

NEPA AND THE DEVELOPMENT OF AN "IMPACT COGNIZATION" STANDARD: METROPOLITAN EDISON CO. v. PEOPLE AGAINST NUCLEAR ENERGY

This country entered a new era in environmental protection with the passage of the National Environmental Policy Act of 1969 (NEPA).¹ NEPA requires² all federal agencies³ to prepare an envi-

1. 42 U.S.C. §§ 4321-4370 (1982).

Previously, Congress had attempted a piecemeal approach to environmental legislation. *See, e.g.*, Clean Air Act, ch. 360, §§ 1-7, 69 Stat. 322 (1955) (current version at 42 U.S.C. §§ 7401-7642 (1982)); Water Quality Improvement Act, ch. 758, §§ 1-8, 62 Stat. 1155 (1956) (current version at 33 U.S.C. §§ 1251-1265 (1982)); Environmental Quality Act of 1970, ch. 56, § 203, 84 Stat. 114 (1970) (reclassified at 42 U.S.C. §§ 4321-4370 (1982)). For a concise summary of environmental legislation and regulation, see J. RAU & D. WOOTEN, ENVIRONMENTAL IMPACT ANALYSIS HANDBOOK §§ 1-3 to 1-11 (1980). In addition, on at least two occasions Congress unsuccessfully attempted to establish a national environmental policy before the passage of NEPA: The Resource Conservation Act, S. 2549, 89th Cong., 1st Sess., 105 CONG. REC. 15,923, 16,455 (1950), and The Ecological Research and Survey Act, S. 2282, 89th Cong., 2d Sess., 112 CONG. REC. 15,112 (1966).

2. Originally, Congress intended that Environmental Impact Statements be required prior to or in conjunction with the planning and constructing of any federal action. *See, e.g.*, *Chelsea Neighborhood Ass'n v. United States Postal Serv.*, 516 F.2d 378 (2d Cir. 1975) (the Postal Service had to prepare an EIS before it could begin construction of a new building). *See also* SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, S. REP. NO. 91-96, 91st Cong., 1st Sess. 9 (1969) (Congress included the EIS requirement as an "action-forcing" measure to meet the goals of NEPA).

The "prerequisite" requirement has been altered or eliminated in many cases. For example, in 1972, Congress amended the Atomic Energy Act to allow nuclear power plant operators to petition for temporary operating licenses for nuclear power plants prior to full NEPA compliance. Comment, *Offshore Oil Development and the Demise of NEPA*, 7 B.C. ENVTL. AFF. L. REV. 83, 83 (1978). *See infra* note 4 for a discussion of the four threshold determinations a federal agency must make before an EIS is required.

3. *See* 42 U.S.C. § 4332(2) (1982). "[F]ederal agency [includes] all agencies of the Federal Government . . . [except] the Congress, the Judiciary, or the President, including the performance of staff functions for the President. . . ." 40 C.F.R. § 1508.12 (1983). Courts have interpreted NEPA as binding on *all* Federal agencies. *See, e.g.*, *Shiffler v. Schlesinger*, 548 F.2d 96, 100 (3d Cir. 1977) ("Congress imposed,

ronmental impact statement⁴ (EIS) for "major federal actions⁵ signifi-

in . . . [42 U.S.C. § 4331(b)], a substantive obligation upon all federal agencies"); *Rucker v. Willis*, 484 F.2d 158, 162 (4th Cir. 1973) ("NEPA is a clear mandate to all federal agencies"). Courts have held that NEPA requires *only* federal agencies to prepare EISs. *See, e.g.*, *United States v. Stoeco Homes, Inc.*, 498 F.2d 597, 607 (3d Cir. 1974) (NEPA not applicable to private or state actions), *cert. denied*, 420 U.S. 927 (1975); *Homeowner's Emergency Life Protection Comm. v. Lynn*, 388 F. Supp. 971, 975 (C.D. Cal. 1974) (municipality not required to comply with NEPA standards).

4. The EIS is a "detailed statement" describing the environmental impact on a proposed action, unavoidable adverse environmental effects, proposed alternatives, long-term versus short-term gains, irretrievable resources committed, and expert opinions from interdisciplinary team members. 42 U.S.C. § 4332(2)(C) (1982). The purpose of the EIS is two-fold. First, the EIS acts as an environmental full disclosure statement, requiring agencies to fully analyze the impact of human activities on the environment. *Minnesota Pub. Interest Research Group v. Butz*, 541 F.2d 1292, 1299 (8th Cir. 1976), *cert. denied*, 430 U.S. 922 (1977). Second, the EIS assists agencies in planning and decision-making, providing the public with information on the environmental impact of a proposed action and encouraging public participation. *American Timber Co. v. Berglund*, 473 F. Supp. 310, 312 (D.C. Mont. 1979); 40 C.F.R. § 1502.1 (1983).

