

# 03-4313

UNITED STATES COURT OF APPEALS for the SECOND CIRCUIT

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Riverkeeper, Inc., :  
Petitioner, :  
: :  
: :  
: :  
- against - :  
SAMUEL J. COLLINS, Director, Office of Nuclear :  
Reactor Regulation; DR. WILLIAM TRAVERS, :  
Executive Director for Operations of the Nuclear :  
REGULATORY COMMISSION; the UNITED STATES :  
OF AMERICA; ENTERGY NUCLEAR INDIAN :  
POINT 2 LLC; ENTERGY NUCLEAR INDIAN :  
POINT 3, LLC; and ENTERGY NUCLEAR :  
OPERATIONS, INC. :  
Respondents. :  
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On Petition for Review of a Decision of the Nuclear Regulatory Commission

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**Special Appendix**

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## TABLE OF CONTENTS

Notice of Issuance of Director's Decision Under 10 C.F.R. § 2.206.....	SPA-1
<i>In the Matter of Entergy Nuclear Operations, Inc., DD-02-06, Director's Decision Under 10 C.F.R. § 2.206.....</i>	SPA-6
42 U.S.C. § 2201.....	SPA-33
<i>In the Matter of Private Fuel Storage L.L.C., CLI-02-25, 56 N.R.C. 340.....</i>	SPA-40
<i>In the Matter of Duke Energy Corp., CLI-02-26, 56 N.R.C. 358.....</i>	SPA-55

U.S. NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-003, 50-247, AND 50-286LICENSE NOS. DPR-5, DPR-26, AND DPR-64ENTERGY NUCLEAR OPERATIONS, INC.NOTICE OF ISSUANCE OF DIRECTOR'S DECISION UNDER 10 CFR 2.206

Notice is hereby given that the Director, Office of Nuclear Reactor Regulation, has issued a Director's Decision with regard to a petition dated November 8, 2001, filed by Riverkeeper, Inc., et al., hereinafter referred to as the "Petitioners." The petition was supplemented on December 20, 2001. The petition concerns the operation of the Indian Point Nuclear Generating Unit Nos. 1, 2, and 3 (IP1, 2, and 3).

The petition requested that the U.S. Nuclear Regulatory Commission (NRC): (1) order the licensee to suspend operations, revoke the operating license, or adopt other measures resulting in a temporary shutdown of IP2 and 3; (2) order the licensee to conduct a full review of the facility's vulnerabilities, security measures, and evacuation plans; (3) require the licensee to provide information documenting the existing and readily attainable security measures which protect the IP facility against land, water, and airborne terrorist attacks; (4) immediately modify the IP2 and 3 operating licenses to mandate certain specified security measures sufficient to protect the facility; and (5) order the revision of the licensee's emergency response plan and Westchester County's radiological emergency response plan (RERP) to account for possible terrorist attacks and prepare a comprehensive response to multiple, simultaneous attacks in the region, which could impair the efficient evacuation of the area. In addition, the Petitioners requested that the NRC take prompt action to permanently retire the facility if, after conducting a full review of the facility's vulnerabilities, security

measures, and evacuation plans, the NRC finds that the IP facility cannot be adequately protected against terrorist threats. Further, separately from the above issues, the Petitioners requested that the NRC order the licensee to undertake the immediate conversion of the current water-cooled spent fuel storage system to a dry-cask system.

As the basis for the November 8, 2001, request, the Petitioners stated that: (1) the IP facility is a plausible target of future terrorist actions, (2) actual threats against nuclear power plants have been documented, (3) IP is currently vulnerable to a catastrophic terrorist attack, (4) a terrorist attack on IP2 and 3 would have significant public health, environmental, and economic impacts, and (5) the Westchester County's RERP is inadequate because it is based on erroneous assumptions.

The NRC sent a copy of the proposed Director's Decision to the Petitioners and to the licensee for comment on May 16, 2002. The Petitioners responded with comments on August 9, 2002, and the licensee had no comments. The Petitioners' comments and the NRC staff's response to them are included with the Director's Decision.

The Director of the Office of Nuclear Reactor Regulation has determined that the request to order the licensee to suspend operations, revoke the operating license, or adopt other measures resulting in a temporary shutdown of IP2 and 3, be denied. The reasons for this decision, along with the reasons for decisions regarding the remaining Petitioners' requests, are explained in the Director's Decision pursuant to 10 CFR 2.206 (DD 02-06), the complete text of which is available in the Agencywide Documents Access and Management System (ADAMS) for inspection at the Commission's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, and from the NRC Web site (<http://www.nrc.gov/reading-rm.html>).

As stated in its letter to the Petitioners on December 20, 2001, the NRC has, in effect, partially granted the Petitioners' request for an immediate security upgrade at IP2 and 3. On September 11, 2001, the NRC took action to enhance security at all nuclear facilities, including IP2 and 3. Immediately after the attacks, the NRC advised all nuclear power plants to go to the highest level of security, which they promptly did. These facilities have remained at a heightened security level since that time. The NRC continues to work with other Federal agencies and is monitoring relevant information it receives on security matters at nuclear facilities. The NRC is prepared to make immediate adjustments as necessary to ensure adequate protection of the public.

The NRC issued Orders on February 25, 2002, to all commercial nuclear power plants to implement interim compensatory security measures for the current threat environment. Some of the requirements made mandatory by the Orders formalized the security measures that NRC licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11 terrorist attacks. The Orders also imposed additional security enhancements, which have emerged based on the NRC's assessment of the current threat environment and its ongoing security review. The requirements will remain in effect until the NRC determines that the level of threat has diminished, or that other security changes are needed. The specific actions are sensitive, but include increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances, enhanced coordination with law enforcement and military authorities and more restrictive site access controls for all personnel. Regarding the Petitioners' request for specific information about the security measures, the NRC's policy is to not release safeguards information to the public. Thus, this request is denied.

The NRC in its February 25, 2002, Orders also directed licensees to evaluate and address potential vulnerabilities to maintain or restore cooling to the core, containment, and spent fuel pool and to develop specific guidance and strategies to respond to an event that damages large areas of the plant due to explosions or fires. These strategies are intended to help licensees to identify and utilize any remaining onsite or offsite equipment and capabilities. If NRC's ongoing security review recommends any other security measures, the NRC will take appropriate action.

The NRC denies the Petitioners' request to mandate certain security measures, as specified by the Petitioners, for the protection of the facility, such as a system to defend a no-fly zone. The NRC considers that the collective measures taken since September 11, 2001, provide adequate protection of public health and safety.

The NRC finds that the existing emergency response plans are flexible enough to respond to a wide variety of adverse conditions, including a terrorist attack. The NRC advisories and the Orders issued since September 11, 2001, directed licensees to take specific actions deemed appropriate to ensure continued improvements to existing emergency response plans. The Petitioners' concern that the emergency plans do not contemplate multiple attacks on the infrastructure is alleviated by the fact that the emergency plans are intended to be broad and flexible enough to respond to a wide spectrum of events. Thus, the Petitioners' request that the onsite and offsite emergency plans be revised to account for possible terrorist attacks has been, in part, granted.

The NRC finds that the current spent fuel storage system and the security provisions at IP adequately protect the spent fuel. Thus, the Petitioners' request to order the installation of a dry-cask storage facility is denied. However, the licensee has stated its intention to add such a facility.

A copy of the Director's Decision will be filed with the Secretary of the Commission for the Commission's review in accordance with 10 CFR 2.206 of the Commission's regulations. As provided for by this regulation, the Director's Decision will constitute the final action of the

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

In the Matter of	)	Docket Nos. 50-003, 50-247,
	)	and 50-286
ENTERGY NUCLEAR OPERATIONS, INC.	)	License Nos. DPR-5, DPR-26,
	)	and DPR-64
(Indian Point Nuclear Generating Unit	)	(10 CFR 2.206)
Nos. 1, 2, and 3)	)	

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DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. Introduction

By letter dated November 8, 2001, as supplemented on December 20, 2001, Riverkeeper, Inc., et al. filed a Petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206 (10 CFR 2.206). The Petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) take the following actions: (1) order the licensee to suspend operations, revoke the operating license, or adopt other measures resulting in a temporary shutdown of the Indian Point Nuclear Generating Unit Nos. 2 and 3 (IP2 and 3); (2) order the licensee to conduct a full review of the facility's vulnerabilities, security measures, and evacuation plans; (3) require the licensee to provide information documenting the existing and readily attainable security measures which protect the IP facility against land, water, and airborne terrorist attacks; (4) immediately modify the IP2 and 3 operating licenses to mandate certain specified security measures sufficient to protect the facility; and (5) order the revision of the licensee's emergency response plan and Westchester County's Radiological Emergency Response Plan (RERP) to account for possible terrorist attacks and prepare a comprehensive response to multiple, simultaneous attacks in the region, which could impair the efficient evacuation of the

Commission 25 days after the date of the decision, unless the Commission, on its own motion, institutes a review of the Director's Decision in that time.

Dated at Rockville, Maryland, this 18th day of November 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

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Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

area. In addition, the Petitioners requested that the NRC take prompt action to permanently retire the facility if, after conducting a full review of the facility's vulnerabilities, security measures, and evacuation plans, the NRC finds that the IP facility cannot be adequately protected against terrorist threats. Further, separately from the above issues, the Petitioners requested that the NRC order the licensee to undertake the immediate conversion of the current water-cooled spent fuel storage system to a dry cask system. The bases for the requests are that (1) the IP facility is a plausible target of future terrorist actions, (2) actual threats against nuclear power plants have been documented, (3) IP is currently vulnerable to a catastrophic terrorist attack, (4) a terrorist attack on IP2 and 3 would have significant public health, environmental, and economic impacts, and (5) the Westchester County's RERP is inadequate because it is based on erroneous assumptions.

In a letter dated December 20, 2001, the NRC informed the Petitioners that their request for a full review of the facility's vulnerabilities, security measures, and evacuation plans was, in effect, partially granted, because the NRC had already taken action to require licensees to enhance security and the Commission had directed the staff to undertake a comprehensive review of plant security. In light of the defense-in-depth concept incorporated into the facility's design and the heightened security measures implemented in response to the events of September 11, 2001, the NRC did not consider the immediate closure of IP2 and 3 to be necessary to provide adequate protection of the public health and safety.

In its December 20, 2001, letter, the NRC told the Petitioners that a public meeting or telephone conference with the NRR Petition Review Board was not necessary or appropriate at the time since the Petitioners' request was already being treated as a 2.206 Petition and because of the possible sensitive nature of the information. Under normal circumstances, the NRC would follow Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206

Petitions," when reviewing requests for enforcement action; however, since the Petition involved possible sensitive information, the NRC deferred application of certain public aspects of the MD 8.11 process pending further developments of the NRC's security review.

On December 20, 2001, the Petitioners provided a declaration from Dr. Gordon Thompson dated December 20, 2001, and requested that the declaration be included as a supplement to their Petition. The NRC treated the declaration as a supplement to the Petition. Although the NRC had initially withheld the Petition from public distribution pending Commission guidance about public dissemination of potential security information, the NRC has now determined that the Petition can be made publicly available. Therefore, the documents are available in the NRC's Agencywide Documents Access and Management System (ADAMS) for inspection at the Commission's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records are also accessible from the ADAMS Public Electronic Reading Room on the NRC Web site <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or have problems in accessing the documents located in ADAMS should contact the NRC PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Entergy Nuclear Operations, Inc. (the licensee), responded to the Petition on February 11, 2002, and the staff considered the information in reviewing the Petition.

The NRC sent a copy of the proposed Director's Decision to the Petitioners and to the licensee for comment on May 16, 2002. The Petitioners responded with comments on August 9, 2002. The licensee did not provide comments. The comments and the NRC staff's response to them are enclosed with the final Director's Decision.



## II. Discussion

### Full Review of Vulnerabilities and Security Measures

In the Petition, as supplemented, the Petitioners requested that the NRC order the licensee to conduct a full review of the facility's vulnerabilities and security measures. The Petitioners stated that the reactor, spent fuel, control rooms, and electrical switching were vulnerable to terrorist attack. The Petitioners' request was based on the following assertions: (1) IP2 and 3 are a plausible target because of the population density of the surrounding area and the proximity to New York City, (2) news releases have documented threats against nuclear facilities, (3) an operational plant is more vulnerable, (4) an attack could damage cooling to the spent fuel pools (SFPs) and/or drain the pools, leading to fuel cladding oxidation, fire, and release of radioactive materials, and (5) the design-basis threat did not consider a terrorist attack. The Petitioners also stated that the facility is not currently equipped to defend itself from terrorist attacks, the licensee has a poor record in security and emergency preparedness, and nuclear industry security forces have repeatedly failed to repel mock attacks. The Petitioners also believe that an attack on an operating reactor would force plant operators to face competing interests between safe operations and physical security.

### Staff's Response

The Petitioners' request for a review of vulnerabilities and security measures has been partially granted based on actions initiated by the NRC following the events of September 11, 2001. The NRC concludes that Indian Point has sufficient security measures in place to defend itself from a broad spectrum of potential terrorist attacks. The basis for these conclusions is discussed below.

The NRC and its licensees have dealt with the issue of protection of licensed facilities against sabotage or attack for a number of years. Security against sabotage has been an

important part of the NRC's regulatory activities, with defense-in-depth as the guiding design and operating principle. NRC regulations ensure that nuclear power plants 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, physical security protective features, professional security forces, access authorization requirements, and NRC regulatory oversight provide an effective deterrence against potential terrorist activities that could target equipment vital to nuclear safety.

