regulatory requirements and Commission Orders; detect indications of declining safeguards performance; investigate specific safeguards events and weaknesses; and identify generic security issues. NRC headquarters and regional specialist inspectors conduct inspections using detailed inspection procedures whose results, in the aggregate, contribute to an overall assessment of licensee performance.

(U) The NRC CAT I core inspection program is implemented by inspectors based at NRC offices in Atlanta, Georgia and Rockville, Maryland. Similar to the reactor baseline inspection program, it is applied to identify findings, determine their significance, document results, and assess licensee's corrective actions. The core inspection program requires three physical security areas ("inspection procedure suites") to be reviewed annually at each CAT I facility. These include HEU access control, HEU alarms and barriers, and other security topics such as security force training and contingency response. The core inspection program also requires two MC&A inspections annually and a transportation security inspection once every three years. NRC regional inspectors also review the U.S. Department of Energy's (DOE) audits of licensee's programs to protect classified material and information.

(U) The core inspection program is complemented by the FOF inspection program, which is implemented by the NRC Headquarters. In addition, NRC resident inspectors, assigned to each CAT I facility, provide an onsite NRC presence for direct observation and verification of licensee's ongoing activities. Through the results obtained from all oversight efforts, the NRC determines whether licensees comply with regulatory requirements and can provide assurance of adequate protection against the DBT for theft and diversion of CAT I SSNM.

(~~OUO~~) Similar to the ROP, plant-specific supplemental or reactive inspections may be conducted to further investigate a particular deficiency or weakness. Such an inspection is not part of the core inspection program and would only be conducted after a review and assessment of a particular security or safeguards event or condition.

Ex. 2

6.2 CY 2006 CAT I Security Inspection Program Results

(U) Table 8 summarizes the overall results of the security inspection program of CAT I fuel cycle facilities, excluding FOF inspection results (which are discussed in the classified addendum to this report). This information provides a summary overview of licensee performance.

(U) For CAT I fuel cycle facilities, violations and NCVs are categorized by significance, and are given corresponding severity level (SL) codes. SL I has been assigned to violations that are the most significant and SL IV violations are the least significant. SL I and II violations are of very significant regulatory concern. In general, violations that are included in these severity categories involve actual or high potential consequences on public health and safety. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. Violations at SL IV involve noncompliance with NRC requirements that are not considered significant based on risk.

~~(OUO)~~ **Table 8:** CY 2006 CAT I Security Inspection Program Results (Without FOF)	
12	Total number of inspections conducted across the industry.
8	Total number of inspection findings across the industry.
6	Total number of SL IV violations.

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7. STAKEHOLDER COMMUNICATIONS

7.1 Communications with Public and Industry

(U) As part of an effort to improve openness to the public, in 2006 the Commission reviewed several options that would make some security oversight information available to the public. The Commission decided to have the cover letters to security-related inspection reports made available in the public domain. However, the information contained in the letters would have to be such that the letters do not identify actual or potential vulnerabilities at the inspected plant. The cover letters for security-related inspection reports issued after May 8, 2006, are now being released to the public.

(U) The restrictions placed on releasing security-related information to the public after September 11, 2001, also impacted the NRC's ability to share information with allegers who brought security-related concerns to the NRC. The restrictions have made it difficult for the staff to assure allegers that their concerns have been addressed, and a number of allegers have expressed dissatisfaction with the NRC's limited response. Some, in an effort to obtain a satisfactory response, have chosen to pursue their concerns publicly by engaging elected officials and public interest groups and by disseminating their concerns via public websites or media outlets. In some instances these actions have necessitated that the staff respond in a public manner to the allegers' concerns. While the allegers were receptive to the feedback provided, at this time, the staff does not consider a public response to be the most advisable primary means of addressing security-related concerns. The Commission has approved a three-tiered approach to responding to security allegers based on the severity of the concern raised and normal availability of the information to the alleger (i.e., the alleger is a member of a licensee's security force).[4]

(U) As an additional effort to improve public awareness and understanding, the NRC held annual public meetings specifically on nuclear security issues in August 2004, September 2005, and September 2006. Additionally, security topics are presented at the NRC's Regulatory Information Conference, held each spring in Rockville, Maryland.

(U) NRC also communicates with the industry to disseminate key lessons learned and generic issues. NRC analyzes findings and observations from the security inspection program to determine if a potentially generic issue may exist across the industry. When applicable, NRC staff supplements periodic security meetings held with the industry and develops generic communications or advisories as another effective communication tool. In CY 2006, the NRC issued nine security advisories (SA) and one Information Notice (IN) covering a variety of topics.

CY 2006 List of Generic Communications by title:

SA-06-01 - Notice to maintain heightened vigilance for State of the Union Address.

SA-06-02 - Notice to maintain heightened vigilance for State of the Union Address.

SA-06-03 - Notice to maintain heightened vigilance for State of the Union Address.

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[4]For more information, see SECY-07-0032, "Recommended Staff Actions Regarding Correspondence with Allegers Involving Security-Related Concerns," dated February 12, 2007. http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2007/

SA-06-04 - Implementing search requirements and approved exceptions for packages and materials at NRC-licensed facilities.

SA-06-05 - Administrative controls of alarm station security computers at NRC-licensed facilities.

SA-06-06 - National Special Security Event - President Ford Funeral - RTR

SA-06-07 - National Special Security Event - President Ford Funeral - Materials Licensees

SA-06-08 - National Special Security Event - President Ford Funeral - SNM/SNF/RAMQC

SA-06-09 - National Special Security Event - President Ford Funeral - Power Reactors

IN 2006-16 - Implementing Search Requirements for Personnel, Packages and Material at NRC-Licensed Facilities.

(U) After each FOF inspection, NRC staff gathers lessons learned in a variety of categories. Those lessons learned are disseminated to the industry through the Nuclear Security Working Group (NSWG), a consortium of security representatives from NRC-licensed facilities, with the combined goal of safe and realistic performance evaluations.

7.2 Communications with Local, State, and Federal Agencies

(U) In most NRC FOF inspections, representatives from local law enforcement agencies attend planning activities and observe the exercise to improve understanding of the licensee's response and coordination of integrated response activities. Other representatives from State emergency management agencies, State governments, the Government Accountability Office, and Congress have also observed FOF inspections.

(U) The NRC continues to support the U.S. Department of Homeland Security/Homeland Security Council (DHS/HSC) initiative to enhance integrated response planning for power reactor facilities. The staff is continuing to work with DHS/HSC, the Federal Bureau of Investigation (FBI) and others to develop plans to address recommended actions resulting from the initiative. In addition, the staff has coordinated with other Federal agencies and State and local security partners in completing the development of Emergency Action Levels for all imminent threats to NRC-licensed facilities.[5]

[5]For more information, see NRC Regulatory Issue Summary 2006-12, "Endorsement of Nuclear Energy Institute Guidance 'Enhancement to Emergency Preparedness Programs for Hostile Action'", published on July 19, 2006.
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2006/

APPENDIX A

Summary of 2006 Inspection Program By State

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~~(OUO)~~ This appendix summarizes the overall number of inspections and findings at each site in CY 2006, arranged alphabetically by state. For details on those inspections and findings, page numbers are listed for convenience.

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Ex. 2

PAGES A-3 THROUGH A-10 WITHHELD IN ENTIRETY
EX. 2

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

July 1, 2008

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Madam Chairman:

(U) Chapter 14, Section 170 D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, requires the U.S. Nuclear Regulatory Commission (NRC) to submit an annual report to Congress, in classified form and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) inspections) conducted and any relevant corrective action taken by a licensee during the previous year. On behalf of the Commission, I am transmitting the report for calendar year 2007. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect a key segment of our Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. The unclassified version of this report will be transmitted under separate cover.

(U) The NRC is committed to protecting the public health and safety, promoting the common defense and security, and protecting the environment. Conducting FOF exercises and implementing the security inspection program are just two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive materials by the commercial nuclear industry.

(OUO) During calendar year 2007, the NRC conducted 210 security inspections at nuclear power plants and CAT I fuel cycle facility (of which 23 were FOF inspections). These inspections identified 129 findings, of which 124 were of very low security significance and 5 were of low to moderate security significance. Whenever a finding is identified during a security inspection, the NRC ensures that the licensee implements adequate compensatory measures immediately to correct the problem. Compensatory measures can be, for example, additional armed personnel and/or physical barriers to strengthen a licensee's response capabilities. Compensatory measures are usually effective short-term fixes until a more comprehensive analysis can be conducted to identify long-term permanent solutions. There were no findings at CAT I fuel cycle facilities related to FOF inspections during CY 2007.

Safeguards information determination made by:
Name/Title: F. Paul Peduzzi, Team Leader
Organization: NSIR/DSO/DDSO/RSOB
Basis: Exempt under 10 CFR 2.390
Signature:
Date: July 1, 2008

~~SAFEGUARDS INFORMATION~~

A/2

(U) As stated in prior reports, the NRC staff communicated FOF inspection results to Congressional, State, and local stakeholders when a licensee did not demonstrate an effective protective strategy; beginning in 2008, the staff revised the procedures to inform the appropriate Congressional, State, and local stakeholders of all FOF inspection results regardless of exercise outcome. The NRC makes available for any member of Congress or Congressional oversight committee staff the unclassified and classified reports, as appropriate, for any FOF inspection in their State or Congressional District through the Office of Congressional Affairs. The same offer is extended, as appropriate under existing protocols and requirements, to governor-appointed State Liaison Officers. Also in 2008, the NRC staff began to engage public stakeholders to explore means to increase the timely availability of security performance information while appropriately protecting site vulnerability information that would be useful to adversaries.

Ex 3

(U) The Commission is confident that nuclear power plants and CAT I fuel cycle facilities continue to be among the best protected private sector facilities in the Nation, and through our inspection and oversight processes, the NRC is committed to ensuring strong security at these facilities. Please do not hesitate to contact me if you need additional information.

Sincerely,

Dale E. Klein

Enclosure: As stated

cc: Senator James M. Inhofe

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

July 1, 2008

The Honorable John D. Dingell
Chairman, Committee on Energy
and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Congressman Dingell:

(U) Chapter 14, Section 170 D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, requires the U.S. Nuclear Regulatory Commission (NRC) to submit an annual report to Congress, in classified form and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) inspections) conducted and any relevant corrective action taken by a licensee during the previous year. On behalf of the Commission, I am transmitting the report for calendar year 2007. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect a key segment of our Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. The unclassified version of this report will be transmitted under separate cover.

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Safeguards information determination made by:
Name/Title: F. Paul Peduzzi/Team Leader
Organization: NSIR/DSO/DDSO/RSOB
Basis: Exempt under 10 CFR 2.390
Signature:
Date: July 1, 2008

~~SAFEGUARDS INFORMATION~~

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[redacted] Ex 3

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Sincerely,

Dale E. Klein

Enclosure: As stated

cc: Representative Joe Barton

Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update

Annual Report for Calendar Year 2007

Division of Security Operations
Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Safeguards information determination made by:
Name/Title: F. Paul Reduzzi, Team Leader
Organization: NSIR/DSO/DDSO/RSOB
Basis: Exempt under 10 CFR 2.390
Signature:
Date: July 1, 2008

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ABSTRACT

(U) This report fulfills the requirements of Chapter 14, Section 170D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states that "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This report covers calendar year 2007. In addition to information on the security response evaluation program (force-on-force inspections), the NRC is providing additional information regarding the overall security performance of the commercial nuclear power industry and Category I fuel cycle facilities to keep Congress and the public informed of the NRC's efforts to protect the Nation's electric power infrastructure and strategic special nuclear material (SSNM) against terrorist attacks.

(U) Paperwork Reduction Act Statement

(U) This NUREG does not contain information collection requirements and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

(U) Public Protection Notification

(U) The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

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EXECUTIVE SUMMARY

(U) This report fulfills the requirements of Chapter 14, Section 170D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states that "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This is the third annual report, which covers calendar year (CY) 2007. In addition to information on the security response evaluation program (force-on-force (FOF) inspections), the U.S. Nuclear Regulatory Commission (NRC) is providing additional information regarding the overall security performance of the commercial nuclear power industry to keep Congress and the public informed of the NRC's efforts to protect the Nation's electric power infrastructure and special nuclear material (SNM) against terrorist attacks.

(U) The NRC is committed to protecting public health and safety, promoting the common defense and security, and protecting the environment. Conducting FOF exercises and implementing the security inspection program are just two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive materials by the commercial nuclear industry. In support of these activities, the NRC employs relevant intelligence information and vulnerability analyses to determine realistic and practical security requirements and mitigative strategies. Further, a risk informed, graded approach is used to establish appropriate regulatory controls, enhance NRC inspection efforts, assess the significance of issues, and influence timely and effective corrective action by licensees of commercial nuclear power plants for identified deficiencies. These practices use interagency cooperation to develop an integrated approach to the security of nuclear facilities and contribute to NRC's comprehensive evaluation of licensee security performance.

(U) This report describes the results of the NRC's security inspection program, including the nuclear reactor security baseline inspection program and exercises conducted as part of FOF inspections. The reporting period included herein is January 1, 2007, through December 31, 2007.