Before a federal agency is *required* to prepare an EIS, four threshold determinations must be made. 42 U.S.C. § 4332(2)(C) (1982). The initial inquiry is whether the federal agency has made a "recommendation or a report on proposal." *Id.* *See also* *Kleppe v. Sierra Club*, 427 U.S. 390 (1976) (Court announced a two-part test to ascertain the existence of a recommendation or report). Second, the agency must determine whether this recommendation or report on various proposals is for "legislation" or for other "major federal actions." 42 U.S.C. § 4332(2)(C) (1982). A legislative EIS is defined as a "detailed statement required by law . . . [that] shall be considered part of the formal transmittal of a legislative proposal to Congress. . . ." 40 C.F.R. § 1506.8(a) (1983). For a discussion of "major federal actions," *see infra* note 5. The third determination is whether the legislation or major federal action "significantly affects" the quality of the human environment. 42 U.S.C. § 4332(2)(C) (1982). The final determination is whether the proposed activity will affect the "quality of the human environment." *Id.* *See infra* note 7. *Cf.* Comment, *People Against Nuclear Energy v. United States Nuclear Regulatory Commission: Redefining Environmental Policy in the Stressful Aftermath of a Nuclear Accident*, 18 NEW ENG. L. REV. 449, 454-55 (1983) (federal agency must assess its proposed action in terms of five threshold determinations).

A number of decisions hold that a proposed government action will not require an EIS because the connection between the action and environmental effect was too remote. *See, e.g.*, *Assure Competitive Transp. v. United States*, 635 F.2d 1301 (7th Cir. 1980) (ICC policy allowing freer entry into interstate trucking market did not require an EIS); *Jim Walker Corp. v. FTC*, 625 F.2d 676 (5th Cir. 1980) (FTC-ordered divestiture of industrial plant does not require an EIS even though plant may be sold to known polluter); *Burbank Anti-Noise Group v. Goldschmidt*, 623 F.2d 115 (9th Cir. 1979) (federal decision to buy an existing airport did not change environmental status quo, hence it did not require an EIS), *cert. denied*, 450 U.S. 965 (1980); *Committee for Auto Responsibility (CAR) v. Solomon*, 603 F.2d 992 (D.C. Cir. 1979) (leasing a government parking lot to a parking management firm does not require an EIS because it does not change environmental status quo); *National Citizens Comm. for Broadcast-*

cantly affecting⁶ the quality of the human environment."⁷ NEPA

ing v. FCC, 567 F.2d 1095 (D.C. Cir. 1977) (FCC decision to exempt product advertising from fairness doctrine does not require EIS even though it may result in more advertisements for environmentally dangerous products), *cert. denied*, 436 U.S. 926 (1977); Cobble Hill Ass'n v. Adams, 470 F. Supp. 1077 (E.D.N.Y. 1979) (program to repair existing highway requires no EIS).

5. As defined in 40 C.F.R. § 1508.18 (1983), "major federal action" includes "actions with effects that may be major and which are potentially subject to Federal control and responsibility . . . including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies . . ." *Id.* Some of the judicially developed criteria to determine which actions are major include the magnitude of the project, the government's financial commitment to the project, its total financial cost, the number of federal agencies involved, the duration of the project, and the size of the area impacted. F. SKILLERN, ENVIRONMENTAL PROTECTION IN A LEGAL FRAMEWORK 34-35 (1981). *See, e.g.*, Waterbury Action to Conserve Our Heritage, Inc. v. Harris, 603 F.2d 310, 317-18 (2d Cir. 1979) (major federal action means that agency must comply with NEPA "so long as it retains significant control over the project"), *cert. denied*, 444 U.S. 995 (1979); Sierra Club v. Morton, 514 F.2d 856, 870-71 (D.C. Cir. 1975) ("[m]ajor federal actions must be assessed with view to overall cumulative impact of [otherwise individually minor] proposed and related actions and projects"), *rev'd on other grounds*, 427 U.S. 390 (1976); Natural Resources Defense Council, Inc. v. Grant, 341 F. Supp. 356, 366-67 (E.D.N.C. 1972) (federal agency must expend "substantial planning, time, [and] resources" to be considered a major federal action).

