

May 16, 2002

Mr. Norm Cohen, Coordinator
The UNPLUG Salem Campaign
Coalition for Peace and Justice
321 Barr Avenue
Linwood, NJ 08221

Dear Mr. Cohen:

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed your petition dated September 17, 2001, which you submitted on behalf of the UNPLUG Salem Campaign, pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206 of the Commission's regulations. The staff's proposed Director's Decision on your petition is enclosed.

I request that you provide comments to me on any parts of the proposed decision that you believe to be erroneous, or any issues from your petition that you believe we have not fully addressed. The staff is making a similar request of the licensees. The staff will review any comments provided by you and the licensees and consider them in preparing the final version of the Director's Decision. You will have no further opportunity to comment.

Please provide your comments by June 21, 2002.

Sincerely,

/RA/

John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-219, 50-272, 50-311,
and 50-354

Enclosure: Proposed Director's Decision

May 16, 2002

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I request that you provide comments to me on any parts of the proposed decision that you believe to be erroneous, or any issues from your petition that you believe we have not fully addressed. The staff is making a similar request of the licensees. The staff will review any comments provided by you and the licensees and consider them in preparing the final version of the Director's Decision. You will have no further opportunity to comment.

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ACCESSION NO. ML021160433
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* See previous concurrence

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DATE	5/13/02	05/10/02	05/10/02	05/03/02	05/08/02
OFFICE	DLPM/DD	DLPM/D	ADPT/AD	ADIP/AD	NRR/D
NAME	TMarsh	JZwolinski	BSheron	WBorchardt	SCollins
DATE	5/13/02	5/13/02			

OFFICIAL RECORD COPY

May 16, 2002

Mr. Harold W. Keiser
Chief Nuclear Officer & President
PSEG Nuclear LLC - X04
Post Office Box 236
Hancocks Bridge, NJ 08038

Dear Mr. Keiser:

By letter dated September 17, 2002, Mr. Norm Cohen of the UNPLUG Salem Campaign submitted a petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206, of the Commission's regulations with respect to security at the four nuclear power plants located in New Jersey. The Petition has been reviewed by the NRC staff and the staff's proposed Director's Decision on the Petition is enclosed.

I request that you provide comments to me on any parts of the decision that you believe involve errors, or any issues in the Petition that you believe have not been fully addressed. The staff is making a similar request of the Petitioner. The staff will review any comments provided by you and the Petitioner and consider them in the final version of the Director's Decision with no further opportunity for comment.

Please provide your comments by June 21, 2002.

Sincerely,

/RA/

John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-272, 50-311, and 50-354

Enclosure: Proposed Director's Decision

May 16, 2002

Mr. Oliver D. Kingsley, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Dear Mr. Kingsley:

By letter dated September 17, 2002, Mr. Norm Cohen of the UNPLUG Salem Campaign submitted a petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206, of the Commission's regulations with respect to security at the four nuclear power plants located in New Jersey. The Petition has been reviewed by the NRC staff and the staff's proposed Director's Decision on the Petition is enclosed.

I request that you provide comments to me on any parts of the decision that you believe involve errors, or any issues in the Petition that you believe have not been fully addressed. The staff is making a similar request of the Petitioner. The staff will review any comments provided by you and the Petitioner and consider them in the final version of the Director's Decision with no further opportunity for comment.

Please provide your comments by June 21, 2002.

Sincerely,

/RA/

John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure: Proposed Director's Decision

Distribution for Green Ticket #G20010389 dated 5/16/2002

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UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION
 OFFICE OF NUCLEAR REACTOR REGULATION
 Samuel J. Collins, Director

In the Matter of)	
)	
PSEG NUCLEAR, LLC)	Docket Nos. 50-272, 50-311,
)	50-354, and 50-219
(Salem Nuclear Generating Station,)	
Unit Nos. 1 and 2, and Hope Creek)	License Nos. DPR-70, DPR-75,
Generating Station))	NPF-57, and DPR-16
)	
AMERGEN ENERGY COMPANY, LLC)	
)	
(Oyster Creek Nuclear Generating Station))	(10 CFR 2.206)
)	

PROPOSED DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. Introduction

By letter dated September 17, 2001, Mr. Norm Cohen, on behalf of the UNPLUG Salem Campaign (Petitioner), requested that the U.S. Nuclear Regulatory Commission (Commission or NRC) take the following actions:

- order either the closure of, or an immediate security upgrade at, the Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem), Hope Creek Generating Station (Hope Creek), and Oyster Creek Nuclear Generating Station (Oyster Creek).
- order the plants' defenses to be upgraded to withstand a jet crash similar to that which occurred at the World Trade Center (WTC) on September 11, 2001.
- require all spent fuel pools to be brought into the containment buildings, or a new containment building, able to withstand a jet crash, should be built for them.
- cancel all plans for a dry cask storage at any of New Jersey's plants until a jet-bomber-proofed containment is built for them.

PROPOSED

- triple the number of Operational Safeguards Response Evaluation (OSRE) security inspections.
- cancel proposals to allow nuclear plants to conduct their own security inspections.

As a basis for the request described above, the Petitioner cited the terrorist attacks on September 11, 2001, stating that New Jersey's four nuclear power plants are vulnerable to terrorist threats, including a suicide airplane attack similar to the attack on the WTC.

On December 7, 2001, the NRC staff informed the Petitioner in a telephone call that the Commission had decided to treat the letter dated September 17, 2001, as a petition pursuant to Section 2.206 of Title 10 of the *Code of Federal Regulations* (10 CFR 2.206). In addition, the NRC staff informed the Petitioner that because the September 17, 2001, letter raised sensitive security issues, the Commission was deferring application of certain public aspects of the process described in Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions," pending further developments related to the NRC's security review. Accordingly, the NRC staff did not offer the Petitioner the opportunity to provide, in a public forum, additional information to support the September 17, 2001, letter before the NRC's Office of Nuclear Reactor Regulation (NRR) Petition Review Board (PRB). The NRC staff further requested that the Petitioner forward any additional information related to the petition to the assigned petition manager.

By an acknowledgment letter dated December 20, 2001, the NRC staff formally notified the Petitioner that the letter dated September 17, 2001, met the criteria for review under 10 CFR 2.206, and that the NRC staff would act on the request within a reasonable time. The acknowledgment letter further stated that the Commission had, in effect, partially granted the Petitioner's request for immediate actions in that the NRC took action immediately after September 11, 2001, to enhance security at all nuclear facilities, including the four nuclear

power plants located in New Jersey. The NRC staff also informed the Petitioner in the acknowledgment letter that the issues raised in the petition were being referred to NRR for appropriate action.

The Petitioner responded to the acknowledgment letter by electronic mail on January 9 and 10, 2002, and provided additional information that the staff considered in its evaluation of the petition.