The NRC requirements for the defense of nuclear power plants are defined, in part, by the "design basis threat" (DBT). The DBT is specified in general terms in 10 CFR 73.1 and in greater detail in sensitive documents. The DBT was prepared by safeguards experts on the basis of information from the Department of Energy and the intelligence community about terrorist-related information both abroad and in the United States. The DBT is a reasonable characterization of an adversary force against which nuclear power plant licensees must design their physical protection systems and response strategies.

In 10 CFR Part 73, "Physical Protection of Plants and Materials," the NRC provides detailed requirements designed to protect nuclear power plants against acts of radiological sabotage, prevent the theft of special nuclear material, and protect safeguards information against unauthorized release. The requirements of Part 73 are summarized as follows:

1. The licensee permits only authorized activities and conditions within established protected areas, material access areas, and vital areas by using controls and procedures, defined boundaries, detection, communication and surveillance subsystems, and by establishing schedules of authorized operations.
2. The licensee prevents unauthorized access of persons, vehicles and objects into protected and vital areas by using detection and barrier systems.

3. The licensee provides for authorized access and assures detection of and response to unauthorized penetrations of the protected area.
4. The licensee permits only authorized control and movement of special nuclear material.
5. The licensee provides response capabilities to assure that NRC requirements are achieved.
6. The licensee maintains a well-equipped and highly trained security organization.
7. The licensee installs physical barriers to protect vital equipment and material.
8. The licensee installs detection, surveillance, and alarm systems capable of sensing unauthorized penetrations of isolation zones and ensuring a prompt response action.
9. The licensee provides access authorization (e.g., background checks, routine worker screening, badging, etc.) programs and procedures.
10. The licensee ensures that all guards and armed response individuals have the ability to communicate with a continuously manned alarm station.
11. The licensee establishes an effective testing and maintenance program to verify that all physical barriers, and detection and alarm systems are capable of meeting NRC requirements.

Licensees are also required to develop specific physical security plans (PSPs) and submit these plans to the NRC for approval before implementing them. The NRC conducts periodic inspections of the licensees' security programs. Performance testing of physical security has been conducted by the NRC staff through Operational Safeguards Response Evaluations. In addition, the licensees are required to establish a liaison with local law enforcement organizations for added assistance in the event of an attack.

Shortly after September 11, 2001, the NRC recognized the need to reexamine the basic assumptions underlying the current nuclear facility security and safeguards programs.

Chairman Richard A. Meserve, with the full support of the Commission, directed the staff to undertake a comprehensive review of the NRC's security regulations and programs. This is an ongoing review and as results become available, they will be evaluated and, if appropriate, incorporated into NRC's regulatory processes. The review includes consultation with the Office of Homeland Security, the Federal Bureau of Investigation (FBI), the Departments of Transportation and Energy, and others. The NRC's participation with these agencies allows the NRC to communicate its actions to other Federal agencies, ensuring an appropriate and balanced response throughout the nation's entire critical energy infrastructure.

The attacks of September 11, 2001, were unprecedented and required the NRC and its licensees to reevaluate the type of assault that might be mounted against a nuclear power plant. As a result, on February 25, 2002, the NRC issued Orders to all operating power reactor facilities to require that certain interim compensatory security measures be taken beyond those called for by current regulations. Although licensee responses to the prior NRC Threat and Safeguards Advisories provided reasonable assurance of adequate protection of public health and safety, the NRC determined that certain compensatory measures were prudent to address the current threat environment in a consistent manner throughout the nuclear reactor industry. 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 and added certain security enhancements. For security reasons, the details of these interim compensatory measures cannot be made public. Some of the specific measures implemented by the licensees in response to the advisories and interim compensatory measures included increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances, enhanced coordination with law enforcement and military authorities and more restrictive site

access controls for all personnel. The Orders also directed licensees to evaluate and address potential vulnerabilities to maintain or restore cooling to the core, containment, and spent fuel pool and to develop specific guidance and strategies to respond to an event resulting in damage to large areas of the plant due to explosions or fires. These strategies are intended to help identify and utilize any remaining equipment and capabilities to maintain or restore core, containment, and spent fuel pool cooling, including both onsite and offsite resources. These requirements will remain in effect until the NRC notifies licensees that the threat environment has significantly changed or until the NRC determines, as a result of the ongoing comprehensive reevaluation of current safeguards and security programs, that other changes are needed.

The Petitioners are correct that the DBT did not consider a terrorist attack such as occurred on September 11, 2001. As part of the comprehensive review of safeguards vulnerabilities, the NRC will reexamine the DBT and modify it as appropriate. As in the past, the NRC will coordinate its evaluation with various other Government agencies and discuss resource commitments with the military, the States, and local law enforcement. If a credible vulnerability is identified that is not addressed by another Federal agency, the NRC staff will consider additional physical protection, material control, and other appropriate requirements.

Although the NRC cannot rule out the possibility of future terrorist activity directed at a licensee's site before implementing any further enhancements to its safeguards programs, the NRC believes that these facilities can continue to operate safely.

The staff also recognizes that design and construction of commercial nuclear power plants could contribute to their survivability in the event of an attack not considered by the current design-basis threat, such as an aircraft impact. Nuclear power plant design is based on defense-in-depth principles, and includes many features to protect public health and safety.

For example, reinforced containment buildings and redundant safety systems would help trained operators prevent or limit the release of radioactive material in the event of a terrorist attack. In addition, NRC requirements for coping with fires and station blackout (loss of offsite and onsite power) provide added capability to bring the plant to safe shutdown conditions assuming such aspects as loss of the control room or failure of the emergency diesel generators.

The NRC requires careful background checks (to minimize the risk of insider assistance) and facility access controls, delay barriers, and intrusion detection systems (to detect potential attackers). The NRC also requires licensees to be able to respond with force to a group of armed attackers, using protective strategies involving layers of defense. Therefore, the NRC believes that the facilities are adequate to withstand many of the challenges from safety or safeguards events, such as armed assaults.

In summary, a robust security program existed at IP prior to the events of September 11, 2001. Since September 11, the NRC has initiated a review of nuclear facility security and safeguards programs, and has taken action to enhance security in the interim.

#### Full Review of Radiological Emergency Preparedness and Evacuation Planning

In its December 20 supplement, the Petitioners cited a prior NRC study prepared by Sandia National Laboratory that discussed source terms and potential radiological consequences of an attack on IP. The Petitioners were concerned about the economic and environmental consequences of an attack causing a massive release of radioactive materials.

Regarding emergency preparedness planning, the Petitioners believe that the IP onsite and offsite emergency plans did not envision an act of terrorism of the magnitude seen on September 11, 2001. Additionally, the Petitioners stated that the Westchester County RERP is

inadequate and does not consider the possibility of multiple simultaneous attacks on vital infrastructure relied on in the current plan.

Staff's Response

The NRC finds that the emergency preparedness plans and evacuation planning at IP2 and 3 are appropriate to use in response to a radiological emergency, including a release caused by a terrorist attack. The basis for this conclusion is discussed below.

The overall objective of emergency response planning is to minimize the dose to the public for a spectrum of accidents that could produce offsite doses in excess of protective action guidelines. No single accident sequence should be isolated as the one for which to plan because each accident could have different consequences, both in nature and degree. Emergency plans are intended to be broad and flexible enough to respond to a wide spectrum of situations, including various initiating events, sources of release, types of nuclides released, and magnitude, timing, or duration of release.

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 evaluating the adequacy of onsite emergency plans developed by the utility, while FEMA is responsible for assessing the adequacy of offsite (State and local) radiological emergency planning and preparedness activities. The NRC requires licensees to have detailed procedures for responding to events, making timely notifications to appropriate authorities, and providing accurate radiological information. For the offsite plans, the NRC relies on FEMA's findings in determining whether there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The licensee, local and county emergency response officials, and State emergency management officials discuss and agree on the facility's emergency response plan.

NRC regulations require the establishment of a plume exposure pathway emergency planning zone (EPZ) about 10 miles in radius and an ingestion exposure pathway EPZ about 50 miles in radius around each nuclear power plant site.

In the unlikely event of a severe reactor accident with offsite consequences, NRC guidance calls for the prompt evacuation of the population within a 2-mile radius of the plant and about 5 miles in the downwind direction. The guidance states that these protective actions would be expanded, as necessary, based on further assessment of plant conditions, dose assessment, and field monitoring information. At longer distances, shelter is usually the appropriate protective action, followed by relocation of segments of the population, if warranted by the results and analysis of radiological measurements taken in the field. The main protective action planned for the 50-mile EPZ is protection of the public from the ingestion of contaminated food and water. It is considered extremely unlikely that evacuation would be required at a distance of 50 miles even after the most severe accident. The planning established for the 10-mile and 50-mile EPZs, the decreasing consequences and increasing time available for taking protective actions as the distance from the plant increases, and the availability of monitoring data on which to base protective action decisions provide assurance that appropriate protective actions would be taken to protect the population within 50 miles of a site.

NRC regulations also require that the applicant for a nuclear power reactor operating license provide an analysis of the time required to evacuate and take other protective actions within the plume exposure pathway EPZ. This analysis is referred to as the "evacuation time estimate" (ETE). There are no preset minimum evacuation times that a nuclear power plant site must meet. However, the NRC expects that the ETEs for a site are a reasonably accurate reflection of the time it would take to evacuate the site environs under normal and adverse

conditions. ETEs are mostly used to identify potential traffic bottlenecks so that appropriate traffic control plans can be developed. Nuclear power reactor licensees are expected to review and revise their ETEs for their sites. The revisions must take into account changes in population, road capacities, potential traffic impediments, and other factors affecting the ETEs. The ETEs are assessment tools used by decision makers for determining whether evacuation is the preferred protective action option for the general public under specific accident and offsite conditions.

On August 1, 2001, the NRC issued Regulatory Issues Summary (RIS) 2001-16, "Update of Evacuation Time Estimates," to all holders of operating licenses for nuclear power plants. In this RIS, the NRC alerted licensees of the possible need to update ETEs as a result of the 2000 Census. The licensee is currently preparing a new ETE report for IP2 and 3.

FEMA has established the Radiological Emergency Preparedness Program to (1) ensure that the health and safety of citizens living around commercial nuclear power plants can be adequately protected in the event of a nuclear power plant accident, (2) inform and educate the public about radiological emergency preparedness, and (3) make findings and determinations as to the adequacy of State and local plans and the capability of State and local governments to effectively implement these plans and preparedness measures. Federal agencies also have plans in place to coordinate their response activities and share their resources in support of State and local officials during an emergency. Coordination of activities includes joint planning and training sessions and exercise participation. Emergency plans are continually improved based on experience gained through plan implementation and as a result of exercises, drills, and actual events.

In late January 2002, the State of New York issued its annual letter of certification to FEMA. By this letter, the State informed FEMA that specific preparedness activities have been

completed including training and the updating of State and local plans. However, the updating of State and local plans is an ongoing activity. The NRC staff understands that the State and counties have addressed the adequacy of evacuation plans through their required review process in preparation for the exercise conducted in September 2002 and, in doing so, continue to review evacuation-related procedures in light of changes in demographics and conditions. FEMA's specific findings on the exercise will be issued later this year, but the preliminary assessment indicates that the offsite emergency plans are adequate to protect public health and safety.

The Petitioners refer to the 1982 Sandia National Laboratory (SNL) Report, "Calculation of Reactor Accident Consequences" (CRAC-2 Report), and cite this report as a basis for concern that a terrorist attack could result in a massive release of radioactive materials. The reactor siting studies in the CRAC-2 Report were performed as part of research on the sensitivity of various plant siting parameters. The studies used generic postulated releases of radioactivity from a spectrum of severe (core melt) accidents, independent of the probabilities of the event occurring or the impact of mitigation mechanisms. The studies were never intended to be realistic assessments of accident consequences. The estimated deaths and injuries resulted from assuming the most adverse condition for each parameter in the analytical code. In the cited studies, the number of resulting deaths and injuries also reflected the assumption that no protective actions were taken for the first 24 hours. The studies did not, and were never intended to, reflect reality or serve as a basis for emergency planning. The CRAC-2 Report analyses used more simplistic models than current technologies. The two basic conclusions from the SNL siting studies were that the mean estimated number of health effects from the assumed releases for all reactor sites varied by up to more than 4 orders of magnitude and that the financial costs of the releases were dominated by clean-up costs and

replacement power costs. The SNL studies provided a useful measure to compare sites, not to analyze plant-specific accident consequences.

Regarding the Petitioners' assertion that the emergency plans do not contemplate multiple attacks on the infrastructure (i.e., roads, bridges, transportation, communications, etc.), the NRC finds that the existing emergency response plans allow considerable flexibility to respond to a wide variety of adverse conditions, including the results of a terrorist attack. As previously discussed in this Director's Decision, the NRC considers that commercial nuclear power plants have sufficient security measures in place to defend against a broad spectrum of potential terrorist threats, thereby precluding the release of radioactive material to the environment. If a terrorist attack inflicted damage on a nuclear plant, the redundant design features inherent in the plant, and the high level of training accorded the plant staff, would likely result in actions being taken by the plant staff to prevent or minimize the release of radioactive material. In the unlikely event of a significant release of radioactive material, for whatever reason, the emergency response plans provide for protective actions for the surrounding population. While the emergency response plans provide alternative actions in the event of some failures of the local infrastructure, there are limits to the degree to which it is reasonable to assume that infrastructure components are unavailable. The responsibility to preclude the large scale and resource intensive effort that would be required for a successful terrorist attack on multiple targets, rests with agencies of the Federal government. The NRC considers the actions of various intelligence and law enforcement agencies, combined with the actions of the Department of Defense, to provide assurance that a successful large scale terrorist attack is unlikely. Additionally, the NRC advisories and the Orders issued since September 11, 2001, directed licensees to take specific actions to improve existing emergency response plans, including heightened coordination with local, State, and Federal authorities. In

summary, the NRC concludes that emergency preparedness plans and evacuation planning are routinely revised and updated, and are appropriate to use in response to a radiological emergency, including a release caused by a terrorist attack.

