UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED 12/18/02
SERVED 12/18/02

COMMISSIONERS

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In the Matter of	)	
PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22-ISFSI
(Independent Spent Fuel Storage Installation)	)	

CLI-02-25

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).[1] We subsequently accepted review,[2] and also agreed to review three other cases raising terrorism-related issues.[3] The

[1] LBP-01-37, 54 NRC 476 (2001).

[2] 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.

[3] *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

(continued...)

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.[4]

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."[5] 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.

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[3](...continued)
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).

[4] 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).

[5] *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).

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.

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,[6] 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 specialists have performed numerous onsite physical security vulnerability assessments at licensed facilities to evaluate the effectiveness of our licensees' enhanced security measures.

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

[6] 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.

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 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. 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.[7]

In 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.[8] 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.[9]

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[7] *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).

[8] *See* 10 C.F.R. § 72.94.

[9] 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).

Utah's new NEPA "terrorism" claim argued that PFS's Environmental Report and the NRC staff's draft Environmental Impact Statement (EIS)[10] 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,[11] 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.[12] The Board also cited a 1989 Third Circuit decision, *Limerick Ecology Action v. NRC*,[13] 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.[14] 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.[15]

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[10] 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.

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

[12] 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.

[13] 869 F.2d 719, 743-44 (3rd Cir. 1989).

[14] 54 NRC at 487.

[15] *See id.* 487-88.

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?"[16]

On review, Utah has abandoned its AEA-terrorism claim and focused on its NEPA-terrorism claim.[17] 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.

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?

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[16] 55 NRC at 162.

[17] *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.

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.[18] 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 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.

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.[19] The NEPA process is governed by a "rule of reason."[20] 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. 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

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[18] 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.

[19] *See* 42 U.S.C. § 4331(b).

[20] *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).

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.

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 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."[21] Council on Environmental Quality (CEQ) regulations, which offer agencies guidance on NEPA compliance, provide that the

[21] *See* 42 U.S.C. § 4332(2)(C)(i).

EIS must discuss direct and indirect effects of the action.[22] Direct effects are "caused by the action and occur at the same time and place."[23] 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.[24] CEQ regulations also caution that the EIS should not be overbroad.[25]

NEPA's "dual purpose" is to ensure that federal officials 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.[26] 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.

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[22] 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).

[23] 40 C.F.R. §1508.8(a).

[24] 40 C.F.R. §1508.8(b) (emphasis added).

[25] 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).

[26] *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).

It is well-established that NEPA requires only a discussion of "reasonably foreseeable" impacts.[27] Grappling with this concept, various courts have described it as a "rule of reason,"[28] or "rule of reasonableness,"[29] which excludes "remote and speculative"[30] impacts or "worst case" scenarios.[31] Courts have excluded impacts with either a low probability of occurrence,[32] 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.[33] NEPA does not call for "examination of every conceivable aspect of federally licensed projects."[34] Here, the possibility of

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[27] *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).

[28] *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).

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

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

[31] *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).

[32] *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).

[33] *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.

[34] *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-

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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.

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.[35] Similarly, in C*ity 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 points of view, it was within DOT's discretion not to discuss the matter further beyond adopting the NRC security requirements.[36]

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.[37]

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[34](...continued)
02-20, 56 NRC ___, slip op. at 10-11 (2002).

[35] 869 F.2d at 744.

[36] 715 F.2d 732, 750 (2nd Cir. 1982), *appeal dismissed and cert. denied*, 465 U.S. 1055 (1984).

[37]*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 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."[38] Here, though, we have no way to calculate the probability portion of the equation, except in such general terms as to be nearly meaningless.

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 (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

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

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.[39]

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.[40] Given this setting, a terrorist attack seemingly would be quite unlikely to result in a high-consequence release of radioactivity.

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

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[39] *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).

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

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."[41]

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

Utah's proposed approach -- that the NRC assume the 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.[42]

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 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

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[41] 869 F.2d at 744.

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

inquiry into worst case possibilities.[43] The Court pointed with approval to CEQ's 1986 abandonment of a regulation that had required EIS's to include worst case analyses.[44] 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."[45] 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."[46]

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

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[43] *Id.* at 356.

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

[45] 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).

[46] *See* 490 U.S. at 356.

expected consequence of licensing the facility. Utah says that we should take guidance from *Sierra Club v. Marsh*, a First Circuit decision concluding that "reasonable foreseeability" under NEPA means that "the impact is sufficiently likely to occur that a person of ordinary prudence would take it in to account in reaching a decision."[47] 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?"[48] 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?"[49]

Utah asks the wrong question. The "reasonably foreseeable" effects of a successful attack with a jumbo jet against the 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

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[47] 976 F.2d at 767. *See also Dubois v. U.S. Dept. of Agric.*, 102 F.3d at 1286.

[48] 976 F.2d at 768, *quoting Sierra Club v. Marsh*, 769 F.2d 868, 878 (1st Cir. 1985).

[49] *See* Utah's Brief at 8.

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.[50] As the Supreme Court noted in *Robertson,* it is always possible to "conjure up" progressively more disastrous scenarios.[51]

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.[52]

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

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[50] 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).

[51] *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).

[52] *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").

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 falling 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.[54] Indeed, public information and public participation form a large part of NEPA's *raison d'etre*.[55] 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.

In our view, the public interest 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).[56] 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

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[54] *See* 42 U.S.C. § 4332.

[55] *See Robertson v. Methow Valley Citizens Council*, 490 U.S. at 356.

[56] *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).

defense."[57] Such matters, according to the AEC, are "clearly not amenable to board consideration and determination."[58] The AEC commented that it "would not propose to make them cognizable issues in the absence of a clear Congressional direction to that end."[59] Congress has enacted no such directive.

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*."[60] 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."[61] 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 vital. To use NEPA's own terms, confidentiality in this area is an "essential consideration of national

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[57] *Id.* at 14.

[58] *Id*.

[59] *Id.*

[60] 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)).

[61] 42 U.S.C. § 4331(b)(3).

policy," protects against "risks to health and safety," and avoids "undesirable and unintended consequences."

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.[62] This limitation on information availability supports our decision not to use NEPA, in part a public information statute, as our vehicle to analyze terrorism.[63]

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.[64] 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, 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.

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[62] *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").

[63] *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).

[64] 454 U.S. 139, 143 (1981).

As we explained above in detail,[65] 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,[66] the focus of Utah's contention here.

Given our existing efforts, it is not obvious what additional information or insights a formal NEPA review might bring into play.[67] We already are reviewing terrorism from nearly every conceivable angle. We have in place substantial security requirements for our facilities and are

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[65] *See* Section 1.A., *supra*, entitled "Overview."

[66] *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.

[67] 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].").

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.[68]

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

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[69]

/RA/

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Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, MD
this 18th day of December, 2002.

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