In a January 9, 2002, letter forwarded by electronic mail described as "Supplemental Additions to the 2.206 Petition," the Petitioner identified additional individuals and organizations who wished to sign on the petition, including: Bill Smirnow, representing Nuclear Free New York, Huntington, NY; Len and Rena Amada, Parkway Whiting, NJ; Jennifer Ann Vickers, Point Pleasant Beach, NJ; Mike and Janet Turco, Absecon, NJ; William deCamp Jr., Mantoloking, NJ; Karin Westdyk, representing MothersAlert.org, Hewitt, NJ; Mary Jo Christian (no address provided); John Guyon, representing NJ PIRG, Trenton, NJ; Laura Cayford, Asbury Park, NJ; Alan Muller, representing Green Delaware, Port Penn, Delaware; and Michael Mariotte, Director, Nuclear Information and Resource Service (NIRS). The Petitioner also further clarified his original request to close all nuclear power plants in New Jersey, as follows:

- The NRC should halt and reverse all permits associated with Oyster Creek that have allowed the construction of dry cask storage of nuclear waste. No dry cask storage should be allowed to be built without the NRC first holding an adjudicatory public hearing, and without all of our security requests being met. Dry cask storage, which will be placed within 400 feet of U.S. Route 9, is an obvious terrorist target. Because Oyster Creek failed an OSRE test, and because of the nearness of the waste storage to a busy highway, all dry cask storage plans should be halted.

- Oyster Creek and Salem must demonstrate that they have viable security plans to protect the water intake systems from terrorist attack, and Salem must demonstrate a viable plan in the event of a commando attack from the Delaware Bay.
- Oyster Creek must demonstrate that its containment will withstand an Oklahoma City-type truck bomb.
- Salem must demonstrate that it has a viable plan to protect the nuclear plant in the event of a terrorist attack that cuts off electric power to the plant, in conjunction with an attack on the diesel generators.
- The NRC must require PSEG Nuclear to replace all questionable electrical raceway fire barriers and combustible fire seals at Salem. In addition, the NRC must require that the licensee replace all wiring that violates NRC rules for cable separation. The NRC must reverse any recent changes in these rules.
- The NRC shall direct the New Jersey Department of Emergency Management and the State Police to allow citizen stakeholder groups such as UNPLUG Salem and Jersey Shore Nuclear Watch to observe and comment upon emergency planning and evacuation drills. The NRC must direct the above to include nuclear terrorism as a subject of evacuation drills and emergency planning.
- The NRC shall agree to reopen the entire NRC website to stakeholder groups like UNPLUG Salem and Jersey Shore Nuclear Watch, with acceptable means of security involved.

In separate electronic mail transmissions dated January 9 and 10, 2002, UNPLUG Salem forwarded three reports prepared by the Union of Concerned Scientists (UCS) after September 11, 2001, titled "Nuclear Reactor Security," "Spent Fuel Security," and "Vulnerabilities of New Jersey's Nuclear Power Plants to Radiological Sabotage." The UCS

“Nuclear Reactor Security” report raised concerns and offered recommendations regarding the NRC’s OSRE program. Among the short-term solutions, this report recommended that potassium iodide be readily available to persons living in the vicinity of all nuclear reactors. The UCS “Spent Fuel Security” report raised issues associated with protecting fuel assemblies that are stored in a plant’s spent fuel pool or dry cask storage facilities. The UCS report on “Vulnerabilities of New Jersey’s Nuclear Power Plants to Radiological Sabotage” claimed that the spent fuel pools at Oyster Creek and Hope Creek have certain associated vulnerabilities, and there is the potential for sabotage by fire at Oyster Creek, Salem, and Hope Creek.

In two other electronic mail transmissions, both dated January 9, 2002, the Petitioner forwarded copies of information associated with Salem and Oyster Creek. One of these transmissions forwarded a copy of NRC Inspection Report 0500219/2001-011, which discusses the results of the Oyster Creek OSRE that was completed on May 10, 2001. The Petitioner stated that the report shows that the Oyster Creek security response team was unable to prevent the simulated intruders from destroying all of the equipment that is necessary to cool the reactor core.

The Petitioner also provided comments on selected excerpts taken from an NRC report titled “Safety Evaluation Report Related to Operation of Salem Nuclear Generating Station,” dated October 1974. In particular, the electronic mail transmission questioned the ability of the Salem plant to withstand the impact of an aircraft.

II. Discussion

The Petitioner raised a number of issues associated with protecting our nation’s nuclear power plants from terrorism. However, long before the tragic events of September 11, 2001, the Commission had recognized the need for strict safeguards and security measures at these facilities. When Congress authorized the civilian use of atomic power by passing the Atomic

Energy Act of 1954 (the Act), it realized that a primary consideration was to ensure that public health and safety would be protected. Specifically, Title 42, Chapter 23, Subchapter IX, Section 2133 of the United States Code (42 USC 2133), states that the NRC may issue commercial licenses only to those “who are equipped to observe and who agree to observe such safety standards to protect health and to minimize danger to life or property as the Commission may by rule establish,” and that the Commission was to “promote the common defense and security and to protect the health and safety of the public.” The NRC, therefore, was given the responsibility and authority to determine the requirements, including rules governing security, that are necessary to ensure that public health and safety are protected when commercial nuclear power plant licenses are issued.

The regulations for protecting all nuclear power plants, including those located in New Jersey, are provided in 10 CFR Part 73, “Physical Protection of Plants and Materials.” These rules represent an important cornerstone of the NRC’s regulatory oversight responsibilities. In particular, the regulations include detailed, specific requirements designed to protect nuclear power plants against acts of radiological sabotage, prevent the theft of special nuclear material, and protect safeguards and classified information against unauthorized release.

In order to provide high assurance that the operation of a nuclear power plant does not constitute an unreasonable risk to public health and safety, licensees are required to implement the NRC’s safeguards and security regulations described in 10 CFR 73.55, “Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage.” Specifically, licensees are to design a physical protection system to provide the following means of protection against the design-basis threat (DBT) of radiological sabotage, as stated in 10 CFR 73.1(a):

- maintain a well-equipped and highly trained physical security organization

- install physical barriers to protect vital equipment and material access areas
- implement access requirements to control all points of personnel and vehicle access into a protected area. These requirements include the identification and search of individuals and vehicles for firearms, explosives, and incendiary devices
- provide access authorization programs and procedures (e.g., background checks, routine worker screening, badging, etc.)
- install detection, surveillance, and alarm systems with the capability to sense unauthorized penetrations into isolation zones, and to permit response action
- ensure that all guards and armed response individuals have the ability to communicate with a continuously manned alarm station
- establish effective testing and maintenance programs to verify that all physical barriers, detection, and alarm systems are capable of meeting NRC requirements
- provide the ability to respond to threats, thefts, and radiological sabotage related to the nuclear facility

Security Organization

All operating nuclear power plant licensees are required to establish and maintain a site security organization. Such site security organizations include the designated managers, guard force, and personnel for checking worker backgrounds and issuing badging, as well as detailed access control and response procedures. To become a member of the security organization at a nuclear power plant, an individual must meet several stringent requirements. Specifically, prospective applicants must: (1) pass a Federal Bureau of Investigation (FBI) background check; (2) verify past employment, education, credit history, and military service; (3) undergo a psychological evaluation; (4) be screened for drug and alcohol use; and (5) satisfactorily perform continuing training. In fact, 10 CFR 73.55(b)(4) expressly states that “licensee[s] may

not permit an individual to act as a guard, watchman, armed response person, or other member of the security organization unless the individual has been trained, equipped, and qualified to perform each assigned security job duty” in accordance with NRC-established criteria for security personnel. Furthermore, each licensee shall establish, maintain, and follow an NRC-approved training and qualifications plan outlining the processes by which guards, watchmen, armed response persons, and other members of the security organization will be selected, trained, equipped, tested, and qualified to ensure that these individuals meet NRC requirements. These qualifications include specific requirements to demonstrate competence in the use of assigned weapons during daytime, and familiarization with assigned weapons during nighttime conditions. In addition, guards, watchmen, armed response persons, and other members of the security organization are subject to the NRC’s medical examination, physical fitness, and fitness-for-duty requirements. These, and other, security organization requirements are designed to foster an effective deterrence against potential terrorist activities directed at nuclear power plants.