Information about Security Measures to Protect Against Terrorist Attacks

The Petitioners requested that the NRC require the licensee to provide information documenting the existing and readily attainable security measures which provide IP with protection against land, water, and airborne terrorist attacks. This information should provide sufficient basis for the NRC to determine that physical barriers, intrusion alarms, and other measures are in place or constructed and are sufficient to meet realistically expected threats.

Staff's Response

As previously discussed, the NRC and its licensees have taken a number of steps since September 11, 2001, to increase security at NRC-licensed facilities, including safeguards advisories. At IP, the licensee's security force was augmented by the New York State Police and the National Guard (including Hudson River patrols) and local law enforcement personnel.

The NRC issued Orders on February 25, 2002, to all commercial nuclear power plants to implement interim compensatory security measures for the current threat environment. Some of the requirements made mandatory by the Orders formalized the security measures that NRC licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11 terrorist attacks. The Orders also imposed additional security enhancements, which have emerged based on the NRC's assessment of the current threat environment and its ongoing security review. The requirements will remain in effect until the NRC determines that the level of threat has diminished, or that other security changes are needed. The specific actions are sensitive, but include increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances, enhanced coordination with law enforcement and military authorities and more restrictive site access controls for all personnel. The Orders also require additional security measures pertaining to the owner-controlled land outside of the plants' protected areas. Currently, the New York State Naval Militia provides security measures to detect and deter watercraft access from entering the exclusion area around the IP plants.

In its report on security, the State of New York Office of Public Security (OPS) provided recommendations to enhance security at IP. Many of the measures suggested have been implemented by the licensee and others are currently under advisement. The measures are

recommendations by OPS to further enhance security and are not requirements in current NRC regulations. In response to the NRC Orders of February 25, 2002, the licensee provided information, that taken in conjunction with other sources of security information, resulted in the NRC finding the licensee's security posture to be appropriate under the current circumstances.

The Petitioners additionally seek specific details of security measures in place to respond to the potential for terrorist attacks. The NRC's policy is to withhold safeguards information from the public. Therefore, this request is denied.

**Mandate Security Measures Sufficient to Protect the Facility**

The Petitioners requested the NRC to mandate, at a minimum, the following security measures sufficient to protect the facility:

1. Obtainment of a permanent no-fly zone from the Federal Aviation Administration (FAA) in the air space within 10-nautical miles of the IP facility.
2. A defense and security system sufficient to protect and defend the no-fly zone.
3. A defense and security system sufficient to protect the entire facility, including the containment and spent fuel storage buildings, control room and electrical equipment.

**Staff's Response**

In the aftermath of September 11, 2001, the Federal government took a number of steps to improve aviation security and minimize the threat of terrorists using airplanes to damage facilities critical to our nation's infrastructure. The Commission views that the efforts associated with protecting our nation from terrorist attacks by air should be directed toward enhancing security at airports and on airplanes. Thus, the Commission endorses the prompt response by Congress to strengthen aviation security under the Aviation and Transportation Security Act of 2001, because this legislation provides for improved protection against air attacks on all industrial facilities, both nuclear and non-nuclear. The NRC further supports the

steps taken by the FAA to improve aircraft security, including enhanced passenger and baggage screening, strengthening of cockpit doors, and the Air Marshal program. The U.S. intelligence community and various Federal law enforcement agencies have also increased efforts to identify potential terrorists and prevent potential attacks before they occur. For example, the FAA and Department of Defense have acted more than once to protect airspace above nuclear power plants from what were thought to be credible threats against certain specific sites. These potential threats were later judged to be non-credible.

The NRC is also reviewing measures to bolster defenses and to establish new antiterrorism strategies in a thorough and systematic manner. The NRC is taking a realistic and prudent approach toward assessing the magnitude of the potential threat and the strength of licensee defenses.

NRC licensees must defend nuclear power plants against the DBT. September 11 showed that the NRC and its licensees must reevaluate the scope of potential assaults of all types. However, there are limits to what can be expected from a private guard force, even assisted by local law enforcement. Even if it is determined that nuclear power plants should be defended against aircraft attack, the NRC cannot expect licensees to acquire and operate antiaircraft weaponry. Protection against this type of threat may be provided by other means within the Federal government.

In summary, the Petitioner's request is denied because the NRC considers that the collective measures taken since September 11, 2001, provide adequate protection of public health and safety.

#### Dry-Cask Spent Fuel Storage System

The Petitioners requested that the NRC order the licensee to immediately convert the current spent fuel storage from water-cooled SFPs to a dry-cask storage system in a bunkered

structure. As the basis for the request, the Petitioners state that this action would reduce the long-term risk of potential exothermic oxidation in the existing fuel storage facility. The Petitioners state that the NRC has never established that the spent fuel storage facility at IP is secure against foreseeable attacks nor can the NRC be certain that the spent fuel storage facility is sufficiently sound to preclude the possibility of a spent fuel fire in the event of an airborne, land, or water-based assault. The Petitioners' concerns were based, in part, on information in an NRC report, "Final Technical Study of Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants," dated October 2000, and on the Petitioners' evaluation of the consequences of a terrorist attack on the spent fuel pool buildings. In their December 20, 2001, supplement, the Petitioners state that the NRC has not performed an environmental impact statement or probabilistic risk analysis assuming all modes of water loss from the SFPs, including terrorist attack, and the Petitioners further discuss the probability and consequences of exothermic oxidation of the spent fuel cladding.

Staff's Response

The NRC staff presently concludes that spent fuel can be safely stored at the IP reactor site in the current system of SFPs and therefore, the Petitioners' requests are denied. Although the spent fuel storage buildings at IP are not as hardened as the reactor containment structures, the SFPs themselves are robust, and relatively small structures, that are partially below ground level. The spent fuel is stored in racks resting on the floor of the pools and is covered by more than 20 feet of water. The pools are designed to prevent a rapid loss of water with the structure intact, and the pool water level and cooling system are monitored and alarmed in the control rooms. Thus, the response time for events involving the SFP is significantly longer than for other event scenarios. It is also easier to add water to the SFP from various sources because it is an open pool. The robust design and small size of the

pools minimize the likelihood that a terrorist attack would cause damage of a magnitude sufficient to result in an offsite release of radioactive material. Further, offsite resources can be brought onsite to assist the response to an event.

When the NRC staff completes its reevaluation of the physical security requirements, the NRC will be able to judge whether modifications to the SFP structures and enclosures are warranted and whether additional safeguards measures should be established. If so, the NRC will act accordingly. In the meantime, the NRC has issued Orders to all nuclear power plants requiring certain interim compensatory measures to augment security and strengthen mitigation

strategies. The SFPs are within the protected area of the facility and therefore protected from certain external threats under the security provisions identified in the PSPs.

During the NRC review of the transfer of the licenses for IP1 and 2, the licensee indicated that it was evaluating the possible construction of an independent spent fuel storage facility. In a public meeting on March 14, 2002, the licensee stated that it was expediting its engineering review for this facility.

### III. Conclusion

As stated in its letter to the Petitioners on December 20, 2001, the NRC has, in effect, partially granted the Petitioners' request for an immediate security upgrade at IP2 and 3. On September 11, 2001, the NRC took action to enhance security at all nuclear facilities, including IP2 and 3. Immediately after the attacks, the NRC advised all nuclear power plants to go to the highest level of security, which they promptly did. These facilities have remained at a heightened security level since. The NRC continues to work with other Federal agencies and is monitoring relevant information it receives on security matters at nuclear facilities. The NRC is prepared to make immediate adjustments as necessary to ensure adequate protection of the public.

On February 25, 2002, the NRC issued Orders to IP2 and 3 and all other operating commercial nuclear power plants to implement interim compensatory security measures for the

high-level threat environment. Some of the requirements formalized a series of security measures that NRC licensees had taken in response to advisories issued by the NRC, and others are security enhancements that have emerged from the Commission's ongoing comprehensive security review. The Commission issued the Orders, which incorporated the threat advisories and added additional requirements, to formalize the security enhancements at commercial nuclear power plants. Because the threat environment had persisted longer than expected, it is appropriate to maintain these security measures within the established regulatory framework. The details of these security requirements are sensitive and will not be provided to the public. Some of the specific measures implemented by the licensees in response to the advisories and interim compensatory measures included increased patrols, augmented security forces and capabilities, additional security posts, installation of additional physical barriers, vehicle checks at greater stand-off distances, enhanced coordination with law enforcement and military authorities and more restrictive site access controls for all personnel. Therefore, the Petitioners' request that the licensee conduct a full review of the facility's vulnerabilities, security measures, and evacuation plans has been, in effect, partially granted. Regarding the Petitioners' request for specific information about the security measures, the NRC believes that it is inappropriate to discuss perceived vulnerabilities and current or planned security measures in the public domain. Thus, this request is denied.

The NRC in its February 25, 2002, Orders also directed licensees to evaluate and address potential vulnerabilities to maintain or restore cooling to the core, containment, and SFP and to develop specific guidance and strategies to respond to an event that damages large areas of the plant due to explosions or fires. These strategies are intended to help licensees to identify and utilize any remaining onsite or offsite equipment and capabilities. If

NRC's ongoing security review recommends any other security measures, the NRC will take appropriate action.

The NRC denies the Petitioners' request to mandate certain security measures, as specified by the Petitioners, for the protection of the facility, such as systems to defend a no-fly zone. As part of its ongoing comprehensive security review, the NRC is examining the threat environment in coordination with the new Office of Homeland Security, the FBI, FEMA, the FAA, the military, the intelligence community, and the Department of Energy, among others. The NRC will take appropriate action based on the results of this review. The NRC considers that the current security requirements, along with the enhancements in the February 25 Orders, provide reasonable assurance of the protection of the facility.

The NRC finds that the existing emergency response plans are flexible enough to respond to a wide variety of adverse conditions, including a terrorist attack. The NRC advisories and the Orders issued since September 11, 2001, directed licensees to take specific actions deemed appropriate to ensure continued improvements to existing emergency response plans. The Petitioners' concern that the emergency plans do not contemplate multiple attacks on the infrastructure is alleviated by the fact that the emergency plans are intended to be broad and flexible enough to respond to a wide spectrum of events. Thus, the Petitioners' request that the onsite and offsite emergency plans be revised to account for possible terrorist attacks has been, in part, granted.

The NRC finds that the current spent fuel storage system and the security provisions at IP adequately protect the spent fuel. However, the licensee has stated its intention to install an Independent Spent Fuel Storage Installation. The Petitioners' request to order the installation is denied.

As provided in 10 CFR 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. 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 18th day of November 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RAI/*

Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation

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TITLE 42. THE PUBLIC HEALTH AND WELFARE  
CHAPTER 23. DEVELOPMENT AND CONTROL OF ATOMIC ENERGY  
ATOMIC ENERGY  
GENERAL AUTHORITY OF COMMISSION

**42 USCS § 2201 (2003)**

**§ 2201. General provisions**

In the performance of its functions the Commission is authorized to--

- (a) Advisory boards. establish advisory boards to advise with and make recommendations to the Commission on legislation, policies, administration, research, and other matters, provided that the Commission issues regulations setting forth the scope, procedure, and limitations of the authority of each such board;
- (b) Standards and instructions. establish by rule, regulation, or order, such standards and instructions to govern the possession and use of special nuclear material, source material, and byproduct material as the Commission may deem necessary or desirable to promote the common defense and security or to protect health or to minimize danger to life or property; in addition, the Commission shall prescribe such regulations or orders as may be necessary or desirable to promote the Nation's common defense and security with regard to control, ownership, or possession of any equipment or device, or important component part especially designed for such equipment or device, capable of separating the isotopes of uranium or enriching uranium in the isotope 235;
- (c) Studies and investigations. make such studies and investigations, obtain such information, and hold such meetings or hearings as the Commission may deem necessary or proper to assist it in exercising any authority provided in this Act, or in the administration or enforcement of this Act, or any regulations or orders issued thereunder. For such purposes the Commission is authorized to administer oaths and affirmations, and by subpena to require any person to appear and testify, or to appear and produce documents, or both, at any designated place. Witnesses subpenaed under this subsection shall be paid the same fees and mileage as are paid witnesses in the district courts of the United States;
- (d) Officers and employees. appoint and fix the compensation of such officers and employees as may be necessary to carry out the functions of the Commission. Such officers and employees shall be appointed in accordance with the civil-service laws and their compensation fixed in accordance with the Classification Act of 1949, as amended [5 USCS §§ 5101 et seq. and 5331 et seq.], except

that, to the extent the Commission deems such action necessary to the discharge of its responsibilities, personnel may be employed and their compensation fixed without regard to such laws: Provided, however, That no officer or employee (except such officers and employees whose compensation is fixed by law, and scientific and technical personnel up to a limit of the highest rate of grade 18 of the General Schedule of the Classification Act of 1949, as amended [5 USCS §§ 5101 et seq. and 5331 et seq.]) whose position would be subject to the Classification Act of 1949, as amended [5 USCS §§ 5101 et seq. and 5331 et seq.], if such Act were applicable to such position, shall be paid a salary at a rate in excess of the rate payable under such Act for positions of equivalent difficulty or responsibility. Such rates of compensation may be adopted by the Commission as may be authorized by the Classification Act of 1949, as amended [5 USCS §§ 5101 et seq. and 5331 et seq.], as of the same date such rates are authorized for positions subject to such Act. The Commission shall make adequate provision for administrative review of any determination to dismiss any employee;