Several courts have ruled that federal involvement in a program may be so minimal that the action does not qualify as a "federal" action and thus does not require an EIS. *See, e.g.*, Bradley v. Department of Hous. and Urb. Dev., 658 F.2d 290 (5th Cir. 1981) (use of federal funds under a block grant program to finance planning of an urban renewal project does not require an EIS when federal government has no control over substantive contents of plan); City of Boston v. Volpe, 464 F.2d 254 (1st Cir. 1972) (tentative allocation of federal funds for state project does not convert project into federal action and does not require an EIS). *But see* Ely v. Velde, 497 F.2d 252 (4th Cir. 1974) (when state accepts federal funds for a project, state must return those funds to prevent federal regulations from applying to project); Silva v. Romney, 473 F.2d 287 (1st Cir. 1973) (HUD approval of federal funds for housing project created sufficient federal involvement to make NEPA applicable). *See generally* Comment, *Environmental Law: What is "Major" in "Major Federal Actions?"*: Minnesota Public Interest Research Group v. Butz, 1975 WASH. U.L.Q. 485 (1975) ("reasonableness" standard of judicial review with respect to agency's determination of whether proposed action will be major).

6. 42 U.S.C. § 4332(2)(C) (1982). A significant effect is one that has an "important or meaningful effect, directly or indirectly, upon a broad range of aspects of the human environment." Natural Resources Defense Council, Inc. v. Grant, 341 F. Supp. 356, 367 (E.D.N.C. 1972). "Significantly" requires consideration of both context and intensity. 40 C.F.R. § 1508.27 (1983). Context requires an analysis of the significance of an action in a variety of geographical and temporal situations because the significance depends upon the effects in the locality rather than in the world as a whole. *Id.* § 1508.27(a). Intensity refers to the severity of the impact. *Id.* § 1508.27(b).

Under NEPA, federal agencies have broad discretionary powers to make good faith

does not explicitly identify the environmental effects requiring preparation of impact statements.⁸ Courts identifying the cognizable effects, consequently, disagree about the types of environmental impacts that require an EIS.⁹ In *Metropolitan Edison Co. v. People*

determinations as to whether proposed actions are significant enough to require an EIS. *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972), cert. denied, 412 U.S. 908 (1973). See, e.g., *Como-Falcon Community Coalition, Inc. v. United States Dep't of Labor*, 609 F.2d 342 (8th Cir. 1979) (proposed Job Corp. Center did not require preparation of an EIS since there were no allegations regarding significant impact on the environment); *Maryland-Nat'l Capitol Park & Planning Comm'n v. United States Postal Serv.*, 487 F.2d 1029, 1039 n.7 (D.C. Cir. 1973) (proposed bulk mailing facility would increase stormwater and oil runoff, a significant effect, therefore an EIS was required).

7. 42 U.S.C. § 4332(2)(C) (1982). "Human environment" is defined in 40 C.F.R. § 1508.14 (1983):

[Human environment] . . . shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with the environment. . . . This means that *economic and social effects are not intended by themselves to require preparation of a[n]. . . [EIS]*. . . . When . . . [EIS] is prepared and economic or social and natural or physical environmental effects are interrelated, then the . . . [EIS] will discuss all of these effects on the human environment.

Id. (emphasis added). See also 42 U.S.C. §§ 4321, 4332, 4344 (1982) (additional references to human environment). See generally Show & Robinchaux, *Council on Environmental Quality: Defining Human Environment*, 16 CAL. W.L. REV. 201 (1980) ("human environment . . . refers to the foreseeable, mutual relationship of people and their physical surroundings").

8. NEPA's language has been characterized as "opaque" and "woefully ambiguous." *Hanly v. Kleindienst*, 471 F.2d 823, 825 (2d Cir. 1972) (citing *New York v. United States*, 337 F. Supp. 150, 159 (E.D.N.Y. 1972) and Voight, *The National Environmental Policy Act and the Independent Regulatory Agency*, 5 NAT. R. LAWYER 13 (1972), respectively). One commentator, when discussing the legal ramifications of NEPA, concluded that the law's "instructions" for preparing an EIS are not specific enough to insure that an agency will fully examine the environmental effects of its proposed projects. Gillette, *Trans-Alaska Pipeline: Impact Study Receives Bad Reviews*, 171 SCIENCE 1130, 1130 (1971).