Access Authorization and Control

In order to ensure that only authorized individuals are able to enter vital and other critical areas of a nuclear plant, licensees are required to implement and maintain access authorization and control programs. The objective of these programs is to provide high assurance that individuals who are allowed to work at a nuclear power plant are trustworthy and reliable, and do not constitute an unreasonable risk to public health and safety including the potential to commit radiological sabotage. In order to achieve this objective, NRC regulations require licensees to: (1) perform background checks on workers who are allowed to have unescorted access to the plant; (2) implement a badging system in order to identify those persons who are authorized to enter specific plant areas; (3) screen personnel, packages, and vehicles entering

the protected area; (4) search for firearms and explosives; (5) monitor entry into and exit from identified areas of the plant; and (6) maintain a detection and alarm system.

Worker background checks include an investigation to verify an individual's true identity and to develop information concerning the individual's employment, education, and credit history; military service; and character and reputation, including a psychological assessment to evaluate trustworthiness and reliability. The checks also include a criminal history check conducted via fingerprinting by the FBI. These requirements are designed to prevent unauthorized access of persons, vehicles, and materials into protected areas, and to ensure that only persons who are deemed trustworthy are authorized to have unescorted access to vital plant equipment.

Protection of Vital Equipment

Paragraph (a)(1) of 10 CFR 73.1 requires licensees to protect against a determined violent external assault, attack by stealth, or deceptive actions by several persons using a four-wheel drive land vehicle to transport personnel and their hand-carried equipment to the proximity of vital areas. The regulation requires licensees to assume that potential terrorists have the following characteristics:

- are dedicated and well-trained (including military training and skills)
- have inside assistance, which may include a knowledgeable individual who attempts to participate in a passive role (e.g., provide information), an active role (e.g., facilitate entrance and exit, disable alarms and communications, participate in violent attack), or both
- possess suitable weapons, up to and including hand-held automatic weapons, equipped with silencers and having effective long-range accuracy

- possess hand-carried equipment, including incapacitating agents and explosives for use as tools of entry or for otherwise destroying reactor, facility, transporter, or container integrity or features of the safeguards system
- have a four-wheel drive land vehicle available for transporting personnel and their hand-carried equipment to the proximity of vital areas

NRC regulations in 10 CFR 73.1(a)(1)(iii) also require licensees to protect against a four-wheel drive land vehicle bomb. In order to safeguard a nuclear plant against this threat, 10 CFR 73.55 requires all licensees to: (1) establish vehicle control measures, including vehicle barriers, to protect against the use of a land vehicle, as a means of transportation to gain unauthorized proximity to vital areas; (2) compare the vehicle control measures established in accordance with 10 CFR 73.55(c)(7) to the Commission's design goals and criteria for protection against a land vehicle bomb; and (3) develop a process to use alternative measures for protection against a land vehicle bomb (i.e., for those licensees with a particularly difficult site configuration). The alternative measures must provide substantial protection against a land vehicle bomb and must be supported by a licensee analysis.

In brief, Congress understood the inherent need for strict security measures at commercial nuclear power plants, and NRC regulations have ensured that these are among the most hardened and secure industrial facilities in our nation. The many layers of protection offered by robust plant design features, sophisticated surveillance equipment, a professional security force, and regulatory oversight are an effective deterrence against potential terrorist activities that could target equipment that is vital to nuclear safety.

Therefore, when the events of September 11, 2001, unfolded, U.S. nuclear power plants already possessed a strong capability to prevent and respond to the most likely terrorist acts that could be directed at them. Consequently, the NRC determined that certain actions, such

as ordering the immediate closure of nuclear power plants, including Salem, Hope Creek, and Oyster Creek, were not necessary to provide adequate protection of the public's health and safety. However, the NRC did take other immediate actions and advised all nuclear power plants to go to the highest level of security, which they promptly did. The NRC also issued more than 30 threat advisories to address specific concerns or vulnerabilities in the aftermath of September 11. In addition, NRC security specialists performed numerous onsite physical security vulnerability assessments at licensed facilities to evaluate the effectiveness of the enhanced security measures that had been put into place. To this day, all nuclear power plant facilities remain at a heightened security level.

The events of September 11, 2001, were unprecedented, and since that time, the NRC has taken appropriate steps to protect public health and safety. For example, the NRC quickly recognized the need to reexamine basic assumptions underlying the current civilian nuclear facility security and safeguards programs. Chairman Richard A. Meserve, with the full support of the rest of the Commission, directed the staff to undertake a comprehensive reevaluation of the NRC's security and safeguards programs. The comprehensive review takes advantage of insights gained by the NRC in consultation with the Office of Homeland Security, FBI, Department of Transportation (DOT), Department of Energy (DOE), and others. This cooperation further allows the NRC to keep abreast of the current threat environment, and communicate its actions to other federal agencies to ensure an appropriate and balanced response to security concerns throughout the nation's entire critical energy infrastructure.

In light of the continuing threat environment, the Commission recently concluded that specific security measures, including those outlined in threat advisories and voluntarily implemented by nuclear power plant licensees, should be embodied in an Order consistent with the NRC's established regulatory framework. On February 25, 2001, the NRC issued Orders to

all operating power reactor facilities to require certain interim compensatory measures for security be taken beyond that called for by current regulations. These requirements will remain in effect pending notification from the Commission that a significant change in the threat environment has occurred, or until the Commission determines that other changes are needed following the more comprehensive reevaluation of current safeguards and security programs. The Orders were effective immediately upon issuance. For the most part, the Orders formalized a series of steps that nuclear power plant licensees had been advised to take by the NRC in the aftermath of the terrorist attacks on September 11, 2001; however, the Commission included certain additional security enhancements in the Orders. Certain details of specific security requirements cannot be made public, but they included such things as additional personnel access controls; enhanced requirements for guard forces; new requirements for searches of vehicles approaching nuclear facilities; and heightened coordination with appropriate local, State, and Federal authorities.

The NRC continues to reexamine its activities to determine any significant safeguards vulnerabilities. If a vulnerability is identified, the NRC staff will revise physical protection, material control, and other appropriate requirements. Also, the NRC will continue to assist the Office of Homeland Security and other Federal agencies to evaluate threats beyond the feasibility and capability of NRC licensees to consider potential augmentation.

III. Evaluation

The Petitioner presented certain general and specific concerns about the vulnerability of nuclear power plants to terrorism. In addition, the Petitioner provided suggestions to improve security readiness oversight, offered other recommendations that may require rulemaking, and identified issues related to emergency planning and the availability of information to the public. The following is the NRC staff's evaluation of the Petitioner's concerns.

A. Vulnerabilities to Specific Threats

The Petitioner raised several concerns regarding the following possible threats to nuclear power plants:

- Oklahoma City-type truck bomb
- waterborne terrorist attacks
- airborne attacks
- sabotage by fire
- spent fuel security
- sabotage that results in a complete loss of AC power

1. Explosive Devices Transported by Vehicles (Truck Bomb)

Petitioner's Concerns

In the supplemental information provided on January 9, 2002, the Petitioner stated that Oyster Creek must be able to demonstrate that its containment could withstand an Oklahoma City-type truck bomb.