(~~OUO~~) During CY 2007, the NRC conducted 210 security inspections at nuclear power plants and CAT I fuel cycle facilities (of which 23 were FOF inspections). These inspections identified 129 findings, of which 124 were of very low security significance and 5 were of low to moderate security significance. The results of the security inspections conducted at CAT I fuel cycle facilities are also discussed in this report.

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ABBREVIATIONS

AIT	augmented inspection team
ASM	additional security measure
ASO	armed security officer
BWXT	BWX Technologies
BRE	bullet resistant enclosure
CAF	composite adversary force
CAT I	Category I
CY	Calendar Year
DBT	design basis threat
DOD	Department of Defense
DOE	Department of Energy
EPA	Energy Policy Act
FFD	fitness for duty
FOF	force-on-force
HEU	highly-enriched uranium
IDS	intrusion detection system
MC&A	material control and accounting
MILES	Multiple Integrated Laser Engagement System
NCV	non-cited violation
NFS	Nuclear Fuel Services
NPP	nuclear power plant
NR	Office of Naval Reactors
NRC	U.S. Nuclear Regulatory Commission
OCA	owner controlled area
PA	protected area
PADS	Personnel Access Data System
PI	performance indicator
PPSDP	Physical Protection Significance Determination Process
ROP	reactor oversight process
SAS	secondary alarm station
SDP	significance determination process
SGI	Safeguards Information
SIT	special inspection team
SL	severity level
SNM	special nuclear material
SSNM	strategic special nuclear material
URI	unresolved item
VBS	vehicle barrier system

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1. INTRODUCTION

(U) The Energy Policy Act of 2005 amended Chapter 14, Section 170D, of the Atomic Energy Act to require, in part, that "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This report fulfills the requirement for a classified report.

(U) The U.S. Nuclear Regulatory Commission (NRC) is providing to Congress the third annual report on the results of the NRC's security inspection program. This report for calendar year (CY) 2007 conveys the results of inspections for the reporting period. For background information, including a description of the evolution of the NRC's security inspection program, please refer to Appendix A to last year's "Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update" (NUREG-1885, Vol. 1). For a summary of inspection findings at sites, sorted by state, please see Appendix A of this report.

(U) This report provides an overview of the NRC's security inspection program and force-on- force (FOF) program and summaries of the results of those inspections. NRC's communications and outreach activities with the public and other stakeholders (including other Federal Agencies) will also be described. Unless otherwise noted, this report does not include security activities or initiatives of any class of licensee other than power reactors or Category I fuel cycle facilities. Category I fuel cycle facilities are those which use or possess formula quantities of strategic special nuclear material (SSNM). SSNM is defined in 10 CFR 74.4 as uranium-235 (contained in uranium enriched to 20 percent or more in the uranium-235 isotope), uranium-233, or plutonium.

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2. REACTOR SECURITY OVERSIGHT PROCESS

2.1 Overview

(U) The NRC continues to implement the Reactor Oversight Process (ROP), which is the agency's program for ensuring plant safety, radiological safety, security, and emergency preparedness at operating nuclear power plants. The basic principles and philosophy of the ROP are to ensure that a defined, repeatable, and objective process is applied to identify findings, determine their significance, and document results in accordance with ROP program guidance. Program instructions and inspection procedures help provide assurance that licensee actions and regulatory response are commensurate with the safety or security significance of the particular event, deficiency, or weakness. Within each ROP cornerstone (see Figure 1), NRC resident inspectors, headquarters, and regional inspectors conduct NRC inspections using detailed inspection procedures. Based on the results of those inspections, appropriate regional and headquarters' project, technical, and management staff conduct reviews of the inspection findings to determine the final significance of the findings and ensure consistent application of the NRC enforcement process. Since September 11, 2001, the security cornerstone assessment process was separated from the other cornerstone assessment process for information protection. The conduct of inspection, identification of findings, final review and determination of significance of findings, contribute to an assessment of licensee's performance within each of these two assessment processes.

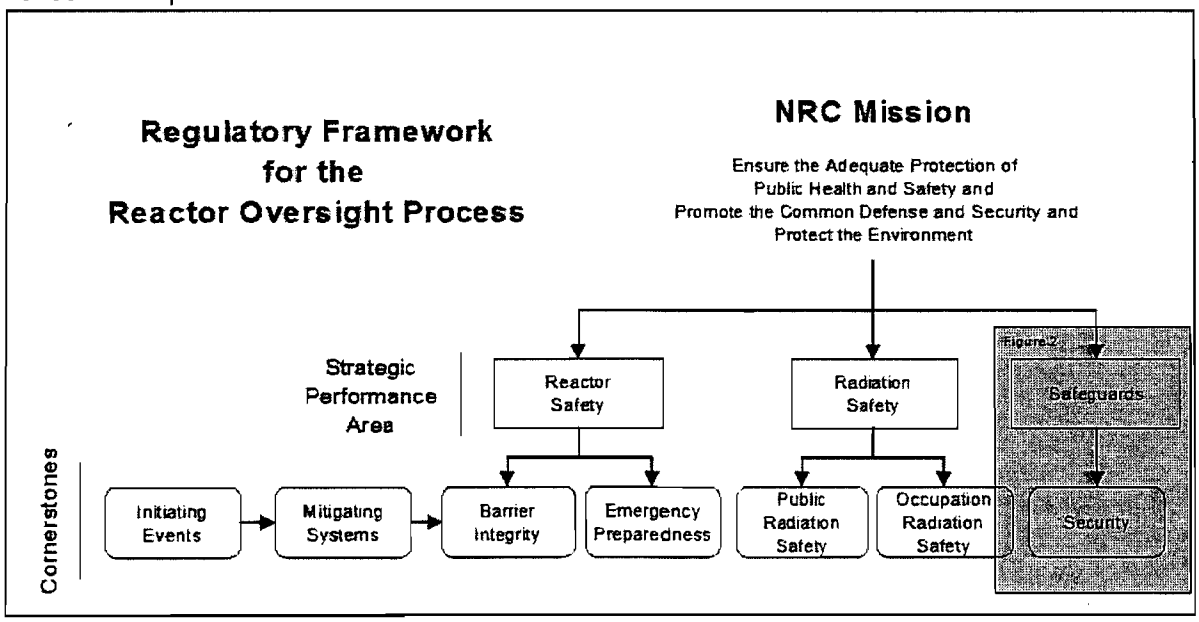

Figure 1: Cornerstones of the Reactor Oversight Process

(U) As part of post 9/11 actions, the NRC issued a number of Orders requiring licensees to strengthen security programs in a number of areas. Based on those Orders, the NRC significantly enhanced its baseline security inspection program for commercial nuclear power plants (NPP). This inspection effort resides within the "security cornerstone" of the agency's ROP. The security cornerstone focuses on the following five key licensee performance attributes: access authorization, access control, physical protection systems, material control and accounting (MC&A), and response to contingency events. Through the results obtained from all oversight

(U) activities, including baseline security inspections and performance indicators (PI), the NRC determines whether licensees comply with requirements and can provide assurance of adequate protection against the design basis threat (DBT) for radiological sabotage.

(U) The security cornerstone's baseline inspection program has the following four objectives: (1) to obtain information providing objective evidence that the security and safeguards at NRC-licensed NPPs are maintained in a manner that contributes to public health and safety and promotes the common defense and security; (2) to determine that licensees have established measures to deter, detect, and protect against the DBT of radiological sabotage as required by regulations and other Commission mandates such as orders; (3) to determine the causes of declining performance in the physical protection arena before such performance reaches a level that may result in a degradation to reactor safety or undue risk to public health and safety; and (4) to identify those significant issues that may have generic or cross-cutting applicability. These objectives help to ensure the secure use and management of radioactive materials.

(U) During 2007, licensees reported data on the following three performance indicators (PI) in security: (1) Protected Area Security Performance Index, (2) Personnel Screening Program, and (3) Fitness-for-Duty/Personnel Screening Program. The data reported by the licensees was compared to an established set of thresholds to determine their significance, which is represented by the colors green, white, yellow, and red (in order of increasing severity). Before 2004, the PIs measured aspects of the licensees' security programs that were not specifically inspected by the NRC's baseline inspection program. However, with the enhanced security inspection program issued in 2004, the NRC now inspects all the aspects of licensees' security programs that the PIs measured. In December 2007, the NRC informed power reactor licensees that they no longer need to report two of the three PIs. The Protected Area Security Performance Index was retained as it also promotes good maintenance practices for security barriers.

(U) The security cornerstone's baseline inspection program is comprised of 11 "inspectable areas" to be reviewed periodically at each power reactor facility (see Figure 2). Three of the inspectable areas (Information Technology Security, Material Control and Accounting, and Irradiated Fuel Transportation) are under development and will be included in the inspection program at a later date. One of the inspectable areas, contingency response, is assessed through the conduct of FOF inspections, which are described in detail in the next section. In addition, each NPP and CAT I licensee received a comprehensive MC&A inspection during the CY 2006 to CY 2007 time period. In the future, MC&A inspections will be conducted on a routine basis to ensure that licensees take adequate measures to control the risk of loss, theft, or diversion of SNM. Material Control and Accounting and Physical Protection of Shipments of Spent Nuclear Fuel inspections are conducted by using interim guidance. Information Security Technology interim inspection guidance is pending development.

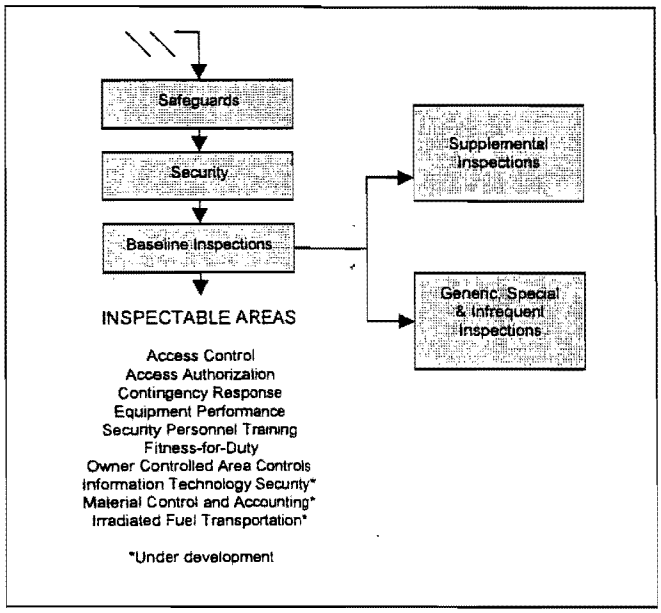

Figure 2: Inspectable Areas of the Security Cornerstone

(U) Where performance issues have been identified at a particular licensee, supplemental inspections may be conducted to investigate a particular deficiency or weakness that exceeds a certain level of significance. In certain situations, the NRC may conduct generic, special, or infrequent inspections. Such inspections are not part of the baseline or supplemental inspection program and would only be conducted after a review and assessment of a particular security or safeguards event or condition. These types of inspections include, but are not limited to, resolution of employee concerns, security matters requiring particular focus, and licensee plans for coping with security force strike or walkout. During this reporting period, there were seven reactive inspections at NPPs, including both special and augmented inspections. These reactive inspections covered topics such as inattentive security officers, inadequate searches of packages and material, and testing and maintenance of intrusion detection systems.

2.2 Significance Determination Process

(U) The Significance Determination Process (SDP) for NPPs uses risk insights, where appropriate, to help NRC inspectors and staff determine the significance of inspection findings. Security-related findings are evaluated using the baseline Physical Protection Significance Determination Process (PPSDP). These findings include both programmatic and process deficiencies. The PPSDP provides the security significance of any security program deficiency. If it is unclear whether or not an observation is a finding, it will be documented in the inspection report as an unresolved item (URI) until clarifying information can be gathered. A URI is an issue requiring additional information to determine acceptability, if it is a finding, or if it constitutes a deviation or violation. Such a matter may require additional information from the licensee or may require additional guidance or clarification/interpretation of the existing guidance.

(U) FOF findings are evaluated using the FOF PPSDP. The significance of findings associated with FOF adversary actions is dependent on the impact of the critical equipment (referred to as a target set) and a determination of whether or not these actions could have had an adverse impact

(U) on public health and safety. Other security-related findings identified during FOF activities are also evaluated using the baseline PPSDP. These findings may include programmatic and process deficiencies that are not directly related to an FOF inspection outcome, but are identified during the FOF exercise. In situations where the NRC cannot clearly determine the outcome of an exercise, the exercise will be considered indeterminate, and an additional exercise will be conducted if appropriate.

2.3 Findings and Violations

(U) Inspection findings typically document the identification of violations and non-cited violations (NCV) of NRC requirements, and they are categorized by significance. Inspection findings are assigned colors as follows: green (very low security significance), normally be described in inspection reports as NCVs, white (low to moderate security significance), yellow (substantial security significance), and red (high security significance) potentially will be cited as a Notice of Violation requiring a written response by the licensee unless sufficient information has been provided to the NRC. The Commission uses its discretion for particularly significant violations to impose civil penalties in accordance with Section 2.34 of the Atomic Energy Act of 1954, as amended. White, yellow, and red findings are considered greater than green.