The Council on Environmental Quality provides some guidance by requiring agencies to consider three types of impacts or effects (direct, indirect and cumulative) when preparing an EIS. 40 C.F.R. § 1508.25 (1983). Direct effects "are caused by the action and occur at the time and place." *Id.* § 1508.8. Indirect effects are caused by the action but occur later in time or further removed in distance, although still reasonably foreseeable. *Id.* Cumulative impact is "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. . . ." *Id.* § 1508.7. For a related view of what constitutes an environmental impact, see Bacow, *Exploring Environmental Impacts: Beyond Quantity to Quality*, 85 TECH. REV. 32, 34-35 (1982).

9. See Comment, *People Against Nuclear Energy v. United States Nuclear Regulatory Commission: Potential Psychological Harm Under NEPA*, 32 CATH. U.L. REV. 495, 501 (1983). The author notes that the "efforts of the courts to define the impacts

Against Nuclear Energy,¹⁰ the United States Supreme Court held that risk of a nuclear accident is not a cognizable environmental effect requiring assessment in an EIS.¹¹

On March 28, 1979, the Three-Mile Island nuclear facility¹² near Harrisburg, Pennsylvania was the site of the "worst nuclear accident Americans have yet experienced."¹³ After the accident in Reactor

Congress intended NEPA to encompass have produced no definitive test" *Id.* Also, the author cites two cases illustrating the differing judicial interpretations of NEPA's scope in terms of the EIS: *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F. Supp. 908 (D. Or. 1977) (a broad interpretation of the scope of an EIS), and *First Nat'l Bank v. Richardson*, 484 F.2d 1369, 1377 (7th Cir. 1973) (court construes the EIS requirements more narrowly). Comment, *supra*, at 501 n.40.

Other federal court decisions reflect the problem of interpreting NEPA's language. *See, e.g.*, *Image of Greater San Antonio, Tex. v. Brown*, 570 F.2d 517 (5th Cir. 1978) (must be a primary impact on the environment before social or economic effects will be discussed in an EIS); *Chelesa Neighborhood Ass'n v. United States Postal Serv.*, 516 F.2d 378 (2d Cir. 1975) (EIS required for a project where social consequences for environment may be greater than physical impact); *McDowell v. Schlesinger*, 404 F. Supp. 221 (W.D. Mo. 1975) (EIS is a requirement for a project that has equally important effects on the physical and non-physical environments). *See generally* McGarity, *The Courts, the Agencies, and NEPA Threshold Issues*, 55 TEX. L. REV. 801 (1977); Note, *Environment Law Statutory Interpretations—Factors to be Considered in Making a Threshold Determination that an Environmental Impact Statement is Necessary Under the National Environmental Policy Act of 1969*, 2 FORDHAM URB. L.J. 419 (1979).

10 103 S. Ct. 1556 (1983).

11 103 S. Ct. at 1563.

12 The Three-Mile Island nuclear facility, located on an island in the Susquehanna River, consists of two nuclear reactors. 1979 N.R.C. ANN. REP. 11, 11. Both reactors, built by the Babcock and Wilcox Company, a subsidiary of McDermott, Inc., are operated by the Metropolitan Edison Co., a subsidiary of General Public Utilities, Inc. of New Jersey. D. FORD, *THREE-MILE ISLAND: THIRTY MINUTES TO MELTDOWN* 23 (1981).

13 *People Against Nuclear Energy v. United States Nuclear Regulatory Comm'n* 678 F.2d 222, 223 (D.C. Cir. 1982), *rev'd*, 103 S. Ct. 1556 (1983). For five days, Three Mile Island was the scene of panic and hysteria. The Governor of Pennsylvania recommended an evacuation of all pregnant women and small children and approximately 125,000 people left their homes. 1979 N.R.C. ANN. REP. 17, 18. For a chronology of events surrounding the TMI accident, see D. MARTIN, *THREE-MILE ISLAND: PROLOGUE OR EPILOGUE?* 227-31 (1980).

The President's commission on the TMI accident, established by President Carter to conduct a "comprehensive investigation of the accident," Exec. Order No. 12,130, 3 C.F.R. 380 (1980) and prepare a report of its findings, found that "[t]he major health effect of the accident appears to have been on the mental health of the people living in the region of the Three-Mile Island and of the workers at TMI." REPORT TO THE PRESIDENT'S COMMISSION ON THE ACCIDENT AT THREE-MILE ISLAND—THE NEED FOR CHANGE: THE LEGACY OF TMI 35 (1979).