NRC Response

As previously stated, 10 CFR 73.1(a)(1)(iii) requires licensees to protect against a four-wheel drive land vehicle bomb. In order to safeguard a nuclear plant against this threat, 10 CFR 73.55 provides additional requirements. The goal is to protect equipment, systems, devices, or material from explosive devices that are transported by a vehicle. At many facilities, vital area barriers, which separate critical equipment within the protected area, are located a considerable distance from the protected area barrier and are generally quite robust. As a result, these features provide protection for vital equipment from an explosive blast.

However, the most practical way to protect vital equipment is to keep a potential vehicle bomb away from the plant since explosive effects diminish rapidly with distance. The distance

between a critical structure or vital equipment from the potential explosive blast is typically referred to as "standoff distance." Therefore, if a vehicle is transporting an explosive device and the device is detonated at the vehicle barrier, the standoff distance would be that distance between vital equipment and the closest exterior point of the vehicle barrier system. Different vital areas have different standoff distances depending on the construction of the vital area barriers. Considering typical plant layouts and the placement of vehicle barriers at or adjacent to the protected area, vital area barriers at many facilities would afford sufficient protection against a relatively large explosive device.

Notwithstanding the measures that were in place prior to September 11, 2001, to protect plants from potential truck bombs based on current regulations and guidance, the NRC issued orders to all nuclear power plant licensees on February 25, 2002, to address the continued heightened threat environment. The Orders generally formalized steps that licensees had voluntarily taken in response to NRC threat advisories, and included additional measures to further protect plants against the consequences of a truck bomb. The size of the bomb used to determine stand-off distances is determined by various Federal agencies involved in threat assessment; however, the NRC cannot publicly disclose this information or other similar details included in the February 25, 2002, Orders.

Therefore, to the extent that the licensee has taken measures to meet current regulatory requirements and is implementing additional steps in response to the Orders issued on February 25, 2002, the NRC is granting the Petitioner's request that Oyster Creek must be able to withstand the effects of an explosive device transported by a vehicle.

2. Waterborne Attack

Petitioner's Concerns

In the supplemental information provided on January 9, 2002, the Petitioner stated that Oyster Creek must demonstrate that it has viable security plans to protect the water intake systems from terrorist attack. In addition, the Petitioner stated that Salem must be able to demonstrate that it has a viable plan to protect its water intake system from a terrorist or commando attack from the Delaware Bay.

NRC Response

Water intake structures are generally located inside the protected area, which is the case for Oyster Creek and Salem. As previously stated, 10 CFR 73.55 requires that licensees must prevent the unauthorized access of persons, vehicles, and materials into protected and vital areas by using detection and barrier systems, and security personnel must be able to respond to unauthorized penetrations of the protected area. In addition, 10 CFR 50.63, "Loss of All Alternating Current Power," requires that licensees have procedures in place to maintain adequate cooling for a period of time if alternating current (ac) power is lost. These requirements would further apply to a loss of cooling from the plant's intake structure. However, in order to address the continued heightened threat environment, the NRC issued Orders to all nuclear power plant licensees on February 25, 2002. The Orders included additional measures to evaluate potential vulnerabilities to a loss of the intake structure, and to implement additional protective measures, as appropriate.

Therefore, to the extent that the licensees have taken measures to meet current regulatory requirements and are implementing additional steps in response to the Orders issued on February 25, 2002, the NRC is granting the Petitioner's request that Salem and

Oyster Creek must be able to protect their respective water intake systems from a terrorist or commando attack.

3. Airborne Attack

Petitioner's Concerns

The Petitioner requested that the NRC order plant defenses to be upgraded to withstand a jet crash similar to that which occurred at the WTC on September 11, 2001. The Petitioner also raised concerns that a large aircraft filled with jet fuel could strike a nuclear power plant and start a fire in more than a single room or area, thus rendering certain safe shutdown equipment inoperable. The Petitioner concluded that the Oyster Creek, Hope Creek, and Salem nuclear power plants are vulnerable to radiological sabotage from the air.

NRC Response

When licensing the plants, the NRC staff considered the potential for accidental aircraft impacts into reactors, with respect to their proximity to airports and air routes. Those plants not meeting a criteria for very low frequency of accidental impact had design enhancements made to ensure the survivability of the containment, assuming a specific aircraft impact. Only a few plants in the U.S. had such design enhancements imposed, since in most cases the estimated probability was found to be acceptably low.

The staff acknowledges that nuclear plants were not specifically designed to withstand a deliberate aircraft crash, just as no known industrial facilities in this country were designed to withstand such an impact. Nonetheless, the NRC's requirements that nuclear power facilities must be designed to provide defense-in-depth to withstand events such as tornadoes (and missiles generated by tornadoes), hurricanes, fires, floods, and earthquakes produced nuclear plant designs that inherently afford a measure of protection against deliberate aircraft impacts. That is because the defense-in-depth philosophy used in nuclear facility design resulted in

plants having redundant and separated systems in order to ensure safety. The capability of a plant to successfully cope with an aircraft crash will depend upon the plant's specific design features, the design and flight characteristics of the aircraft, the point of impact, the ability of the licensees' staff to utilize remaining backup systems, and the response of onsite and offsite resources.

In its recent Order to the operating nuclear power plants, the Commission directed licensees to develop specific guidance and strategies to respond to an event resulting in damage to large areas of the plant due to explosions or fire. These strategies are intended to assist in identifying and utilizing any remaining equipment and capabilities to maintain or restore reactor core, containment and spent fuel cooling, including both onsite and offsite resources.

Other nationwide actions have been taken to address aviation security at nuclear power plants as well as for other industrial facilities. For example, the Commission believes that the prompt response by Congress to strengthen aviation security under the Aviation and Transportation Security Act of 2001, will provide improved protection against air attacks on all industrial facilities, both nuclear and non-nuclear. The Commission believes that the nation's integrated efforts associated with protecting against terrorist attacks by air should continue to be coordinated through the President's Office of Homeland Security and directed toward enhancing security at airports and within airplanes. The actions taken by our country's intelligence agencies, military, and law enforcement personnel at all levels will continue to minimize the probability of a successful terrorist attack against our nation. To this end, the NRC has been in regular communication with other Federal agencies, specifically the Federal Aviation Administration and the Department of Defense, which have acted more than once to protect airspace above nuclear power plants.

Because there have been no specific credible threats against any NRC-licensed facility since September 11, 2001, and aviation security is being strengthened under the Aviation and Transportation Security Act of 2001, the staff concludes that the probability of terrorists using a large airliner to successfully damage a nuclear power plant remains acceptably low. Therefore, based on this acceptably low probability, and on the inherently robust design and construction of nuclear plants, or additional mitigative measures required by the Orders issued on February 25, 2002, the Petitioner's request that the NRC immediately order plant defenses to be upgraded to withstand a jet crash is denied. However, the NRC has efforts underway to evaluate the vulnerabilities and potential effects of a large commercial aircraft impacting a nuclear facility. Based on the results stemming from this review, the Commission may take additional actions to protect nuclear power plants from this threat if it is deemed necessary.

4. Sabotage by Fire

Petitioner's Concerns

The Petitioner raised concerns about fires in multiple rooms and areas, and that fire hazards analysis (FHA) information developed by licensees in response to the Browns Ferry fire could be used by saboteurs to disable critical emergency systems that are needed to cool the reactor core.