(U) All CAT I fuel cycle facilities' inspection findings and those findings at commercial power reactor facilities resulting in violations that have willful aspects, potential or actual safety consequences, or potential impact on the NRC's ability to perform its regulatory function are not evaluated through the SDP and dispositioned through the traditional enforcement process. These violations are categorized in terms of four levels of severity to show their relative importance or significance. Severity Level (SL) I has been assigned to violations that are the most significant. SL I and II violations are of very significant regulatory concern. In general, violations that are included in these severity categories involve actual or high potential consequences on public health and safety. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. Violations at SL IV involve noncompliance with NRC requirements that are not considered significant based on a security risk.

3. FORCE-ON-FORCE INSPECTION PROGRAM

3.1 Overview

(U) An FOF inspection, which is typically conducted over the course of 2 weeks, includes both table-top drills and exercises that simulate combat between a mock commando-type adversary force and the licensee security force. At a nuclear power plant, the adversary force attempts to reach and damage key safety systems and components that protect the reactor's core or the spent fuel pool, potentially causing a radioactive release to the environment. At other facilities, the adversary force may attempt theft or diversion of SNM. The licensee's security force, in turn, interposes itself to prevent the adversaries from causing such a release. In addition to significant participation of plant operators and NRC personnel, these exercises may include observers from an array of Federal, State, and local law enforcement agencies and emergency planning officials.

(U) In conducting FOF inspections, the NRC notifies the licensee in advance for operational and personnel safety and logistical purposes. This notification provides adequate planning time for licensee coordination of two sets of security officers - one for maintaining actual plant security and the other for participating in the exercise. In addition, arrangements must be made by the licensee for a group of individuals who will control and monitor each exercise. A key goal of the NRC is to balance personnel and plant safety with maintaining actual plant security during an exercise that is as realistic as possible.

(U) In preparation for an FOF exercise, information from table-top drills, which probe for potential deficiencies in the licensee's protective strategy, are factored into a number of commando-style attack scenarios. Other information that may be factored into an FOF inspection could include security baseline inspection results and security plan reviews. Any potential deficiencies in the protective strategy identified during FOF exercises are promptly reviewed and corrected before NRC inspectors leave the licensee's site.[1]

3.2 Program Activities in 2007

(U) In 2007, the FOF inspection program continued to focus on effectively evaluating licensee protective strategies while maintaining regulatory stability and consistency in the evaluation process. The staff continued to work with the nuclear industry to improve the standards of training and qualifications for exercise controllers. In 2007, the staff endorsed the industry's revised controller guidance document. The NRC remains committed to working with the industry to improve the realism and effectiveness of the FOF inspection program and will continue to pursue methods to improve certain exercise simulations and the controller responses to those simulations.

(U) The composite adversary force (CAF) used for NPP inspections continued to meet expectations for a credible, well-trained, and consistent mock adversary force. NRC FOF team members provide necessary monitoring of information to assist the CAF in defining and

[1] See "Protecting Our Nation," and Office of Public Affairs "Backgrounder" on Force-on-Force. http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0314/

(U) developing mission plans used during FOF exercises. Additionally, FOF team members review CAF team briefings to ensure that the information provided in the briefings accurately reflect established parameters.

3.3 *Results of Inspections*

(OUO) Between January 1, 2007, and December 31, 2007, FOF inspections were conducted at 22 commercial NPPs and [redacted]. During the conduct of FOF inspections, three findings related to other areas of the security baseline program were identified: failure to evaluate adequately the effectiveness of a change to the Physical Security Plan, failure to include specific attributes in the firearms tactical qualification course, and failure to implement the requirements for a vehicle barrier system. Ex 2

(U) There were two findings related to the conduct of FOF inspections at two separate sites. Each finding was due to the failure of licensee armed security personnel to interpose themselves between the mock adversary and the vital areas and target set components. Each licensee implemented immediate compensatory measures followed by long-term corrective actions. Through weekly communications with each licensee, the NRC tracked the progress of the long-term corrective actions. In both cases, NRC inspectors observed additional exercises at the sites and verified the adequacy of the corrective actions.

(U) As of the end of 2007, the first cycle of NPP FOF inspections was completed (64 sites). Table 1 below summarizes the 22 inspections conducted at NPPs in CY 2007. Details on the results of the inspections conducted at the CAT I fuel cycle facilities are discussed in the sensitive unclassified version of this report.

(U) **Table 1:** CY 2007 FOF Inspection Program Summary at NPPs	
22	Total number of inspections conducted
5	Total number of inspection findings
2	Total number of Green findings
2	Total number of greater than Green findings
1	Total number of SL IV violations
0	Total number of greater than SL IV violations

Ex 3

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(U) Table 3 below summarizes the cumulative results of the FOF inspections conducted at NPPs since the first 3-year cycle began in November 2004. As of December 31, 2007, which was the end of the first cycle, inspections were conducted at all commercial NPPs and CAT I facilities. During an FOF inspection, three FOF exercises are scheduled. If an exercise is canceled due to severe weather or other reasons, NRC management may consider less than three exercises to satisfy inspection requirements only when a licensee has successfully demonstrated an effective strategy in at least two exercises with no significant issues identified. If those conditions are not met, the team may have to expand the schedule or schedule a subsequent exercise. The two greater than Green findings identified in Table 3 below do not constitute an industry trend for the first 3-year FOF cycle.

(U) **Table 3:** Cumulative FOF Inspection Program Results at NPPs (November 2004 through December 2007)	
66	Total number of inspections conducted
64	Total number of inspection sites
172	Total number of exercises conducted
2	Total number of times a complete target set damaged or destroyed
10	Total number of inspection findings
6	Total number of Green findings
2	Total number of greater than Green findings[2]
2	Total number of SL IV violations
0	Total number of greater than SL IV violations

(U) Of the total number of exercises conducted, five exercises were inconclusive and deemed indeterminate. An indeterminate exercise is one where the NRC inspectors are prevented from effectively gathering sufficient information to evaluate the licensee's protective strategy or to form a cogent conclusion. These exercises were indeterminate due to insufficient exercise control and/or administrative holds. Another six exercises were canceled because of potential safety concerns associated with dangerous weather conditions or a plant operational or safety issue. If an exercise is deemed indeterminate or is canceled due to severe weather or operational issues, the staff will make the determination when less than three exercises are acceptable. This determination will be contingent upon: (1) at least two exercises having been conducted, (2) both exercises having successfully demonstrated an effective protective strategy, and (3) no significant issues being identified. If those conditions are not met, the team may have to expand the schedule or schedule a subsequent visit.

3.4 Discussion of Findings – Commercial NPPs

[redacted] 1Ex 3

[2] Both Greater than Green findings occurred in CY 2007.

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(ONO) Table 4: Cumulative FOF Inspection Program Results at CAT I's	
3	Total number of inspections conducted
1	Total number of inspection findings

EX 2

3.6 Discussion of Findings – CAT I Facilities

(ONO) There were no findings at CAT I facilities related to FOF inspections in CY 2007.

3.7 Discussion of Corrective Actions

(U) If inspectors during the conduct of FOF inspection activities identify deficiencies that indicate a licensee potentially cannot demonstrate the ability to protect against the applicable Design Basis Threat (DBT) with high assurance or does not meet other regulatory requirements, that licensee must take immediate corrective actions or compensatory measures sufficient to restore regulatory compliance. NRC inspectors' review any proposed compensatory measures and/or corrective actions and, once determined acceptable, must verify that those actions have been completed by the licensee before leaving the site. As appropriate, the licensee must also plan for long-term corrective actions with oversight from the NRC.

(U) In many cases, though not required by regulation, licensees implement corrective actions in response to lessons learned from FOF inspections, even after demonstrating that their protective strategy can effectively protect against the DBT. Those corrective actions typically fall into one of the following three categories: procedural or policy changes, physical security and/or technology improvements and upgrades, and personnel or security force enhancements. In CY 2007, FOF inspectors have observed corrective actions taken in each of these categories.

(U) As an example of a procedural or policy change, one licensee kept keys for a security response vehicle in an unprotected location. During an FOF exercise, the CAF team acquired those keys and used the vehicle to facilitate its simulated attack. Although the licensee was not in violation of NRC requirements and demonstrated an effective protective strategy, the site's security management recognized the potential vulnerability and made procedural changes to enhance its protective strategy based on the FOF exercise.

(U) Licensees will also commonly make improvements to or add physical security structures and technologies based on lessons learned from FOF exercises. For example, if a licensee determines that the adversary team did not encounter enough delay throughout the simulated attack, extra delay barriers such as fences, or locks on doors or gates may be added. As another example, if a licensee determines that earlier detection and assessment is desirable (even after demonstrating an effective protective strategy in FOF exercises), the licensee may choose to add sensors, cameras, and/or lighting to the owner controlled area (the area of the facility beyond the boundary of the protected perimeter) to enhance the security posture.

(U) Finally, licensees may commit to additional security personnel as a result of lessons learned from FOF exercises. Inspectors have observed situations where licensees determined that adding additional security personnel helped to ensure that licensees would have a greater opportunity to interdict adversaries at a greater frequency further enhancing their ability to prevent the adversaries from completing their mission.

3.8 Future Planned Activities

(U) In CY 2008, the second cycle of FOF inspections begins with 25 inspections scheduled for the year. Of the 25 inspections, 2 are follow-up inspections to test corrective actions and evaluate any other improvements licensees implemented as a result from previous FOF inspections. Although significant enhancements have been made, the NRC will continue to seek additional methods to improve realism in FOF exercises through the inspection cycle.

4. SECURITY BASELINE INSPECTION PROGRAM

4.1 Overview

(U) The security baseline inspection program is a primary component of the security cornerstone of the ROP that the NRC uses to ensure plant and radiological safety, security, and emergency preparedness at operating NPPs. It is important to note that FOF inspections are just one piece of the NRC's overall security oversight process. In addition to FOF inspections, the security baseline inspection program includes the following inspectable areas: Access Authorization; Access Controls; Equipment Performance, Testing, and Maintenance; Protective Strategy and Evaluation; Security Training; the Fitness for Duty Program; and Owner Controlled Area Controls. Material Control and Accounting and Physical Protection of Shipments of spent nuclear fuel inspections are conducted by using interim guidance. Information Security Technology interim inspection guidance is pending development.

4.2 Results of Inspections

(U) Tables 5, 6, and 7 summarize the overall results of the security baseline inspection program of NPPs excluding FOF inspection results (which were discussed in Section 3). Figure 3 provides a graphical summary of the CY 2007 security baseline inspections. This information provides a summary overview of licensee performance within the Security Cornerstone.

(U) For the purpose of this report, an inspection is considered complete after either (1) the inspection report is issued with no findings or (2) any findings have been dispositioned or any applicable enforcement action has been taken. For example, in 2007, the NRC conducted multiple inspections at the Peach Bottom NPP, some of which are ongoing in CY 2008, as a result of security officers that were inattentive to duty.[3] In September 2007, Region I was shown a video tape of inattentive security officers at Peach Bottom, that was subsequently aired on WCBS (New York City). In response, the NRC conducted augmented inspections and, to ensure continued security plan effectiveness at Peach Bottom, issued a confirmatory action letter in October 2007. In February 2008, the NRC issued a White finding to Exelon for its failure to maintain the minimum number of available security responders and failure to maintain a behavior observation program. To date, the licensee's actions have been appropriate and no new findings have been identified. Investigations of this issue by the Office of Investigations and the Inspector General are ongoing. Any other findings that were not dispositioned during CY 2007 will be documented in the next annual report to Congress.

[3] For more information regarding the inspection activities at Peach Bottom, see http://www.nrc.gov/reading-rm/doc-collections/news/2008/08-005.i.html.