(e) Acquisition of property; facilities and services. acquire such material, property, equipment, and facilities, establish or construct such buildings and facilities, and modify such buildings and facilities from time to time, as it may deem necessary, and construct, acquire, provide, or arrange for such facilities and services (at project sites where such facilities and services are not available) for the housing, health, safety, welfare, and recreation of personnel employed by the Commission as it may deem necessary, subject to the provisions of section 174 [42 USCS § 2224]: Provided, however, That in the communities owned by the Commission, the Commission is authorized to grant privileges, leases and permits upon adjusted terms which (at the time of the initial grant of any privilege grant, lease, or permit, or renewal thereof, or in order to avoid inequities or undue hardship prior to the sale by the United States of property affected by such grant) are fair and reasonable to responsible persons to operate commercial businesses without advertising [and without advertising] and without securing competitive bids, but taking into consideration, in addition to the price, and among other things (1) the quality and type of services required by the residents of the community, (2) the experience of each concession applicant in the community and its surrounding area, (3) the ability of the concession applicant to meet the needs of the community, and (4) the contribution the concession applicant has made or will make to the other activities and general welfare of the community;

(f) Utilization or employment of services or personnel of other agencies or voluntary personnel. with the consent of the agency concerned, utilize or employ the services or personnel of any Government agency or any State or local government, or voluntary or uncompensated personnel, to perform such functions on its behalf as may appear desirable;

(g) Acquisition or disposition of real and personal property. acquire, purchase, lease, and hold real and personal property, including patents, as agent of and on behalf of the United States, subject to the provisions of section 174 [42 USCS § 2224], and to sell, lease, grant, and dispose of such real and personal property as provided in this Act;

(h) Consideration of license applications. consider in a single application one or more of the activities for which a license is required by this Act, combine in a single license one or more of such

activities, and permit the applicant or licensee to incorporate by reference pertinent information already filed with the Commission;

(i) Regulations or orders. prescribe such regulations or orders as it may deem necessary (1) to protect Restricted Data received by any person in connection with any activity authorized pursuant to this Act, (2) to guard against the loss or diversion of any special nuclear material acquired by any person pursuant to section 53 [42 USCS § 2073] or produced by any person in connection with any activity authorized pursuant to this Act, to prevent any use or disposition thereof which the Commission may determine to be inimical to the common defense and security, including regulations or orders designating activities, involving quantities of special nuclear material which in the opinion of the Commission are important to the common defense and security, that may be conducted only by persons whose character, associations, and loyalty shall have been investigated under standards and specifications established by the Commission and as to whom the Commission shall have determined that permitting each such person to conduct the activity will not be inimical to the common defense and security, and (3) to govern any activity authorized pursuant to this Act, including standards and restrictions governing the design, location, and operation of facilities used in the conduct of such activity, in order to protect health and to minimize danger to life or property;

(j) Disposition of radioactive materials and other property. without regard to the provisions of the Federal Property and Administrative Services Act of 1949, as amended, except section 207 of that Act [40 USCS § 559], or any other law, make such disposition as it may deem desirable of (1) radioactive materials, and (2) any other property, the special disposition of which is, in the opinion of the Commission, in the interest of the national security: Provided, however, That the property furnished to licensees in accordance with the provisions of subsection 161(m) [subsec. (m) of this section] shall not be deemed to be property disposed of by the Commission pursuant to this subsection;

(k) Carrying of firearms. authorize such of its members, officers, and employees as it deems necessary in the interest of the common defense and security to carry firearms while in the discharge of their official duties. The Commission may also authorize such of those employees of its contractors and subcontractors (at any tier) engaged in the protection of property under the jurisdiction of the United States located at facilities owned by or contracted to the United States or being transported to or from such facilities as it deems necessary in the interests of the common defense and security to carry firearms while in the discharge of their official duties. A person authorized to carry firearms under this subsection may, while in the performance of, and in connection with, official duties, make arrests without warrant for any offense against the United States committed in that person's presence or for any felony cognizable under the laws of the United States if that person has reasonable grounds to believe that the individual to be arrested has committed or is committing such felony. An employee of a contractor or subcontractor authorized to carry firearms under this subsection may make such arrests only when the individual to be arrested is within, or in direct flight from, the area of such offense. A person granted authority to make arrests by this subsection may exercise that authority only in the enforcement of (1) laws regarding the property of the United States in the custody of the Department of Energy, the Nuclear Regulatory Commission, or a contractor of the Department of Energy or Nuclear Regulatory Commission, or (2) any provision of this Act that may subject an offender to a fine, imprisonment,

or both. The arrest authority conferred by this subsection is in addition to any arrest authority under other laws. The Secretary, with the approval of the Attorney General, shall issue guidelines to implement this subsection;

(l) [Repealed]

(m) Agreements with licensees. enter into agreements with persons licensed under section 103, 104, 53(a)(4), or 63(a)(4) [42 USCS § 2133, 2134, 2073(a)(4), or 2093(a)(4)] for such periods of time as the Commission may deem necessary or desirable (1) to provide for the processing, fabricating, separating, or refining in facilities owned by the Commission of source, byproduct, or other material or special nuclear material owned by or made available to such licensees and which is utilized or produced in the conduct of the licensed activity, and (2) to sell, lease, or otherwise make available to such licensees such quantities of source or byproduct material, and other material not defined as special nuclear material pursuant to this Act, as may be necessary for the conduct of the licensed activity: Provided, however, That any such agreement may be canceled by the licensee at any time upon payment of such reasonable cancellation charges as may be agreed upon by the licensee and the Commission: And provided further, That the Commission shall establish prices to be paid by licensees for material or services to be furnished by the Commission pursuant to this subsection, which prices shall be established on such a nondiscriminatory basis as, in the opinion of the Commission, will provide reasonable compensation to the Government for such material or services and will not discourage the development of sources of supply independent of the Commission;

(n) Delegation of functions. delegate to the General Manager or other officers of the Commission any of those functions assigned to it under this Act except those specified in section 51, 57(b), 61, 108, 123, 145(b) [42 USCS §§ 2071, 2077(b), 2091, 2138, 2153, 2165(b)] (with respect to the determination of those persons to whom the Commission may reveal Restricted Data in the national interest), 145(f) [42 USCS § 2165(f)], and 161(a) [subsec. (a) of this section].

(o) Reports and records. Require by rule, regulation, or order, such reports, and the keeping of such records with respect to, and to provide for such inspections of, activities and studies of types specified in section 31 [42 USCS § 2051] and of activities under licenses issued pursuant to sections 53, 63, 81, 103, and 104 [42 USCS §§ 2073, 2093, 2111, 2133, 2134], as may be necessary to effectuate the purposes of this Act, including section 105 [42 USCS § 2135]; and

(p) Rules and regulations. make, promulgate, issue, rescind, and amend such rules and regulations as may be necessary to carry out the purposes of this Act.

(q) Easements for rights-of-way. The Commission is authorized and empowered, under such terms and conditions as are deemed advisable by it, to grant easements for rights-of-way over, across, in, and upon acquired lands under its jurisdiction and control, and public lands permanently withdrawn or reserved for the use of the Commission, to any State, political subdivision thereof, or municipality, or to any individual, partnership, or corporation of any State, Territory, or possession of the United States, for (a) railroad tracks; (b) oil pipe lines; (c) substations for electric power transmission lines, telephone lines, and telegraph lines, and pumping stations for gas, water, sewer, and oil pipe lines; (d) canals; (e) ditches; (f) flumes; (g) tunnels; (h) dams and reservoirs in

connection with fish and wildlife programs, fish hatcheries, and other fish-cultural improvements; (i) roads and streets; and (j) for any other purpose or purposes deemed advisable by the Commission: Provided, That such rights-of-way shall be granted only upon a finding by the Commission that the same will not be incompatible with the public interest: Provided further, That such rights-of-way shall not include any more land than is reasonably necessary for the purpose for which granted: And provided further, That all or any part of such rights-of-way may be annulled and forfeited by the Commission for failure to comply with the terms and conditions of any grant hereunder or for nonuse for a period of two consecutive years or abandonment of rights granted under authority hereof. Copies of all instruments granting easements over public lands pursuant to this section shall be furnished to the Secretary of the Interior.

(r) Sale of utilities and related services. Under such regulations and for such periods and at such prices [as] the Commission may prescribe, the Commission may sell or contract to sell to purchasers within Commission-owned communities or in the immediate vicinity of the Commission community, as the case may be, any of the following utilities and related services, if it is determined that they are not available from another local source and that the sale is in the interest of the national defense or in the public interest:

- (1) Electric power.
- (2) Steam.
- (3) Compressed air.
- (4) Water.
- (5) Sewage and garbage disposal.
- (6) Natural, manufactured, or mixed gas.
- (7) Ice.
- (8) Mechanical refrigeration.
- (9) Telephone service.

Proceeds of sales under this subsection shall be credited to the appropriation currently available for the supply of that utility or service. To meet local needs the Commission may make minor expansions and extensions of any distributing system or facility within or in the immediate vicinity of a Commission-owned community through which a utility or service is furnished under this subsection.

(s) Succession of authority. establish a plan for a succession of authority which will assure the continuity of direction of the Commission's operations in the event of a national disaster due to enemy activity. Notwithstanding any other provision of this Act, the person or persons succeeding to command in the event of disaster in accordance with the plan established pursuant to this subsection shall be vested with all of the authority of the Commission: Provided, That any such succession to authority, and vesting of authority shall be effective only in the event and as long as a quorum of three or more members of the Commission is unable to convene and exercise direction during the disaster period: Provided further, That the disaster period includes the period when attack on the United States is imminent and the post-attack period necessary to reestablish normal lines of command;

(t) Contracts for processing, fabricating, separating, or refining materials. enter into contracts for the processing, fabricating, separating, or refining in facilities owned by the Commission of source, byproduct or other material, or special nuclear material, in accordance with and within the period of an agreement for cooperation while comparable services are available to persons licensed under section 103 or 104 [42 USCS § 2133 or 2134]: Provided, That the prices for services under such contracts shall be no less than the prices currently charged by the Commission pursuant to section 161(m) [subsec. (m) of this section];

(u) Contracts for purchase or acquisition of reactor services and supplies and equipment.

(1) enter into contracts for such periods of time as the Commission may deem necessary or desirable, but not to exceed five years from the date of execution of the contract, for the purchase or acquisition of reactor services or services related to or required by the operation of reactors;

(2) (A) enter into contracts for such periods of time as the Commission may deem necessary or desirable for the purchase or acquisition of any supplies, equipment, materials, or services required by the Commission whenever the Commission determines that: (i) it is advantageous to the Government to make such purchase or acquisition from commercial sources; (ii) the furnishing of such supplies, equipment, materials, or services will require the construction or acquisition of special facilities by the vendors or suppliers thereof; (iii) the amortization chargeable to the Commission constitutes an appreciable portion of the cost of contract performance, excluding cost of materials; and (iv) the contract for such period is more advantageous to the Government than a similar contract not executed under the authority of this subsection. Such contracts shall be entered into for periods not to exceed five years each from the date of initial delivery of such supplies, equipment, materials, or services or ten years from the date of execution of the contracts excluding periods of renewal under option.

(B) In entering into such contracts the Commission shall be guided by the following principles: (i) the percentage of the total cost of special facilities devoted to contract performance and chargeable to the Commission should not exceed the ratio between the period of contract deliveries and the anticipated useful life of such special facilities; (ii) the desirability of obtaining options to renew the contract for reasonable periods at prices not to include charges for special facilities already amortized; and (iii) the desirability of reserving in the Commission the right to take title to the special facilities under appropriate circumstances; and

(3) include in contracts made under this subsection provisions which limit the obligation of funds to estimated annual deliveries and services and the unamortized balance of such amounts due for special facilities as the parties shall agree is chargeable to the performance of the contract. Any appropriation available at the time of termination or thereafter made available to the Commission for operating expenses shall be available for payment of such costs which may arise from termination as the contract may provide. The term "special facilities" as used in this subsection means any land and any depreciable buildings, structures, utilities, machinery, equipment, and fixtures necessary for the production or furnishing of such supplies, equipment, materials, or services and not available to the vendors or suppliers for the performance of the contract.

[(v)] v. Support of United States Enrichment Corporation. Provide services in support of the United States Enrichment Corporation, except that the Secretary of Energy shall annually collect payments and other charges from the Corporation sufficient to ensure recovery of the costs (excluding depreciation and imputed interest on original plant investments in the Department's gaseous

diffusion plants and costs under section 1403(d) [42 USCS § 2297c-2(d)]) incurred by the Department of Energy after the date of the enactment of the Energy Policy Act of 1992 [enacted Oct. 24, 1992] in performing such services;

(w) Prescription and collection of fees, charges, and prices. prescribe and collect from any other Government agency, which applies for or is issued a license for a utilization facility designed to produce electrical or heat energy pursuant to section 103 or 104(b) [42 USCS § 2133 or 2134(b)], or which operates any facility regulated or certified under section 1701 or 1702 [42 USCS § 2297f or 2297f-1], any fee, charge, or price which it may require, in accordance with the provisions of section 483a of title 31 of the United States Code or any other law, of applicants for, or holders of, such licenses or certificates.