Unit Number 2 (TMI-2), the Nuclear Regulatory Commission (NRC),¹⁴ ordered the companion reactor, TMI-1, to remain in its scheduled shutdown¹⁵ pending an investigation to determine if it could safely resume operations.¹⁶ People Against Nuclear Energy (PANE)¹⁷ intervened in the restart proceedings, alleging that NEPA required the NRC to analyze psychological stress and community well-being in its supplemental EIS¹⁸ before deciding whether to restart TMI-1.¹⁹ When the NRC did not take evidence of PANE's

14. The Nuclear Regulatory Commission (NRC) was established by the Energy Reorganization Act of 1974, 42 U.S.C. §§ 5801-91 (1982). The Act abolished the Atomic Energy Commission (AEC) (created by the Atomic Energy Act of 1954, 42 U.S.C. §§ 2011-2296 (1954)), and transferred all licensing and regulatory authority from the AEC to the NRC and the Energy Research and Development Administration. See 42 U.S.C. §§ 2012(d), 2133(d), 5814(c), 5814(F), and 5842 (1982).

15. 44 Fed. Reg. 40,461, at 40,461 (1979). Every five years a nuclear reactor is required to shut down for refueling, scheduled maintenance and inspection. 1979 N.R.C. ANN. REP. 11, 11. The NRC required TMI-1 to remain in this shutdown phase even though the reactor was undamaged by the accident. *Id.*

16. 44 Fed. Reg. 40,461, at 40,461 (1979). The NRC published notice of a hearing specifying the safety-related issues it would consider. Metropolitan Edison Co., 10 N.R.C. 141, 141 (1979). The NRC invited interested parties to submit briefs on the psychological stress issue to the Atomic Safety and Licensing Board (ASLB). *Id.* The ASLB, established under the authority of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. §§ 2011-2296 (1982) (for recent developments of this Act, see *supra* note 14), was formed by the NRC to conduct public hearings and specify the issues appropriate for consideration to the restart process. 10 N.R.C. at 142.

17. PANE, an association of Harrisburg-area residents, is opposed to further operation of either Three-Mile Island reactor. 103 S. Ct. at 1557 (1983).

18. A supplemental EIS is required when the federal agency makes either "substantial changes in a proposed action that are relevant to environmental concerns or . . . [ascertains] significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c)(1)(i), (ii) (1983). See, e.g., Natural Resources Defense Council, Inc. v. City of New York, 672 F.2d 292 (2d Cir. 1982) (supplemental EIS not required after nearby theater became listed on National Register of Historic Places because the EIS had adequately discussed historic aspects of theater); National Indian Youth Council v. Watt, 664 F.2d 220 (10th Cir. 1981) (supplemental EIS not required when the only change was narrowing the proposed surface mining area); Environmental Defense Fund v. Marsh, 651 F.2d 983 (5th Cir. 1981) (supplemental EIS was required for U.S. Army Corps of Engineers waterway project because changes in traffic levels, straightening river, increased land use, and new lake shape were substantial); Warm Springs Dam Task Force v. Gribble, 621 F.2d 1017 (9th Cir. 1980) (although supplemental EIS was not required after new data was obtained on length of earthquake fault line and its effect on proposed dam, the U.S. Army Corps of Engineers had a duty to reevaluate this information). The supplemental EIS should be prepared, circulated and filed in the same fashion as a draft or final EIS. 40 C.F.R. § 1502.9(c)(4) (1983).

19. Metropolitan Edison Co., 12 N.R.C. 607, 607 (1980). Previously, the ASLB

contentions,²⁰ PANE appealed to the Court of Appeals for the District of Columbia Circuit.²¹ A sharply divided court held that the NRC had improperly failed to consider whether the risk of an accident at TMI-1 might cause psychological harm²² to residents of the surrounding area.²³ The Supreme Court reversed.²⁴

had concluded that psychological stress should be considered under NEPA. 11 N.R.C. 297, 297 (1980). Because a majority of the four NRC Commissioners voted not to include psychological stress in the study, it was rejected. *People Against Nuclear Energy v. United States Nuclear Regulatory Comm'n*, 678 F.2d 222, 224-25 (D.C. Cir. 1982), *rev'd*, 103 S. Ct. 1556 (1983). The NRC concluded that TMI-1 could resume operations without the preparation of a supplemental EIS assessing the psychological harm and community well-being factors. 12 N.R.C. 607, 607 (1980). *See supra* note 18 for a discussion of supplemental EIS.