(U) **Table 5:** CY 2007 Security Inspections (Without FOF)	
177	Total number of inspections conducted (includes special and augmented inspections)
83	Total number of inspections with findings
95	Total number of inspections without findings
7	Total number of special and augmented inspections conducted

(U) **Table 6**: CY 2007 Security Inspection Findings (Without FOF)	
117	Total number of inspection findings
63	Total number of Green findings
1	Total number of greater than Green findings
51	Total number of SL IV violations
2	Total number of greater than SL IV violations

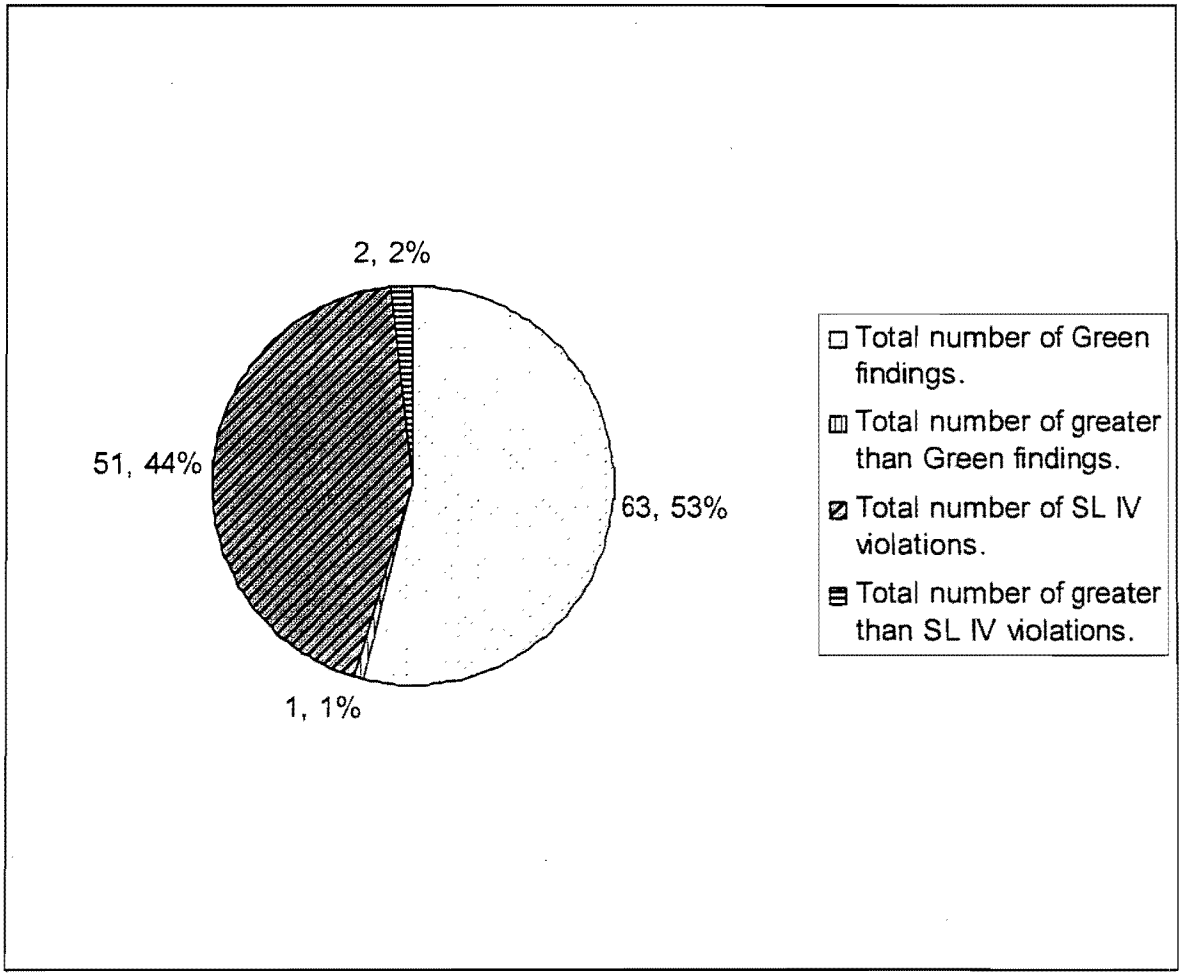

Figure 3: Summary of CY 2007 Security Inspection Findings at NPPs

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5. OVERALL REACTOR SECURITY ASSESSMENT

5.1 Overview

(U) The previous two sections described the results of the security baseline inspection program. The security assessment process collects the information from those inspections and PIs provided by NPP licensees to enable the NRC to arrive at objective conclusions about a licensee's security performance. Based on this assessment information, the NRC determines the appropriate level of agency response.

5.2 Performance Indicators

(U) Licensees voluntarily report data on the following three performance indicators in security: (1) Protected Area Equipment, (2) Personnel Screening Program, and (3) Fitness-for-Duty/ Personnel Screening Program. The NRC compares data reported by the licensees to an established set of thresholds to determine the data's significance, which is represented by the colors green, white, yellow, and red (in order of increasing severity). The PIs measure aspects of the licensees' security programs that are not specifically inspected by the NRC's baseline inspection program.

(U) As of the end of CY 2007, all licensees reported that each security performance indicator was categorized as green. The NRC staff reviewed historical PI data and concluded that the Personnel Screening Program and the Fitness-for-Duty Personnel Reliability PIs had a limited frequency of occurrence, rarely exceeding the predetermined thresholds, and NRC inspections already reviewed the performance objectives associated with the PIs. Additionally, the licensees are already required by regulation to report this information to the NRC for specific occurrences. As a result, the Commission approved the staff's plan to discontinue these two PIs, but maintain the Protected Area Equipment PI, and to evaluate the development of additional PIs to improve regulatory oversight of security operations.

5.3 Security Cornerstone Action Matrix

(U) Similar to the ROP action matrix, the security cornerstone has the following five response columns: Licensee Response, Regulatory Response, Degraded Cornerstone, Repetitive Degraded Cornerstone, and Unacceptable Performance. Table 8 summarizes the number of plants by their performance as indicated by security cornerstone action matrix columns.

(~~OUO~~) Most licensees fall into the Licensee Response column, which indicates that all assessment inputs (PIs and inspection findings) were green and the cornerstone objectives were fully met. Licensees that fall into the Regulatory Response column have assessment inputs that resulted in no more than one white input, and the cornerstone objective was met with minimal reduction in security performance.

fell into this column.

~~Ex 3~~ Ex 2

(U) The Degraded Cornerstone column categorizes a performance level indicated by multiple white inputs or one yellow input with the cornerstone objective met with moderate degradation in security performance. If a licensee falls into the Repetitive Degraded Cornerstone column, they have received multiple yellow inputs or at least one red input while meeting the cornerstone objective with longstanding issues or significant degradation in security performance. The most significant column in the security action matrix is the Unacceptable Performance column. Licensees in this column have overall unacceptable performance and margin for security. In CY 2007, no licensees fell into the Degraded Cornerstone, Repetitive Degraded Cornerstone, or Unacceptable Performance categories.

(U) **Table 8:** Summary of Security Action Matrix[4]

Number of Sites	**Response Band**
60	Licensee Response
4	Regulatory Response
0	Degraded Cornerstone
0	Repetitive Degraded Cornerstone
0	Unacceptable Performance

[4] NOTE: For the purpose of the security inspection program, Salem and Hope Creek are counted as one site, as they share a common security program, bringing the total number of reactor sites to 64.

6. CAT I FACILITY SECURITY OVERSIGHT PROGRAM

6.1 Overview

(U) The NRC implements regulatory oversight of safeguards and security programs of two CAT I fuel cycle facilities. BWX Technologies (BWXT), located in Lynchburg, Virginia, and Nuclear Fuel Services (NFS) located in Erwin, Tennessee, manufacture fuel for government reactors. They also down blend highly-enriched uranium (HEU) into low-enriched uranium (LEU) for use in commercial reactors. Each CAT I facility stores and processes strategic special nuclear material (SSNM), which must be reliably protected against unauthorized access, theft, and diversion. The facilities have significantly enhanced their security posture since September 11, 2001. NFS is currently implementing a major program of additional security upgrades.

(U) The primary objectives of the CAT I security oversight program are to ensure that the fuel cycle facilities are operating safely and securely in accordance with regulatory requirements and Commission Orders, detect indications of declining safeguards performance, investigate specific safeguards events and weaknesses, and identify generic security issues. NRC headquarters and regional security inspectors based at NRC offices in Atlanta, Georgia, and Rockville, Maryland, conduct inspections using detailed inspection procedures whose results in the aggregate contribute to an overall assessment of licensee performance.

(U) Similar to the reactor baseline inspection program, the CAT I security oversight program is applied to identify findings, determine their significance, document results, and assess licensees' corrective actions. The core inspection program requires three physical security areas ("inspection procedure suites") to be reviewed annually at each CAT I facility. These include HEU access control, HEU alarms and barriers, and other security topics such as security force training and contingency response. The core inspection program also requires 2 MC&A inspections annually and a transportation security inspection once every 3 years. NRC inspectors also review the U.S. Department of Energy's (DOE) audits of licensees' programs to protect classified material and information.

(U) The core inspection program is complemented by the FOF inspection program, which is implemented by NRC Headquarters inspectors. In addition, NRC resident inspectors assigned to each CAT I facility provide an on-site NRC presence for direct observation and verification of licensee's ongoing activities. Through the results obtained from all oversight efforts, the NRC determines whether licensees comply with regulatory requirements and can provide high assurance of adequate protection against the DBT for theft and diversion of CAT I SSNM.

(~~OUO~~) Similar to the ROP, plant-specific supplemental or reactive inspections may be conducted to investigate a particular deficiency or weakness. Such an inspection is not part of the core inspection program and would only be conducted after a review and assessment of a particular security or safeguards event or condition.

~~Ex 3~~
Ex 2

6.2 CY 2007 CAT I Security Inspection Program Results

(U) Table 9 summarizes the overall results of the security inspection program of CAT I fuel cycle facilities excluding FOF inspection results, which were discussed earlier. This information provides a summary overview of licensee performance

(U) For CAT I fuel cycle facilities, violations and NCVs are categorized by significance and are given corresponding severity level (SL) codes. SL I has been assigned to violations that are the most significant and SL IV violations are the least significant. SL I and II violations are of very significant regulatory concern. In general, violations that are included in these severity categories involve actual or high potential consequences on public health and safety. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. Violations at SL IV involve noncompliance with NRC requirements that are not considered significant based on risk.

~~(OUO)~~ **Table 9:** CY 2007 CAT I Security Inspection Program Results (Without FOF)	
10	Total number of inspections conducted
7	Total number of inspection findings
7	Total number of SL IV violations
0	Total number of greater than SL IV violations
0	Total number of special inspections conducted

Redact

Redact

~~Ex3~~
Ex2

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EX. 2

7. STAKEHOLDER COMMUNICATIONS

7.1 Communications with Public and Industry

(U) In 2006, the Commission reviewed several options that would make some security oversight information available to the public. The Commission decided to have the cover letters to NPP security-related inspection reports made available in the public domain. However, the information contained in the letters would have to be such that the letters do not identify actual or potential vulnerabilities at the inspected plant. The cover letters for security-related inspection reports issued after May 8, 2006, are released to the public. To continue the NRC's practice of communicating clearly and frequently on operating plant and materials activities, the NRC will hold meetings with the public or other external stakeholders both in the vicinity of nuclear facilities and its headquarters and regional offices.

(U) The restrictions the NRC placed on releasing security-related information to the public after September 11, 2001, also impacted the NRC's ability to share information with allegers who brought security-related concerns to the NRC. The restrictions have made it difficult for the staff to assure allegers that their concems have been addressed, and a number of allegers have expressed dissatisfaction with this policy. Some, in an effort to obtain a satisfactory response, have chosen to pursue their concerns publicly by engaging elected officials and public interest groups and by disseminating their concerns via public websites or media outlets. In an effort to respond to this issue, the Commission has approved a three-tiered approach to responding to security allegers based on the severity of the concern raised and normal availability of the information to the alleger (i.e., the alleger is a member of a licensee's security force).

(U) As an additional effort to inform and involve stakeholders in the regulatory process, the NRC continues to hold annual public meetings specifically on nuclear security issues.[5] Additionally, security topics are presented at the NRC's Regulatory Information Conference held each spring in Rockville, Maryland.

(U) The NRC also communicates with the industry to disseminate key lessons learned and generic issues. The NRC analyzes findings and observations from the security inspection program to determine if a potentially generic issue may exist across the industry. When applicable, the NRC staff supplements periodic security meetings held with the industry and develops generic communications or advisories as a means of effective communication to the industry for security-related issues. In CY 2007, the NRC issued six security advisories (SA) and one information notice (IN) covering a variety of topics (see list below). After each FOF inspection, NRC staff gathers lessons-learned in a variety of categories. Those lessons learned are disseminated to the industry through the Nuclear Security Working Group (NSWG), a consortium of security representatives from NRC-licensed facilities, in order to further the mutual goal of safe and realistic performance evaluations.

[5] For more information on public meetings on security, please see http://www.nrc.gov/security/security-safeguards.html.

(U) CY 2007 List of Generic Communications by title:

SA-07-01	Use of Authentication Codes to Validate Caller ID
SA-07-02	National Special Security Event – State of the Union Address – Power Reactors
SA-07-03	National Special Security Event – State of the Union Address – Research and Test Reactors (RTR)
SA-07-04	National Special Security Event – State of the Union Address – Power Reactors Radioactive Material Quantities of Concern (RAMQC)
SA-07-05	National Special Security Event – State of the Union Address – Materials
SA-07-06	Security Officers Inattentive to Duty
IN-07-20	Use of Blank Ammunition

7.2 Communications with Local, State, and Federal Agencies

(U) In most NRC FOF inspections, representatives from local law enforcement agencies attend planning activities and observe the exercise to improve understanding of the licensee's response and coordination of integrated response activities. Other representatives from State emergency management agencies, State governments, the Government Accountability Office, and Congress have also observed FOF inspections.

