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Managing the Line between Nuclear Power and Nuclear Terror: Considering the Threat of Terrorism as an Environmental Impact

I. Introduction

When the Ephrata, Pennsylvania community hospital discharged Pierce Nye from its mental ward, few people, if any, suspected that he planned to invade the nation's nuclear infrastructure. But on February 11, 1993, he crashed his Plymouth station wagon through two fences and into the "protected area" of Three Mile Island ("TMI") in what the Nuclear Regulatory Commission ("NRC") at that time labeled "the most serious intrusion on record in this country."¹ In the wake of this intrusion and the World Trade Center bombing the same year, the public and the government began to recognize the need to upgrade security at the nation's nuclear power plants.² Similarly, following the terrorist attacks in New York and Washington in 2001, the NRC again considered the new threat of an airborne attack on the nuclear infrastructure, and modified its security requirements accordingly.³ Following the 2001 attacks, however, many states, organizations and private citizens began to demand that the NRC account for the possible environmental effects of a terrorist attack on a nuclear power plant or nuclear

¹ Matthew L. Wade, *Gate Crasher Shakes Up Nuclear Debate*, N.Y. TIMES, Feb. 11, 1993, at A16.

² See *The World Trade Center Bombing, The Three Mile Island Intrusion and the Potential Threat to U.S. Nuclear Power Plants: Hearing Before the Subcomm. on Clean Air and Nuclear Regulation of the S. Comm. on Env't and Pub. Works*, 103d Cong. 1 (1993) (statement of Dr. Bruce Hoffman, RAND Corporation); Protection Against Malevolent Use of Vehicles at Nuclear Power Plants, 59 Fed. Reg. 38889 (Aug. 1, 1994) (increasing security at nuclear facilities following the World Trade Center bombing and a vehicular incursion at TMI).

³ See, e.g. All Operating Power Reactor Licensees; Order Modifying Licenses (Effective Immediately), 67 Fed. Reg. 9792 (Mar. 4, 2002) (modifying license requirements for nuclear generating stations following the terrorist attacks of Sept. 11, 2001, specifics of which were not released to the public, but supplement the existing requirements enumerated in 10 C.F.R. 73.55); Order Modifying Licenses (Effective Immediately), 67 Fed. Reg. 65150 (Oct. 23, 2002) (modifying license requirements for nuclear fuel storage facilities following the terrorist attacks of Sept. 11, 2001, specifics of which were not released to the public, but supplement the existing requirements enumerated in 10 C.F.R. 73.55); Entergy Nuclear Operations, Inc.; Notice of Issuance of Director's Decision Under 10 CFR 2.206, 67 Fed. Reg. 70467 (Nov. 22, 2002) (stating that the NRC has partially granted a request for a security upgrade in light of the terrorist attacks of September 11, 2001, but finding that the existing emergency response plans are sufficient to respond to a terror event.); Security Zone, San Diego, CA, 67 Fed. Reg. 5480 (Feb. 6, 2002) (establishing a temporary security zone in the waters immediately adjacent to the San Onofre (Cal.) nuclear generating station).

fuel storage facility as part of its licensing process.⁴ Though the NRC typically rejected such demands, a split between the Ninth and Third circuits brought this issue into the national spotlight.

Since the early days of civilian atomic energy, the NRC has designated security at nuclear facilities a top priority,⁵ along with the environmental impact of nuclear plants.⁶ In a 2002 administrative decision, the NRC responded to recent terrorist events by ruling on whether the threat of a terrorist attack on a nuclear facility is an environmental effect to be considered in the construction, licensing, and operation of a nuclear power plant or fuel storage facility,⁷ as required by the National Environmental Policy Act (“NEPA”).⁸ Interested parties claimed that a nuclear facility’s Environmental Impact Statement (“EIS”) must discuss the potential environmental impact of a terrorist attack on that facility.⁹ The NRC held in *Private Fuel Storage* (“*PFS*”) that the environmental impact of a terrorist act on a nuclear plant is not a factor subject to EIS analysis because (1) consideration of terrorism conflicts with NEPA’s goals and the rule of reason,¹⁰ (2) the NRC cannot adequately determine the risk of an attack,¹¹ (3) NEPA

⁴ See *Private Fuel Storage*, 56 N.R.C. 340 (2002) (hereinafter “*PFS*”); *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Commission*, 449 F.3d 1016 (9th Cir. 2006) (hereinafter “*Mothers for Peace*”), *cert. denied*, 549 U.S. 1166 (2007); *New Jersey Dep’t of Env’tl Protection v. Nuclear Regulatory Commission*, 561 F.3d 132 (3d. Cir. 2009) (hereinafter “*NJDEP*”).

⁵ Atomic Energy Act, 42 U.S.C. § 2011 et seq.; Energy Reorganization Act, 42 U.S.C. § 5801 et seq. (1974) (creating the Nuclear Regulatory Commission).

⁶ See NRC Regulations Implementing NEPA § 102(2), 10 C.F.R. § 51.10.

⁷ See *PFS*, 56 N.R.C. 340.

⁸ National Environmental Policy Act, 42 U.S.C. § 4321 et seq. (2010) (declaring federal policy “to use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony” and establishing a procedure for agencies to examine the significant environmental impacts of its actions).

⁹ *PFS*, 56 N.R.C. 340; *Mothers for Peace*, 449 F.3d 1016; *NJDEP*, 561 F.3d 132. An EIS is a detailed written statement that discusses the significant environmental impacts of a proposed federal action. 40 C.F.R. 1502.1. The EIS is generally preceded by an environmental assessment (“EA”) which is a concise document that provides evidence and analysis “for determining whether to prepare an [EIS] or a finding of no significant impact” (“FONSI”). 40 C.F.R. 1508.9.

¹⁰ *PFS*, 56 N.R.C. 340 at 13-19.

¹¹ *Id.* at 19-22.

does not require analysis of a “worst-case scenario,”¹² and (4) NEPA’s public process is an inappropriate forum for review of sensitive security issues.¹³

The Ninth Circuit departed from the NRC’s *PFS* precedent in *Mothers for Peace*, when it held that an EIS must address the environmental consequences of a terrorist attack on the proposed nuclear facility.¹⁴ Disagreeing with the Ninth Circuit in 2009, the Third Circuit affirmed the NRC’s decision that an EIS does not need to include a terrorism review.¹⁵ This created a circuit split created between the Third and Ninth Circuit’s regarding whether the NRC must consider the threat of a terrorist attack on a nuclear facility in an EIS for a nuclear power plant or nuclear fuel storage facility.¹⁶

Part II of this note discusses the purpose of NEPA, relative Supreme Court precedent, and the law according to the Third and Ninth Circuits in *NJDEP* and *Mothers for Peace*, respectively. Part III offers an analysis of the circuit split in light of the binding law and regulatory framework. It also explores the ramifications of following either circuit’s approach and presents possible courses of action that address issues raised by this debate. This note will conclude by arguing that the Third Circuit’s holding in *NJDEP* – that an EIS need not consider terrorism – is the correct interpretation and application of the law.

II. Background

A. A Brief History

President Eisenhower initiated the “Atoms for Peace” program shortly after his inauguration in 1953.¹⁷ The aim of this program, to transfer nuclear technology from the

¹² *Id.* at 22-28.

¹³ *Id.* at 29-35.

¹⁴ *Mothers for Peace*, 449 F.3d at 1035.

¹⁵ *NJDEP*, 561 F.3d 132.

¹⁶ *In re Areva Enrichment Serv., LLC*, 70 N.R.C. 1, 4-5 (2009).

¹⁷ FRED BOSSELMAN, ET AL., *ENERGY, ECONOMICS AND THE ENVIRONMENT: CASES AND MATERIALS*, 997 (3d. 2010).

military to civilian enterprises, vested the development of nuclear energy in private companies.¹⁸ The Atomic Energy Act of 1954¹⁹ established the Atomic Energy Commission (“AEC”), which regulated all aspects of private nuclear energy.²⁰ The Energy Reorganization Act of 1974²¹ abolished the AEC and placed the regulatory and licensing authority of the AEC within the newly-established NRC, while the Energy Research and Development Administration (the predecessor to the Department of Energy) retained the AEC’s research and development functions.²²

The public initially approved of the use of nuclear power when the first commercial plant opened in 1957.²³ But growing fears about the risks of nuclear power resulted in new safety requirements and more complex procedures for plant licensure.²⁴ The NRC’s administrative framework provides a process for private citizens to address concerns and participate in the construction and licensing of nuclear facilities.²⁵ Some interested parties, however, have preferred a more direct route. For example, in May 1977 a New-England based coalition of anti-nuclear groups called the Clamshell Alliance coordinated the first forceful occupation of a nuclear plant in the United States at New Hampshire’s Seabrook plant, resulting in the arrests of 1,414 protestors.²⁶ Similarly, four years later, police arrested 1,453 protestors at California’s Diablo Canyon when demonstrators tried to block land and sea access to that plant.²⁷

¹⁸ *Id.*

¹⁹ 42 U.S.C. §§ 2011, et seq.

²⁰ BOSSELMAN, *supra* note 17 at 997-98; *Our History*, UNITED STATES NUCLEAR REGULATORY COMMISSION, <http://www.nrc.gov/about-nrc/history.html> (last visited Jan. 16, 2011 at 6:21 PM).

²¹ 42 U.S.C. §§ 5801-79.

²² *Nuclear Regulatory Comm’n*, FEDERAL REGULATORY DIRECTORY, 343 (Congressional Quarterly, Inc., 13th ed. 2008).

²³ BOSSELMAN, *supra* note 17, at 998.

²⁴ *Id.*

²⁵ JOSEPH A. CAMILLERI, *THE STATE AND NUCLEAR POWER: CONFLICT AND CONTROL IN THE WESTERN WORLD*, 76 (1984).

²⁶ *Id.*; *Arrests at Diablo Canyon Pass Total at Seabrook*, N.Y. TIMES, Sept. 23, 1981, at A16.

²⁷ *Arrests at Diablo Canyon Pass Total at Seabrook*, N.Y. TIMES, Sept. 23, 1981, at A16.

The Three Mile Island (“TMI”) incident in 1979 sparked fears of the possible harmful consequences of nuclear power.²⁸ The accidental release of radioactive materials into the water and air demonstrated that serious accidents present a real threat to the environment. No longer was a major incident merely possible, one had occurred; and without appropriate measures by the NRC, accidents would occur again.²⁹ The NRC responded by studying the risks of future accidents and evacuation and disaster management plans and implementing appropriate changes.³⁰

Several events in the early 1990’s illustrated the type of incursions that could occur at a nuclear facility which implicate the NRC’s security duties. For example, the truck bombings of the World Trade Center and the Oklahoma City Federal Building in 1993 and 1995 respectively demonstrated the active and actual threat of land based attacks to valuable installations. Additionally, mental patient Pierce Nye’s invasion of TMI demonstrated the vulnerability of the nation’s nuclear industry.³¹ These events, in addition to the occupations at Seabrook and Diablo Canyon, illustrate the difficult task faced by the NRC in safeguarding the nation’s nuclear infrastructure.

In recent years, the issue of terrorism has dominated the discourse on plant security and environmental risks. Until the 1993, Americans generally considered terrorism an act that occurred abroad.³² The bombing of the World Trade Center in February 1993,³³ however, revealed a weakness in American domestic security and re-ignited an already twenty-year-old

²⁸ See *In re TMI Litig.*, 193 F.3d 613 (3d Cir. 1999) (describing the TMI incident, its causes and effects).