20. PANE had two basic contentions. First, renewed operation of TMI-1 would cause severe psychological distress to PANE's members and others living in the vicinity of the reactor. 103 S. Ct. at 1559 n.2. Second, renewed operation of TMI-1 would cause severe harm to the well-being of communities in the vicinity of TMI-1. *Id.* For PANE's specific contentions, *see id.*

21. *People Against Nuclear Energy v. United States Nuclear Regulatory Comm'n*, 678 F.2d at 225.

22. Traditionally, courts have required physical manifestations in tort to avoid problems of proof and to limit damage awards in cases of psychological harm. Note, *Psychological Effects at NEPA's Threshold*, 83 COLUM. L. REV. 336, 368 n.200 (1983). *See, e.g.*, *Petition of United States*, 418 F.2d 264 (1st Cir. 1969); Comment, *Negligently Inflicted Mental Distress: The Case for an Independent Tort*, 59 GEO. L.J. 1237 (1971). This judicial reliance on physical manifestations should not, however, be imported into the NEPA context. "NEPA is basically concerned with subtle psychological effects whose consequences are not physiologically manifested." Note, *supra*, at 368 n.200. Psychological effects are defined as the "personal, nonphysical consequences of agency actions." *Id.* at 340 n.37. *See generally* Comment, *NEPA: Tipping and the Siting of Low-Income Public Housing: The Dangers of Strycker's Bay Neighborhood Council v. Karlen*, 6 COLUM. J. ENVTL. L. 31, 40-43 (1979) (distinguishing psychological effects underlying a "tipping" claim from those recognized by NEPA, on the basis of one's perception of the environmental change).

23. Before issuing its opinion on May 14, 1982, the court issued a brief judgment on January 7, 1982 and an amended judgment on April 2, 1982. 678 F.2d at 235. The judgments directed the NRC to assess whether significant new circumstances concerning psychological health impacts had arisen since the original EIS was prepared prior to the licensing of TMI-1. *Id.* In its May 14th opinion, the court addressed two main issues: first, whether the damages to psychological health were cognizable under the AEA or under NEPA, *id.* at 231; and second, whether the restart of the previously licensed TMI-1 was a "major federal action" requiring a continuing obligation to comply with NEPA. *Id.* *See supra* note 5 (definition of major federal action).

Judge Wright, joined by Senior Judge McGowan, announced that NEPA requires agencies to evaluate effects on human health and that "health encompasses psychological health." 678 F.2d at 228. The majority concluded that the post-traumatic anxieties were severe enough to be considered under NEPA, but they remanded the record to the NRC to determine whether a supplemental EIS was necessary. *Id.* at

In 1969, Congress proclaimed that NEPA was the most significant environmental legislation ever enacted.²⁵ The legislative history of NEPA suggests that Congress' foremost aim was controlling pollution of the physical environment.²⁶ Language in the Act itself, however, indicates that NEPA protects more than just physical resources.²⁷ Goals of the Act include achieving the broadest possible

235. See *supra* note 4 (the threshold determinations of an EIS). Judge Wilkey's dissent excluded psychological harm from the definition of health. Fear, like aesthetics, he argued, is an individual perception, and "the majority sets no consistent standard to determine when fear is real and justifiable." 678 F.2d at 242. A different majority, consisting of Judge Wilkey and Senior Judge McGowan, concluded that psychological health was not within the definition of health under the AEA. *Id.* at 254.

On the second issue, the majority, consisting of Judges Wright and McGowan, held that "the Commission's statutory responsibilities over licensed nuclear facilities created a continuing obligation to comply with the requirements of [NEPA]." *Id.* at 235.

24. 103 S. Ct. 1556 (1983).

25. When introducing NEPA to the Senate, Senator Jackson praised the legislation as the "most significant measure in the area of natural resource policy ever considered by Congress." 115 CONG. REC. 19,008 (1969). *Accord id.* at 40,416, 40,422 and 40,924. See generally F. SKILLERN, *supra* note 5, at 20-82 (recent in-depth analysis of NEPA and its legal ramifications); Tobias & McLean, *Of Crabbed Interpretations and Frustrated Mandates: The Effect of Environmental Policy Acts on Pre-Existing Agency Authority*, 41 MONT. L. REV. 177 (1980) (historical overview of NEPA).