(U) The NRC's security action matrix also includes informing various levels of interested local, State, and Federal organizations of plants whose performance has declined. In addition, Homeland Security offices in several States routinely receive copies of security inspection reports from the NPPs located in their States.

(U) The NRC continues to support the U.S. Department of Homeland Security/Homeland Security Council (DHS/HSC) initiative to enhance integrated response planning for power reactor facilities. The staff is continuing to work with DHS/HSC, the Federal Bureau of Investigation (FBI), and others to develop plans to further this initiative. In addition, the staff has coordinated with other Federal agencies and State and local security partners in completing the development of Emergency Action Levels for all imminent threats.

7.3 Openness Initiative

(U) In 2008, the NRC staff began to engage public stakeholders to explore means to increase the timely availability of security performance information while appropriately protecting site vulnerability information that would be useful to adversaries in a planning stage. The staff plans to conduct several public meetings before providing its recommendations to the Commission in late 2008.

(U) Previously, the NRC staff communicated FOF exercise results to Congressional, State, and local stakeholders when a licensee did not demonstrate an effective protective strategy. In February 2008, the staff revised the communication plan to inform the appropriate Congressional, State, and local stakeholders of all FOF exercise results regardless of exercise outcome.

APPENDIX A

Summary of 2007 Inspection Program By State

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EX. 2

APPENDIX B

Brief Description of FOF Inspection Results (Cycle 1)

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EX. 3

~~SAFEGUARDS INFORMATION~~

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

June 30, 2009

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Madam Chairman:

(U) On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am submitting the 2008 "Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update." Section 651(a) of the Energy Policy Act of 2005 requires the NRC to submit a report to Congress, in both safeguards and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercise) conducted and any relevant corrective actions taken by licensees during the previous year. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect the Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. Conducting FOF exercises and implementing the security inspection program are two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive and nuclear materials by the commercial nuclear power industry.

(U) During calendar year 2008, the NRC conducted 182 security inspections at nuclear power plants (of which 24 were FOF inspections) and CAT I fuel cycle facilities. These inspections identified 133 findings, of which 125 were of very low security significance and 8 were of low-to-moderate security significance. The safeguards version of this report discusses the results of the security inspections conducted at CAT I fuel cycle facilities. Whenever a finding is identified during a security inspection, the NRC ensures that the licensee implements adequate compensatory measures to correct the problem before the inspector(s) depart the site. The compensatory measures will remain in place until a permanent solution has been implemented and inspected by the NRC.

Enclosure contains Safeguards Information. Upon removal the letter is decontrolled.

Safeguards Information determination made by:
Name/Title: Garmon West, Branch Chief
Organization: NSIR/DSO/DDSO/STSB
Basis: Exempt Under 10 CFR 2.390
Signature: Garmon West
Date: June 29, 2009

~~SAFEGUARDS INFORMATION~~

AB

(U) The NRC will make available for members of Congress, or congressional oversight committee staff, the unclassified and safeguards inspection reports, as appropriate, for any FOF inspection in their State or congressional District through the NRC's Office of Congressional Affairs. The same offer will be extended, as appropriate, under existing protocols and requirements, to Governor-appointed State Liaison Officers.

(U) The Commission is confident that nuclear power plants and CAT I fuel cycle facilities continue to be among the best protected private sector facilities in the Nation, and, through our inspection and oversight processes, the NRC is committed to ensuring that licensees maintain strong security at these facilities.

(U) Please contact me if you need additional information.

Sincerely,

Gregory B. Jaczko

Enclosure: As stated

cc: Senator James M. Inhofe

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

June 30, 2009

The Honorable Thomas R. Carper
Chairman, Subcommittee on Clean
Air and Nuclear Safety
Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

(U) On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am submitting the 2008 "Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update." Section 651(a) of the Energy Policy Act of 2005 requires the NRC to submit a report to Congress, in both safeguards and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercise) conducted and any relevant corrective actions taken by licensees during the previous year. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect the Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. Conducting FOF exercises and implementing the security inspection program are two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive and nuclear materials by the commercial nuclear power industry.

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Sincerely,

Gregory B. Jaczko

Enclosure: As stated

cc: Senator David Vitter

~~SAFEGUARDS INFORMATION~~

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

June 30, 2009

The Honorable Henry A. Waxman
Chairman, Committee on Energy
and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

(U) On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am submitting the 2008 "Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update." Section 651(a) of the Energy Policy Act of 2005 requires the NRC to submit a report to Congress, in both safeguards and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercise) conducted and any relevant corrective actions taken by licensees during the previous year. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect the Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. Conducting FOF exercises and implementing the security inspection program are two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive and nuclear materials by the commercial nuclear power industry.

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Sincerely,

Gregory B. Jaczko

Enclosure: As stated

cc: Representative Joe Barton

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

CHAIRMAN

June 30, 2009

The Honorable Edward J. Markey
Chairman, Subcommittee on Energy
and the Environment
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

(U) On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am submitting the 2008 "Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update." Section 651(a) of the Energy Policy Act of 2005 requires the NRC to submit a report to Congress, in both safeguards and unclassified form, that describes the results of each security response evaluation (i.e., force-on-force (FOF) exercise) conducted and any relevant corrective actions taken by licensees during the previous year. I am also providing additional information regarding the overall security and safeguards performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep you informed of the NRC's efforts to protect the Nation's electric power infrastructure and strategic special nuclear material against terrorist attacks. Conducting FOF exercises and implementing the security inspection program are two of a number of regulatory oversight activities the NRC performs to ensure the secure use and management of radioactive and nuclear materials by the commercial nuclear power industry.

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(U) Please contact me if you need additional information.

Sincerely,

Gregory B. Jaczko

Enclosure: As stated

cc: Representative Fred Upton

Report to Congress on the Security Inspection Program for Commercial Power Reactor and Category I Fuel Cycle Facilities: Results and Status Update

Annual Report for Calendar Year 2008

Office of Nuclear Security and Incident Response
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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Name/Title: Garmon West, Chief
Organization: NSIR/DSO/DDSO/STSB
Basis: Exempt under 10 CFR 2.390
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Date: June 29, 2009

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ABSTRACT

(U) This report fulfills the requirements of Chapter 14, Section 170D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states, "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives, a report, in safeguards form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This is the fourth annual report, which covers calendar year (CY) 2008. In addition to information on the security response evaluation program (force-on-force (FOF) inspections), the U.S. Nuclear Regulatory Commission (NRC) is providing additional information regarding the overall security performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep Congress informed of the NRC's efforts to protect the public health and safety, the common defense and security, and the environment, through effective regulation of the Nation's electric power infrastructure and strategic special nuclear material (SSNM).

(U) Paperwork Reduction Act Statement

(U) This NUREG does not contain information collection requirements and, therefore, is not subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

(U) Public Protection Notification

(U) The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

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Appendix

EXECUTIVE SUMMARY

(U) This report fulfills the requirements of Chapter 14, Section 170D, of the Atomic Energy Act of 1954 (42 U.S.C. 2201 et seq.), as amended by the Energy Policy Act of 2005, which states, "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives, a report, in safeguards form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This fourth annual report covers calendar year (CY) 2008. In addition to providing information on the security response evaluation program (force-on-force (FOF) inspections), the NRC is providing additional information regarding the overall security performance of the commercial nuclear power industry and Category I (CAT I) fuel cycle facilities to keep Congress and the public informed of the NRC's efforts to protect the public health and safety, the common defense and security, and the environment, through effective regulation of the Nation's electric power infrastructure and strategic special nuclear material (SSNM).

(U) Conducting FOF exercises and implementing the security inspection program are just two of a number of regulatory oversight activities the NRC performs to ensure the secure, safe use and management of radioactive and nuclear materials by the commercial nuclear industry. In support of these activities, the NRC employs relevant intelligence information and vulnerability analyses to determine realistic and practical security requirements and mitigative strategies. The NRC also takes a risk-informed, graded approach to establishing appropriate regulatory controls, enhancing its inspection efforts, assessing the significance of issues, and to influencing timely and effective corrective action of identified deficiencies by licensees of commercial nuclear power plants (NPPs) and CAT I fuel facilities. These practices use interagency cooperation to develop an integrated approach to the security of nuclear facilities and contribute to the NRC's comprehensive evaluation of licensee security performance.

(U) This report describes the results of the NRC's security inspection program, including the nuclear reactor security baseline inspection program and exercises conducted as part of FOF inspections. The reporting period covered is January 1, 2008, through December 31, 2008.

(U) During CY 2008, the NRC conducted 182 security inspections at NPPs and at CAT I fuel cycle facilities (of which 24 were FOF inspections). These inspections identified 133 findings of which 125 were of very low security significance and 8 were of low to moderate security significance. This report also discusses the results of the security inspections conducted at CAT I fuel cycle facilities.

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ACRONYMS

10 CFR	Title 10 of the *Code of Federal Regulations*
CAF	composite adversary force
CAT I	Category I
CY	calendar year
DBT	design-basis threat
DHS/HSC	U.S. Department of Homeland Security/Homeland Security Council
FBI	Federal Bureau of Investigation
FOF	force-on-force
HEU	highly enriched uranium
IDS	intrusion detection system
IN	information notice
IPCE	Integrated Pilot Comprehensive Exam
IR	inspection report
MC&A	material control and accounting
NCV	noncited violation
NEI	Nuclear Energy Institute
NFS	Nuclear Fuel Services
NPP	nuclear power plant
NRC	U.S. Nuclear Regulatory Commission
OCA	owner controlled area
OUO	Official Use Only
PA	protected area
PI	performance indicator
PPSDP	Physical Protection Significance Determination Process
RAI	Request for Additional Information
RIS	regulatory issue summary
ROP	Reactor Oversight Process
SA	security advisory
SDP	Significance Determination Process
SERP	Senior Executive Review Panel
SGI	Safeguards Information
SL	severity level
SSNM	strategic special nuclear material
URI	unresolved item
U.S.C.	United States Code

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1. INTRODUCTION

(U) The Energy Policy Act of 2005 amended Chapter 14, Section 170D, of the Atomic Energy Act to require, in part, that "not less often than once each year, the Commission shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives, a report, in classified form and unclassified form, that describes the results of each security response evaluation conducted and any relevant corrective action taken by a licensee during the previous year." This report fulfills the requirement for a classified report.

(U) The NRC is providing to Congress the fourth annual report on the results of the NRC's security inspection program. This report for CY 2008 conveys the results of inspections for the reporting period. For a summary of inspection findings at sites, sorted by State, please see Appendix A to this report.

(U) This report provides an overview of the NRC's security inspection program and FOF program and summaries of the results of those inspections. It also describes the NRC's communications and outreach activities with the public and other stakeholders (including other Federal agencies) are also described. Unless otherwise noted, this report does not include security activities or initiatives of any class of licensee other than power reactors or CAT I fuel cycle facilities. CAT I fuel cycle facilities are those that use or possess formula quantities of SSNM, which is defined in Title 10 of the *Code of Federal Regulations* (10 CFR) 74.4, "Definitions," as uranium-235 (contained in uranium enriched to 20 percent or more in the uranium-235 isotope), uranium-233, or plutonium.

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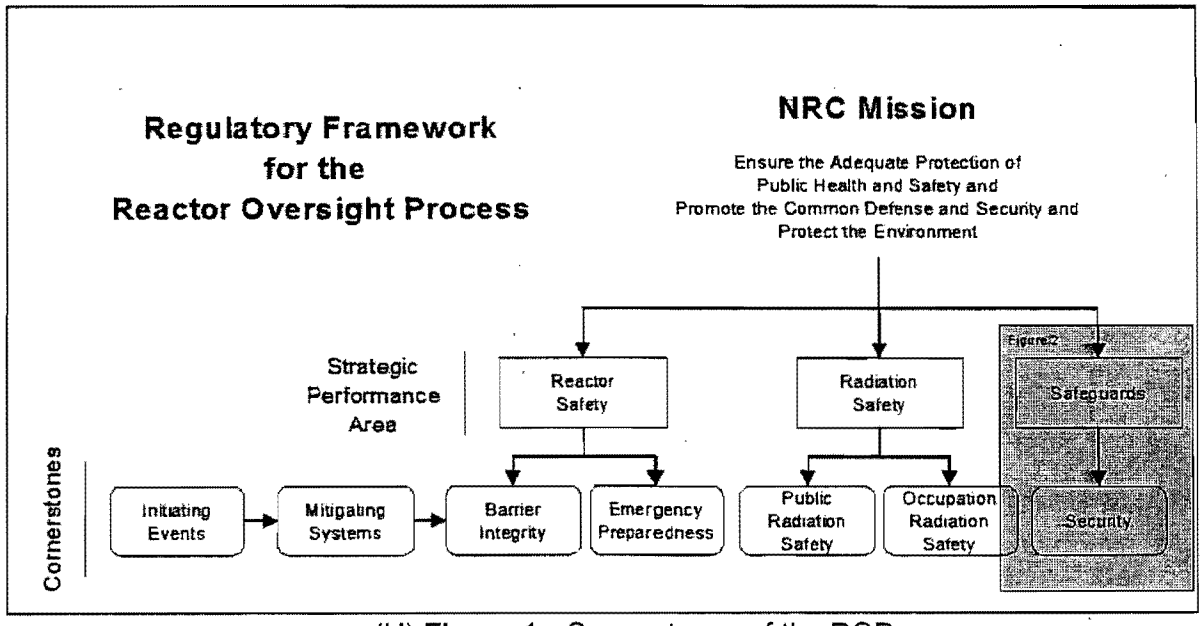
2. REACTOR SECURITY OVERSIGHT PROCESS

2.1 Overview

(U) The NRC continues to implement the Reactor Oversight Process (ROP) which is the agency's program for ensuring plant and radiological safety, security, and emergency preparedness at operating NPPs. The basic principles and philosophy of the ROP are to ensure that a defined, repeatable, and objective process is applied to identify findings, determine their significance, and document results in accordance with ROP program guidance. Program instructions and inspection procedures help ensure that licensee actions and regulatory responses are commensurate with the safety or security significance of the particular event, deficiency, or weakness. Within each ROP cornerstone (see Figure 1), NRC resident inspectors, Headquarters, and regional security inspectors follow detailed inspection procedures to conduct NRC inspections. In the aggregate, results of these inspections contribute to an overall assessment of licensee performance.