In addition, the Petitioner stated that "the NRC must cancel it's plans to allow PSE&G to not replace all of it's bogus raceway fire barriers, and instead require PSE&G to indeed replace ALL the fire wrap in question" at Salem. The Petitioner added that Salem should not be allowed to operate with combustible fire seals, and instead, the NRC should require PSEG to replace all its combustible fire seals.

NRC Response

The Petitioner referred to a scenario in which saboteurs could use FHA information to start multiple fires and disable critical emergency systems that are needed to cool the reactor core. The staff considers there to be a variety of scenarios which could be created that would result in a broad spectrum of damage. However, in order to be successful, saboteurs would have to penetrate and/or circumvent a number of security barriers and features that currently exist without being noticed, including:

- access authorization measures
- routine screening of personnel entering controlled areas of the plant
- routine screening for explosives and weapons entering controlled areas
- multiple physical barriers, sophisticated surveillance equipment, and access control systems
- routine radiological area access controls
- other barriers

In addition, the defense-in-depth design philosophy has resulted in plants having redundant fire detection and suppression systems and other barriers in order to ensure safety. Consequently, the saboteurs would have to also be successful at preventing these fire mitigation systems, fire brigade personnel, and plant operators from responding to and/or extinguishing the fires in a timely manner. As previously stated, the Commission recently directed licensees to develop specific guidance and strategies to respond to an event resulting in damage to large areas of the plant due to explosions or fire. Strategies now in place or being developed by licensees to address mitigation of explosions or fires will assist those responsible for responding in the unlikely event that saboteurs could inflict damage to equipment necessary to maintain and/or restore reactor core, containment, and spent fuel cooling.

Therefore, to the extent that appropriate measures are in place or being developed to limit the accessibility of vital plant areas to terrorists, and that mitigative measures are in place and being enhanced for licensees to deal with explosions or fires, the NRC is granting the Petitioner's request that action be taken to protect nuclear power plants from large-scale or multiple fires. With respect to the Petitioner's concerns about fire wrap materials at Salem, the staff is aware that PSEG is implementing various corrective actions in response to a 1997 violation associated with the failure to adequately qualify certain electrical raceway fire barrier systems installed at the plant. The NRC staff believes that the defense-in-depth protection afforded by fire detection and suppression systems and other fire protection barriers is adequate to ensure public health and safety while the licensee corrects items identified in the violation.

5. Spent Fuel Security

Petitioner's Concerns

The UCS report on spent fuel security recommends that the NRC address the issue of spent fuel storage at all U.S. nuclear power plants. The Petitioner contends that the storage of spent fuel presents "a softer target that could yield graver consequences than an aircraft crashing through the reactor containment structure." As a result, the Petitioner concludes that "all of the spent fuel pools must be brought into the containment building, or a new containment building, able to withstand a jet crash, should be built for them." The Petitioner also states that the NRC should cancel any plans for dry cask storage at any of New Jersey's plants, until a jet-bomber-proofed containment is built for them. Similarly, the Petitioner requests that: (1) the NRC should halt and reverse all permits that have allowed the construction of dry cask storage of nuclear waste at Oyster Creek; and (2) no dry cask storage should be allowed to be built

without the NRC first holding an adjudicatory public hearing, without all of the Petitioner's security requests being met.

The basis for the Petitioner's concerns with respect to spent fuel pool security is related to the ability of the building structure to withstand the impact of a large jet aircraft. The requests associated with the Oyster Creek interim spent fuel storage facility are based upon concerns about the proximity of this facility to a nearby highway.

NRC Response

The NRC acknowledges that nuclear power plants were not specifically designed to withstand the impact of a large commercial airplane. However, the NRC's requirements that nuclear power facilities must be designed to provide defense-in-depth to withstand events such as tornadoes (and missiles generated by tornadoes), hurricanes, fires, floods, and earthquakes have resulted in nuclear plant designs that inherently afford a measure of protection against deliberate aircraft impacts. That is because the defense-in-depth philosophy used in nuclear facility design ensures safety by requiring plants to have redundant and separated systems. Specifically, spent fuel pools that are used to store and cool fuel assemblies removed from the reactor are robust structures that are typically constructed of steel reinforced concrete walls 4 to 6 feet in thickness with stainless steel liners.

While the NRC's defense-in-depth design philosophy yields a certain level of protection, the comprehensive review of the NRC's safeguards and physical security programs initiated by Chairman Meserve following the September 11, 2001, terrorist attacks includes specific studies on the impacts of aircraft on nuclear power plant facilities. In addition, the review includes an evaluation of the potential consequences of terrorist attacks using various explosives or heat-producing devices on spent fuel pools and spent nuclear fuel dry casks at spent nuclear fuel storage sites. The staff will use the insights gained from these studies as it considers

potential supplemental security measures. During this intervening period, the threat advisories previously discussed provide assurance that spent fuel will be adequately protected against terrorist attack. Furthermore, the NRC-issued security orders provide additional security measures at operating nuclear power plants that will enhance the protection of spent fuel against potential terrorist attacks at these facilities.

As previously stated, the staff considers the probability of terrorists using a large airliner to damage a spent fuel storage facility to the extent that the health and safety of the public will be jeopardized to be acceptably low. Therefore, the Petitioner's request that spent fuel storage facilities be made capable of withstanding a jet crash is denied.

The Petitioner also requested that: (1) the NRC halt and reverse all permits associated with Oyster Creek that have allowed the construction of dry cask storage of nuclear waste, and (2) no dry cask storage should be allowed to be built without the NRC first holding an adjudicatory public hearing, without the Petitioner's security requests being met.

The rule that established the process for the general licensing of independent spent fuel storage installations (ISFSIs) at operating reactors became effective in 1990, and implemented the requirements of the Nuclear Waste Policy Act of 1982 (NWPA). Before the rule became effective, the public was offered the opportunity to comment on the rulemaking for this general licensing process. Also, under this process, the NRC approves and certifies spent fuel storage casks for use under the general licensing provisions. As each cask design is certified, it is added to the list of certified casks in 10 CFR 72.214 through a separate rulemaking effort. The rulemaking process for cask certification includes opportunities for public comment.

AmerGen Energy Company, LLC (AmerGen) is licensed by the NRC to operate the Oyster Creek nuclear power reactor under the provisions of 10 CFR Part 50. The licensee has also been granted a general license under the provisions of 10 CFR Part 72 to operate an

ISFSI at the Oyster Creek reactor site. AmerGen will be using dry storage cask designs at Oyster Creek that the NRC has already approved for use. Because there are no pending licensing or other agency actions before the Commission, there is no additional process available to the Petitioner for which an adjudicatory hearing might be appropriate. Consequently, the Petitioner's request for an adjudicatory hearing is denied.

The Petitioner also raised concerns about the proximity of the Oyster Creek ISFSI to U.S. Route 9, stating that it was vulnerable to a terrorist attack. Security requirements for the Oyster Creek ISFSI are outlined in 10 CFR 73.51, "Requirements for the Physical Protection of Stored Spent Nuclear Fuel and High-level Radioactive Waste." This section requires the licensee to establish and maintain a physical protection system with the objective of providing high assurance that activities involving spent nuclear fuel and high level radioactive waste do not constitute an unreasonable risk to public health and safety. This is accomplished, in part, by:

- storing spent nuclear fuel and high level radioactive waste only within a protected area
- granting access to the ISFSI's protected area only to individuals who are authorized to enter the protected area
- providing barriers, systems and procedures necessary to detect and assess unauthorized penetration of, or activities within, the protected area
- providing timely communication to a designated response force whenever necessary

The licensee has taken additional security measures in response to threat advisories issued following September 11, 2001, and the facility remains at a heightened security level. Furthermore, dry cask storage containers are quite robust and inherently afford a high level of protection. Therefore, based upon the additional security measures being taken by the licensee, and the inherent level of protection provided by the dry cask storage container design,

the Petitioner's request to halt and reverse all permits associated with Oyster Creek ISFSI is denied.