(x) Authority to establish certain requirements Establish by rule, regulation, or order, after public notice, and in accordance with the requirements of section 181 of this Act [42 USCS § 2231], such standards and instructions as the Commission may deem necessary or desirable to ensure--

(1) that an adequate bond, surety, or other financial arrangement (as determined by the Commission) will be provided, before termination of any license for byproduct material as defined in section 11 e. (2) [42 USCS § 2014(e)(2)], by a licensee to permit the completion of all requirements established by the Commission for the decontamination, decommissioning, and reclamation of sites, structures, and equipment used in conjunction with byproduct material as so defined, and

(2) that--

(A) in the case of any such license issued or renewed after the date of the enactment of this subsection [enacted Nov. 8, 1978], the need for long term maintenance and monitoring of such sites, structures and equipment after termination of such license will be minimized and, to the maximum extent practicable, eliminated; and

(B) in the case of each license for such material (whether in effect on the date of the enactment of this section [enacted Nov. 7, 1978] or issued or renewed thereafter), if the Commission determines that any such long-term maintenance and monitoring is necessary, the licensee, before termination of any license for byproduct material as defined in section 11 e. (2) [42 USCS § 2014(e)(2)], will make available such bonding, surety, or other financial arrangements as may be necessary to assure such long-term maintenance and monitoring.

Such standards and instructions promulgated by the Commission pursuant to this subsection shall take into account, as determined by the Commission, so as to avoid unnecessary duplication and expense, performance bonds or other financial arrangements which are required by other Federal agencies or State agencies and/or other local governing bodies for such decommissioning, decontamination, and reclamation and long-term maintenance and monitoring except that nothing in this paragraph shall be construed to require that the Commission accept such bonds or arrangements if the Commission determines that such bonds or arrangements are not adequate to carry out subparagraphs (1) and (2) of this subsection.

**In the Matter of PRIVATE FUEL STORAGE L.L.C.**  
**(Independent Spent Fuel Storage Installation)**

Docket No. 72-22-ISFSI; CLI-02-25

NUCLEAR REGULATORY COMMISSION

56 N.R.C. 340; 2002 NRC LEXIS 205

December 18, 2002

[\*1]

COMMISSIONERS Richard A. Meserve, Chairman; Greta Joy Dicus; Nils J. Diaz; Edward McGaffigan, Jr.; Jeffrey S. Merrifield

OPINION:

**MEMORANDUM AND ORDER**

On December 13, 2001, the Atomic Safety and Licensing Board referred to the Commission its decision denying admission of a late-filed contention of the State of Utah. Utah's contention related to the threat of a terrorist attack on Private Fuel Storage, L.L.C.'s (PFS) proposed independent spent fuel storage installation (ISFSI). n1 We subsequently accepted review, n2 and also agreed to review three other cases raising terrorism-related issues. n3 The primary question in these cases is whether NEPA requires the NRC, in rendering licensing decisions, to consider the impacts of terrorism. We hold today that NEPA does not require a terrorism review. n4

n1 LBP-01-37, 54 NRC 476 (2001).

n2 CLI-02-03, 55 NRC 155 (2002). The Commission accepted review of the question whether either the Atomic Energy Act (AEA) or the National Environmental Policy Act (NEPA) requires the NRC to consider the risk of terrorism in a licensing proceeding. The Commission declined to review the Board's ruling that Utah's proffered contention met our late-filing criteria. Utah subsequently dropped its AEA claim, leaving only its NEPA claim for our review.

n3 *Duke Cogema Stone and Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-04, 55 NRC 158 (2002) (granting petition for review); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-06, 55 NRC 164 (2002) (accepting certified question); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-05, 55 NRC 161 (2002) (accepting referred ruling).

n4 We reach the same conclusion in the other three companion cases. See *Duke Power Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-\_\_, 56 NRC (Dec. 18, 2002); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-\_\_, 56 NRC (Dec. 18, 2002); and *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-\_\_, 56 NRC (Dec. 18, 2002). [\*2]

## I. BACKGROUND

### A. Overview

Below we consider in some detail the legal question whether NEPA requires an inquiry into the threat of terrorism at nuclear facilities. At the outset, however, we stress our determination, in the wake of the horrific September 11th terrorist attacks, to strengthen security at facilities we regulate. We currently are engaged in a comprehensive review of our security regulations and programs, acting under our AEA-rooted duty to protect "public health and safety" and the "common defense and security." n5 We are reexamining, and in many cases have already improved, security and safeguards matters such as guard force size, physical barriers, access control, detection systems, alarm stations, response strategies, security exercises, clearance requirements and background investigations for key employees, and fitness-for-duty requirements. More broadly, we are rethinking the NRC's threat assessment framework and design basis threat. We also are reviewing our own infrastructure, resources, and communications.

n5 See, e.g., AEA §§ 103(b) & (d), 104(d), 161(b), 182a, 189a(1)(B)(ii) & (iii), 42 U.S.C. §§ 2133(b) & (d), 2134(d), 2201(b), 2232(a), 2239(a)(1)(B)(ii) & (iii). See also *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units No. 3 and 4), 4 AEC 9, 12 (Commission 1967) (these two statutory phrases "are fundamental to a delineation of the Commission's licensing authority and responsibility for [nuclear power plant] facilities"), *aff'd sub. nom. Siegel v. AEC*, 400 F.2d 778 (D.C. Cir. 1968). [\*3]

Our comprehensive review may also yield permanent rule or policy changes that will apply to the proposed PFS facility and to other NRC-regulated facilities. The review process is ongoing and cumulative. It already has resulted in a number of security-related actions to address terrorism threats at both active and defunct nuclear facilities.

For instance, just after the September 11th terrorist attacks, we issued Threat Advisories to all licensees of nuclear power plants, non-power reactors, nuclear fuel facilities, gaseous diffusion plants, and decommissioning reactors. The Advisories indicated that these facilities should go to the highest level of security. As a result of our initial Advisories, nuclear power plant licensees increased patrols, augmented security forces and capabilities, added security posts, installed additional physical barriers, increased the stand-off distance for vehicle checks, n6 enhanced coordination with law enforcement and military authorities, and imposed more restrictive site access controls for all personnel. We continue to provide updates to the licensees regarding our original Threat Advisories, having so far issued more than 30 such updates. NRC security [\*4] specialists have performed numerous onsite physical security vulnerability assessments at licensed facilities to evaluate the effectiveness of our licensees' enhanced security measures.

n6 The stand-off distance between a barrier and the nuclear plant is the distance between vital plant equipment and the closest exterior point of the vehicle barrier system.

On February 25, 2002, after further security reviews, we took the additional step of issuing Orders to all 104 power reactor licensees requiring them to take interim compensatory security measures over and above those required by our regulations. The Orders formalized steps that those licensees had voluntarily taken in response to our Threat Advisories, and also included additional measures to further protect nuclear power plants. The newly required safeguards measures (whose details are not available to the public) include more patrols, more security personnel, and physical

and vehicle barrier modifications. The orders also require additional security measures pertaining to waterways and owner-controlled land outside the plants' protected areas. The NRC staff has confirmed that, as of August 31st, all nuclear power plant licensees [\*5] are in compliance with the requirements set forth in these Orders. In addition, the staff is conducting independent inspections at licensee sites.

We have subsequently issued similar security-driven orders to Honeywell International, Inc., for its uranium conversion facility in Metropolis, Illinois, on March 25th; to General Electric Company for its wet storage facility in Morris, Illinois, on May 23rd; to twelve nuclear plants that are being decommissioned also May 23rd; to two enriched uranium fuel fabricators (BWX Technologies, Inc. and Nuclear Fuel Services) on August 22nd; and to independent spent fuel storage facilities using dry cask storage on October 23rd.

This set of orders will remain in effect until either the threat environment changes or we determine that additional orders or rules are needed.

In a related action, in January we increased the full-time staffing at the NRC Headquarters Operations Center, which takes in fast-breaking security and safety information. In April, we established a new Office of Nuclear Security and Incident Response. The new Office is responsible for immediate operational security and safeguards issues as well as for long-term policy development. [\*6] It works closely with law enforcement agencies and the Office of Homeland Security. It also coordinates the NRC's ongoing comprehensive security review, including (for example) a major research effort to evaluate the vulnerabilities and potential effects of a large commercial aircraft crashing into a nuclear facility or into storage and transportation casks -- issues raised in this proceeding.

#### B. Facts and Procedural Posture of this Case

PFS seeks a license to operate an ISFSI on the Skull Valley Goshute Indian Reservation in Utah. During the course of this litigation and prior to September 11, 2001, the Licensing Board admitted numerous issues for hearing, many of which await final merits resolution. But the Board rejected various contentions relating to the risks of terrorism or sabotage at the proposed facility, finding each to be inadmissible. n7

n7 See *Private Fuel Storage, L.L.C.*, LBP-98-13, 47 NRC 360, 372 (1998); LBP-98-10, 47 NRC 288, 296 (1998); LBP-98-7, 47 NRC 142, 186, 199, 216, 226, 233-34, *aff'd on other grounds*, CLI-98-13, 48 NRC 26 (1998).

In [\*7] response to the terrorist attacks of September 11, 2001, intervenor Utah asked the Board to admit its late-filed contention Utah RR, Suicide Mission Terrorism and Sabotage, which claimed violations of both the AEA and NEPA. Utah contended that the events of September 11 had materially changed the circumstances under which the Board had rejected previously proffered terrorism-related contentions by showing that a terrorist attack is both more likely and potentially more dangerous than previously thought.

Utah's new AEA "terrorism" claim argued that PFS's Safety Analysis Report and the staff's Safety Evaluation Report failed to identify and adequately evaluate external man-induced events such as suicide mission terrorism and sabotage, "based on the current state of knowledge about such events," as required by an NRC rule. n8 The Board found this argument an impermissible attack on

NRC rules because, in promulgating security rules applicable to ISFSIs, the Commission had specifically considered and rejected requiring protection against the malevolent use of an airborne vehicle. n9

n8 See 10 C.F.R. § 72.94.

n9 54 NRC at 485-86. See Final Rule, Physical Protection for Spent Nuclear Fuel and High-Level Radioactive Waste, 63 Fed. Reg. 26,955-56 (May 15, 1998). [\*8]

Utah's new NEPA "terrorism" claim argued that PFS's Environmental Report and the NRC staff's draft Environmental Impact Statement (EIS) n10 were deficient in failing to consider the environmental consequences of terrorists flying a fully-loaded commercial jumbo jet into the PFS facility. Relying on a 1973 Appeal Board decision in the *Shoreham* proceeding, n11 the Board found that the rationale for excluding acts of war in our safety analysis -- that this is the responsibility of the national defense establishment -- applies equally to a NEPA analysis. Therefore, the Board held that the NRC's NEPA responsibilities did not include considering the effects of terrorism. n12 The Board also cited a 1989 Third Circuit decision, *Limerick Ecology Action v. NRC*, n13 which found that NRC had no duty to perform a "probabilistic risk assessment" of the risk of sabotage in an EIS because the petitioners had failed to show that such an assessment was possible. n14 Noting, however, that the extraordinary events of September 11 may have changed what can be said to be "reasonably foreseeable," the Board referred its terrorism ruling for immediate Commission review. n15

n10 The Final Environmental Impact Statement, dated December 2001, was not yet available at the time Utah submitted its contention and the Board made its ruling.

n11 *Long Island Lighting Co. (Shoreham Nuclear Power Station)*, ALAB-156, 6 AEC 831, 851 (1973).

n12 54 NRC at 487. See 10 C.F.R. § 50.13, "Attacks and destructive acts by enemies of the United States; and defense activities." This provision relieves reactor license applicants from providing for design features that protect against "enemies of the United States." By its terms, section 50.13 applies to production and utilization facilities only. It therefore does not apply directly to ISFSIs such as the one at issue in this proceeding.

n13 869 F.2d 719, 743-44 (3rd Cir. 1989).

n14 54 NRC at 487.

n15 See *id.* 487-88. [\*9]

We accepted review, asking parties to address all issues "the parties determine are relevant," and in addition the question: "What is an agency's responsibility under NEPA to consider intentional malevolent acts, such as those directed at the United States on September 11, 2001?" n16

n16 55 NRC at 162.

On review, Utah has abandoned its AEA-terrorism claim and focused on its NEPA-terrorism claim. n17 Its NEPA claim does not ask that the NRC staff inquire into or predict the likelihood of a September 11-style terrorist attack on the proposed ISFSI, but argues that the mere fact that these attacks occurred at other U.S. targets makes such an attack a reasonably foreseeable environmental impact of erecting this facility, requiring a NEPA review. Utah asks the Commission simply to

assume an attack and go straight to analyzing its consequences. Both PFS and the NRC staff, citing the *Shoreham* and *Limerick Ecology Action* decisions, maintain that terrorism and other intervening malevolent acts lie outside NEPA and need not be considered under that statute.

n17 See State of Utah's Brief in Response to CLI-02-03 and in Support of Utah's Request for Admission of Late-filed Contention Utah RR (Suicide Mission Terrorism and Sabotage), dated Feb. 27, 2002, at 3 n.2. [\*10]

## II. ANALYSIS

### A. Introduction.

The issue here is whether an unquantifiable threat of terrorism, in this case a suicidal air crash of a jumbo jetliner into an ISFSI raises the kinds of environmental concerns that call for a NEPA review in an EIS. That is, does it serve the purposes of NEPA to include in an EIS a discussion of the impact of a catastrophic event which is not directly linked to an NRC licensing decision and the likelihood of which is impossible to quantify?

Terrorism differs from matters ordinarily considered in an EIS. The proposed PFS facility's EIS, for example, considers such matters as likely effects on local water, air quality, vegetation, wildlife, culture, and lifestyle. These effects are reasonably certain; an EIS can quantify them to a fair degree of precision. Terrorism, by contrast, comes in innumerable forms and at unexpected times and places. It is decidedly not predictable. And it is not a natural or inevitable byproduct of licensing the PFS facility. n18 In our view, an EIS is not an appropriate format to address the challenges of terrorism. The purpose of an EIS is to inform the decisionmaking agency and the public of a broad range of environmental [\*11] impacts that will result, with a fair degree of likelihood, from a proposed project, rather than to speculate about "worst case" scenarios and how to prevent them.

n18 The Commission evaluates the impacts of accidents precipitated by natural events such as earthquakes, hurricanes and other severe storms. Unlike acts of terrorism, such events are closely linked to the natural environment of the area within which a facility will be located, and are reasonably predictable by examining weather patterns and geological data for that region. We do not know of similar principles that would permit reasonable prediction of an act of terrorism against a particular facility. Terrorism is a global issue, involving stochastic criminal behavior, independent of the planned facility.