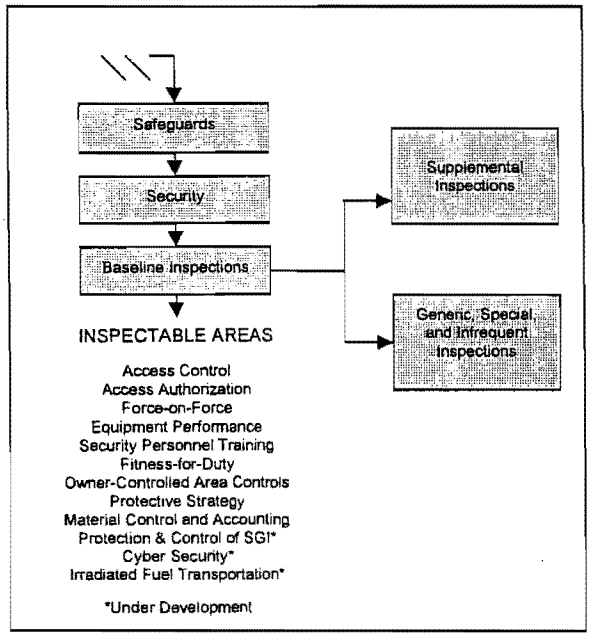
(U) **Figure 1:** Cornerstones of the ROP

(U) As part of post-9/11 actions, the NRC issued a number of Orders requiring licensees to strengthen security programs in several areas. Through those Orders, the NRC significantly enhanced its baseline security inspection program for commercial NPPs. This inspection effort resides within the "Security Cornerstone" of the agency's ROP. The Security Cornerstone focuses on the following five key licensee performance attributes: access authorization, access control, physical protection systems, material control and accounting (MC&A), and response to contingency events. Through the results obtained from all oversight activities, including baseline security inspections and performance indicators (PIs), the NRC determines whether licensees comply with requirements and can provide high assurance of adequate protection against the design-basis threat (DBT) of radiological sabotage.

(U) The Security Cornerstone's baseline inspection program has four objectives: (1) to obtain information providing objective evidence that the security and safeguards at NRC-licensed NPPs are maintained in a manner that contributes to public health and safety and promotes the common defense and security, (2) to determine that licensees have established measures to deter, detect, and protect against the DBT of radiological sabotage as required by regulations and other Commission mandates such as Orders, (3) to determine the causes of declining performance in the physical protection arena before such performance reaches a level that may result in a degradation of reactor safety or undue risk to public health and safety, and (4) to identify those significant issues that may have generic or crosscutting applicability. These objectives help ensure the secure use and management of radioactive materials.

(U) Before 2004, the PIs measured aspects of the licensees' security programs that were not specifically inspected by the NRC's baseline inspection program. However, with the enhanced security inspection program initiated in 2004, the NRC now inspects all of the aspects of licensees' security programs that the PIs measured. In 2007, the NRC informed the power reactor licensees that they no longer need to report two (i.e., Personnel Screening Program and Fitness-for-Duty/Personnel Screening Program) of the three PIs. The agency retained the Protected Area (PA) Security PI, as that PI also promotes good maintenance practices for security barriers. During 2008, licensees reported data on the PA Security PI. The staff compared the data reported by the licensees to an established set of thresholds to determine data's significance, which is represented by the colors green, white, yellow, and red (in order of increasing severity).

(U) The Security Cornerstone's baseline inspection program comprises 11 "inspectable areas" to be reviewed periodically at each power reactor facility (see Figure 2). Three of the inspectable areas (irradiated fuel transportation, cyber security, and protection and control of SGI) are under development and will be included in the inspection program at a later date. The staff is coordinating with internal and external stakeholders in its current efforts to further develop these three inspectable areas, which will formalize and better define existing oversight activities. Another one of the inspectable areas, contingency response, is assessed through the conduct of FOF inspections, which are described in detail in the next section.



(U) **Figure 2:** Inspectable Areas of the Security Cornerstone

(U) Where performance issues have been identified for a particular licensee, supplemental inspections may be conducted to further investigate a particular deficiency or weakness that exceeds a certain level of significance. In some situations, the NRC may conduct generic or special inspections. Such inspections are not part of the baseline or supplemental inspection program and would be conducted in support of a review and assessment of a particular security or safeguards event or condition. These types of inspections include, but are not limited to, resolution of employee concerns, security matters requiring particular focus, and licensee plans for coping with a security force strike or walkout.

2.2 Significance Determination Process

(U) The Significance Determination Process (SDP) for NPPs uses risk insights, where appropriate, to help NRC inspectors and staff determine the significance of inspection findings. These findings include both programmatic and process deficiencies. Security-related findings are evaluated using the baseline Physical Protection SDP (PPSDP). The PPSDP determines the security significance of security program deficiencies.

(U) FOF performance findings are evaluated using the FOF PPSDP. The significance of findings associated with FOF adversary actions depends on the impact on critical equipment (referred to as a target set) and a determination of whether these actions could have an adverse impact on public health and safety. The NRC also uses the baseline PPSDP to evaluate other security-related findings identified during FOF activities. These findings may include programmatic and process deficiencies that are not directly related to an FOF inspection outcome but are identified during the FOF exercise. In situations where the NRC cannot clearly determine the outcome of an exercise, it will consider the exercise indeterminate, and an additional exercise may be conducted if appropriate.

2.3 Findings and Violations

(U) Inspection findings typically relate to violations of NRC requirements, and are categorized by significance. Inspection findings evaluated with the SDP, they are assigned colors as follows:

- green (very low security significance)—normally described in inspection reports (IRs) as noncited violations if the licensee has placed the issue into their Corrective Action Program.
- white (low to moderate security significance).
- yellow (substantial security significance).
- red (high security significance)—cited as a Notice of Violation requiring a written response by the licensee unless it has already provided sufficient information to the NRC

(U) White, yellow, and red findings are considered more serious than green. For particularly significant violations, the Commission reserves the use of discretion to assess civil penalties in accordance with Section 234 of the Atomic Energy Act of 1954, as amended.

(U) All inspection findings at CAT I fuel cycle facilities and those at commercial power reactor facilities that result in violations with willful aspects, or potential or actual safety consequences are not evaluated through the SDP but, instead, are addressed through the traditional enforcement process. These violations are categorized in terms of four levels of severity to show their relative importance or significance. Severity Level (SL) I has been assigned to the most significant violation. SL I and II violations are of very significant regulatory concern. In general, violations designated as SL I or II involve actual or high potential consequences for public health and safety or common defense and security. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern. SL IV violations involve noncompliance with NRC requirements that are not considered significant based on security risk.

2.4 Inattentive Officers at Peach Bottom

(U) In September 2007, a TV reporter presented the NRC with video evidence that showed a number of security officers at the Exelon Corporation's Peach Bottom Station in an inattentive state in the ready room.[1] After receiving this information, the NRC conducted a range of inspection and investigative activities to determine the extent of this situation and ensure that Exelon and its security contractor, Wackenhut, had promptly and effectively addressed this unacceptable performance.

(U) After becoming aware of inattentive security officers at the Peach Bottom Station, the staff issued Security Advisory (SA) 2007-06, "Security Officers Inattentive to Duty," dated September 27, 2007, to NRC reactor licensees to emphasize the importance of security officer attentiveness. In December 2007, the staff issued Security Bulletin 2007-01, "Security Officer

[1] The ready room is a place where security officers who are not on patrol, or manning an observation post, are allowed to read, study, eat, or relax, but must remain ready to respond if called upon.

(U) Attentiveness," to these same licensees to gather information on administrative and management controls and any other actions taken to address inattentiveness.

(U) Once the staff had reviewed all licensee responses to the security bulletin, the staff identified the need for additional information in July 2008. The staff has now received, reviewed, and assessed all licensee responses to the bulletin and subsequent requests for additional information. Based on the acceptability of the licensee's responses, the staff plans on closing Security Bulletin 2007-01 by issuing closure letters to affected licensees during CY 2009.

(U) During CY 2008, the staff issued the results of the agency's lessons-learned reviews, one conducted by Region I, with the insights of other regional offices as well as the Office of Enforcement, and the other by a Senior Executive Review Panel (SERP).[2] These reviews evaluated the allegation and inspection program activities associated with the condition of inattentive security officers identified at the Peach Bottom Station.

(U) As a result of these reviews, the NRC has instituted a number of programmatic improvements. With respect to the security inspection program, the staff has enhanced the Resident Inspector Program by aiding resident inspectors in the routine oversight of security at power reactor facilities. Specifically, resident inspectors have been trained to enhance their sensitivity to security issues and increase security oversight at their assigned sites. The staff is collaborating with the Office of Nuclear Reactor Regulation and the regional offices to identify how best to formalize resident involvement in security oversight. In addition, the staff is assessing the security baseline inspection program and associated inspection procedures and activities for possible program revisions that may further address security officer attentiveness.

[2] These documents are NUREG-1904, "Review Team Findings with Respect to Inattentive Security Officers at Peach Bottom," issued February 2008, and Memorandum from Bruce S. Mallett, Chair of the SERP, to Luis A. Reyes, Executive Director for Operations, dated March 4, 2008.

3. FORCE-ON-FORCE INSPECTION PROGRAM

3.1 Overview

(U) An FOF inspection, which is typically conducted over the course of 3 weeks, includes both table-top drills and exercises that simulate combat between a mock commando-type adversary force and the licensee security force. At an NPP, the adversary force attempts to reach and simulate damage to key safety systems and components that protect the reactor's core or the spent fuel pool, which could potentially cause a radioactive release to the environment. The licensee's security force, in turn, interposes itself to prevent the adversaries from causing such a release.

(U) In conducting FOF inspections, the NRC notifies the licensees in advance for operational and personnel safety reasons, as well as logistical purposes. This notification provides adequate planning time for licensee coordination of two sets of security officers—one for maintaining actual plant security and the other for participating in the exercise. In addition, the licensee must arrange for a group of individuals who will control and monitor each exercise. A key goal of the NRC is to balance personnel and plant safety with the maintenance of actual plant security during an exercise that is as realistic as possible.

(U) In preparation for an FOF exercise, information from table-top drills, which probe for potential deficiencies in the licensee's protective strategy, are factored into a number of commando-style attack scenarios. An FOF inspection may also consider security baseline inspection results and security plan reviews. Any significant deficiencies in the protective strategy identified during FOF exercises are promptly reviewed and corrected before NRC inspectors leave the licensee's site.[3]

(U) During an FOF inspection, three FOF exercises are scheduled. If an exercise is canceled because of severe weather or other reasons, NRC management may consider less than three exercises to satisfy inspection requirements but only when a licensee has successfully demonstrated an effective strategy in at least two exercises with no significant issues identified. If those conditions are not met, the team may have to expand the schedule or schedule a subsequent exercise.

3.2 Program Activities in 2008

(U) In 2008, the FOF inspection program continued to focus on effectively evaluating licensee protective strategies while maintaining regulatory stability and consistency in the evaluation process. The staff continued to work with the nuclear industry to improve the standards of training and qualifications for exercise controllers. In 2007, the staff endorsed the industry's revised controller guidance document and, in 2008, the staff refined controller and exercise guidance documentation. The NRC remains committed to working with the industry to improve the realism and effectiveness of the FOF inspection program and will continue to pursue

[3] See "Protecting Our Nation," and Office of Public Affairs "Backgrounder" on FOF. These are available at http://www.nrc.gov/reading-rm/doc-collections/nuregs/broucures/br0314/.

(U) methods to improve certain exercise simulations and the controller responses to those simulations.

(U) The composite adversary force (CAF) used for NPP inspections continued to meet expectations for a credible, well-trained, and consistent mock adversary force. FOF team members provide necessary monitoring of information to assist the CAF in defining and developing mission plans used during FOF exercises. Additionally, FOF team members review CAF team briefings to ensure that the information provided in the briefings accurately reflects established parameters.