²⁹ *Limerick Ecology Action, Inc. v. Nuclear Regulatory Comm’n*, 869 F.2d 719, 741 (1983).

³⁰ *Id.*

³¹ Matthew L. Wade, *Gate Crasher Shakes Up Nuclear Debate*, N.Y. TIMES, Feb. 11, 1993, at A16. See 10 C.F.R. § 73.55 (describing a protected area as an area protected by physical barriers that is accessible only by official personnel, vehicles and materials).

³² Hoffman, *supra* note 2.

³³ Robert D. McFadden, *EXPLOSION AT THE TWIN TOWERS: The Overview; BLAST HITS TRADE CENTER, BOMB SUSPECTED; 5 KILLED, THOUSANDS FLEE SMOKE IN TOWERS*, N.Y. TIMES, Feb. 27, 1993, § 1, at 1.

debate on the vulnerability of nuclear facilities.³⁴ Following the 2001 attacks on New York and Washington,³⁵ the debate again intensified. Though design-based requirements of nuclear plants require them to be built to withstand hurricanes and earthquakes (in areas where hurricanes and earthquakes occur), prior to 2001, no design-based requirements existed that required nuclear plants to be able to withstand large aircraft crashes.³⁶ Beginning in 2002, the NRC has reviewed the design-based requirements at nuclear facilities and has implemented increasingly stringent design-based requirements and physical security standards.³⁷ What the NRC refuses to do, however, is to require that facilities review terrorism as an environmental impact.³⁸

B. Administrative Process

The AEA grants the NRC the exclusive authority to regulate the safety of nuclear facilities and charges the NRC with ensuring that “the utilization or production of special nuclear material will be in accord with the common defense and security and will provide adequate protection to the health and safety of the public.”³⁹ To achieve this end, the NRC may promulgate rules, regulations and orders “as the Commission may deem necessary or desirable to promote the common defense or security or to protect health or to minimize danger to life or property.”⁴⁰ Examples of the NRC’s compliance with this duty pervade Title 10 of the Code of

³⁴ Hoffman, *supra* note 2.

³⁵ Serge Schmemmann, *U.S. ATTACKED; President Vows to Exact Punishment for ‘Evil’*, N.Y. TIMES, Sept. 12, 2001, at A1.

³⁶ Mark Holt, Anthony Andrews, *Nuclear Power Plant Security and Vulnerabilities*, Congressional Research Service, 4 (Aug. 23, 2010).

³⁷ See sources cited *supra* note 3; *Mothers for Peace*, 449 F.3d at 1030-31; 10 C.F.R. § 73.1 et seq (providing specific physical protection requirements for nuclear power plants and fuel storage facilities); *but see* *Riverkeeper, Inc. v. Collins*, 359 F.3d 156, 161-62 (2d Cir. 2004) (refusing the demands of an environmental protection group that New York’s Indian Point nuclear generation plant be protected by a 10-mile-radius no fly zone and defenses sufficient to defend this zone from approaching aircraft).

³⁸ *PFS*, 56 N.R.C. 340 at 3-6; *In re Amergen Energy Co.*, 65 N.R.C. 124, 126-29.

³⁹ 42 U.S.C. § 2232(a) (2010).

⁴⁰ 42 U.S.C. § 2201(b) (2010). Agencies also issue general statements of policy, 5 U.S.C. § 553(b), (c), and have the discretion to use adjudicative proceedings to establish binding legal norms, *SEC v. Chenery*, 332 U.S. 194, 199-203. Because of the ability for the NRC to use adjudication to establish legal rules, *Mothers for Peace* reviewed the

Federal Regulation in its NEPA-enforcing regulations,⁴¹ its physical protection requirements⁴² and its plant licensing procedures,⁴³ to name just a few.

NEPA, passed in 1969, establishes “a broad national commitment to protecting and promoting environmental quality . . . [while promoting] the understanding of the ecological systems and natural resources important to [the nation].”⁴⁴ In passing NEPA, Congress declared that it is the policy of the Federal Government “to use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, 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.”⁴⁵ NEPA establishes a procedural mandate—a process by which an agency must thoroughly examine “every significant aspect of the environmental impact of a proposed action[,]”⁴⁶ without requiring any particular substantive results.⁴⁷ The policy goals established “are realized through [these] ‘action-forcing’ procedures that require that agencies take a ‘hard look’ at environmental consequences,” and that provide for broad dissemination of relevant environmental information.⁴⁸ In short, NEPA serves two paramount aims: to “inject environmental considerations into [a] federal agency’s decisionmaking process . . . ”⁴⁹ and to “inform the public that the agency has considered

decision of the NRC to exclude a terrorism discussion as a legal rule instead of a factual one, *Mothers for Peace*, 449 F.3d at 1030.

⁴¹ 10 C.F.R. Part 51.

⁴² 10 C.F.R. Part 73.

⁴³ 10 C.F.R. Part 2.

⁴⁴ NEPA, 42 U.S.C. § 4331 (2010).

⁴⁵ 42 U.S.C. § 4331 (2010).

⁴⁶ *Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 553 (1978).

⁴⁷ *Vermont Yankee*, 435 U.S. 519, 559; *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

⁴⁸ *Robertson*, 490 U.S. at 350.

⁴⁹ *Vermont Yankee*, 435 U.S. at 553.

environmental concerns in its decisionmaking process.”⁵⁰ The completion and public disclosure of an EIS ensure that both of these aims are fulfilled.⁵¹

Pursuant to NEPA, Federal agencies must “include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement... on – (i) the environmental impact of the proposed action, [and] (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented....”⁵² Major Federal actions are “actions with effects that may be major and which are potentially subject to Federal control and responsibility.”⁵³ Effects include “[d]irect effects, which are caused by the action and occur at the same time and place[,]” and “[i]ndirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”⁵⁴

NEPA also established the Council on Environmental Quality (“CEQ”), which promulgates regulations interpreting NEPA and guiding agencies in determining what actions are subject to an EIS.⁵⁵ “[W]here an agency action significantly affects the quality of the human environment, the agency must evaluate the ‘environmental impact’ and any unavoidable adverse environmental effects of its proposal.”⁵⁶ Agencies must evaluate remote, but potentially significant impacts, providing the evaluation remains grounded in “existing credible scientific

⁵⁰ *Weinberger v. Catholic Action of Hawaii/Peace Educ. Project*, 454 U.S. 139, 143 (1981).

⁵¹ *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983).

⁵² 42 U.S.C. § 4332(C) *Calvert Cliffs Coord. Comm., Inc. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1116 (1971) The EIS process requires the applicant (the party applying to construct a nuclear facility) to submit to the NRC its own “environmental report,” presenting its assessment of the environmental impact of the planned facility and possible alternatives which would alter the impact. The NRC will then consider the applicant’s report and prepare its own “detailed statement” of environmental costs, benefits and alternatives. The statement is then circulated to interested parties and agencies and made available to the public, which will provide comments on the statement. The NRC then prepares a final statement and makes final recommendations on the application. When construction is completed, this process is repeated for the application for an operating license.

⁵³ 40 C.F.R. § 1508.18.

⁵⁴ *Id.* at § 1508.8.

⁵⁵ 42 U.S.C. § 4341 et seq.; 40 C.F.R. § 1500.1 et seq.

⁵⁶ *Metro. Edison*, 460 U.S. at 772.

evidence which is relevant to evaluating...adverse impacts.”⁵⁷ Instead of extending the theoretical limit of the EIS to a “worst-case” analysis, the Statement must focus on “reasonably foreseeable impacts” of the proposed action.⁵⁸ The “reasonably foreseeable” requirement serves the twin aims of NEPA by “generat[ing] information and discussion on those consequences 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.”⁵⁹

C. Judicial Review

Passed in 1946, the Administrative Procedure Act (“APA”) provides a generic process for agency rulemaking⁶⁰ and a private right to judicial review of agency actions.⁶¹ It also provides six separate standards by which a circuit court may hold an agency action unlawful.⁶² Because NEPA’s procedural mandate acts to insure a “fully informed and well-considered decision,” courts cannot overturn an agency decision merely because the court “is unhappy with the result reached.”⁶³ Rather, the courts serve to ensure that the agency adequately follows its procedures and that its decision is not arbitrary or capricious.⁶⁴ So long as the agency took the

⁵⁷ 40 C.F.R. § 1502.22.

⁵⁸ *Robertson*, 490 U.S. at 356. Prior to 1986, where “information relevant to the agency’s evaluation of the proposed action [was] either unavailable or too costly to obtain, the agency [was required to] include in the EIS a ‘worst case analysis and an indication of the probability or improbability of its occurrence.’” The CEQ removed this requirement because the “worst case” requirement overemphasized highly speculative harms, prompted agencies to exceed the rule of reason in their analysis of potential impacts, and proved wasteful of agencies’ time and resources, thus diverting the EIS process from its intended purpose. *Robertson*, 490 U.S. at 345-56 (citing 51 Fed. Reg. 15624-15625 (1986); 50 Fed. Reg. 32236 (1985)).

⁵⁹ *Robertson*, 490 U.S. at 356 (citing National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15618, 15624-15625 (1986)).

⁶⁰ 5 U.S.C. § 551 et seq. A specific agency’s enabling act may provide a different process for rulemaking, and may preclude or channel judicial review. In the case of the Atomic Energy Act, the APA provides the relevant administrative and judicial procedures. 42 U.S.C. §§ 2231, 2239(b) (2010).

⁶¹ 5 U.S.C. § 702 (2010). However, no private right exists where review of the action is barred by law or the action is “committed to agency discretion by law.” 5 U.S.C. § 701 (2010).

⁶² 5 U.S.C. § 706 (2010).

⁶³ *Vermont Yankee*, 435 U.S. at 558.

⁶⁴ 5 U.S.C. § 706(2)(A); *Citizens to Pres. Overton Park v. Volpe*, 401 U.S. 402, 413-14 (1971); *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 375 (1989).

requisite “hard look”⁶⁵ at the federal action’s environmental consequences, broad deference is generally granted to the agency in its area of expertise⁶⁶ and the courts may not supplant an agency’s expert judgment with its own.⁶⁷ Despite this broad statutory deference, intervenors have fervently challenged the NRC’s decisions on certain issues. NEPA provides a common vehicle for such challenges, and nuclear power is an issue that incites zealous opposition.

D. Judicial Background

i. *Metropolitan Edison v. People Against Nuclear Energy*

When Metropolitan Edison, the owner of Three Mile Island, sought to relicense TMI after the 1979 incident, opponents of nuclear power and of TMI itself intervened and the case quickly found its way to the Supreme Court. The Court analyzed NEPA and the EIS requirements in what became a landmark decision for subsequent EIS claims. Assessing when an issue falls within the necessary scope of EIS contemplation, the Court stated that “courts must look to the underlying policies or legislative intent in order draw a ‘manageable line’ between those causal changes that may make an actor responsible for an effect and those that do not.”⁶⁸ Thus, two questions must be asked when considering whether a factor requires NEPA review: Is the effect caused by the federal action,⁶⁹ and did Congress intend the effect to be included in an EIS under NEPA?⁷⁰

a. Causation

⁶⁵ *Greater Boston Television Corp. v. Fed. Comm. Comm’n*, 444 F.2d 841, 851 – 852 (D.C. Cir. 1970), *cert. denied*, 403 U.S. 923 (1971) (describing the function of the court in reviewing administrative decisions as assuring “that the agency has given reasoned consideration to all the material facts and issues[,]” and stating that where the agency has given the facts and issues a hard look, the court should uphold the agency’s findings).