As previously stated, the Chairman directed the staff to thoroughly reevaluate the NRC's safeguards and physical security programs following the September 11, 2001, terrorist attacks. This comprehensive review includes the potential consequences of terrorist attacks using various explosives or heat-producing devices on spent nuclear fuel dry casks at ISFSIs. If the NRC determines that additional or revised safety or physical protection actions or requirements need to be taken at ISFSIs, the NRC will take appropriate actions to implement those measures.

6. Complete Loss of AC Power

Petitioner's Concerns

The Petitioner stated that Salem must demonstrate that it has a viable plan to protect the plant in the event of a terrorist attack that cuts off all electric power, in conjunction with an attack on the diesel generators. The concern is that equipment that is vital to plant safety would not be available when necessary.

NRC Response

Section 50.63 of 10 CFR, "Loss of All Alternating Current Power," requires that each nuclear power plant be able to withstand and recover from a station blackout (SBO) for a specified period of time. SBO is defined as the complete loss of ac electric power to the essential and nonessential switchgear buses in a nuclear power plant. A plant's specified SBO duration is based on an engineering evaluation that considers the following factors:

- redundancy of the onsite emergency ac power sources
- reliability of the onsite emergency ac power sources
- expected frequency of loss of offsite power

- probable time needed to restore offsite power

NRC rules further require that the reactor core and associated coolant, control, and protection systems, including station batteries and any other necessary support systems, must also provide sufficient capacity and capability to ensure that the core is cooled and appropriate containment integrity is maintained in the event of an SBO. The minimum SBO coping time for Salem Unit Nos. 1 and 2, based on the licensee's conservative analysis, is 4 hours.

Hot shutdown is generally the mode that plants are designed to achieve following a design-basis event (such as a large earthquake or loss-of-coolant accident.) If offsite power is lost, but the emergency diesel generators are unaffected, a plant can stay in a hot shutdown condition indefinitely. If an SBO condition exists, the time in which the reactor core could be damaged would depend upon the status of important parameters such as station battery capacity, environmental effects, water inventory in emergency tanks, and reactor coolant pump seal leakage. During an SBO, plant operators could employ certain strategies (i.e., use steam-driven auxiliary feedwater pumps and atmospheric dump valves) to cool the reactor. Provided that the operators retain the capability to replenish water in tanks, and station batteries have sufficient charge for control and instrument power, nuclear power plants can operate for extended periods at hot shutdown while ac power is being restored.

The NRC staff considers that, even under the current threat environment, there is a very low likelihood that saboteurs would be able to successfully damage all sources of ac power at Salem. This conclusion is based on the separate and redundant sources of offsite and onsite ac power that are available at the plant, as well as the heightened security measures that the licensee is taking in conjunction with the Orders issued on February 25, 2002. Therefore, to the extent that the licensee is implementing additional measures in response to the Orders, the

NRC is partially granting the Petitioner's request that action be taken to protect nuclear power plants from the loss of ac power resulting from postulated acts of sabotage.

B. Operational Security Readiness Evaluation (OSRE) Requirements

Petitioner's Concerns

The Petitioner raised several concerns about the NRC's program to verify security readiness through inspections and tests conducted under the OSRE program. The concerns included an observation that the NRC does not use force-on-force exercises to demonstrate security compliance at: (1) reactors that have permanently shut down; (2) non-power reactors; (3) spent fuel storage at operating reactors and reactors that have permanently shut down; and (4) operating reactors during outages where dozens of temporary workers, with minimal background checks, are allowed onsite.

On the basis of a report prepared by the UCS, the Petitioner also contends that NRC force-on-force tests have revealed serious security problems at approximately half of the operating plant sites, and that the majority of plant sites have only been tested once. The UCS report concluded that there is "little assurance that sites failing an OSRE several years ago have adequate security today." As a result, the Petitioner recommends that: (1) the NRC should conduct OSRE tests at all operating nuclear power plants, reactors that have permanently shut down with onsite spent fuel storage, and non-power reactors; (2) OSRE tests must be expanded to include spent fuel as a sabotage target; (3) OSRE tests must account for an active role by multiple insiders; (4) the frequency of the OSRE tests must be no less than once every 4 years; (5) OSRE tests should be administered by NRC headquarters rather than by its regional offices to ensure consistent quality; and (6) the NRC should cancel the proposal to allow nuclear plants to conduct their own security inspection.

NRC Response

As previously stated, 10 CFR 73.55 requires all licensees to establish a physical protection system and a security organization with the objective of providing high assurance that activities involving special nuclear material are not inimical to the common defense and security, and do not constitute an unreasonable risk to the public health and safety. The physical protection system is required to protect against the design-basis threat (DBT) of radiological sabotage.

Licensees are also required to develop physical security plans (PSPs) in accordance with 10 CFR 73.55(a), and these plans must be submitted to the NRC for approval before they are implemented. At one time, NRC regional security teams solely conducted routine inspections that were designed to evaluate compliance with commitments made in approved PSPs and to assess the capabilities of the licensees' security programs. Although these commitments were intended to ensure that the security organizations are able to protect against the DBT, the inspections carried out to evaluate compliance with these commitments did not provide for performance testing of tactical response capabilities or evaluating the effectiveness of these commitments to protect against the DBT.

As a result, the NRC established the OSRE program in 1991. The OSRE program, which is performance-based, was designed to enhance regional inspection efforts by using force-on-force exercises conducted by licensees as a method of evaluating their response capabilities, and it included the validation of licensees' target sets. A target set consists of interrelated equipment or components that if disabled or destroyed could prevent the reactor from being maintained in a safe condition. Between August 1991 and August 2001, the NRC conducted 81 OSRE inspections. During these inspections, OSRE teams identified weaknesses at 37 plants. For those plants at which a weakness was found, the attacking force

was typically able to reach a target set and simulate destruction of equipment in one of the four scenarios conducted as part of the exercise. In general, these weaknesses were attributed to deficiencies in the licensee's contingency response plan, training, or execution of the plan. No one issue dominated the weaknesses found. The staff also notes that for the 15 OSREs conducted between April 2000 and August 2001, weaknesses were identified in 9 of 59 exercises or 15% of the time; hence the attacking force was defeated 85% of the time.

The performance of licensees in OSRE exercises is sometimes mis-characterized. OSRE exercises are tough commando-style raids, designed to identify shortcomings in security personnel performance or strategy. Prior to the exercise, the attacking force is made aware of the licensee's defensive strategies and its methods and provisions for protecting target sets and critical equipment. The NRC staff is not aware of any comparable performance testing of security measures for any other type of commercial industrial facilities. Identification of a weakness during an exercise leads to immediate corrective or compensatory measures to ensure that the security programs remain effective.

Although the NRC staff maintains that the OSRE program has resulted in a higher confidence in the effectiveness of security programs throughout the industry, it believes that the industry can assume more responsibility for performance assessment of tactical response capability. As a result, the NRC formed the Safeguards Performance Assessment (SPA) Task Force in October 1998 to study the lessons learned from the OSRE program, and to develop recommendations for future tactical response evaluations.