3.3 Results of Inspections

(U) Between January 1, 2008, and December 31, 2008, the NRC conducted FOF inspections at 23 commercial NPPs.[4] The FOF inspections identified six findings related to areas of the security baseline program. These six findings include failure to ensure the ability to detect penetration into the PA (five findings associated with different locations) and failure of a security officer to be attentive.

(U) Four findings pertain to the conduct of FOF inspections at three separate sites. Two findings resulted from the failure of licensee armed security personnel to interpose themselves between the mock adversary and the vital areas and target set components. Both licensees implemented immediate compensatory measures followed by long-term corrective actions. The NRC continues to track the progress of the long-term corrective actions. In these NRC inspectors observed additional exercises at the sites and verified the adequacy of the corrective actions. The remaining two findings resulted from the failure to effectively conduct and control the exercises. The licensees entered the issues into their corrective action program and the NRC will track on the actions as part of follow-on inspection activity.

(U) As of the end of 2008, the NRC had completed the first year of the second cycle of NPP FOF inspections (23 sites). Table 1 summarizes the 24 inspections conducted at NPPs in CY 2008, and Table 2 provides site-specific information.

(U) **Table 1:** CY 2008 FOF Inspection Program Summary at NPPs	
24	Total number of inspections conducted
10	Total number of inspection findings
9	Total number of green findings
1	Total number of greater than green findings
0	Total number of SL IV violations
0	Total number of greater than SL IV violations

[4] The NRC conducted a reinspection at Prairie Island in September 2008.

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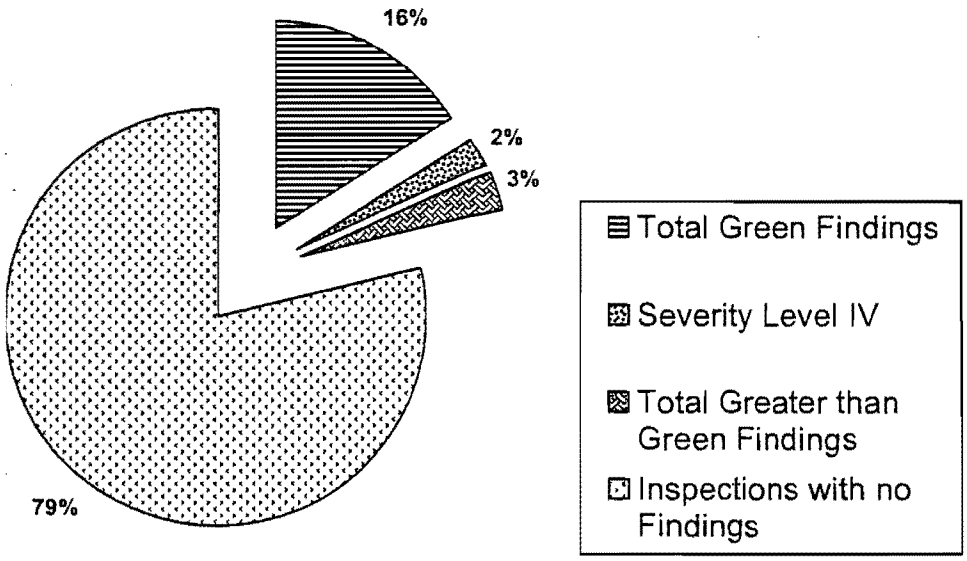
(U) Table 3 below summarizes the cumulative results of the FOF inspections conducted at NPPs since the first 3-year cycle began in November 2004, while Figure 3 provides a summary of the first year of the second cycle of FOF inspection findings at NPPs (i.e., CY 2008). As of December 31, 2007, which was the end of the first cycle, inspections were conducted at all commercial NPPs and CAT I facilities.

(U) **Table 3:** Cumulative FOF Inspection Program Results at NPPs (November 2004 through December 2008)	
90	Total number of inspections conducted
88	Total number of inspection sites
239	Total number of exercises conducted
4	Total number of times a complete target set damaged or destroyed
20	Total number of inspection findings
73	Total number of inspections with no findings
15	Total number of green findings
3	Total number of greater than green findings[5]
2	Total number of SL IV violations
0	Total number of greater than SL IV violations



(U) Figure 3: Summary of Cumulative FOF Inspection Findings at NPPs

(U) Of the total number of exercises conducted, four exercises were inconclusive and deemed indeterminate. An indeterminate exercise is one which the NRC inspectors are prevented from effectively gathering sufficient information to evaluate the licensee's protective strategy or to

[5] Two greater than green findings occurred in CY 2007 and one occurred in CY 2008.

(U) form a cogent conclusion. These exercises were indeterminate because of insufficient exercise control and/or administrative holds. Another two exercises were canceled because of potential safety concerns associated with dangerous weather conditions or a plant operational or safety issue. In all four cases, NRC management considered less than three exercises satisfied the inspection requirements due to the fact that the licensee successfully demonstrated an effective strategy in the other two exercises with no significant issues identified.

3.4 Discussion of Findings – Commercial NPPs

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3.5 Results of FOF Inspections – CAT I Facilities

(~~OUO~~) In 2008, there were no FOF inspections at CAT I facilities.

3.6 Discussion of Corrective Actions

(U) If inspectors identify deficiencies during the conduct of FOF inspection activities that indicate a licensee potentially cannot demonstrate the ability to protect against the applicable DBT with high assurance or does not meet other regulatory requirements, that licensee must take corrective actions or compensatory measures sufficient to restore regulatory compliance. NRC inspectors review and accept proposed compensatory measures and/or corrective actions and, when necessary, verify before leaving the site that the licensee has completed those actions. As appropriate, the licensee must also plan for long-term corrective actions with oversight from the NRC.

(U) In many cases, though not required to do so by regulation, licensees voluntarily implement corrective actions in response to observations and lessons learned from FOF inspections, even after demonstrating that their protective strategy can effectively protect against the DBT. Those corrective actions typically fall into one of three categories: procedural or policy changes, physical security and/or technology improvements and upgrades, and personnel or security force enhancements. In CY 2008, FOF inspectors have observed corrective actions taken in each of these categories.

(U) Licensees will commonly improve or add physical security structures and technologies based on lessons learned from FOF exercises. For example, if a licensee determines that the adversary team did not encounter the desired delay throughout the simulated attack, it may add extra delay barriers such as fences, or locks on doors or gates. As another example, if a licensee determines that earlier detection and assessment are desirable (even after demonstrating an effective protective strategy in FOF exercises), it may choose to add sensors, cameras, and/or lighting to the OCA (the area of the facility beyond the boundary of the protected perimeter) to enhance its security posture.

(U) Finally, licensees may commit to additional security personnel as a result of lessons learned from FOF exercises. Inspectors have observed situations where licensees decided that additional security personnel would help to ensure that licensees would have a greater opportunity to interdict adversaries at a greater frequency and thus enhance their ability to prevent the completion of the adversaries' mission.

3.7 Future Planned Activities

(U) CY 2009, year two of the second cycle of FOF inspections, began with 25 inspections scheduled for the year. Of the 25 inspections, 3 are follow-up to assess corrective actions and evaluate other improvements that licensees implemented as a result of previous FOF inspections. Although significant enhancements have already been made, the NRC will continue to seek ways to increase the realism of FOF exercises throughout the inspection cycle.

4. SECURITY BASELINE INSPECTION PROGRAM

4.1 Overview

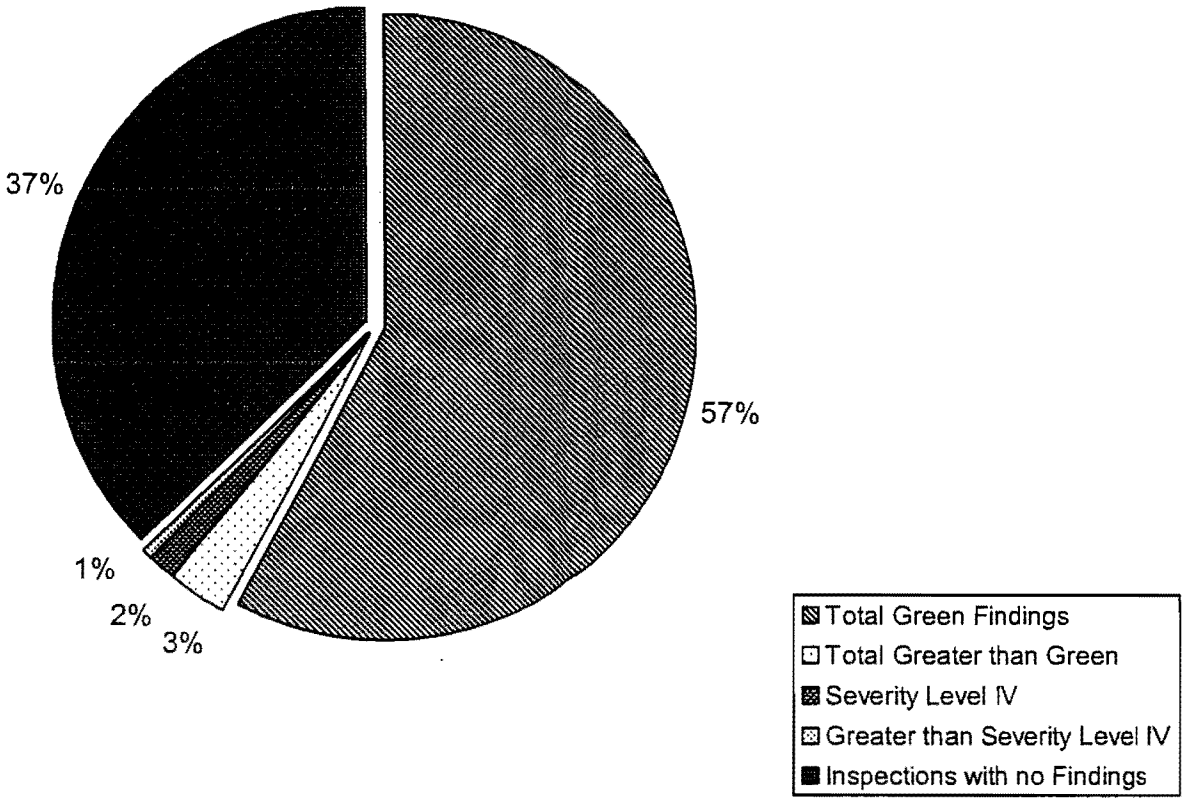
(U) The security baseline inspection program is a primary component of the Security Cornerstone of the ROP that the NRC uses to ensure plant and radiological safety, security, and emergency preparedness at operating NPPs. It is important to note that FOF inspections are just one piece of the NRC's overall security oversight process. In addition to FOF inspections, the security baseline inspection program includes the following inspectable areas: access control, access authorization, equipment performance, security personnel training, fitness for duty, owner-controlled area controls, protective strategy and MC&A. Cyber security, protection and control of SGI inspection guidance and irradiated fuel transportation are pending development. The development of the cyber security inspection program is based on the Commission's issuance of a revised 10 CFR Part 73, "Physical Protection of Plants and Materials."

4.2 Results of Inspections

(U) Tables 4 and 5 summarize the overall results of the security baseline inspection program of NPPs excluding FOF inspection results from 24 inspections (which were discussed in Section 3) and CAT I security inspection results from 3 inspections (discussed in Section 6). Figure 4 provides a graphical summary of the CY 2008 security baseline inspections. This information gives an overview of licensee performance within the Security Cornerstone. Table 6 provides detailed results from the security baseline inspection program of NPPs excluding FOF inspection results from 24 inspections (which were discussed in Section 3).

(U) **Table 4**: CY 2008 Security Inspections (without FOF)	
155	Total number of inspections conducted (includes special and augmented inspections)
68	Total number of inspections with findings
87	Total number of inspections with no findings
9	Total number of special and augmented inspections conducted

(U) **Table 5**: CY 2008 Security Inspection Findings (without FOF)	
123	Total number of inspection findings
113	Total number of green findings
6	Total number of greater than green findings
3	Total number of SL IV violations
1	Total number of greater than SL IV violations



(U) **Figure 4:** Summary of CY 2008 Security Inspection Findings at NPPs

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EX. 3

5. OVERALL REACTOR SECURITY ASSESSMENT

5.1 Overview

(U) The previous two sections described the results of the security baseline inspection program. The security assessment process collects the information from those inspections and PIs provided by NPP licensees to enable the NRC to reach objective conclusions about a licensee's performance in security. Based on this assessment information, the NRC determines the appropriate level of agency response.

5.2 Performance Indicator

(U) Licensees voluntarily report data on the PA equipment. The data reported by the licensees are compared to an established set of thresholds to determine their significance, which is represented by the colors green, white, yellow, and red (in order of increasing significance). The PI measures aspects of the licensees' security programs that are not specifically inspected by the NRC's baseline inspection program. As of the end of CY 2008, all licensees reported that each security PI was categorized as green.