26. See, e.g., H.R. REP. NO. 378, 91st Cong., 1st Sess. 2, reprinted in 1969 U.S. CODE CONG. & AD. NEWS 2751 (report of the Committee on Merchant Marine and Fisheries, dealing with the final version of NEPA). The House Report included the following editorial excerpt from the New York Times:

By land, sea, and air, the enemies of man's survival relentlessly press their attack.

The most dangerous of all these is man's own undirected technology. The radioactive poison from nuclear tests, the runoff into rivers of nitrogen fertilizers, the smog from automobiles, the pesticides in the food chains, and the destruction of topsoil by strip mining are examples of the failure to foresee and control the untoward consequences of modern technology.

1969 U.S. CODE CONG. & AD. NEWS 2751, 2753 (quoting N.Y. Times, May 3, 1969). See also 115 CONG. REC. 40,416 (1969) (statement of Senator Jackson, floor manager of NEPA, stressing the danger from damage to air, land, and water); *id.* at 40,424 (statement of Representative Dingell, one of the sponsors of the Bill in the House, claiming that the Act will protect the "air, aquatic, and terrestrial environments"); *id.* at 40,426 (statement of Representative Garmat, Chairman of the House Merchant Marine and Fisheries Committee, warning that the only way to combat pollution of natural resources is through legislation such as NEPA).

27. 42 U.S.C. § 4321 (1982) (declares NEPA's purposes in sweeping terms of human health and welfare). See *id.* § 4331 (Congress recognizes the profound impact of man's activity on the interactions of all components of the natural environment); Metropolitan Edison Co. v. People Against Nuclear Energy, 103 S. Ct. at 1558 (NEPA was "designed to promote human health and welfare by alerting government actors to the effect of their proposed actions on the environment."); City of Davis v.

spectrum of "beneficial uses of the environment"²⁸ and preserving "historical" and "cultural" assets.²⁹ The provisions of NEPA, while stressing the need to safeguard the nation's physical resources, also suggest that non-physical effects come within the ambit of NEPA.

The NEPA section containing the requirements for impact statements, however, is ambiguous.³⁰ Under this provision, an EIS is mandatory for actions affecting the "human environment."³¹ Although this is a very broad requirement, NEPA does not define what constitutes the "human environment."³² NEPA also does not explain whether non-physical impacts alone are cognizable under the Act. Nor does the Act address the question of whether an EIS is mandatory for projects that have both physical and non-physical environmental effects.³³ NEPA simply does not identify the environmental effects which are cognizable under the Act.

The Council on Environmental Quality (CEQ),³⁴ created by

Coleman, 521 F.2d 661, 671 (9th Cir. 1975) (federal agencies have a duty to evaluate all primary environmental impacts, since NEPA protects those interests for all citizens).

28. NEPA's policies and goals are defined in § 101, 42 U.S.C. § 4331 (1982). *See also* 40 C.F.R. § 1500.2 (1983) (CEQ's interpretation of NEPA's policies). One commentator summarized the policies and goals provision of NEPA as a procedural-substantive dichotomy since it mandates both results and methods. Leed, *The National Environmental Policy Act of 1969: Is the Fact of Compliance a Procedural or Substantive Question*, 15 SANTA CLARA L. REV. 303 (1975). Judicial interpretations of § 4331 have recognized that although NEPA provides substantive goals, its mandate is essentially procedural. *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 227 (1979); *Vermont Yankee Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 558 (1979). *See also* *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1978) (NEPA was enacted to ensure that environmental concerns are integrated into the federal agency decisionmaking process); *Shiffler v. Schlesinger*, 548 F.2d 96, 100 (3d Cir. 1977) (federal agencies have a substantive obligation to consider environmental concerns). *See generally* F. SKILLERN, *supra* note 5, at 23 ("substantive policy of NEPA is maximum protection and enhancement of environmental quality").

29. 42 U.S.C. § 4331(b)(3) (1982).

30. *See supra* note 8.

31. 42 U.S.C. § 4332(2)(C) (1982).

32. *See id.* For other definitions and interpretations of human environment, see *supra* note 7.

33. 42 U.S.C. § 4332 (1982).

34. *Id.* § 4343. The Council, composed of three members appointed by the President, "is to be responsive to environmental trends . . . [and] carry out the policies established by NEPA. . . ." *Id.* It functions as an investigatory and advisory body to NEPA. *Green County Planning Bd. v. Federal Power Comm'n*, 455 F.2d 412, 421 n.22 (2d Cir. 1971), *cert. denied*, 409 U.S. 849 (1972); 42 U.S.C. § 4344 (1982).