By its own terms, NEPA is not absolute. It directs federal agencies "to use all practicable means, consistent with other considerations of national policy," in environmental reviews. n19 The NEPA process is governed by a "rule of reason." n20 It does not extend to all conceivable consequences of agency decisions, no matter how far down the causal chain from a nuclear licensing decision and no matter how unpredictable. [\*12] Using the NEPA process to consider terrorism also would be incompatible with NEPA's (and the NRC's) public participation process. In the wake of September 11, an overriding government priority is to avoid disclosing to terrorists themselves precisely where and how nuclear facilities might be most vulnerable and what steps are being taken to lessen terrorists' chance of success. Yet it would not be possible to embark upon a meaningful NEPA review of any type without engaging such subjects. NEPA does not override our concern for making sure that sensitive security-related information ends up in as few hands as practicable.

n19 See 42 U.S.C. § 4331(b).

n20 See *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-14, 55 NRC 278, 295 n.41 (2002).

We hasten to add that our decision against including terrorism within our NEPA reviews does not mean that we plan to rule out the possibility of a terrorist attack against NRC-regulated facilities. On the contrary, as we outlined above, the Commission and its staff have taken steps to strengthen security and are in the [\*13] midst of an intense study of the effects of postulated terrorist attacks and of our relevant security and safeguards rules and policies. These activities are rooted in the NRC's ongoing responsibilities under the AEA to protect public health and safety and the common defense and security. But we see no practical benefit in conducting that review, case-by-case, under the rubric of NEPA, nor any legal duty to do so. Below we set out a series of factors cutting against using the NEPA framework to conduct a terrorism review and against admitting Utah's NEPA-terrorism contention for hearing. These factors stand singly, and cumulatively, as justification against invoking NEPA as the basis for our terrorism review in nuclear licensing cases.

#### B. NEPA's Goals and the Rule of Reason.

We begin with general NEPA requirements. NEPA demands that federal agencies prepare a "detailed statement . . . on the environmental impact" of any proposed major federal action "significantly affecting the quality of the human environment." n21 Council on Environmental Quality (CEQ) regulations, which offer agencies guidance on NEPA compliance, provide that the EIS must discuss direct and indirect effects [\*14] of the action. n22 Direct effects are "caused by the action and occur at the same time and place." n23 Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still *reasonably foreseeable*," such as growth-inducing effects. n24 CEQ regulations also caution that the EIS should not be overbroad.  
n25

n21 See 42 U.S.C. § 4332(2)(C)(i).

n22 40 C.F.R. § 1502.16. Although the Commission is not bound by CEQ regulations that it has not expressly adopted (see *Limerick Ecology Action, Inc. v. NRC*, 869 F.2d at 743), the Commission gives those regulations "substantial deference." See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 72 n.2 (1991).

n23 40 C.F.R. § 1508.8(a).

n24 40 C.F.R. § 1508.8(b) (emphasis added).

n25 Environmental impact statements should be "analytic rather than encyclopedic," and "shall be kept concise and shall be no longer than absolutely necessary to comply with NEPA and these regulations." 40 C.F.R. § 1502.2(a), (b).

NEPA's "dual purpose" is to ensure that federal officials [\*15] fully take into account the environmental consequences of a federal action before reaching major decisions, and to inform the public, Congress, and other agencies of those consequences. n26 These purposes inform our determination whether the potential impact of a terrorist attack is the type of information Congress intended for agencies to include in an EIS.

n26 See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989); *Baltimore Gas and Elec. Co. v. NRDC, Inc.*, 462 U.S. 87, 97 (1983); *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273, 1291 (1st Cir. 1996). We recognize that in *Weinberger v. Catholic Action of Hawaii*, 454 U.S. 139

(1981), the Court indicated that the Navy should perform a NEPA review in the given circumstances, and to factor it into its decisionmaking, even if the NEPA results could not be publicized or adjudicated. See 454 U.S. at 143. But here, a formal NEPA review, secret or otherwise, would not add meaningfully to our understanding of the terrorism issue, in light of our ongoing studies and existing requirements and directives. [\*16]

It is well-established that NEPA requires only a discussion of "reasonably foreseeable" impacts. n27 Grappling with this concept, various courts have described it as a "rule of reason," n28 or "rule of reasonableness," n29 which excludes "remote and speculative" n30 impacts or "worst case" scenarios. n31 Courts have excluded impacts with either a low probability of occurrence, n32 or where the link between the agency action and the claimed impact is too attenuated to find the proposed federal action to be the "proximate cause" of that impact. n33 NEPA does not call for "examination of every conceivable aspect of federally licensed projects." n34 Here, the possibility of a terrorist attack on the PFS facility is speculative and simply too far removed from the natural or expected consequences of agency action to require a study under NEPA.

n27 See, e.g., *Wyoming Outdoor Council, Inc. v. U.S. Forest Serv.*, 165 F.3d 43, 49 (D.C. Cir. 1999); *Dubois v. U.S. Dept. of Agric.*, 102 F.3d at 1286; *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992).

n28 See *Davis v. Latschar*, 202 F.3d 359, 368 (D.C. Cir. 2000); *San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287, 1300-01 (D.C. Cir. 1984), vacated on other grounds, 760 F.2d 1320 (D.C. Cir. 1985).

n29 See *Limerick Ecology Action*, 869 F.2d at 745; *NRDC v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972).

n30 See *Limerick Ecology Action*, 869 F.2d at 739; *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974).

n31 See *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 354; *Edwardsen v. U.S. Dept. of the Interior*, 268 F.3d 781, 785 (9th Cir. 2001).

n32 *San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d at 1300-01 (NRC's exclusion from EIS of consequences of Class 9 accidents upheld in light of agency's finding that there was an extremely low probability of occurrence).

n33 See *Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 760, 772-775 (1983). See also *Presidio Golf Club v. National Park Serv.*, 155 F.3d 1153, 1163 (9th Cir. 1998); *No GWEN Alliance of Lane County v. Aldridge*, 855 F.2d 380, 1385-86 (9th Cir. 1988). "At bottom the notion of proximate cause reflects ideas of what justice demands, or of what is administratively possible and convenient." *Holmes v. SIPC*, 503 U.S. 258, 268 (1992)(internal quotations omitted). The concept confines NEPA to "manageable" inquiries. *Metropolitan Edison*, 460 U.S. at 776.

n34 *Louisiana Energy Serv.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 102-03 (1998). See also *Private Fuel Storage, LLC*. (Independent Spent Fuel Storage Installation), CLI-02-20, 56 NRC , slip op. at 10-11 (2002). [\*17]

Two federal court of appeals decisions have addressed the issue of terrorism and NEPA in the area of nuclear regulation. Both decisions upheld, as reasonable, an agency refusal to consider terrorism under NEPA. In *Limerick Ecology Action v. NRC*, the Third Circuit determined that in

licensing a nuclear power reactor the NRC could decline to consider the effects of terrorism in an EIS because the intervenors had not shown any way to predict or analyze the risk meaningfully. n35 Similarly, in *City of New York v. U.S. Dept. of Transp.*, the Second Circuit held that, in permitting the transport of nuclear materials, the Department of Transportation need not perform a NEPA analysis of the effects of sabotage -- because agencies had discretion to exclude such high-consequence, low-probability events:

... DOT simply concluded that the risks of sabotage were too far afield for consideration. To a large degree this judgment was justified by the record. Substantial evidence indicated that sabotage added nothing to the risk of high-consequence accidents. Even the least sanguine commentators could say only that sabotage added an unascertainable risk. In light of these conflicting [\*18] points of view, it was within DOT's discretion not to discuss the matter further beyond adopting the NRC security requirements. n36

In short, the only two directly pertinent court of appeals decisions, *Limerick Ecology Action* and *City of New York*, give us no reason to include terrorism within our NEPA review. n37

n35 869 F.2d at 744.

n36 715 F.2d 732, 750 (2nd Cir. 1982), *appeal dismissed and cert. denied*, 465 U.S. 1055 (1984).

n37 See also *No GWEN Alliance of Lane County v. Aldridge*, 855 F.2d at 1385-86 (speculation that a foreign nation might target military radio towers in a nuclear war does not trigger a NEPA duty to study the effects of such an attack).

It is sensible to draw a distinction between the likely impacts of the PFS facility and the impacts of a terrorist attack on the facility. Absent such a line, the NEPA process becomes truly bottomless, subject only to the ingenuity of those claiming that the agency must evaluate this or that potential adverse effect, no matter how indirect its connection to agency action. In our view, the causal relationship [\*19] between approving the PFS facility and a third party deliberately flying a plane into it is too attenuated to require a NEPA review, particularly where the terrorist threat is entirely independent of the facility. Nonetheless, we examine below the broad scope of NEPA law to determine if there is any reason to view terrorism differently today, in the wake of the notorious September 11 attacks on the World Trade Center and the Pentagon.

### C. The Risk of a Terrorist Attack Cannot Be Adequately Determined.

The horrors of September 11 notwithstanding, it remains true that the likelihood of a terrorist attack being directed at a particular nuclear facility is not quantifiable. Any attempt at quantification or even qualitative assessment would be highly speculative. In fact, the likelihood of attack cannot be ascertained with confidence by any state-of-the-art methodology. That being the case, we have no means to assess, usefully, the risks of terrorism at the PFS facility. Risk, of course, is generally thought of as "the product of the probability of occurrence [and] the consequences." n38 Here, though, we have no way to calculate the probability portion of the equation, except in such [\*20] general terms as to be nearly meaningless.

n38 *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 262 (2001).

Utah has presented no evidence of a system or technique for assessing accurately the probability of a terrorist attack in general or a September 11-type attack specifically. It argues, however, that qualitative factors could show that a terrorist threat is "reasonably foreseeable." It gives as an example a situation where a terrorist group, with the apparent wherewithal to mount such an attack, makes a specific threat against a facility or class of facilities. Although the probability of such attacks would still not be measurable, the threats would make attacks reasonably foreseeable and thus subject to NEPA, according to Utah. We note that there has been no such threat, however, against the proposed PFS facility.

If we were to speculate on the probability of the scenario in Utah's contention -- a hijacked jumbo jet hitting the PFS facility and causing catastrophic effects -- our guess is that the probability is actually minuscule. For one thing, Congress and the Federal Aviation Administration [\*21] (FAA) have put in place enhanced anti-hijacking measures at airports and on commercial airplanes (e.g., enhanced passenger and baggage screening, strengthening of cockpit doors, the Air Marshall program). Moreover, the United States intelligence community and various law enforcement agencies have increased their efforts to identify potential terrorists and prevent potential attacks before they occur. For instance, the FAA and Department of Defense have acted more than once to protect the airspace above nuclear power plants from what were thought at the time to be credible threats. n39

n39 See *PSEG Nuclear LLC* (Salem Nuclear Generating Station, Units 1 and 2, and Hope Creek Generating Station), DD-02-03, 56 NRC , , slip op. at 16-17 (Nov. 6, 2002).

In addition, terrorists seeking to cause havoc and destruction would find many targets far more inviting than the proposed PFS facility. That facility would be located in a remote, desert location far from population centers. And it would use NRC-approved strong storage casks, which are designed to minimize the effects of off-normal events and accidents. n40 Given this setting, a terrorist attack seemingly would be quite [\*22] unlikely to result in a high-consequence release of radioactivity.

n40 See generally NUREG-1714, "Final Environmental Impact Statement for the PFS Facility," Vol. 1, pp. 4-49 through 4-53 (Dec. 2001).

Because we have seen no evidence to the contrary, in this proceeding or elsewhere, we conclude that the risk of a terrorist attack on the proposed PFS facility (and other nuclear facilities) is beyond this agency's ability to determine meaningfully. Utah has not proposed other means to evaluate terrorism, besides suggesting that the NRC simply assume, on the basis of the September 11 terrorist attacks, that the PFS facility is at risk. This we decline to do, as it would transform NEPA analysis into a form of guesswork and distort NEPA's cost-benefit calculus. As in *Limerick Ecology Action, Inc. v. NRC*, therefore, the contention here fails to provide "some method or theory by which the NRC could . . . enter[] into a meaningful analysis of the risk of sabotage despite its asserted inability to quantify the risks." n41

n41 869 F.2d at 744.

#### D. NEPA Does Not Require a "Worst Case" Analysis.

Utah's proposed approach -- that the NRC assume the [\*23] likelihood of a suicidal air crash into the PFS facility and calculate the consequences -- amounts to a form of "worst case" analysis. While that approach at one time found favor in NEPA case law, today it stands discredited. Both the Supreme Court and CEQ have concluded that NEPA does not call for a "worst case" inquiry, which, it is now recognized, simply creates a distorted picture of a project's impacts and wastes agency resources. n42

n42 *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 354-355.

In theory, as the NRC staff brief acknowledges, the NRC could attempt to perform a "worst-case" analysis on the basis of much conjecture and numerous assumptions. But is it useful or legally necessary to do so? For instance, with no meaningful way to determine the probability that terrorists will attack the PFS facility, the most that can be said is that a repeat of the September 11 scenario, this time directed at PFS rather than an office building, is a theoretical possibility. A theoretical possibility, though, is not the same as a "reasonably foreseeable" impact, the usual trigger-point for NEPA reviews. Substituting theoretical possibility [\*24] for probability analysis amounts to a worst case approach. It exaggerates a project's risks and might unduly alarm the public.