5.3 Security Cornerstone Action Matrix

(U) Similar to the ROP safety cornerstones action matrix, the security cornerstone action matrix has the following five response columns: Licensee Response, Regulatory Response, Degraded Cornerstone, Repetitive Degraded Cornerstone, and Unacceptable Performance. Table 7 summarizes the number of plants by their performance as indicated by security cornerstone action matrix columns.

(U) Most licensees fell into the Licensee Response column, which indicates that all assessment inputs (PIs and inspection findings) were green and the cornerstone objectives were fully met. Fifty-eight sites fell into this column. Licensees that fall into the Regulatory Response column have assessment inputs that resulted in no more than one white input, and the cornerstone objective was met with minimal reduction in security performance. In CY 2008, nine sites (Peach Bottom, Three Mile Island, Vermont Yankee, Sequoyah, Watts Bar, Clinton, Kewaunee, Arkansas Nuclear One, and Grand Gulf) fell into this column.

(U) The Degraded Cornerstone column categorizes a performance level indicated by multiple white inputs or one yellow input, while meeting the cornerstone objective with moderate degradation in security performance. If a licensee falls into the Repetitive Degraded Cornerstone column, it has received multiple yellow inputs or at least one red input, while meeting the cornerstone objective with longstanding issues or significant degradation in security performance. The most significant column in the security action matrix is the Unacceptable Performance column. Licensees in this column have overall unacceptable performance and margin for security. In CY 2008, one licensee (Palisades) fell into the Degraded Cornerstone, and no licensees fell into either the Repetitive Degraded Cornerstone, or the Unacceptable Performance categories.

(U) **Table 7**: Summary of Security Action Matrix[6]	
Number of Sites	**Response Band**
54	Licensee Response
9	Regulatory Response
1	Degraded Cornerstone
0	Repetitive Degraded Cornerstone
0	Unacceptable Performance

[6] For the purpose of the security inspection program, Salem and Hope Creek are counted as one site, as they share a common security program. This brings the total number of reactor sites to 64.

6. CAT I FACILITY SECURITY OVERSIGHT PROGRAM

6.1 Overview

(U) The NRC maintains regulatory oversight of safeguards and security programs of two CAT I fuel cycle facilities. B&W Nuclear Operations Group, located in Lynchburg, VA, and Nuclear Fuel Services (NFS), located in Erwin, TN. These facilities manufacture fuel for Government reactors and also down blend highly enriched uranium (HEU) into low-enriched uranium for use in commercial reactors. Each CAT I facility stores and processes SSNM, which must be reliably protected against unauthorized access, theft, and diversion. The facilities have significantly enhanced their security posture since September 11, 2001. NFS is currently implementing a major program of additional security upgrades.

(U) The primary objectives of the CAT I security oversight program are to assess that the fuel cycle facilities are operating safely and securely in accordance with regulatory requirements and Commission Orders, detect indications of declining safeguards performance, investigate specific safeguards events and weaknesses, and identify generic security issues. NRC Headquarters and regional security inspectors based at NRC offices in Rockville, MD and Atlanta, GA, conduct inspections using detailed inspection procedures. In the aggregate, the results of these inspections contribute to an overall assessment of licensee performance.

(U) Similar to the reactor baseline inspection program, the CAT I inspection program is used to identify findings, determine their significance, document results, and assess licensees' corrective actions. The core inspection program requires three physical security areas ("inspection procedure suites") to be reviewed annually at each CAT I facility. These include HEU access control, HEU alarms and barriers, and other security topics such as security force training and contingency response. The core inspection program also requires two MC&A inspections annually and a transportation security inspection once every 3 years. NRC inspectors also review the U.S. Department of Energy's audits of licensees' programs to protect classified material and information.

(U) The core inspection program is complemented by the FOF inspection program, which is implemented by NRC Headquarters inspectors. In addition, NRC resident inspectors assigned to each CAT I facility provide an onsite NRC presence for direct observation and verification of the licensee's ongoing activities. Through the results obtained from all oversight efforts, the NRC determines whether licensees comply with regulatory requirements and can provide high assurance of adequate protection against the DBT for theft and diversion of CAT I SSNM.

(~~OUO~~) Similar to the ROP, plant-specific supplemental or reactive inspections may be conducted to further investigate a particular deficiency or weakness. Such an inspection is not part of the core inspection program and would be conducted to support a review and assessment of a particular security or safeguards event or condition.

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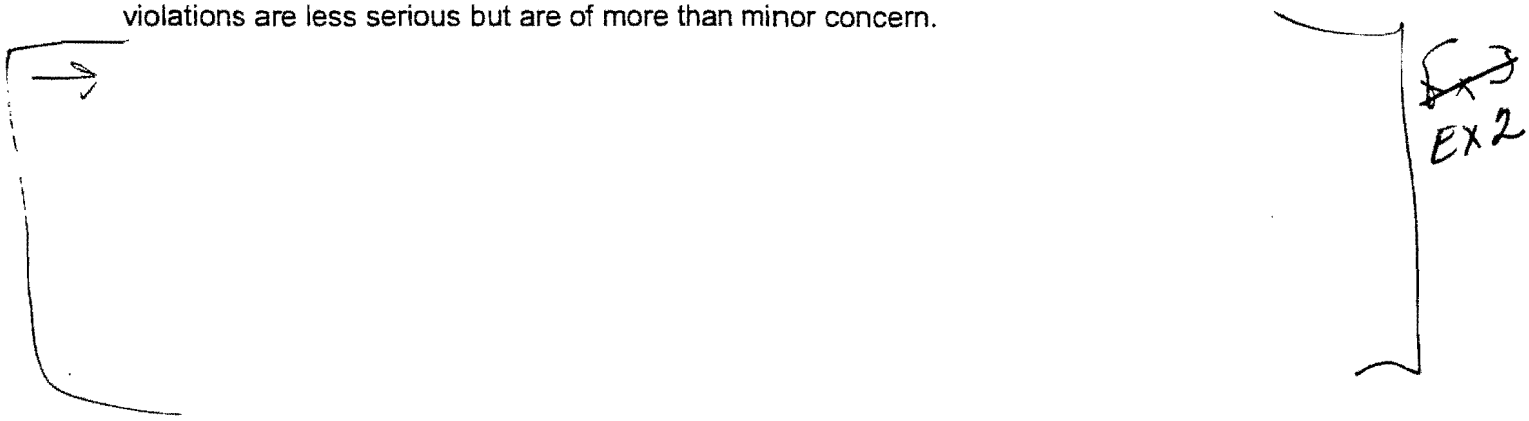
6.2 CY 2008 CAT I Security Inspection Program Results

(U) Table 8 summarizes the overall results of the security inspection program of CAT I fuel cycle facilities excluding FOF inspection results, which were discussed earlier. This information provides a summary overview of licensee performance.

(U) For CAT I fuel cycle facilities, violations and NCVs are categorized by significance and are given corresponding SL codes. SL I has been assigned to the most significant violations. SL I and II violations are of very significant regulatory concern. In general, violations designated as SL I or II involve actual or high potential consequences for public health and safety or common defense and security. SL III violations are cause for significant regulatory concern. SL IV violations are less serious but are of more than minor concern.



7. STAKEHOLDER COMMUNICATIONS

7.1 Communications with the Public and Industry

(U) In 2006, the Commission reviewed several options that would make some security oversight information available to the public. The Commission decided to place the cover letters to NPP security-related IRs in the public domain. However, the information contained in the letters would have to be such that the letters do not identify actual or potential vulnerabilities at the inspected plant. The cover letters for security-related IRs issued after May 8, 2006, are released to the public.

(U) The criteria the NRC placed on releasing security-related information to the public after September 11, 2001, also affected the agency's ability to share information with allegers who bring security-related concerns to the NRC. The criteria have made it difficult for the staff to assure allegers that their concerns have been addressed, and a number of allegers have expressed dissatisfaction with this policy. Some, in an effort to obtain a satisfactory response, chose to pursue their concerns publicly by engaging elected officials and public interest groups and by disseminating their concerns via public Web sites or media outlets. To address this issue, the Commission approved a three-tiered approach to responding to security allegers. This approach is based on the severity of the concern raised and the normal availability of the information to the alleger (e.g., the alleger is a member of a licensee's security force).

(U) As an additional effort to inform and involve stakeholders in the regulatory process, the NRC continues to hold public meetings specifically on nuclear security issues.[7] For example, security topics are presented at the NRC's Regulatory Information Conference held each spring in Rockville, MD.

(U) The NRC also communicates with the industry to disseminate key lessons learned and generic issues. The NRC analyzes findings and observations from the security inspection program to determine if a potentially generic issue may exist within the industry. When applicable, the NRC staff supplements periodic security meetings held with the industry and develops generic communications or advisories as a means of effectively communicating security-related issues to the industry. In CY 2008, the NRC issued 19 SAs, 10 regulatory issue summaries (RIS), and 4 information notices (INs) covering a variety of topics (see the list in the next section). After each FOF inspection, the NRC staff gathers lessons learned in a variety of categories. To further the mutual goal of safe and realistic performance evaluations, the agency disseminates those lessons learned to the industry through the Nuclear Security Working Group, a consortium of security representatives from NRC-licensed facilities.

[7] For more information on public meetings on security, please see http://www.nrc.gov/security/security-safeguards.html.

7.2 CY 2008 List of Generic Communications by Title

(U) Security Advisories

SA-08-01–SA-08-04	The Presidential 2008 State of the Union Address in the Washington, DC Area
SA-08-05	Potential Cyber Security Vulnerabilities
SA-08-06–SA-08-08	National Special Security Event at Denver, Colorado
SA-08-09–SA-08-11	National Special Security Event at Minneapolis-Saint Paul, Minnesota Area
SA-08-12–SA-08-15	The G-20 Global Financial Summit To Be Held in the Washington, DC Area
SA-08-16–SA-08-19	The 2009 Pre-Inauguration Events and Presidential Inauguration

(U) Regulatory Issue Summaries

RIS-08-02	Actions to Increase the Security of High Activity Radioactive Sources
RIS-08-04	Discontinuation of Two Performance Indicators Associated with the Security Reactor Oversight Process
RIS-08-06	Protection Against the Malevolent Use of Vehicles When Utilizing Landform Obstacles
RIS-08-08	Endorsement of Revision 1 to Nuclear Energy Institute Guidance Document NEI 06-04, "Conducting a Hostile Action-Based Emergency Response Drill"
RIS-08-10	Notice Regarding Forthcoming Federal Firearms Background Checks
RIS-08-10	Supplement 1, Notice Regarding Forthcoming Federal Firearms Background Checks
RIS-08-17	Voluntary Security Enhancements for Self-Contained Irradiators Containing Cesium Chloride Sources
RIS-08-20	Redesignation of Safeguards Advisory for Operating Power Reactors
RIS-08-22	Notification of Licensees Regarding Aircraft Threats
RIS-08-24	Regulatory Issue Summaries for 2008 Security Responsibilities of Service Providers and Client Licensees

(U) Information Notices

IN 2008-01 Designation and Protection of Safeguards Information

IN 2008-03 Precautions To Take before Sharing Sensitive Security-Related Information

IN 2008-10 Response to Indications of Potential Tampering, Vandalism, or Malicious Mischief

IN 2008-19 Tamper-Indicating Device Issues

7.3 Communications with Local, State, and Federal Agencies

(U) In most NRC FOF inspections, representatives from local law enforcement agencies attend planning activities and observe the exercise to improve their understanding of the licensee's response and coordination of integrated response activities. Other representatives from State emergency management agencies, State governments, the Government Accountability Office, and Congress have also observed FOF inspections.

(U) The NRC's security action matrix also includes informing various levels of interested local, State, and Federal organizations of plants whose performance has declined. In addition, Homeland Security offices in several States routinely receive copies of security IRs associated with the NPPs located in their States.

(U) The NRC continues to support the U.S. Department of Homeland Security/Homeland Security Council (DHS/HSC) initiative to enhance integrated response planning for power reactor facilities. The staff is continuing to work with DHS/HSC, the Federal Bureau of Investigation (FBI), and others to develop plans to further this initiative. The first integrated exercise at an NPP, which is discussed below, occurred in 2008. In addition, the staff has coordinated with other Federal agencies and State and local security partners in completing the development of Emergency Action Levels for any imminent threat.

(U) The Integrated Pilot Comprehensive Exercise (IPCE), a voluntary, collaborative effort between the FBI, DHS, NRC, and the Nuclear Energy Institute (NEI) and represents the first initiative designed to incorporate Federal, State and local law enforcement tactical response planning and operations into the concept of integrated response. The IPCE provides law enforcement tactical teams with opportunities to prepare for, and respond to, simulated security incidents inside commercial NPP sites. The first IPCE occurred at the Limerick NPP in 2008 and involved senior representatives and planners from Exelon, the Limerick Township Police, Pennsylvania State Police, FBI Philadelphia Field Office, FBI Headquarters, DHS, NRC, and NEI. This effort culminated in a full-scale exercise being conducted on December 13, 2008. The involved stakeholders are now discussing the lessons learned and an approach for conducting additional IPCEs.

APPENDIX A

Summary of 2008 Inspection Program By State

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