⁶⁶ The decisions agencies make requires evaluation of complex issues by experts with a high level of technical expertise. “When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinion of its own qualified experts even if... a court may find contrary views more persuasive. *Marsh*, 490 U.S. at 377-78; *Kleppe v. Sierra Club*, 427 U.S. 390, 412; *Baltimore Gas & Elec.*, 462 U.S. at 103.

⁶⁷ *Kleppe*, 427 U.S. at 410, n.21 (1976); *Nat’l Res. Def. Council v. Morton*, 458 F.2d 827, 838 (D.C. Cir. 1972); *Baltimore Gas & Elec.*, 462 U.S. at 87.

⁶⁸ *Metro. Edison*, 460 U.S. at 773-74.

⁶⁹ *Id.*

⁷⁰ *Id.*

Federal agencies must consider particular effects when completing an EIS under NEPA.⁷¹ These effects must share a close causal relation with the Federal action in question.⁷² Mere "but-for" causation, *Metropolitan Edison* stated, will not bring an effect into NEPA's scope, as such a causal chain is too attenuated.⁷³ Instead, the Court stated that the causal chain is shorter, similar to proximate causation in tort law.⁷⁴ In the case of relicensing Three Mile Island, the psychological effects that some residents and relatives of residents might suffer was too remote from the physical change that would result from continued production of energy, such as the release of low-level radiation and increased fog due to the plant's cooling towers.⁷⁵

Thus, *Metropolitan Edison* read "environmental effect" and "environmental impact" in NEPA to include a "reasonably close causal relationship between a change in a physical environment and the effect at issue."⁷⁶ Where the speculated harm does not have a close connection to the physical environment, NEPA does not apply.⁷⁷ Setting the stage for future discussions of what falls within NEPA review, the Court held that both tort law and NEPA require courts to "look to the underlying policies or legislative intent in order to draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not."⁷⁸ Where to draw that "manageable line" is the crux of this discussion with respect to the potential environmental impact of terrorism and the scope of the EIS.

b. Congressional Intent

⁷¹ *Id.* at 773.

⁷² *Id.*

⁷³ *Id.* at 774.

⁷⁴ *Id.*

⁷⁵ *Metro. Edison*, 460 U.S. at 774-75.

⁷⁶ *Id.* at 774.

⁷⁷ *Id.* at 778.

⁷⁸ *Id.* at 774.

“The scope of [an] agency’s inquiries must remain manageable if NEPA’s goal of ‘[insuring a fully informed and well-considered decision,]’ is to be accomplished.”⁷⁹ After TMI, the NRC concluded that the risk of an accident had not changed since the publication of the original EIS in 1972.⁸⁰ Even after a serious accident had occurred, finding no change in the risk of an accident was not an “arbitrary and capricious” decision. The Court held fast to the purpose of NEPA and the congressional intent and policies of the Act noting that NEPA is not “directed at the effects of past accidents and . . . federal actions . . . and nothing in the language or history of NEPA . . . suggest[s] that its scope should be expanded in the wake of any kind of accident.”⁸¹ Thus, the court held that the fact that a unique or traumatic incident occurred does not itself transform an effect from that incident into an environmental impact which is required to be discussed in an EIS.⁸²

ii. *Weinberger v. Catholic Action Hawaii*

Notably, the Supreme Court issued a decision in a non-NRC case involving the requirements of an EIS in the year prior to *Metropolitan Edison*. In *Weinberger v. Catholic Action of Hawaii/Peace Educ. Project*,⁸³ a coalition of environmental protection groups demanded that the Navy produce a “hypothetical environmental impact statement” for nuclear weapons that may or may not have been stored in a facility located on the island of Oahu.⁸⁴ The Navy’s Candidate EIS (“CEIS”) detailed the environmental hazards associated with storing, handling and transporting nuclear weapons, but did not disclose the facility’s location.⁸⁵ The

⁷⁹ *Id.* at 776 (citing *Vermont Yankee*, 435 U.S. at 551, 558).

⁸⁰ *Id.* at 775, n.9.

⁸¹ *Metro. Edison*, 460 U.S. at 779 (internal quotation marks omitted).

⁸² *Id.* at 778.

⁸³ *Weinberger*, 454 U.S. 139.

⁸⁴ *Id.* at 140.

⁸⁵ *Id.* at 141-42.

Court rejected the demand for a hypothetical EIS because such a requirement clearly departs from the requirements of NEPA.⁸⁶

The Court discussed the need to balance the goals of NEPA with national security. Under the *Totten Doctrine*⁸⁷ “public policy forbids the maintenance of any suit in a court of justice, the trial of which would inevitably lead to the disclosure of matters which the law itself regards as confidential, and respecting which it will not allow the confidence to be violated.”⁸⁸ Thus, an EIS that would reveal intelligence sensitive to national security, such as the location of nuclear weapons, may not be disclosed in formal adjudication.⁸⁹ Additionally, since the Freedom of Information Act (“FOIA”) governs the disclosure under NEPA,⁹⁰ an EIS deemed “classified” pursuant to an executive order may be withheld from requests for disclosure.⁹¹

iii. *NoGWEN Alliance v. Aldridge* – Ninth Circuit

At the height of the Cold War, the Air Force proposed a series of 300 foot radio towers, the Ground Wave Emergency Network (“GWEN”), that would enable communication among American armed forces during and after nuclear war.⁹² NoGWEN Alliance appealed the project’s approval, claiming that the environmental assessment,⁹³ which resulted in a finding of no significant impact, was inadequate because it failed to discuss the environmental impact of a nuclear exchange that GWEN itself could provoke.⁹⁴

Holding that an EIS need not consider the possibility that GWEN would increase the probability of nuclear war or that an individual GWEN tower would be a singular target of a

⁸⁶ *Id.* at 144.

⁸⁷ *Totten v. United States*, 92 U.S. 105 (1876).

⁸⁸ *Weinberger*, 454 U.S. at 146-47 (quoting *Totten*, 92 U.S. at 107).

⁸⁹ *Id.* at 146-47.

⁹⁰ Freedom of Information Act, 5 U.S.C. § 701 et seq.

⁹¹ *Weinberger*, 454 U.S. at 143-46.

⁹² *NoGWEN Alliance v. Aldridge*, 855 F.2d 1380, 1381 (9th Cir. 1988).

⁹³ See *supra* text accompanying note 52.

⁹⁴ *NoGWEN Alliance*, 855 F.2d at 1381.

nuclear attack, the Ninth Circuit began its discussion by stating that the causation standard of *Metropolitan Edison* did not control since that case examined the requirement of an EIS in considering a physical change in the environment and its subsequent psychological effect, whereas this case involved consideration of a federal action and the subsequent physical change in the environment.⁹⁵ The court instead relied on its own ruling in *Warm Springs Dam Task Force v. Gribble*,⁹⁶ which “rejected the notion that every conceivable impact must be discussed in an EIS.”⁹⁷ *Warm Springs* established the Ninth Circuit’s rule that an EIS is not required to address “remote and highly speculative” consequences of federal action.⁹⁸ Since NoGWEN admitted that its claims were speculative, they failed the “remote and highly speculative” test.⁹⁹ Echoing *Metropolitan Edison*, the Ninth Circuit stated that “the nexus between construction of GWEN and nuclear war is too attenuated to require discussion of the environmental impacts of nuclear war in an [EIS].”¹⁰⁰

iv. *Riverkeeper v. Collins* – Second Circuit

In 2004, the Second Circuit denied a claim that, without establishing a no-fly zone and installing defenses able to defend the zone, Indian Point, the closest nuclear power plant to New York City, should be shut down as a potential terrorist target that places millions of lives in harm’s way.¹⁰¹ *Riverkeeper, Inc.*, a nonprofit organization devoted to protecting the Hudson River and the New York City watershed, cited Indian Point as a likely terrorist target because of

⁹⁵ *Id.* at 1385.

⁹⁶ *Warm Springs Dam Task Force v. Gribble*, 621 F.2d 1017 (9th Cir. 1980) (concluding that an EIS need not consider the impact of a dam failure caused by an earthquake, since such an impact would be a “remote and highly speculative consequence.” Additionally, the precise environmental impact is agreed by laymen and experts alike to be catastrophic, so detailing such a factor would serve no useful purpose.)

⁹⁷ *NoGWEN Alliance*, 855 F.2d at 1385.

⁹⁸ *Warm Springs Dam Task Force*, 621 F.2d at 1026-27; *see also* *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974); *Envtl. Def. Fund, Inc. v. Hoffman*, 566 F.2d 1060, 1067 (9th Cir. 1977).

⁹⁹ *NoGWEN Alliance*, 855 F.2d at 1386.

¹⁰⁰ *Id.* at 1386; *compare with Metro. Edison*, 460 U.S. at 774 (“Some effects that are ‘caused by’ a change in the physical environment in the sense of ‘but for’ causation, will nonetheless not fall within [NEPA review] because the causal chain is too attenuated.”)

¹⁰¹ *Riverkeeper*, 359 F.3d 156.

its proximity to the water supply and transportation systems of twenty million residents and to New York City's financial centers.¹⁰² Rejecting Riverkeeper's claim that the NRC abdicated its statutory duty to "provide adequate protection to the health and safety of the public,"¹⁰³ the Second Circuit recognized that agencies must assess the likely success of their actions, the prudence of a requested action to the agency's policies, and whether the requested course represents a proper allocation of the agency's resources.¹⁰⁴ Agency decision-making requires a careful balancing of these factors—a balancing that the agency itself is best equipped to consider.¹⁰⁵ Though rejecting Riverkeeper's appeal on jurisdictional grounds, the Second Circuit stated that, although the AEA empowers the NRC to require more than an "adequate" level of protection, the statutory requirement does not demand "absolute protection."¹⁰⁶

v. *Private Fuel Storage* – Nuclear Regulatory Commission

The question of terrorism as an environmental factor first reached the NRC's NEPA review in early 2002, after interveners claimed that, in light of recent terrorist attacks, the EIS should "consider the environmental consequences of terrorists flying commercial jumbo jets into the *PFS* facility."¹⁰⁷ In *PFS*, the concern arose from the EIS of a nuclear fuel storage site located on the Skull Valley Goshute Indian Reservation in Utah. Utah claimed that the occurrence of recent terrorist attacks in New York and Washington made future attacks more likely and more dangerous than previously thought.¹⁰⁸ The Commission framed the issue in relation to the goals and purpose of NEPA, that is, whether contemplation of the environmental impact caused by

¹⁰² *Id.* at 159-60.

¹⁰³ 42 U.S.C. § 2232(a).

¹⁰⁴ *Riverkeeper*, 359 F.3d at 165 (citing *Heckler v. Chaney*, 470 U.S. 821, 831-32).

¹⁰⁵ *Id.*

¹⁰⁶ 42 U.S.C. § 2201 (b), (i)(3); *Id.* at 168..

¹⁰⁷ *PFS*, 56 N.R.C. 340 at 8. The NRC decided this case concurrently with three other cases raising similar terrorism-related issues. The discussion in *PFS* became the binding rationale for these and subsequent terrorism-related cases. See *Duke Cogema Stone & Webster*, 55 N.R.C. 158 (2002); *Dominion Nuclear Conn.*, 55 N.R.C. 161 (2002); *Duke Energy Corp.*, 55 N.R.C. 164 (2002).