The SPA program entails a process in which the licensee tests each key program element of its protective strategy over a 3-year period, with the licensee conducting an evaluated exercise on a triennial basis. The SPA provides for: (1) development of target sets as the basis for a protective strategy; (2) participation by each security shift in a minimum of

one annual licensee-evaluated drill to demonstrate proficiency for key security personnel; and (3) participation in a triennial NRC-evaluated exercise by a full complement of licensee personnel with duties and responsibilities directly related to implementation of the protective strategy.

The intent of periodic drills conducted under the SPA program is to ensure sustained performance of the response program over a 3-year period, followed by triennial NRC-evaluated exercises. This program would exceed the frequency of the OSRE program, which provides for an NRC assessment of each nuclear power plant every 8 years and does not include quarterly drills, as specified in NEI-99-07, to ensure sustained performance. The SPA program also includes provisions for resolving deficiencies identified through drills and exercises within the licensee's corrective action program.

Since the events of September 11, 2001, further developments related to the SPA program have been deferred pending the NRC's comprehensive review of safeguards and security programs. In addition, the NRC has not conducted any subsequent force-on-force exercises under the OSRE program because the conduct of these exercises would be a significant distraction from actual site security and could elicit inappropriate responses by armed security personnel. Also, the NRC had diverted its limited security inspection resources to staff response centers to monitor and evaluate licensees' heightened security posture. The NRC has resident inspectors at all nuclear power plants who have assisted in evaluating the licensees' implementation of the enhanced security measures implemented in response to the advisories that the NRC issued to its licensees.

The concerns and recommendations that the Petitioner raised about the current OSRE and proposed SPA programs, such as the administration, frequency, assumed threat scenarios, and types of plants (e.g., decommissioned plants and ISFSIs) within the scope of these

programs, have been included as a part of NRC's comprehensive security program review. Thus, the Petitioner should consider that the specific requests made concerning the OSRE program have, in effect, been partially granted to the extent that the concerns raised by the Petitioner are being considered within the scope of the NRC's comprehensive security review.

C. Recommendations That May Involve Rulemaking

Petitioner's Concerns

Through the information provided, the Petitioner made the following statements and recommendations that could, on their own merits, possibly constitute a petition pursuant to 10 CFR 2.802, "Petition for Rulemaking":

- Existing security regulations do not provide adequate protection against known terrorist threat capabilities. For example, the regulations do not require protection against attacks by aircraft, boats, and trucks. Therefore, the NRC should revise the design basis threat to include attacks by aircraft, boats, and trucks and ensure that all nuclear reactors are adequately protected against the revised design basis threat.
- Regulations assume that only a single insider will attempt sabotage. The events of September 11, 2001, demonstrated that terrorists may devote the time and effort necessary to place more than one individual working at a nuclear reactor site.
- The NRC assumes that its regulations governing access control and authorization are fully effective in preventing sabotage by an insider. These regulations require background checks, drug and alcohol screening, and continuing behavior observation. But while background checks and the drug and alcohol screening have resulted in individuals being denied access or having their access privileges withdrawn, the continuing behavior observation has seldom, if ever, identified a potential problem.

Thus, all individuals getting past the background checks and screenings have virtually unfettered ability to sabotage the nuclear reactor and spent fuel.

- Existing regulations governing changes to nuclear reactor facilities and their operating procedures require prior NRC approval for changes that reduce safety margins. But nuclear reactor owners routinely make changes without NRC approval even though they have not evaluated whether the proposed changes make it easier for insiders to carry out sabotage. Therefore, the NRC should require all nuclear reactor owners to formally evaluate the risk of sabotage by an insider when they make physical modifications to facilities and revise procedures.

NRC Response

The Petitioner has made a number of recommendations devised to enhance security with respect to the current DBT, access authorization requirements, and facility changes. These recommendations cover a broad spectrum of security-related issues currently being addressed by the NRC's comprehensive review of the agency's security and safeguards programs. Therefore, to the extent that the Petitioner's concerns and recommendations will be considered within the scope of the NRC's overall security review, the NRC is, in effect, partially granting the Petitioner's requests for improving nuclear power plant security.

D. Emergency Planning

1. Potassium Iodide Availability

Petitioner's Concerns

On the basis of a report prepared by the UCS, the Petitioner requested that the NRC require potassium iodide (KI) be readily available for people living in the vicinity of all nuclear reactors. The Petitioner stated that this step would ensure that people would be protected to

the fullest extent possible in the event of a successful sabotage attack against a nuclear reactor.

NRC Response

Potassium iodide is a salt, similar to table salt. Its chemical symbol is KI, and is routinely added to table salt to make it "iodized." If taken within the appropriate time and at the appropriate dosage, KI blocks the uptake of radioactive iodine by the thyroid gland, thereby reducing the risk of thyroid cancers and other diseases that might otherwise be caused by thyroid uptake of radioactive iodine that could be dispersed in a severe reactor accident.

On April 19, 2001, the NRC revised its regulations to require that States or Tribes with a population within the 10-mile emergency planning zone of commercial nuclear power plants consider including KI as a protective measure for the general public to supplement sheltering and evacuation in the unlikely event of a severe nuclear power plant accident. Concomitant with this action, the Commission decided to provide funding for an initial supply of KI for a State or Tribe that chose to incorporate KI for the general public in its emergency plans. Individual States and Tribes were given the responsibility to further decide how best to stockpile and/or distribute KI to affected localities and citizens.

Following the events of September 11, 2001, the NRC expedited its process for providing KI to the States. On December 20, 2001, the Commission showed its continued support for the KI program by announcing its intent to supply KI to requesting states within approximately 30 days.

As of May 1, 2002, 12 states: Massachusetts, Connecticut, Maryland, Vermont, Delaware, Florida, Alabama, Arizona, New York, New Jersey, New Hampshire, and Pennsylvania have requested and/or received KI tablets. Delaware and New Jersey have received their requested amounts of KI. Each state is developing an implementation program

to ensure that KI will be readily available should the need arise. Therefore, to the extent that KI will be available to the general public in the States of Delaware and New Jersey residing within 10 miles of Salem, Hope Creek, and Oyster Creek, the Petitioner's request regarding the distribution of KI has been satisfied.

2. Emergency Planning Oversight

Petitioner's Concerns

The Petitioner recommended that the NRC should direct the New Jersey Department of Emergency Management and the State Police to allow citizen stakeholder groups such as UNPLUG Salem and Jersey Shore Nuclear Watch to observe and comment upon emergency planning (EP) and evacuation drills. In addition, the Petitioner suggested that the NRC should direct the above to include nuclear terrorism as a subject of evacuation drills and emergency planning.

NRC Response

The response to a radiological emergency at a nuclear facility involves a number of interrelated functions performed by onsite and offsite components of each site's emergency response organization. The effectiveness of this organization is critical to ensure the health and safety of the public. In recognition of this important function, 10 CFR 50.47(b)(14) requires that licensees must conduct periodic drills and exercises. This regulation is further supported by Appendix E to 10 CFR Part 50, "Emergency Planning and Preparedness for Production and Utilization Facilities." Appendix E requires that EP drills and exercises must be conducted as close to actual accident conditions as practical, and must involve the principal functional areas of the licensee's emergency response capabilities.