In *Robertson v. Methow Valley Citizens Council*, the Supreme Court held that NEPA's "twin functions -- requiring agencies to take a 'hard look' at the consequences of the proposed action and providing important information to other groups and individuals" -- do not call for an inquiry into worst case possibilities. n43 The Court pointed with approval to CEQ's 1986 abandonment of a regulation that had required EIS's to include worst case analyses. n44 The Court stated that CEQ's original rule had led agencies to devote substantial effort to "limitless" analyses -- "that is, one can always conjure up a worse 'worst case' by adding an additional variable to a hypothetical scenario." n45 CEQ's new focus on "reasonably foreseeable impacts," the Court said, "will generate information of greatest concern to the public and of greatest relevance to the agency's decision, rather than distorting the decisionmaking process by overemphasizing highly speculative harms." n46

n43 *Id.* at 356.

n44 *Id.* at 354-56; see 40 C.F.R. § 1502.22 (1985) (requiring worst case analysis).

n45 490 U.S. at 356 n.17, quoting Proposed Rule, "National Environmental Policy Act Regulations," 50 Fed. Reg. 32,234, 32,236 (CEQ, Aug. 9, 1985).

n46 See 490 U.S. at 356. [\*25]

Under *Robertson*, an analysis of a hypothetical terrorist attack has no place in the EIS for the PFS facility. NEPA's mandate to federal agencies, as we see it, is to consider a broad range of environmental effects that are reasonably likely to ensue as a result of a major agency action, not to engage in speculation about what might happen as a result of criminal terrorist activities. The PFS EIS discusses a range of likely impacts, including radiological impacts on workers and the public, air quality impacts, impacts on plant life, visual impacts, impacts on wildlife, and socioeconomic and cultural impacts on the local community. While not all these effects can be "measured" or "determined" in a concrete fashion -- for example, the facility's impact on scenic values -- the staff can say with some degree of certainty that the impacts studied will take place.

This is in striking contrast to the impacts of an airborne terrorist attack at the PFS site using a commercial aircraft, an event that could possibly happen but is hardly a natural or expected consequence of licensing the facility. Utah says that we should take guidance from *Sierra Club v. Marsh*, a First Circuit decision [\*26] concluding that "reasonable foreseeability" under NEPA means that "the impact is sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." n47 Distinguishing "reasonably foreseeable" effects from those which are "highly speculative," the court asked: "With what confidence can one say that the impacts are likely to occur?" n48 Utah, in turn, asks its own question under the *Sierra Club v. Marsh* formulation, "What person of ordinary prudence would not want to know, before deciding to license a facility that might some day house the nation's entire current inventory of spent nuclear fuel, what the reasonably foreseeable environmental impacts would be of an airborne assault on the facility?" n49

n47 976 F.2d at 767. See also *Dubois v. U.S. Dept. of Agric.*, 102 F.3d at 1286.

n48 976 F.2d at 768, quoting *Sierra Club v. Marsh*, 769 F.2d 868, 878 (1st Cir. 1985).

n49 See Utah's Brief at 8.

Utah asks the wrong question. The "reasonably foreseeable" effects of a successful attack with a jumbo jet against the [\*27] PFS facility are not the same as the "reasonably foreseeable" impacts of simply licensing the facility. Utah's attempt to conflate the probability of the initiating event (terrorism) with its consequences simply skips over the question whether the impacts are "likely to occur," a key element of *Sierra Club v. Marsh*'s "ordinary prudence" test.

With Utah having provided no reason to believe that an airborne terrorist attack on the PFS facility is "likely to occur" -- indeed, Utah asks us simply to *assume* that it will -- we cannot conclude that such an attack is a "reasonably foreseeable" impact of building the proposed ISFSI. To hold otherwise would mean that we would have to consider such attacks foreseeable at any facility under our jurisdiction. And Utah's view of foreseeability does not seem confined to airborne terrorist attacks. On Utah's approach, presumably all other kinds of terrorism, if conceivable, would require NEPA review as well, both in EIS's and at NRC hearings. Such an open-ended approach to NEPA is unworkable because it has no stopping point. n50 As the Supreme Court noted in *Robertson*, it is always possible to "conjure up" progressively more disastrous [\*28] scenarios. n51

n50 To put the burden of considering threats of terrorism into perspective, it is useful to consider the cumulative burden on the Federal government as a whole that would result from such free-ranging inquiries. Because there are no limits or natural boundaries to the possibility of a terrorist strike, if one were to conclude that NEPA requires an agency to consider such threats, then the environmental reviews for thousands of federal actions throughout the nation would be required to consider terrorism, including those for individual highways, dams, bridges, etc.

This is not to suggest that an environmental review should never consider the threat of terrorism. We address today only whether NEPA *requires* such a study. In fact, the NRC has briefly considered, as a matter of discretion, the issue of terrorism in generic environmental reviews for certain broad categories of activities. See, e.g., Generic Environmental Impact Statement for License Renewal, NUREG-1437, Vol. 1 at § 5.3.3.1, p. 5-18 (May 1996); Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Vol. 1, Addendum 1, Appendix 1 at p. A1-17 (Aug. 1999).

n51 See 490 U.S. at 356 n.17, quoting Proposed Rule, "National Environmental Policy Act Regulations," 50 Fed. Reg. 32,234, 32,236 (CEQ, Aug. 9, 1985). [\*29]

The Court's rejection of worst case NEPA reviews in *Robertson* relieves agencies of the arduous and unproductive task of analyzing conceivable, but very speculative, catastrophes. It also enables agencies to use their limited resources more effectively. n52

n52 See *Kansas Gas and Elec. Co.* (Wolf Creek Generating Station, Unit 1), CLI-99-19, 49 NRC 441, 463 (1999); *General Pub. Util. Nuclear Corp.* (Three Mile Island Nuclear Station, Units 1 and 2; Oyster Creek Nuclear Generating Station), CLI-85-4, 21 NRC 561, 563-64 (1985), quoting *Rockford League of Women Voters v. NRC*, 679 F.2d 1218, 1222 (7th Cir. 1982); *Westinghouse Elec. Corp.* (Exports to the Philippines), CLI-80-14, 11 NRC 631, 649 (1980). See generally *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 837 (D.C. Cir. 1972) (NEPA "must be construed in the light of reason if it is not to demand what is, fairly speaking, not meaningfully possible, given . . . that the resources of energy and research -- and time -- available to meet the Nation's needs are not infinite"). [\*30]

#### E. NEPA's Public Process Is Not a Forum for Sensitive Security Issues.

Although we conclude in the previous discussion that there is no basis on which to provide a reasonable measure of the risk of terrorism and that the risk of terrorism is far afield from issues involving the natural environment of the facility, the Commission is presently engaged in analyzing how to keep such risk at a minimum. Part of this effort is to protect sensitive information from failing into the hands of those with malevolent intentions. The public aspect of NEPA processes conflicts with the need to protect certain sensitive information. NEPA requires agencies to include the public in NEPA reviews. n54 Indeed, public information and public participation form a large part of NEPA's *raison d'etre*. n55 At the NRC, public input includes not just an opportunity to comment on draft EIS's, but also an opportunity to contest environmental findings at agency hearings on the licensing action in question.

n54 See 42 U.S.C. § 4332.

n55 See *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 356.

In our view, the public interest [\*31] would not be served by inquiries at NRC hearings and public meetings into where and how nuclear facilities are vulnerable, how they are protected and secured, and what consequences would ensue if security measures failed at a particular facility. Such NEPA reviews may well have the perverse effect of assisting terrorists seeking effective means to cause a release of radioactivity with potential health and safety consequences.

Years ago, before NEPA's enactment, the Atomic Energy Commission (AEC) considered the question whether it should use its hearing process to assess the risk of "enemy attack or sabotage" against a particular facility (the Turkey Point reactor in Florida). n56 The AEC rejected the idea, holding that "examination into the above matters, apart from their extremely speculative nature, would involve information singularly sensitive from the standpoint of . . . our national defense." n57 Such matters, according to the AEC, are "clearly not amenable to board consideration and determination." n58 The AEC commented that it "would not propose to make them cognizable issues in the absence of a clear Congressional direction to that end." n59 Congress has enacted no such directive. [\*32]

n56 *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units No. 3 and 4), 4 AEC 9, 13-14 (Commission 1967), *aff'd sub. nom. Siegel v. AEC*, 400 F.2d 778 (D.C. Cir. 1968).

n57 *Id.* at 14.

n58 *Id.*

n59 *Id.*

NEPA does not override the AEC's (and our) concern for making sure that sensitive security-related information ends up in as few hands as practicable. NEPA itself includes limiting provisions. Section 101(b) of NEPA requires agencies to implement the statute's policies using "all *practicable* means, consistent with *other essential considerations of national policy*." n60 Another passage in the same section provides that the federal government's efforts to "attain the widest range of beneficial uses of the environment" are subject to restraints based on "risk to health and safety, or other undesirable and unintended consequences." n61 These provisions caution against using the NEPA process for a terrorism review. A full-scale NEPA process inevitably would require examination not only of how terrorists could cause maximum damage but also of how they might best be thwarted. But keeping those kinds of information secret is [\*33] vital. To use NEPA's own terms, confidentiality in this area is an "essential consideration of national policy," protects against "risks to health and safety," and avoids "undesirable and unintended consequences."

n60 42 U.S.C. § 4331(b) (emphases added). See also NEPA § 101(a), 42 U.S.C. § 4331(a) ("it is the continuing policy of the Federal Government . . . to use all *practicable* means and measures . . . To create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." (emphasis added)).

n61 42 U.S.C. § 4331(b)(3).

For the NRC, protecting safeguards information is not simply a policy choice. It is *required* by law. Section 147 of the AEA provides that the NRC "shall" prohibit unauthorized disclosures of key security-related information. Consequently, the NRC cannot make publicly available the kind of information necessary for a more than superficial NEPA review. n62 This limitation on information availability supports our [\*34] decision not to use NEPA, in part a public information statute, as our vehicle to analyze terrorism. n63

n62 See *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017, 1027 (9th Cir. 1988) ("[e]veryone recognizes the catastrophic results of the failure of the dam; to detail these results would serve no useful purpose").

n63 Cf. *Public Citizen v. FAA*, 988 F.2d 186 (D.C. Cir. 1993) (FAA's statutory mandate to protect airport security overrides Administrative Procedure Act's notice-and-comment and publication requirements for rulemakings).

We recognize that in *Weinberger v. Catholic Action of Hawaii*, 454 U.S. 139 (1981) (which did not involve issues of terrorism), the Court indicated that the Navy should perform a NEPA review in the given circumstances, and factor it into its decisionmaking, even if the NEPA results could not be publicized or adjudicated. n64 Such a review would be useful to an agency that otherwise might not consider an issue relevant to licensing. But here, a formal NEPA review, secret or otherwise, would not add meaningfully to our understanding of the terrorism issue, [\*35] in light of our ongoing

studies and existing requirements and directives. And widespread NEPA-terrorism reviews, even if we attempted to keep EIS's and hearings confidential, increase the risk of dangerous security breaches.

n64 454 U.S. 139, 143 (1981).

As we explained above in detail, n65 our refusal to assess terrorism's risks under the ritualized NEPA process -- EIS's, public comment, adjudicatory hearings -- hardly means that the NRC is ignoring those risks, either at individual facilities or in general. Working closely with the Office of Homeland Security and with other agencies, the NRC after September 11 has shifted substantial resources and personnel to a study of the terrorism threat. We already have upgraded security requirements, with more improvements in the pipeline. Our agency is engaged in intensive research on facility vulnerabilities; it is considering additional or alternate means of protection; and it is looking in particular at the effects of suicidal crashes of large commercial airplanes, n66 the focus of Utah's contention here.

n65 See Section 1.A., *supra*, entitled "Overview."

n66 See *PSEG Nuclear LLC* (Salem Nuclear Generating Station, Units 1 and 2, and Hope Creek Generating Station), DD-02-03, 56 NRC , , slip op. at 18 (Nov. 6, 2002), *review declined*, unpublished letter of NRC Secretary (Dec. 6, 2002):

... the NRC, in conjunction with DOE laboratories, is continuing a major research and engineering effort to evaluate the vulnerabilities and potential effects of a large commercial aircraft impacting a nuclear power plant. This effort also includes consideration of possible additional preventive or mitigative measures to further protect public health and safety in the event of a deliberate aircraft crash into a nuclear power plant or spent fuel storage facility. The final results from that analysis are not yet available. If the ongoing research and security review recommends any other security enhancements, the NRC will take the appropriate action.

[\*36]

Given our existing efforts, it is not obvious what additional information or insights a formal NEPA review might bring into play. n67 We already are reviewing terrorism from nearly every conceivable angle. We have in place substantial security requirements for our facilities and are studying whether additional action is necessary. Thus, even if terrorism were a matter cognizable under NEPA -- and for the reasons given above we believe it is not -- it would elevate form over substance to insist that we supplement our ongoing comprehensive review with a duplicative or formalistic NEPA study. n68

n67 Although the Commission concludes that NEPA does not call for a formalistic NEPA study on the impacts of terrorism, the FEIS for the PFS project will include the Commission's comprehensive discussion here of the terrorism issue. See *Louisiana Energy Serv.*, CLI-98-3, 47 NRC at 89 ("The adjudicatory record and the Board decision (and, of course, any Commission appellate decisions) become, in effect, part of the FEIS. See, e.g., *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 & 2), ALAB-819, 22 NRC 681, 705-07 [1985].").

n68 See *Friends of the River v. FERC*, 720 F.2d 93, 106-08 (D.C. Cir. 1983). [\*37]

### III. CONCLUSION

For the foregoing reasons, we decline to require a NEPA review of the impact of terrorism at the proposed PFS facility. We therefore *affirm* the Licensing Board decision rejecting Utah's late-filed terrorism contention (Late-Filed Contention Utah RR).