¹⁰⁸ *Id.* at 7, 9.

terrorism, a factor that—unlike reasonably certain effects on foliage, water and air quality, wildlife, and human culture and lifestyle—is unpredictable, “comes in innumerable forms and at unexpected times and places . . . [a]nd is not a natural or inevitable byproduct of licensing,” will serve the twin aims of NEPA.¹⁰⁹ The NRC denied any requirement to include terrorism in an EIS, but did not deny the real possibility that terrorists may attempt to attack nuclear facilities. The NRC further noted that there was not practical benefit to the Commission, the environment or the public by including such a factor for four primary reasons.¹¹⁰

First, NEPA review requires contemplation of “reasonably foreseeable” impacts,¹¹¹ a requirement referred to as the “rule of reason.”¹¹² The rule of reason does not demand examination of every conceivable effect of a project; “remote and speculative” impacts, “worst case” scenarios, “impacts with . . . a low probability of occurrence,” or effects too attenuated from the federal action to fall within the range of proximate cause do not require NEPA analysis.¹¹³ The rule of reason serves as the manageable line between likely effects of licensing and those that are “too far attenuated to require NEPA review, particularly where the terrorist threat [exists independently] of the facility.”¹¹⁴

Second, the Commission noted that the risk of attack on a particular facility is not quantifiable, and “[a]ny attempt at quantification . . . would be highly speculative.”¹¹⁵ Because the quantification of the risk would be highly speculative, it would fall outside the “reasonably foreseeable” requirement, and fail the rule of reason. The Commission then stated that if a

¹⁰⁹ *Id.* at 10.

¹¹⁰ *Id.* at 12-13.

¹¹¹ *Dubois v. U.S. Dept. of Agric.*, 102 F.3d 1273, 1286; *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir.); *PFS*, 56 N.R.C. at 16 (citing *Wyoming Outdoor Council, Inc. v. U.S. Forest Serv.*, 165 F.3d 43, 49 (D.C. Cir. 1999)).

¹¹² *San Luis Obispo Mothers for Peace v. N.R.C.*, 751 F.2d 1287, 1300-01 (D.C. Cir. 1984), *vacated on other grounds*, 760 F.2d 1320 (D.C. Cir. 1985); *PFS*, 56 N.R.C. at 16 (citing *Davis V. Latschar*, 202 F.3d 359, 368 (D.C. Cir. 2000)).

¹¹³ *PFS*, 56 N.R.C. at 16 (external citations omitted).

¹¹⁴ *Id.* at 19.

¹¹⁵ *Id.* at 19.

method of quantifying the risk existed, it would likely be held miniscule, and thus fail the rule of reason.¹¹⁶ Moreover, the Federal Aviation Commission (“FAA”), the U.S. intelligence community, law enforcement agencies and the Department of Defense (“DOD”) all take active steps to protect nuclear facilities and their local airspace.¹¹⁷ These efforts, coupled with the existence of many more inviting targets, place the risk of environmental effects arising from acts of terror well outside the rule of reason.¹¹⁸

Further, the Commission equated the contemplation of the effect of a terrorist attack to a “worst case” scenario analysis, which both the CEQ and the Supreme Court expressly rejected.¹¹⁹ The risk of a terrorist attack on a nuclear plant, the NRC admitted, amounts to a “theoretical possibility,” which falls short of the “reasonably foreseeable” threshold for NEPA review.¹²⁰ Supplanting “reasonably foreseeable” with “theoretically possible” would essentially revive “worst case” analysis, and could harm the public by unduly exaggerating a project’s risks.¹²¹

Finally, the Commission recognized the need to keep sensitive information out of the hands of those who might use it to do harm, and that NEPA’s public nature conflicts with security interests.¹²² NEPA itself contains a limiting provision that the means utilized to achieve its aims must be consistent with “considerations of national policy,” and that it should exercise restraint “based on ‘risk to health and safety, or other undesirable and unintended consequences.’”¹²³ In addition to these general limits in NEPA, the AEA forbids the NRC from

¹¹⁶ *Id.* at 19-20.

¹¹⁷ *Id.* at 19-20.

¹¹⁸ *Id.* at 19-20.

¹¹⁹ *Robertson*, 490 U.S. at 354-55 (citing 40 C.F.R. 1502.22); *PFS*, 56 N.R.C.at 22-23; National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15618, 15625 (Apr. 15, 1986).

¹²⁰ *PFS*, 56 N.R.C.at 22.

¹²¹ *Id.* at 23-24.

¹²² *Id.* at 29.

¹²³ 42 U.S.C. § 4331(b); *PFS* at 31.

disclosing security-related information.¹²⁴ Based on these four factors, the NRC refused to require nuclear plant operators to conduct a terrorism analysis within an EIS.

E. The Circuit Split

i. *San Luis Obispo Mothers for Peace v. NRC*

Licensed to begin operating in 1984, Diablo Canyon Units 1 and 2 are two of four nuclear reactors operating in California,¹²⁵ and two of eight operating in the states under the 9th Circuit's jurisdiction.¹²⁶ Citizen's and action groups, such as the Sierra Club and the San Luis Obispo Mothers for Peace, organized in protest of the plant as soon as Pacific Gas & Electric announced its planned construction in 1963.¹²⁷ The legal¹²⁸ and extra-legal¹²⁹ actions in opposition to the plant continue to this day.¹³⁰

In December 2001, only months before the *PFS* decision by the NRC, Diablo Canyon applied for a license to construct and operate a dry cask storage facility.¹³¹ Since Diablo Canyon's original storage capacity was to expire in 2006, the plant could not continue to operate

¹²⁴ 42 U.S.C. § 2161; *PFS*, 56 N.R.C.at 32.

¹²⁵ *Deukmejian v. Nuclear Regulatory Comm'n*, 751 F.2d 1287 (D.C. Cir. 1984); *Diablo Canyon Power Plant, Unit 1*, NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/info-finder/reactor/diab1.html> (last visited October 25, 2010); *Diablo Canyon Power Plant, Unit 2*, NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/info-finder/reactor/diab2.html> (last visited October 25, 2010).

¹²⁶ *See Map of the United States Showing Locations of Operating Nuclear Power Reactors*, NUCLEAR REGULATORY COMM'N, <http://www.nrc.gov/info-finder/reactor/> (last visited Oct. 25, 2010).

¹²⁷ *Mothers for Peace Timeline*, MOTHERS FOR PEACE, <http://mothersforpeace.org/20090321timeline> (last visited Oct. 25, 2010); *Deukmejian*, *supra*, n. 124.

¹²⁸ *Deukmejian*, 751 F.2d 1287 (affirming the NRC's initial licensing of Diablo Canyon, over the objections of California Governor George Deukmejian, and intervenors, including Mothers for Peace); *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm'n*, 799 F.2d 1268 (9th Cir. 1986) (reversing the NRC's granting of a license for Diablo Canyon to expand its capacity of on-site radioactive spent fuel storage); *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm'n*, 789 F.2d 26 (D.C. Cir. 1986) (affirming the NRC's denial of a hearing on the effects of an earthquake on Diablo Canyon, as the decision was not arbitrary or capricious).

¹²⁹ *Arrests at Diablo Canyon Pass Total at Seabrook*, N.Y. TIMES, Sept. 23, 1981, at 16; Michael Parrish, *Vandals Topple Utility's Power Lines*, L.A. TIMES, Apr. 24, 1990, at A3.

¹³⁰ *See, e.g.*, Jill Leovy, *Coastal Conflict; A state board considers a plan to end the practice of sucking in ocean water – along with sea life – to cool power plants*, L.A. TIMES, Mar. 1, 2010, at AA1 (describing recent California state board proposals to prohibit plants from sucking in sea water (as Diablo Canyon does) because of the danger it poses to marine life and its warming effect on the surrounding waters when it is dumped back into the ocean).

¹³¹ *Mothers for Peace*, 449 F.3d at 1021. Dry cask storage consists of a stainless steel canister, filled with spent fuel, welded shut and enclosed in concrete "overpacks" that allow circulating air to cool the fuel.

without the additional facility,¹³² which would provide sufficient spent-fuel storage until 2025, when Diablo Canyon’s operating license expires.¹³³ San Luis Obispo Mothers for Peace intervened in the License Board Proceeding, arguing that the license should be denied because the environmental review “does not contain any discussion of the environmental impacts of destructive acts of malice or insanity,” notably, the effect of sabotage or a terrorist attack.¹³⁴ In September of 2002, Mothers for Peace submitted a second petition for hearing on the effect of terrorism, expanding its challenge to include the security of the entire Diablo Canyon facility.¹³⁵ The Commission denied their petitions under the precedential ruling of *PFS* and Mothers for Peace appealed to the Ninth Circuit.¹³⁶ The Ninth Circuit rejected each of the four bases of the *PFS* decision, resulting in the first successful challenge of the *PFS* decision setting a binding standard on nuclear facilities located within the Ninth Circuit.¹³⁷

The court first distinguished the issuance of the Diablo Canyon fuel storage facility license from the re-licensing of Three Mile Island—the subject of controversy in the Supreme Court’s ruling in *Metropolitan Edison*—as an inapplicable factual analogy.¹³⁸ The events discussed in *Metropolitan Edison* and *NoGWEN*, the court said, illustrate a causal chain consisting of three events: “(1) a major federal action; (2) a change in the physical environment;

¹³² *Id.* at 1021.

¹³³ *Id.* at 1021; *Diablo Canyon Power Plant, Unit 2*, NUCLEAR REGULATORY COMM’N, <http://www.nrc.gov/info-finder/reactor/diab2.html> (last visited October 25, 2010).

¹³⁴ *In re Pacific Gas & Elec.*, 56 N.R.C. 413, 70 (2002).

¹³⁵ *Mothers for Peace*, 449 F.3d at 1023.

¹³⁶ *Id.* at 1024.

¹³⁷ *Id.* at 1035; *Tri-Valley Cares v. Dep’t of Energy*, 203 Fed. Appx. 105, 107 (9th Cir. 2006); *Tri-Valley Cares v. Dep’t of Energy*, No. C 03-3926, 2007 U.S. Dist. LEXIS 29437 (N.D.Cal. Apr. 6, 2007); *see also Areva Enrichment Serv., LLC*, 70 N.R.C. at 5 (recognizing and applying the exception to the NRC’s judgment which *Mothers for Peace* carved out as binding on facilities located within the Ninth Circuit’s jurisdiction).

¹³⁸ *Mothers for Peace*, 449 F.3d at 1029.

and (3) an effect.¹³⁹ *Metropolitan Edison* concerned a relationship between events 2 and 3 . . . [and] explicitly distinguished [a] relationship between events 1 and 2”¹⁴⁰

Instead of relying on the Supreme Court’s “reasonably close causal relationship” standard,¹⁴¹ the court applied its holding in *NoGWEN* and *Warm Springs Dam Task Force*, that an EIS need not address “remote and highly speculative consequences.”¹⁴² The court then held that the NRC’s determination “that terrorist attacks are ‘remote and highly speculative,’ as a matter of law, is inconsistent with the government’s efforts and expenditures to combat this type of terrorist attack against nuclear facilities.”¹⁴³ For example, the NRC had recently undertaken certain “efforts and expenditures,” including increasing security at nuclear facilities, reviewing its own security policies in light of its duty under the AEA “to protect ‘public health and safety’ and the ‘common defense and security[,]’” and establishing the Office of Nuclear Security and Incident Response.¹⁴⁴ By taking steps designed to combat or mitigate the potential of a terrorist attack, the court reasoned, the NRC does not consider terrorist attacks so “remote and speculative” as to escape NEPA review.¹⁴⁵ Neither did the Ninth Circuit.¹⁴⁶

Having addressed the Supreme Court’s causation standard, the Ninth Circuit then addressed the remaining *PFS* factors. The court observed that the second factor, which states that “[a]ny attempt at quantification...would be highly speculative,” and thus falls outside the rule of reason,¹⁴⁷ “misses the point.”¹⁴⁸ Relying on the minority opinion in *Limerick Ecology*

¹³⁹ *Id.* at 1029.