The stated purpose for EP drills and exercises is to develop and maintain key skills, including: (1) testing the adequacy of timing and content of implementing procedures and

methods, and (2) testing emergency equipment, communication networks, and public notification systems. Appendix E further directs that: (1) the EP training program provide for the training of employees through periodic drills and exercises to ensure that employees of the licensee are familiar with their specific emergency response duties; and (2) other persons whose assistance may be needed in the event of a radiological emergency must participate in the training and drills. The licensee's emergency response training program must comprise the following categories of plant workers:

- directors and/or coordinators of the plant emergency organization
- personnel responsible for accident assessment
- control room shift personnel
- radiological monitoring teams
- fire control (fire brigades) and damage control (repair) teams
- first aid and rescue teams, and medical support personnel
- licensee's headquarters support personnel
- security personnel

In addition, a radiological orientation training program should be made available to local services personnel (e.g., local emergency services/Civil Defense, local law enforcement personnel, and local news media).

The NRC's regulations further address the need for licensees to promptly rectify problems identified during drills and exercises. This is accomplished, in part, through formal critiques conducted by licensees in order to identify any weak or deficient areas in need of correction. Consequently, licensees are expected to perform an effective performance evaluation following a drill or exercise, and NRC inspectors scrutinize the licensee's critique process. Any deficiency or observation noted by NRC Inspectors is processed through the

Significance Determination Process under the Reactor Oversight Process (ROP), and these findings will be formally documented in an Inspection Report. Inspection Reports are available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's electronic records system (ADAMS). ADAMS is accessible from the NRC Web site at: <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room).

The NRC uses inspection findings together with objective performance indicators (PIs) to assess plant performance within a regulatory framework of seven cornerstones of safety: (1) initiating events, (2) mitigating systems, (3) integrity of barriers to release of radioactivity, (4) emergency preparedness, (5) occupational radiation safety, (6) public radiation safety, and (7) physical protection. PIs and inspection findings are evaluated and given a color designation based on their safety significance. Green inspection findings or PIs indicate a very low risk significance and therefore have little or no impact on safety. White, yellow, or red inspection findings or PIs each, respectively, represent a greater degree of safety significance. The performance indicators, inspection findings, and the assessment letters describing plant performance—including emergency preparedness performance—are posted to the NRC Web site at: <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>.

The NRC and the Federal Emergency Management Agency (FEMA) are the two Federal agencies responsible for evaluating emergency preparedness at and around nuclear power plants. The NRC is responsible for assessing the adequacy of onsite emergency plans developed by the utility, while FEMA is responsible for assessing the adequacy of offsite emergency planning. Although the NRC regulates its licensees' EP programs, FEMA serves as the lead Federal agency for planning preparedness for all types of peacetime radiological emergencies. The NRC works in consultation with FEMA on a number of emergency

preparedness issues. As the lead agency, FEMA issues policy and guidance to assist State and local governments in developing and implementing their radiological emergency response plans and procedures. Much of this guidance is developed with the assistance of the Federal Radiological Preparedness Coordinating Committee (FRPCC) and its member agencies. The exercise demonstration provides an input to the review process in order for the NRC and FEMA to evaluate the state of emergency preparedness. The NRC relies on FEMA's reasonable assurance findings to determine that adequate protective measures can and will be taken in the event of a radiological emergency to protect the public health and safety.

Although citizen groups such as UNPLUG Salem and Jersey Shore Nuclear Watch, may be key stakeholders within their communities, they are not a part of the licensee's emergency response organization and do not have a stated or active emergency response role at Salem, Hope Creek, or Oyster Creek. The inclusion of non-participating individuals or groups would, thus, not contribute to the stated purpose of the drills and exercises. Therefore, the NRC is denying the Petitioners' request to direct the New Jersey Department of Emergency Management and the State Police to allow citizen stakeholders groups to observe and comment upon EP drills and exercises. Furthermore, the NRC lacks the authority to direct a State or local government agency to permit citizen groups to participate in emergency response drills or exercises.

As previously stated, current regulations require that major portions of a licensee's emergency response capabilities must be exercised. The scenarios used during EP exercises, along with minimum frequencies, are developed in order to demonstrate these specific response capabilities. The NRC staff expects that the scenarios will vary from exercise to exercise, such that all major elements of the plans and emergency response organizations are tested. The specific details of any particular scenario are best left to the participating

organizations to be mutually determined. Since nuclear power plant security is an important cornerstone in protecting public health and safety, scenarios that include security-related events, such as terrorism, would normally be included as one of the emergency plan elements to be tested.

Therefore, to the extent that terrorism is already considered among other possible EP drill scenarios tested, the Petitioner should consider the request, that the NRC direct the New Jersey Department of Emergency Management and the State Police to include nuclear terrorism as a subject of EP exercises and drills, is partially granted.

E. Availability of Information to the Public

Petitioner's Concerns

The Petitioner requested that NRC shall agree to reopen its entire web site to stakeholder groups like UNPLUG Salem and Jersey Shore Nuclear Watch, with acceptable means of security involved.

NRC Response

Soon after September 11, 2001, the NRC withdrew information that could be sensitive or useful to potential terrorists from its public web site. On December 3, 2001, the NRC deployed Release 1 of its redesigned web site, and, since that time, has gradually added new information to the web site as the staff continues to review potential sensitive information. The NRC will continue to make additional information available as it completes more reviews. The NRC considers all members of the public to be stakeholders in its activities, and appreciates the public's patience as the agency proceeds with the task of rebuilding its web site. However, in our continued effort to ensure the safeguarding of nuclear material and safety at our nation's nuclear power plants, the NRC is denying the Petitioner's request for special access to sensitive information by public interest groups.

IV. Conclusion

The NRC staff notes that the Petitioner raised policy questions concerning public health and safety associated with the possibility of terrorist activity directed at the four nuclear power plants located in the State of New Jersey. The NRC staff maintains that the immediate closure of Salem, Hope Creek, and Oyster Creek is not necessary to provide adequate protection of public health and safety. The staff further considers that, in conjunction with the response actions of other various Federal agencies, current regulations, as augmented by the interim compensatory security measures set forth by Orders dated February 25, 2002, are prudent interim measures to adequately address the generalized high-level threat environment in a consistent manner throughout the nuclear industry.

The NRC has decided to partially grant the Petitioner's request to the extent that it ordered an immediate security upgrade at all nuclear power plants located in the State of New Jersey on February 25, 2002. The Orders required that all 104 commercial nuclear power plants in the United States implement interim compensatory security measures for the generalized high-level threat environment. As previously stated, the Orders were effective immediately.

These actions are interim and the basis for the Orders is the need to take prudent actions to address security requirements in the present generalized high-level threat environment. These Orders do not obviate the need for licensees to continue to meet the objectives of Security Level III, as described in NRC Information Notice 98-35, and maintain the effectiveness of existing security measures taken in response to the events of September 11. The requirements will remain in effect pending notification from the Commission that a significant change in the threat environment has occurred, or until the Commission determines

that other changes are needed following a more comprehensive reevaluation of current safeguards and security programs, presently underway.

Some of the requirements formalize a series of security measures that NRC licensees took in response to advisories that the NRC issued in the aftermath of the terrorist attacks on September 11, 2001. The Orders also spell out additional security enhancements, which emerged from the ongoing comprehensive security review.

A copy of this Decision will be filed with the Secretary of the Commission so that the Commission may review it in accordance with 10 CFR 2.206(c). As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

Dated at Rockville, Maryland, this day of 2002.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

Enclosures: 1. Comments on Proposed Director's Decision
2. NRC staff response to Petitioner's Comments

PROPOSED