IT IS SO ORDERED.

For the Commission n69

n69 Commissioner Dicus was not present for the affirmation of this Order. If she had been present, she would have approved it.

**In the Matter of DUKE ENERGY CORP.**  
**(McGuire Nuclear Station, Units 1 & 2, and Catawba Nuclear Station,**  
**Units 1 & 2**

Docket Nos. 50-369-LR, 50-370-LR, 50-413-LR, & 50-414-LR  
(consolidated); CLI-02-26

**NUCLEAR REGULATORY COMMISSION**

56 N.R.C. 358; 2002 NRC LEXIS 206

December 18, 2002

[\*1]

COMMISSIONERS Richard A. Meserve, Chairman; Greta Joy Dicus; Nils J. Diaz; Edward McGaffigan, Jr.; Jeffrey S. Merrifield

**OPINION:**

**MEMORANDUM AND ORDER**

This order addresses 14 security- and terrorism-related contentions which the Nuclear Information and Resource Service (NIRS) submitted to the Atomic Safety and Licensing Board and which the Board subsequently certified to the Commission. n1 In submitting these contentions for litigation, NIRS (with supporting briefs from its fellow-intervenor, the Blue Ridge Environmental Defense League (BREDL)) asserts that Commission approval of the proposed license renewals would increase the risks of terrorist attacks on the McGuire and Catawba plants. Duke Energy Corporation (Duke) and the NRC staff disagree. For the legal and policy reasons set forth below, we decline to consider these contentions and we instruct the Board to do the same.

n1 LBP-02-04, 55 NRC 49, *certification accepted*, CLI-02-06, 55 NRC 164 (2002). These contentions raise issues involving possible terrorist attacks using airplanes, boats, and truck bombs; the destruction of dams which hold the water used to cool the reactors; attacks on spent fuel or the facilities outside the containment structure; attacks using multiple teams and multiple insiders; the increased attractiveness of the plants as terrorist targets if they use mixed-oxide (MOX) fuel; the vulnerability of the electrical grid systems and station switchyards to sabotage; the impacts of fire as well as direct physical destruction on combustible fire penetration seals, and the loss of major pieces of infrastructure such as drinking water and access to emergency telephone numbers (911).  
[\*2]

**I. PROCEDURAL BACKGROUND** n2

n2 For a more detailed procedural background, we refer the reader to our recent order rejecting petitioners' MOX fuel contentions. See CLI-02-14, 55 NRC 278 (2002).

This proceeding stems from Duke's application of June 13, 2001, to renew the operating licenses for four nuclear power plants for an additional 20 years of operation, effective at their licenses' respective expiration dates in the 2020s. On October 23, 2001, BREDL filed a petition asking the

Commission to dismiss Duke's application or hold this adjudication in abeyance pending major anticipated changes in the plants' current licensing bases, including changes to address increased terrorism-related security threats. On December 28, 2001, we issued CLI-01-27, denying BREDL's petition on the grounds that the instant adjudication would address many contentions entirely unconnected to terrorism, would result in no immediate licensing action, and would cause BREDL no injury other than litigation costs. n3

n3 54 NRC at 389-91.

On January 24, 2002, the Board issued LBP-02-04 in which it concluded that petitioners had demonstrated [\*3] standing and had offered admissible contentions concerning risks associated with the plants' anticipated use of MOX fuel, the plants' ice condensers, and the likelihood of station blackouts. However, the Board declined to rule on the admissibility of NIRS's contentions relating to terrorism risks, and instead certified those contentions to the Commission. On February 6, 2002, the Commission issued CLI-02-6, accepting certification of the terrorism contentions and setting a briefing schedule. n4 On February 25 and March 12, 2002, the parties filed the requested briefs. The Nuclear Energy Institute (NEI), stating that its interests were aligned with those of the applicant, also requested permission to file a brief *amicus curiae* regarding terrorism issues. n5

n4 55 NRC 164. The Commission simultaneously issued similar orders agreeing to address terrorism contentions in three other proceedings: *See Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-02-03, 55 NRC 155 (2002), *accepting referral of LBP-01-37*, 54 NRC 476 (2001) (denying admission of terrorism contention and referring contention to the Commission); *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Unit No. 3; Facility Operating License NPF-49), CLI-02-05, 55 NRC 161 (2002), *accepting referral of LBP-02-05*, 55 NRC 131 (2002) (denying admission of terrorism contention and referring contention to the Commission); and *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-04, 55 NRC 158 (2002), *granting in part petition for interlocutory review of unpublished Memorandum and Order (Ruling on Motion to Reconsider)* (Jan. 16, 2002) (denying reconsideration of admission of terrorism contention). Today, we likewise issue orders on the admissibility of the terrorism contentions in those same three proceedings.

n5 We grant NEI's request. [\*4]

## II. DISCUSSION

The Commission recognizes that it cannot rule out the possibility of a terrorist threat to NRC-regulated facilities. Indeed, the NRC Staff is conducting a comprehensive review of the potential effects of terrorist attacks and of our security and safeguards rules and procedures. In addition, we continue to work with other responsible agencies to combat the terrorism threat, and we have already upgraded security requirements, with additional adjustments in the offing. n6

n6 *See Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-02-\_\_, 56 NRC \_\_, slip op. at 2-4 (Dec. 18, 2002).

As detailed below, a license renewal review is narrow in scope, confined to aging analyses of the plant's structures, systems and components. Thus, contentions related to terrorism are beyond the scope of the NRC Staff's safety review under the Atomic Energy Act and this proceeding. We also find that the NRC has no responsibility under NEPA to consider intentional malevolent acts in conjunction with Duke's license renewal applications.

## A. AEA Contentions.

The Commission's rules governing licensing proceedings require that a petitioner to intervene raise [\*5] at least one admissible contention. n7 To be admissible, a contention must be supported by "sufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact." n8 For a contention to satisfy this requirement, it must fall within the scope of the proceeding, as that scope is defined by the Commission in its Referral Order and the relevant regulatory provisions (here, 10 C.F.R. §§ 51.71(d), 51.95(c), 54.4, 54.21(a) & (c), 54.29, and 54.30). n9 This is because the referral order and relevant regulations determine what contentions are "material" to a proceeding. n10

n7 10 C.F.R. § 2.714(b)(1).

n8 Regarding other admissibility requirements, see 10 C.F.R. § 2.714(b)(2)(i), (ii), (iii); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 1 and 3), CLI-01-24, 54 NRC 349, 361-62 (2001).

n9 Regarding referral orders, see *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212-13 (2001). Regarding pertinent regulations, see *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000). Regarding both, see *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998).

n10 10 C.F.R. § 2.714(d)(2)(ii). In addition, a factual or legal issue is material to a proceeding only if it would entitle petitioner to relief. [\*6]

The scope of the AEA portion of a license renewal proceeding is narrow. n11 In our order referring this proceeding to the Licensing Board, we specifically limited the case's scope under the AEA to "a review of the plant structures and components that will require an *aging* management review for the period of extended operation and the plant's systems, structures and components that are subject to an evaluation of time-limited *aging* analyses." n12 This scope limitation derives from our rules governing license renewal applications. In developing those rules, we concluded that the AEA issues to be addressed in determining whether to renew a reactor operating license for 20 additional years should be far more limited than the AEA issues that we address when reviewing an initial operating license application. This agency's ongoing regulatory oversight programs routinely address many safety issues and will continue to address them in years 41 through 60 of a plant's life (assuming a grant of the renewal application). n13 Therefore, consideration of those issues in a license renewal proceeding would be unnecessary and wasteful. n14

n11 Final Rule, "Nuclear Power Plant License Renewal; Revisions," 60 Fed. Reg. 22,461, 22,465, 22,481 (May 8, 1995) (1995 Final Rule).

n12 *McGuire*, CLI-01-20, 54 NRC at 212-13 (emphasis added), citing 1995 Final Rule and 10 C.F.R. §§ 54.4, 54.21(a), (c). See also *McGuire*, CLI-01-27, 54 NRC at 391 ("License renewal, by its very nature, contemplates a limited inquiry -- i.e., the safety and environmental consequences of an additional 20-year operating period. License renewal focuses on *aging* issues, not on everyday operating issues") (emphasis in original; footnotes omitted), citing *Florida Power & Light Co.* (Turkey Point Nuclear Generating Station, Units 3 & 4), CLI-01-17, 54 NRC 3, 6-13 (2001).

n13 CLI-01-17, 54 NRC at 7-9. See also 1995 Final Rule, 60 Fed. Reg. at 22,464.

n14 CLI-01-17, 54 NRC at 8. [\*7]

The threshold AEA-related question before us is whether NIRS's terrorism contentions are sufficiently related to the effects of plant aging to fall within the scope of the AEA portion of this proceeding. They are not, and we therefore conclude that they are inadmissible in the AEA portion of the proceeding. As we stated in the Statement of Consideration for our 1995 License Renewal Final Rule:

[T]he portion of the [current licensing basis] that can be impacted by the detrimental effects of aging is limited to the design-bases aspects of the [current licensing basis]. All other aspects of the [current licensing basis], e.g., . . . *physical protection (security)* . . . , are not subject to physical aging processes . . ." n15

and similarly in the Statement of Consideration for our earlier 1991 License Renewal Final Rule:

[T]he Commission concludes that a review of the adequacy of *existing security plans* is not necessary as part of the license renewal review process. n16

Terrorism contentions are, by their very nature, directly related to security and are therefore, under our rules, unrelated to "the detrimental effects of aging." Consequently, they are beyond [\*8] the scope of, not "material" to, and inadmissible in, a license renewal proceeding.

n15 1995 Final Rule, 60 Fed. Reg. at 22,475 (emphasis added).

n16 Final Rule, "Nuclear Power Plant License Renewal," 56 Fed. Reg. 64,943, 64,967 (Dec. 13, 1991) (1991 Final Rule) (emphasis added).

#### B. NEPA Contentions.

For the reasons we set out today in *Private Fuel Storage*, we find that NEPA imposes no legal duty on the NRC to consider intentional malevolent acts, such as the recent attacks on New York City and the Pentagon, on a case-by-case basis in conjunction with commercial power reactor license renewal applications. n17 The "environmental" effect caused by third-party miscreants "is . . . simply too far removed from the natural or expected consequences of agency action to require a study under NEPA" n18

n17 See *Private Fuel Storage*, CLI-02-\_\_, 56 NRC ; accord *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-\_\_, 56 NRC (Dec. 18, 2002); and *Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-02-\_\_, 56 NRC (Dec. 18, 2002).

n18 See *Private Fuel Storage*, CLI-02-\_\_, 56 NRC at , slip op. at 11. [\*9]

An environmental impact statement is not the appropriate format in which to address the challenges of terrorism. We reached this conclusion for a number of interlocking reasons: (1) the likelihood and nature of postulated terrorist attack are speculative and not "proximately caused" by an NRC licensing decision; n19 (2) the risk of a terrorist attack cannot be meaningfully determined; n20 (3) NEPA does not require a "worst case" analysis and such an analysis would not enhance the agency's decision-making process; n21 and (4) a terrorism review is incompatible with the public character of the NEPA process. n22 Particularly in the case of a license renewal application, where reactor operation will continue for many years regardless of the Commission's ultimate decision, it

is sensible not to devote resources to the likely impact of terrorism during the license renewal period, but instead to concentrate on how to prevent a terrorist attack in the near term at the already licensed facilities. n23 As there appears to be little practical benefit in conducting a license renewal terrorism review, the Commission has no duty under NEPA to do so. n24

n19 See *id.* at , slip op. at 7-8, 9-12.

n20 See *id.* at slip op. at 13-14.

n21 See *id.* at , slip op. at 7-8, 15-18.

n22 See *id.* at , slip op. at 18-22.

n23 Cf. *Pacific Gas & Elec. Co.* (Diablo Canyon Power Plants, Units 1 and 2), CLI-02-16, 55 NRC 317, 343 (2002) (terrorist attacks are neither caused by nor result from the proposed license transfers).

n24 Because the McGuire and Catawba plants are already licensed to operate until the 2020s, an immediate site-specific analysis of the potential for terrorist attacks would not alleviate the intervenor's articulated concerns.

Even if we were required by law to consider terrorism under NEPA, the NRC has already issued a Generic Environmental Impact Statement ("GEIS") that considers sabotage in connection with license renewal. See NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (May 1996) ("GEIS"). The GEIS concluded that, if such an event were to occur, the resultant core damage and radiological releases would be no worse than those expected from internally initiated events. See *id.*, Vol. 1 at p. 5-18. [\*10]

Moreover, our decision today not to use NEPA as a vehicle for a terrorism review hardly means that we are ignoring the issue. As detailed in today's *Private Fuel Storage* decision, we are closely examining our current security and protective framework and already have ordered interim improvements at licensed nuclear facilities, including reactors. n25 We expect further improvements as our internal comprehensive review moves forward.

n25 See *Private Fuel Storage*, CLI-02-\_\_\_, 56 NRC at , slip op. at 2-4.

### III. CONCLUSION

We decline in this proceeding to consider NIRS's AEA- and NEPA-related contentions regarding terrorist threats to the McGuire and Catawba plants, and we therefore direct the Board to reject those contentions.

### IT IS SO ORDERED.

For the Commission n26

n26 Commissioner Dicus was not present for the affirmation of this Order. If she had been present, she would have approved it.