¹⁴⁰ *Id.* at 1029.

¹⁴¹ *Metro. Edison*, 460 U.S. at 778.

¹⁴² *Mothers for Peace*, 449 F.3d at 1030; *NoGWEN Alliance*, 855 F.2d at 1386, *Warm Springs Dam Task Force*, 621 F.2d at 1026.

¹⁴³ *Mothers for Peace*, 449 F.3d at 1030.

¹⁴⁴ *Id.* at 1030-31.

¹⁴⁵ *Id.* at 1031.

¹⁴⁶ *Id.* at 1031.

¹⁴⁷ *PFS*, 56 N.R.C. 340 at 19.

¹⁴⁸ *Mothers for Peace*, 449 F.3d at 1031.

Action,¹⁴⁹ the court stated that no NEPA provision, NRC regulation or any other authority, case law or policy statement “permits the NRC to ignore any [unquantifiable risk].”¹⁵⁰ Rather, an agency enforcing NEPA must take a “hard look” at the environmental consequences, even if they are unquantifiable.¹⁵¹

The third factor, which states that NEPA does not require a “worst case” scenario analysis,¹⁵² was treated as a red herring. The NRC removed “worst-case” review from its requirements in 1986 due to their speculative, wasteful and ambiguous nature.¹⁵³ Since that “worst case” analysis is not required, the court believed that the NRC “wrongly labels a terrorist attack the worst-case scenario”¹⁵⁴

In dismissing the fourth *PFS* factor, which examines whether the disclosure of sensitive national-security information would create greater security risks, the court relied on *Weinberger* and held that NEPA contains no national security exception.¹⁵⁵ Contrary to the NRC’s assertions, a limited hearing process which involves full review of all environmental impacts, yet allows classified information exemption from publication, would not fail NEPA’s mandate. Such a process does not prohibit the public from contributing information to the hearing process.¹⁵⁶ Although “NEPA’s requirements are not absolute,” the exemption processes described in *Weinberger* should protect the public security interest.¹⁵⁷ Thus, after rejecting, but not overruling, the *PFS* decision, the Ninth Circuit held that an EIS must take into account,

¹⁴⁹ 869 F.2d 719, 754 (3d Cir. 1989) (Scirica, J., dissenting)

¹⁵⁰ *Mothers for Peace*, 449 F.3d at 1032.

¹⁵¹ *Id.* at 1032.

¹⁵² *PFS*, 56 N.R.C.at 22-23.

¹⁵³ *Supra*, note 58.

¹⁵⁴ *Mothers for Peace*, 449 F.3d at 1034.

¹⁵⁵ *Id.* at 1034-35.

¹⁵⁶ *Id.* at 1034.

¹⁵⁷ *Id.* at 1034.

during the licensure process, the potential environmental impact of a terrorist attack on a nuclear facility. This decision is in direct opposition to the Third Circuit's ruling.

ii. *New Jersey Dep't of Env't'l Protection v. NRC*

Mothers for Peace did not overrule *PFS*, which has remains binding precedent throughout the rest of the country.¹⁵⁸ The New Jersey Department of Environmental Protection challenged the 2005 application of AmerGen Energy Company, the owner and operator of Oyster Creek nuclear generating station, for “the NRC’s failure to prepare an [EIS] to study the effects of an aircraft attack on Oyster Creek.”¹⁵⁹ The NRC agreed with the Atomic Safety and Licensing Board’s finding “that terrorism and ‘design basis threat’ reviews . . . lie outside the scope of NEPA in general and of license renewal in particular.”¹⁶⁰ In rejecting the appeal from the NRC’s decision, the Third Circuit discussed the claim’s “two insurmountable flaws” First, that the “reasonably close causal relationship” which *Metropolitan Edison* mandates did not exist between Oyster Creek’s relicensing and the risk of a terrorist attack, and second, that NJDEP’s demand for NEPA-terrorism review was redundant and provided no meaningful analysis of the issue of terrorism.¹⁶¹

The Third Circuit’s harkened back to *Metropolitan Edison* which requires the court to “draw a manageable line between those causal changes that may make an actor responsible for an effect and those that do not.”¹⁶² The court also found support for its position *Dep’t of Trans.*

¹⁵⁸ *Amergen Energy Co.*, 65 N.R.C. at 126-29 (2007) (citing the reasoning advanced in *PFS* as the binding precedent, despite the ruling of the 9th Circuit in *Mothers for Peace*); *Areva Enrichment Serv.*, 70 N.R.C. at 4, 5 (2009) (adhering to the requirement decided in *Mothers for Peace* that an EIS include a discussion of terrorism).

¹⁵⁹ *NJDEP*, 561 F.3d at 135.

¹⁶⁰ *AmerGen Energy Co.*, 65 N.R.C. at 128-30 (2007) (finding a possible hypothetical act caused by a criminal actor to be too far removed from the natural or expected consequences of re-licensing Oyster Creek; Moreover, “a NEPA-driven review of the risk of terrorism would be largely superfluous . . . , given that the NRC has undertaken extensive efforts to enhance security . . .” and numerous practical obstacles prevent meaningful NEPA review of the issue).

¹⁶¹ *NJDEP*, 561 F.3d at 136.

¹⁶² *Id.* at 139, (quoting *Metro. Edison*, 460 U.S. at 774 n.7).

v. Public Citizen,¹⁶³ which states that an agency need not prepare an EIS for actions, the effects of which lie beyond that agency's control and responsibility.¹⁶⁴ In both *Metropolitan Edison* and *Public Citizen*, the "manageable line" appears to encompass the boundaries of an agency's area of control.¹⁶⁵ Just as the Second Circuit in *Riverkeeper* denied an intervenor's request for a no-fly zone and anti-aircraft defenses as beyond the province of the NRC,¹⁶⁶ the Third Circuit denied the requirement for a NEPA review of terrorism because the NRC's inability to combat terrorism beyond its physical borders placed the matter outside of its control and thus, in the hands of another agency.¹⁶⁷ The fact that the NRC has taken precautionary actions to protect from terrorism does not bring the effect of terrorism within the scope of a "reasonably foreseeable causal relationship."¹⁶⁸

Additionally, the court expounds on *Metropolitan Edison*'s suggestion that causation as precipitated by a federal action parallels tort law's proximate cause.¹⁶⁹ Discussing the concept of intervening and superseding causes, the court determined that a criminal or terrorist act is a superseding cause that places the effect of terrorism farther from the licensing of the plant. Under the Restatement (Second) of Torts such effects cannot be anticipated.¹⁷⁰ Ultimately, a

¹⁶³ 541 U.S. 752 (2004).

¹⁶⁴ *Id.* 763; *NJDEP*, 561 F.3d at 139.

¹⁶⁵ *NJDEP*, 561 F.3d at 139; *see also* 40 C.F.R. 1508.18 ("Major Federal action' includes actions with effects that may be major and which are potentially subject to Federal control and responsibility.").

¹⁶⁶ *Riverkeeper*, 359 F.3d at 161.

¹⁶⁷ *NJDEP*, 561 F.3d at 139 (stating that the Federal Aviation Administration ("FAA") and the Department of Defense ("DOD") respond to the threat of terrorism). Additionally, though not mentioned by the Third Circuit, the mission of the Department of Homeland Security ("HS") is to "(A) prevent terrorist attacks within the United States; (B) reduce the vulnerability of the United States to terrorism; [and] (C) minimize the damage, and assist in the recovery, from terrorist attacks that do occur within the United States..." 6 U.S.C. § 1110; 40 C.F.R. § 1508.18.

¹⁶⁸ *NJDEP*, 561 F.3d at 143 (referencing *Ground Zero Ctr. for Non-Violent Action v. Dep't of the Navy*, 383 F.3d 1082, 1090-91 (9th Cir. 2004).

¹⁶⁹ *Id.* at 140.

¹⁷⁰ "An intervening force is one which actively operates in producing harm to another after the actor's negligent act or omission has been committed." RESTATEMENT (SECOND) OF TORTS, § 441(1). "A superseding cause is an act of a third person or other force which by its intervention prevents the actor from being liable for harm to another which his antecedent negligence is a substantial factor in bringing about." RESTATEMENT (SECOND) OF TORTS, § 440. An intervening force resulting from a third person's act or failure to act, or a wrongful act of a third person towards the

successful attack on a nuclear plant involves two superseding causes: (1) the criminal actions of a terrorist, and (2) the failure of the FAA and DOD to protect the facility.¹⁷¹ These superseding causes thus place the environmental effect of a terrorist attack beyond the “manageable line” of effects which an EIS must address.

Though grounding its reasoning in the Supreme Court’s precedent as established by *Metropolitan Edison*, the court then reasoned *arguendo* that even if required under NEPA, the NRC’s Generic EIS is not required to consider the effects of a hypothetical terrorist attack.¹⁷² According to the EIS, “should the unlikely event occur, the effects would be ‘no worse than those expected from internally initiated events.’”¹⁷³ This generic analysis, the court found, was sufficient to satisfy the “hard look” requirement of an impact, the risks of which “are impossible to quantify but nonetheless [may be characterized] as ‘small.’”¹⁷⁴ Because an EIS, under *Metropolitan Edison*, does not need to consider an impact that is not reasonably foreseeable, such as terrorism (despite the fact the Oyster Creek generic EIS nevertheless considered these effects) specific analysis of the impact of a terrorist aircraft attack would be meaningless and need not be conducted.¹⁷⁵

III. Analysis

“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

other are “important consideration in determining whether an intervening force is a superseding cause.”
RESTATEMENT (SECOND) OF TORTS, § 442.

¹⁷¹ *NJDEP*, 561 F.3d at 141.

¹⁷² *Id.* at 143. To streamline the environmental review process, the NRC has examined 92 environmental issues common to all nuclear power plants and has resolved 69 of them generically in a Generic EIS. The remaining 23 issues are analyzed on a plant-specific basis by the applicant in its Supplemental EIS. *Id.* at 134; Notice of Intent To Prepare an Environmental Impact Statement for the License Renewal of Nuclear Power Plants and To Conduct Scoping Process, 68 Fed. Reg. 33209 (2003).

¹⁷³ *NJDEP*, 561 F.3d at 143 (citing the Generic EIS from Oyster Creek’s initial licensing); 10 C.F.R. § 51 app. B.

¹⁷⁴ *Id.* at 143.

¹⁷⁵ *Id.* at 144.

project”¹⁷⁶ Knowledge of this information allows the agency to make a decision that considers all relevant factors and the effects of its action.¹⁷⁷ An EIS that contains misleading information, or information that diverts the agency’s attention and resources from the reasonably foreseeable effects of its actions, to the speculative and hypothetical, does not accomplish the goals of . . . EIS, and fails to serve the twin aims of NEPA.¹⁷⁸ Instead, such an EIS merely skews the public’s and the agency’s ability to properly evaluate the consequences of the federal action. By requiring an EIS for nuclear facilities when examining an issue so undefined, distracting, and speculative as “terrorism, the Ninth Circuit’s holding not only foils the purpose of NEPA, but it creates public safety risks, violates the law as stated by the Supreme Court and places an inefficient, unmanageable and unattainable burden upon the NRC and plant operators.

A. Initial Considerations

One might assume the term “terrorism” is clear, so that a request for inclusion of terrorism in an EIS reflects a particular type of concern. But this is not the case. Federal law provides at least 19 distinct definitions of the term “terrorism.”¹⁷⁹ As one example, the Department of Homeland Security (“DHS”) defines terrorism as activity that endangers human life or is destructive of infrastructure or resources, violates U.S. or state laws and is intended “to intimidate or coerce a civilian population; to influence the policy of a government by intimidation or coercion; or to affect the conduct of a government by mass destruction,

¹⁷⁶ *PFS*, 56 N.R.C. 340 at 10-11.

¹⁷⁷ *Id.*

¹⁷⁸ *See* National Res. Def. Council v. U.S. Forest Service, 421 F. 3d 797 (9th Cir. 2005) (“Inaccurate *economic* information may defeat the purpose of an EIS by “impairing the agency’s consideration of the adverse environmental effects” and by “skewing the public’s evaluation” of the proposed agency action.”) (emphasis added); Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv., 235 F. Supp. 2d 1143, 1157 (W.D. Wash. 2002) (“An EIS that relies upon misleading economic information may violate NEPA if the errors subvert NEPA’s purpose of providing decisionmakers and the public an accurate assessment upon which to evaluate the proposed project.”)

¹⁷⁹ Nicolas J. Perry, *The Numerous Federal Legal Definitions of Terrorism: The Problem of Too Many Grails*, 30 J. LEGIS. 249, 255 (2004).

assassination, or kidnapping.”¹⁸⁰ Homeland Security defines terrorism broadly, recognizing that it comes in many forms.¹⁸¹

Despite the creativity of humankind in developing ways to kill each other, those challenging the NRC’s current EIS requirements fail to contemplate that terrorist threats may take a wide variety of forms, and every unique type of attack will likely produce a unique type of environmental impact. This presents a problem in considering exactly how an EIS might discuss the effect of terrorist acts, when the very nature and magnitude of these acts cannot be adequately determined. Use of “terrorism” generally, as required in *Mothers for Peace*,¹⁸² will produce an ambiguous and unattainable requirement, vulnerable to broad judicial interpretation and challenge by intervenors. Discussion of one particular act, however, such as the crash of a hijacked aircraft as *NJDEP* demanded,¹⁸³ ignores an entire universe of potential terrorist acts and effects that could occur. Consequently, this note will not attempt to establish the ideal definition of terrorism which courts should discuss, but must draw attention to the complexity of the problem as the object at issue is so undefined.

Another important distinction between the decisions of the Third Circuit and the Ninth Circuit are the facts which give rise to the challenged EISs. *Mothers for Peace* involves the environmental impact of construction and licensing for the operation of a *new* storage facility located at the site of a nuclear generating station,¹⁸⁴ while *NJDEP* concerns the re-licensing of a

¹⁸⁰ Homeland Security Act, 6 U.S.C. § 101(16) (2010).

¹⁸¹ 6 U.S.C. § 101(16). Examples of the numerous forms of terrorism include the 2004 Beslan, Russia school massacre; 2008 Mumbai hotel shooting; 2000 attack on the U.S.S. Cole; 1995 Oklahoma City Federal Building bombing; 1993 World Trade Center Bombing; 2001 attempted “shoe bombing” by Richard Reid; 2009 attempted “underwear bombing;” 2001 anthrax attacks; 1988 Lockerbie Bombing; 1995 Tokyo subway sarin attacks; 2005 London underground bombing; 2002 Beltways sniper attacks.

¹⁸² *Mothers for Peace*, 449 F.3d at 1016.

¹⁸³ *NJDEP*, 561 F.3d at 132.

¹⁸⁴ *Mothers for Peace*, 449 F.3d 1016.

currently-operating nuclear generating station.¹⁸⁵ Some may find this factual difference as suitable grounds to distinguish the two cases from each other, thus avoiding any contentious issue for the time being. This note, however, will not attempt to establish any distinction between currently existing and planned facilities, or between nuclear generating plants and fuel storage sites. Going forward, the NRC will license many new facilities, and will re-license many old ones. The underlying problem is the one of primary importance: whether the EIS for the licensing of any type of nuclear facility requires the NRC to discuss the environmental effect of terrorist acts.

B. *Mothers for Peace* Did Not Follow the Binding Precedent of *Metropolitan Edison*

The Ninth Circuit's disobeyed precedent established by the Supreme Court in *Metropolitan Edison*. The Supreme Court stressed the importance of proximate causation analysis and established the necessary chain of three events: (1) a major federal action; (2) a change in the physical environment; and (3) an effect. The 9th Circuit interpreted *Metropolitan Edison* as standing for the principle that the effects of a mere risk do not produce an environmental impact, but that risk itself, if it occurs, will produce an environmental impact. By distinguishing risk of an event from the occurrence of that event, the Court in no way stated that the causal relationship between events along the chain from (1) federal action, (2) physical change to the environment, and (3) effect of that physical change, would differ depending on the type of relationship. On the contrary, in describing the chain in the matter of TMI – the federal action (re-licensing TMI), the alleged physical change (the risk of nuclear accident), and the impact (potential psychological health damage) – proximate cause analysis was pervasive and pivotal.¹⁸⁶ The element of risk, in that case, placed the effect beyond the “manageable line” of

¹⁸⁵ *NJDEP*, 561 F.3d 132.

¹⁸⁶ *Metro. Edison*, 460 U.S. at 775.

the ultimate effects of the federal action. The Ninth Circuit muddles the Supreme Court’s analysis; causation, so as to require NEPA review, must begin with a federal action and end with an effect.¹⁸⁷

Other environmental laws do not require the use of proximate cause to limit the range of effects which the EIS must discuss. Where but-for causation alone—without the limits imposed by probable cause—is the standard, those laws have stated so expressly. Consider, for example, the Clean Air Act (“CAA”). The Environmental Protection Agency (“EPA”) administers the CAA and under its regulations, the emissions that are caused by a federal action are those “that would not otherwise occur *in the absence* of the Federal action.”¹⁸⁸ As identified by *Public Citizen*, this amounts to a requirement for “but-for” causation.¹⁸⁹ The Third Circuit recognized that in order for a standard other than proximate cause to apply, the law must establish that alternative standard.¹⁹⁰ NEPA establishes no alternative standard of causation, and under *Metropolitan Edison*, proximate cause is the rule.¹⁹¹

Mothers for Peace also ignores the legislative intent discussed in *Metropolitan Edison*.¹⁹² NEPA requires an assessment of the impacts of future events; it “does not create a remedial scheme for past federal actions.”¹⁹³ The *Metropolitan Edison* EIS was developed “in the wake of a traumatic nuclear accident,”¹⁹⁴ but no provision of NEPA or regulation promulgated by the CEQ or the NRC allows for the expansion of NEPA’s scope in the wake of any kind of accident. Just as the Supreme Court in 1986 did not allow the events of 1979 to redefine “environmental effect”, the Ninth Circuit should not have allowed the events of 2001 to redefine the same term

¹⁸⁷ 42 U.S.C. § 4332(C)

¹⁸⁸ 40 C.F.R. § 93.152 (2010) (emphasis added).

¹⁸⁹ *Pub. Citizen*, 541 U.S. at 772.

¹⁹⁰ *NJDEP*, 561 F.3d at 139.

¹⁹¹ *Metro. Edison*, 460 U.S. at 775

¹⁹² *Id.* at 779.

¹⁹³ *Id.* at 779.

¹⁹⁴ *Id.* at 778.

today. Additionally, Congress nowhere indicated an intent to give the NRC the duty to prepare an EIS for factors beyond its control as the NRC “cannot be considered a legally relevant ‘cause’ of the” criminal acts of terrorists.¹⁹⁵

The Ninth Circuit further erred by applying the *NoGWEN/Warm Springs* “remote and highly speculative” standard. *NoGWEN* essentially re-states *Metropolitan Edison’s* “reasonably close causal relationship” standard in different words.¹⁹⁶ *Mothers for Peace*, however, interpreted “remote and highly speculative” as a new causation standard, which it applied in lieu of *Metropolitan Edison*.¹⁹⁷ As noted above, *Metropolitan Edison* did not leave room in its decision for circuits to apply their own standards due to minor factual differences.¹⁹⁸ By supplanting the judgment of the Supreme Court with their own rationale, the Third Circuit violated *Metropolitan Edison*.

C. *Mothers for Peace* Establishes an Unmanageable Standard

After the 2001 attacks on Washington and New York, the NRC began to review its security protocols and made a number of significant changes to respond to the threat of terrorism.¹⁹⁹ The Commission’s administrative decision in *PFS* reached a conclusion based on its scientific and industrial expertise which deserves great deference.²⁰⁰ Both *NJDEP* and *Riverkeeper* granted the appropriate deference to the NRC, yet the Ninth Circuit brushed aside the NRC’s *PFS* decision and supplanted it with its own judgment. Even its reliance on the Third

¹⁹⁵ *Pub. Citizen*, 541 U.S. at 770; 40 C.F.R. 1508.18.

¹⁹⁶ *Compare Metro Edison*, 460 U.S. at 774 (“§ 102 [reads] to include a requirement of a reasonably close causal relationship between a change in the physical environment and the effect at issue. This requirement is like the familiar doctrine of proximate cause from tort law.”) with *NoGWEN Alliance*, 855 F.2d at 1385 (“[T]his court has also rejected the notion that every conceivable environmental impact must be discussed in an EIS.... An impact statement need not discuss remote and highly speculative consequences.... [T]he nexus between construction of GWEN and nuclear war is too attenuated to require discussion of the environmental impacts of nuclear war in an... [EIS].”)

¹⁹⁷ *Mothers for Peace*, 449 F.3d at 1030.

¹⁹⁸ See *supra* page 28; *Metro. Edison*, 460 U.S. 779.

¹⁹⁹ See sources cited *supra* note 3.

²⁰⁰ *Baltimore Gas*, 462 U.S. at 103 (stating that reviewing courts should defer to the policies and predictions made by agencies within their own special area of expertise).

Circuit's decision in *Limerick* was unfounded, as that court affirmed that the party challenging the NRC's scientific determination bears the burden of undermining or rebutting that determination.²⁰¹ Not only did *Mothers for Peace* fail to appropriately defer to the expertise of the NRC, but it claimed that deference was not warranted since "the NRC's position that terrorist attacks are 'remote and highly speculative,' as a matter of law, is inconsistent with the government's efforts and expenditures."²⁰² The Ninth Circuit erred. The government undertook certain efforts in order to manage on-site safety, as required by law,²⁰³ but did not and could not undertake to address an issue as large and complex as terrorism.

The effects of terrorist acts do not fall within the province of the NRC merely because it has taken steps to prevent or mitigate the acts themselves. Terrorism is a global issue that certain branches of the government are suited to address. The NRC is legally and practically suited to address on-site safety and security, direct health hazards and mitigation of environmental impacts that concern the operation of the plant.²⁰⁴ Neither NEPA nor the AEA mandate a counter-terrorism mission, nor require the NRC to consider the result of independent third-party terrorist acts. What NEPA does require of the NRC is an examination of the plant or fuel-storage site on the environment, ranging from the minute to the catastrophic, regardless of the superseding or intervening cause.²⁰⁵ By considering the entire range of possible environmental effects of a nuclear plant in a Generic EIS, the NRC fulfilled its obligations under NEPA and in

²⁰¹ *Limerick*, 869 F.2d at 742; PG&E Petition for Writ of Certiorari, No. 06-466, 2006 WL 2826275 at *23 (Sept. 29, 2006).

²⁰² *Mothers for Peace*, 449 F.3d at 1030 (mentioning the steps taken by the NRC to combat terrorism and arguing that these efforts indicate an attitude that terrorism should be discussed).

²⁰³ See, e.g., 10 C.F.R. §§ 73.1 (outlining the purpose and scope of the NRC's physical protection provisions), 73.26 (providing for protection of nuclear materials in transit), 73.46 (providing for protection of nuclear facilities), 73 app. B (establishing detailed requirements and procedures for safety enforcement).

²⁰⁴ See sources cited at *Id.*

²⁰⁵ See 10 C.F.R. § 51 app. B.

doing so has implicitly contemplated the effects of terrorism. The particular acts of terrorism themselves are best left to the expert agencies with the expertise to analyze this potential threat.

D. Disclosure under NEPA will endanger the public

“The public aspect of NEPA processes conflicts with the need to protect certain sensitive information.”²⁰⁶ The NRC’s responsibilities include “protecting sensitive information from falling into the hands of those with malevolent intentions”²⁰⁷ yet an EIS that requires disclosure of the environmental impact of a terrorist attack on a nuclear power plant will threaten national security by allowing potential terrorists to access information that could facilitate their malevolent intentions. CEQ regulations require agencies to furnish their EIS to any person who requests it.²⁰⁸ Contrary to the requirement that NEPA not subject people to risk or undesirable or unintended consequences,²⁰⁹ “[a] full-scale NEPA process [that considers terrorism] necessarily would require examination of not only how terrorists could cause maximum damage but also of how they might best be thwarted.”²¹⁰ Keeping this kind of information secret is vital.²¹¹ As properly recognized by the NRC in *PFS*:

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.²¹²

²⁰⁶ *PFS*, 56 N.R.C. at 29; *see also* 42 U.S.C. § 2011 (declaring the policy of the AEA to protect public health, safety and common defense and security).

²⁰⁷ *Id.*

²⁰⁸ 40 C.F.R. § 1502.19.

²⁰⁹ 42 C.F.R. § 4331(b)(3).

²¹⁰ Petition for a Writ of Certiorari at 29, *Pacific Gas & Elec. Co. v. San Luis Obispo Mothers for Peace*, 549 U.S. 1166 (2007) (No. 06-466), 2006 WL 2826275 at *29.

²¹¹ *PFS*, 56 N.R.C. at 31.

²¹² *Id.* at 29-30.

The AEC, the predecessor to NRC, rejected the requirement that the regulatory hearing process consider the attack on a plant by the country's Cold War enemies.²¹³ Without an order from Congress, or a statement of Congressional intent, the AEC refused to bring such issues into the scope of its licensing process,²¹⁴ stating that “[t]o impose such a burden would be to stifle utterly the peaceful utilization of atomic energy in the United States.”²¹⁵ NEPA is limited by its own language, which requires implementation only so far as it comports with “other essential considerations of national policy.”²¹⁶ In this regard, the confidentiality of sensitive information is an “essential consideration of national policy, as it protects against unintended risks to health and safety.”²¹⁷ Nowhere does NEPA permit elevating environmental concerns over other important considerations.²¹⁸

Not only would disclosure of terrorist considerations in an EIS fail to comply with the purpose of NEPA, but such disclosure would contradict the safeguards requirements of the AEA.²¹⁹ The AEA provides strict guidance and regulations concerning the control of information related to the physical protection of plants and materials,²²⁰ for the purpose of protecting “the health and safety of the public and the common defense.”²²¹ Publication and distribution of information that might endanger the public would compromise the purpose of the

²¹³ *Siegel v. Atomic Energy Comm'n*, 400 F.2d 778 (D.C. Cir. 1968). This case involved a Florida man's intervention in the licensing proceedings of a nuclear power plant, claiming that it would be a target to hostile nations such as Cuba thereby placing him in harm's way. Affirming the AEC's limitation of his participation, the D.C. Circuit described the Congressional purpose to focus the AEC's review on industrial dangers present to employees and the neighboring public, and a plant's security against treachery, negligence, or incapacity, but it does not expect him to discuss attacks by a foreign enemy—a threat shared by the entire public, not only those near nuclear facilities.

²¹⁴ *Siegel*, 400 F.2d at 784. (“We are unable to find any specific information, within or without the corners of the statute, that the Commission was commanded to intrude the possibility of an enemy action into the concepts of ‘the common defense and security’ and ‘the public health and safety.’”)

²¹⁵ *Siegel*, 400 F.2d at 783-84.

²¹⁶ 42 U.S.C. § 4331(b).

²¹⁷ *PFS*, 56 N.R.C. 31; (citing 42 U.S.C. § 4331(b)(3)).

²¹⁸ *Strykers' Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 227 (1980).

²¹⁹ *See* 42 U.S.C. § 2167(a).

²²⁰ 10 C.F.R. §§ 73.21, 73.22.

²²¹ 42 U.S.C. § 2167(a).

AEA and raise environmental concerns of NEPA clearly above other, arguably more critical concerns, in violation of Supreme Court precedent.²²²

The *Weinberger* decision provides guidance as to the proper scope of the EIS. *NoGWEN* and *Mothers for Peace* interpret *Weinberger* to mean that NEPA provides no national defense exception, and that particular sensitive elements of an EIS may only be held private if specifically exempted under FOIA.²²³ To some, *Weinberger* may provide the ideal compromise: conduct an extensive review of the potential environmental impacts of terrorism, but keep that portion of the EIS confidential. This route is inadequate because an exemption from disclosure fails the purpose of NEPA which is to require the government to fully contemplate environmental effects and to ensure the public that the government has complied with its administrative requirements. Though an exemption from FOIA disclosure would still permit development of the EIS behind closed doors, it would fail a NEPA goal of informing the public that adequate review has occurred, since the public would have no access to the confidential information.²²⁴ NEPA is a dialogue between the government and the public which does not occur if the elements of greatest interest to the public are forbidden to it.

E. Consequences of Following *Mothers for Peace*

Requiring a NEPA terrorism analysis would have two obvious effects: (1) it would expand the NRC's NEPA review to a field in which its actions do not precipitate the

²²² *Strykers' Bay Neighborhood Council*, 444 U.S. at 227.

²²³ *NoGWEN Alliance*, 855 F.2d at 1384; *Mothers for Peace*, 449 F.3d at 1035 (interpreting *Weinberger*, 454 U.S. at 144-45, which addressed addressing two particular exemptions: express statutory exemption and classification by executive order, and allowing parts of an EIS that fall under these exemptions to be withheld from publication); *see also* STEPHEN DYCUS, NATIONAL DEFENSE AND THE ENVIRONMENT 14 (1996) ("Congress was well aware, when it enacted NEPA, that some [EISs] would contain classified information, and that the public dissemination of that information might endanger national security. It addresses that concern by directing that each EIS...be made available to the public 'as provided in [FOIA], which makes...records available to members of the public for the asking, but which exempts properly classified data from disclosure.'")

²²⁴ 40 C.F.R. § 1507.3(c) (permitting agencies to safeguard information from the public that has been classified by Executive Order by organizing the classified information as annexes to the EIS).

environmental effect, and (2) it would effectively remove any limit on the scope of considerations which an agency must contemplate as “environmental impacts.”

The NRC is the wrong agency to address the terror issue. Power plants must follow safety and security procedures,²²⁵ just as they must consider environmental impacts.²²⁶ Plant safety and security efforts protect against any threat, regardless of whether the threat is classified as terrorism. Likewise, the EIS considers all likely and probable environmental impacts of a federal action regardless of any intervening or superseding incident. Consideration of terrorism in an EIS would serve no purpose because the NRC can do nothing outside of its own local security measures to prevent terrorist acts.²²⁷ Additionally, since the environmental effects that would result from a major accident (including a terrorist attack) are already part of the EIS, specific consideration of these effects when precipitated by a terrorist act would add nothing new to the environmental discussion.

To streamline the review process and use resources efficiently, “[a]gencies are encouraged to tier their environmental impact statements to eliminate repetitive discussion of the same issues and to focus on the actual issues ripe for discussion at each level of environmental review.”²²⁸ The NRC already requires consideration of the release of radioactive material into the environment.²²⁹ Though the law does not require “worst-case” analysis, this consideration

²²⁵ 10 C.F.R. Part 73.

²²⁶ 10 C.F.R. Part 51.

²²⁷ See *Riverkeeper*, 359 F.3d at 161; *Glass Packaging v. Regan*, 737 F.2d 1083 (D.C. Cir. 1984).

²²⁸ 40 C.F.R. § 1502.20. EISs are prepared in two stages. First a Draft EIS is prepared, which is circulated for comments to federal agencies that have jurisdiction or that request to comment, states, Indian tribes and any interested private parties. 40 C.F.R. 1503.1. Issues raised by these comments are then addressed in the Final EIS. 40 C.F.R. 1502.9. A Supplemental EIS may be required when the agency changes the action, new circumstances or information arise, or the purpose of NEPA will be facilitated by doing so. *Id.*

²²⁹ 10 C.F.R. § 51 app. B.

represents, in effect, the worst possible case.²³⁰ Consideration of the release of radioactive material as a result of an airplane crash would be superfluous. In one case that arose since the split emerged, the Second Circuit avoided the issue with this same reasoning, that, by considering the risk of fire at a spent fuel pool, the EIS inherently contemplated acts of terrorism.²³¹

The requirement that an EIS contemplate the impacts of terrorism would remove the boundary between proximate effects of a federal action and those effects too attenuated to be properly attributed to that action, due to the ambiguity of the term “terrorism.” Absent *Metropolitan Edison’s* “manageable line,” the scope of the NRC’s NEPA process is virtually limitless, “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.”²³² A factor as vague as terrorism, with so many different definitions and manifestations, can never be completely and properly considered. As more threats are perceived, the requirement will grow larger which risks transforming the environmental impact from an analysis of reasonably foreseeable impacts into an analysis of perceived risks and hypothetical effects. *Metropolitan Edison* and *Weinberger* expressly do not require such analyses.²³³

F. Possible Compromises

Neither NEPA nor the AEA require or provide an effective legal mechanism for a terrorism review that would serve the purposes of either act. The lack of a requirement to consider the threat of terrorism does not necessarily mean that the NRC should do nothing with

²³⁰ *PFS*, 56 N.R.C. at 22-23; RICHARD RHODES, *NUCLEAR RENEWAL: COMMON SENSE ABOUT ENERGY*, 92 (1993) (“[TMI] and Chernobyl represent extreme instances of the problem that seems to trouble the American public more than any other about commercial nuclear power: its apparent danger.”).

²³¹ *New York v. U.S. Nuclear Regulatory Comm’n*, 589 F.3d 551, 554 n.1 (2d Cir. 2009) (stating that the studies on the risk of fires “(including those conducted since September 2001) consider the risk of fire precipitated by a terrorist attack, and classify that risk as low.”).

²³² *PFS*, 56 N.R.C. at 18.

²³³ *Metro. Edison*, 460 U.S. AT 774-76; *Weinberger*, 454 U.S. at 140.

respect to the effect of a terrorist act. Unless the Supreme Court resolves the question of whether and how NEPA review is to address terrorism, there are several possibilities which Congress might consider to bring the Ninth Circuit and the rest of the country under a common rule of law.

i. Revive “worst case” scenario analysis

One option for addressing terrorism may be a revival of “worst-case” scenario analysis, with strict regard to issues of plant security. In 1986, the CEQ removed the requirement that plants consider a “worst case” scenario from its regulations because “in certain circumstances [it had] been the impetus for judicial decisions . . . to go beyond the ‘rule of reason’ in their analysis of potentially severe impacts.”²³⁴ The Council replaced it with the current § 1502.22, which requires an evaluation of reasonably foreseeable impacts based on relevant scientific evidence and within the rule of reason.²³⁵ The NRC does not perceive a terrorist attack as falling within the rule of reason. Thus, no requirement to address the possible environmental impact of terrorism within an EIS exists.²³⁶ Despite this rule, a limited revival of “worst-case” analysis, based on the actual effects of recent terrorist attacks, might appease both sides. An outside party, probably DHS or Congress, could identify from time to time the current “worst case” threat to nuclear facilities.²³⁷ Based on this independent determination, the NRC would then require all new licenses going forward, and perhaps even current licensed facilities, to analyze the impact on the environment if that possibility were to occur. This option could also solve or at least

²³⁴ National Environmental Policy Act Regulations, 50 Fed. Reg. 32232 (Proposed Aug. 9, 1985), enacted by 51 Fed. Reg. 15618 (1986).

²³⁵ 51 Fed. Reg. 15618 (1986); 40 C.F.R. 1502.22(b) (2010).

²³⁶ See 40 C.F.R. 1502.22(b). The exception to this rule, of course, is that those nuclear plants in the 9th Circuit are under the obligation to address terrorism.

²³⁷ Cf. NRC Annual Threat Environmental Review, see <http://www.nrc.gov/security/domestic/phys-protect/threat.html#Annual> (last visited Oct. 27, 2010).

mitigate the problems arising due to the many definitions and forms of terrorism.²³⁸ The requirement to analyze the environmental impact of a pre-determined “worst case” would free the NRC from the burden of trying to account for an issue as ambiguous as terrorism as well as from the shortcomings of analyzing only one specific type of terrorism. Establishing a “worst case” that would logically encompass other events of lesser magnitude would serve as a reasonable middle ground between these two extremes.

ii. Entrust the issue of terrorism to the appropriate agency

Another problem with an NRC-based terrorism review is the NRC’s lack of the legal authority to combat threats to its facilities beyond those facilities’ physical boundaries. Numerous actions will potentially have an effect on nuclear facilities, but these actions are governed by statutes other than NEPA. Merely building a structure that might appeal to a terrorist as a target does not itself create an environmental effect. NRC safety and security regulations specifically provide for measures of protection around facilities, including the number of armed guards and their weapons training, vehicle stand-off distances, construction of physical barriers, etc.²³⁹ Though the regulations do not require that the structures be able to withstand sabotage or attacks by enemies of the United States,²⁴⁰ recent rulemaking requires power plants to take every step practicable to avoid or mitigate the effect of an aircraft impact.²⁴¹

²³⁸ See *Robinson*, 490 U.S. at 353-56; National Environmental Policy Act Regulations, 50 Fed. Reg. 32237 (proposed Aug. 9, 1985); National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15618, 15624 (Apr. 25, 1986).

²³⁹ See Physical Protection of Plants and Materials, 10 C.F.R. § 73.1 et seq (2010), especially §§ 73.40 – 73.56; 10 C.F.R App. B.

²⁴⁰ 10 C.F.R. § 52.10 (2010); Power Reactor Safety Requirements, 74 Fed. Reg. 13926, 13957 (2009) (“The impact of a large aircraft on [a] nuclear power plant is regarded as a beyond-design basis event.”).

²⁴¹ Power Reactor Safety Requirements, 74 Fed. Reg. 13926, (discussing proposed rules to 10 C.F.R. 50.54(h)(h) which enhance nuclear plant protection against design-based threats, primarily the effect of a large airliner crashing into a plant and requirements for post-impact emergency response, also stating that the NRC’s aircraft impact rule and the aircraft threat mitigation procedures focus on enhancing a plant’s ability to withstand commercial aircraft impacts and that the plant operator will be prepared to combat the fires caused by such an impact); *Reactor Rule Made with 9/11 in Mind*, THE WASHINGTON POST, Feb. 18, 2009.

Preparing for a factor as a design-based threat, however, does not give the NRC the authority or ability to prevent the attack itself—that power comes from the law.²⁴²

The NRC’s responsibilities arising from its AEA mandate are distinct from what it must contemplate as a “significant environmental impact” under NEPA. The power and responsibility to prevent, protect, and mitigate the effects of terrorism belongs to other federal agencies.²⁴³

DHS is not only charged with protecting the United States and responding to terrorist attacks, but it possess the legal authority to take action to prevent acts from occurring.²⁴⁴ Under the causation standard described in *Metropolitan Edison*, as well as the “ability to prevent” premise of *Public Citizen, Riverkeeper* and the CEQ,²⁴⁵ the issue of terrorism falls within the purview of DHS, while decidedly outside that of the NRC. Charging the NRC with the duty of a thorough terrorism review would not only give it a task outside its delegated authority and practical ability, but would encroach on the express duties of Homeland Security.

iii. Establish a Homeland Security Impact Statement

Just as NEPA requires federal agencies to consider the effects on the human environment of their actions and ensure the public that all significant environmental impacts have been considered,²⁴⁶ a similar requirement for agencies to consider the effect of their actions on national security may be in order.²⁴⁷ After all, since the consideration of a terrorist attack on a power plant would not discuss any environmental effect that an EIS does not already

²⁴² See e.g. Homeland Security Act, 6 U.S.C. § 111 (expressly establishing the primary mission of the Department of Homeland Security, which includes “prevent[ing] terrorist attacks within the United States.”).

²⁴³ See *id.*

²⁴⁴ 6 U.S.C. § 111(C).

²⁴⁵ 40 C.F.R. § 1508.18.

²⁴⁶ *Vermont Yankee*, 435 U.S. at 553; *Weinberger*, 454 U.S. at 143.

²⁴⁷ See Michael S. Munson, *Averting Nuclear 9/11: The Need to Move Beyond NEPA and Transition to a Homeland Security-Administered Infrastructure Security Statement*, 35 WM. & MARY ENVTL. L. & POL’Y REV. 335, 364-66 (2010); Joseph Farris, *Mothers for Peace and the Need to Develop Classified NEPA Procedures*, 34 ECOLOGY L.Q. 955 (2007).

contemplate,²⁴⁸ the public concern must be grounded in the effect on the security of the nation's infrastructure and the freedom from harm that a nuclear plant might invite. Though the specific requirements of the Homeland Security Impact Statement ("HSIS") would be determined by Congress and the implementing agency, the HSIS would follow roughly the same procedural formula as an EIS. For any major Federal action, the implementing agency – or DHS – shall determine whether the action, if completed, poses a risk to national security. The HSIS will examine these risks and advise the agency and the government on subsequent steps.

Immediately, two differences between the EIS and the HSIS arise. First, unlike NEPA, DHS does not have a public disclosure requirement, so the HSIS can, and probably will be classified in order to prevent the dissemination of sensitive information. The HSIS will inform the government, not the public, that the government has properly considered the terror threat. This non-public process will force the agency to take a "hard look" at the consequences of its actions while confining sensitive matters of national security to the appropriate forum. Such a process would also serve the first aim of NEPA – ensuring thorough agency review – and may serve the second – public assurance of thorough agency deliberation – by being made available to a congressional committee or an independent government body with security clearance.

Second, because access to and contemplation of sensitive and restricted information will invariably be necessary, DHS, instead of the implementing agency, may need to prepare the HSIS.²⁴⁹ If a viable possibility, the creation of an HSIS system will clearly require thorough Congressional contemplation.

iv. Modify the NRC's Authority and Obligations

²⁴⁸ *NJDEP*, 561 F.3d at 143; 10 C.F.R. § 51 app. B.

²⁴⁹ *Cf.* Endangered Species Act, 16 U.S.C. § 1536 (2010) (requiring each Federal agency, in compliance with the Fish and Wildlife Service or the National Oceanographic and Atmospheric Agency, to insure that any agency action "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species.")

A final option, independent of “worst-case” or the HSIS, relates to the jurisdictional matter addressed by the Second Circuit in *Riverkeeper* and by the Supreme Court in *Public Citizen*. The NRC does not contemplate terrorism because it lacks the power to prevent certain large-scale acts that occur beyond its own premises. The NRC may rely on the DOD’s and FAA’s regulation of the immediate airspace to protect its nuclear installations,²⁵⁰ but perhaps it shouldn’t. The NRC will confront a land based invasion of a power-plant at its gates with guards armed with semi-automatic and long range weapons, wearing bullet-proof armor, trained by the military, prepared to suppress violent attacks and radiological sabotage and willing to kill and be killed in order to protect the facility.²⁵¹ To some, a radar tower, no-fly-zone and missile battery may represent reasonable safeguards that a nuclear facility should employ to protect itself. *Riverkeeper*, however, illustrates a line between the permissible use of force to stop an invader and the excessive use of force to regulate and intrude upon civilian life far beyond the boundaries of the plant. The actions *Riverkeeper, Inc.* sought to demand of Indian Point required intruding on the regulated activity of other agencies and were beyond the scope of a nuclear power plant’s capabilities.²⁵² Without the ability to influence or prevent the superseding cause that would produce the environmental effect, that effect cannot be considered an impact of the power plant that may be the potential target of terrorism. An extension of the NRC’s authority to enable it to protect the skies (as well as any other venue a terrorist would use) could subsequently bring the environmental effect of terrorist actions into the purview of the NRC. As the laws read today, however, the extent of the NRC’s regulatory power does not extend so far, and the environmental impacts of terrorist attacks, equally as distant fall outside the NRC’s reach.

IV. Conclusion

²⁵⁰ *Riverkeeper*, 359 F.3d at 170.

²⁵¹ 10 C.F.R. 73.1 (2010)

²⁵² *Riverkeeper*, 359 F.3d at 161-61, 170.

Until this problem is resolved, the 9th Circuit will continue to impose its distinct requirement upon nuclear generating stations and fuel storage facilities within its jurisdiction. Such a regime will allow a handful of special interest groups to thwart the efforts of the NRC, the CEQ and Congress to provide peaceful and prosperous uses of nuclear energy. The Supreme Court has the ability to resolve this split, and should do so by affirming the Third Circuit's ruling in *NJDEP*. Unless *Mothers for Peace* is overruled, the Ninth Circuit will continue to expose its energy industry to ambiguous and unattainable disclosure demands, and will expose its citizens to unnecessary threats. Barring intervention by the Supreme Court, Congress has the ability to closely consider the public interest and if necessary, charge the appropriate agency with the burden of a thorough terrorism review. Until either Congress or the Supreme Court acts, however, the NRC will continue to enforce its statutory duty as per its discretion in a manner best serving the nation, with the exception of the scar of Diablo Canyon.