NEPA and empowered in 1970 to issue rules for the preparation of impact statements,³⁵ promulgated regulations discussing the types of environmental effects that may compel preparation of an EIS.³⁶ Under the CEQ rules, the social or economic effects of government actions do not by themselves require an EIS.³⁷ An EIS will consider non-physical, secondary impacts only when a project or proposal primarily affects³⁸ the physical environment. Like NEPA, the CEQ

35. Exec. Order No. 11,514, 35 Fed. Reg. 4247 (1970).

36. In 1978, an executive order granted the CEQ authority to promulgate regulations designed to implement all of NEPA's procedural mandates. 40 C.F.R. § 1500.3 (1983); Exec. Order No. 11,991 § 3(h), 3 C.F.R. 124 (1978), *reprinted in* 42 U.S.C. § 4321 (1982), replacing in part Exec. Order No. 11,514, 3 C.F.R. 272 (1974). Previously, the CEQ was restricted to issuing guidelines confined solely to EIS. *See* CEQ Final Regulations for Implementing NEPA, 43 Fed. Reg. 55,978 (1978); CEQ Appendix to Final Regulations, 45 Fed. Reg. 57,488 (1980).

37. *See supra* note 7.

38. A primary impact involves some proposed action which will "directly" affect the natural environment (air, water, biotic). *See, e.g.*, Committee for Nuclear Responsibility, Inc. v. Seaborg, 463 F.2d 788 (D.C. Cir. 1971) (underground testing of a nuclear warhead in Alaska), *application for injunction denied sub nom.* Committee for Nuclear Responsibility, Inc. v. Schlesinger, 404 U.S. 917 (1971); Natural Resources Defense Council, Inc. v. Morton, 337 F. Supp. 165 (D.D.C. 1971) (leasing tracts of land on Outer Continental Shelf for oil exploration, drilling, and pipeline construction), *motion for summary reversal denied*, 458 F.2d 827 (D.C. Cir. 1971), *dismissed as moot*, 337 F. Supp. 170 (D.D.C. 1972). *But see* Breckinridge v. Rumsfeld, 537 F.2d 864 (6th Cir. 1976) (closing Army base did not constitute direct, primary impact on the human environment), *cert. denied*, 429 U.S. 1061 (1977); National Ass'n of Gov't Employees v. Rumsfeld, 413 F. Supp. 1224 (D.D.C. 1976) (realignment of Army missile programs from Colorado to other military bases is not a direct, primary impact), *aff'd sub nom.* National Ass'n of Gov't Employees v. Brown, 556 F.2d 76 (D.C. Cir. 1977).

Secondary socioeconomic impacts include economic decisions that result in sociological and psychological effects. The prevailing view of the courts, reflected in 40 C.F.R. § 1508.14, *supra* note 7, is that socioeconomic impacts are insufficient to trigger the NEPA process. *See, e.g.*, Como-Falcon Community Coalition, Inc. v. United States Dep't of Labor, 609 F.2d at 345-46 (*see supra* note 6); Image of Greater San Antonio, Tex. v. Brown, 570 F.2d 517, 522 (5th Cir. 1978) (absent a primary impact on the environment, socioeconomic effects are insufficient to trigger an EIS); National Ass'n of Gov't Employees v. Rumsfeld, 418 F. Supp. 1302, 1305 (E.D. Pa. 1976) (closing arsenal, although a major economic impact on the surrounding area, had minimal environmental impact). *But see* Jackson County, Mo. v. Jones, 571 F.2d 1004, 1007 (8th Cir. 1978) (secondary, socio-economic effects of proposed closing of Army base do fall within the environmental effects of which NEPA mandates agency evaluation); McDowell v. Schlesinger, 404 F. Supp. 221, 245 (W.D. Mo. 1975) (secondary, socio-economic effects of closing Army facility are sufficient to trigger NEPA).

If a proposed action will have a primary impact on the environment triggering an EIS, secondary effects may be considered. 40 C.F.R. § 1500.8(a)(3)(ii) (1983); Image of Greater San Antonio, Tex. v. Brown, 570 F.2d at 522. *See also* Chelsea Neighbor-

rules do not specify the extent of physical impact needed to require assessment of non-physical effects.

Working under this imprecise legislative guidance, courts developed varying interpretations of the types of impacts cognizable under NEPA. In *Maryland-National Capitol Park and Planning Commission v. United States Postal Service*,³⁹ the Court of Appeals for the District of Columbia Circuit laid a foundation for distinguishing between various types of impacts cognizable under NEPA.⁴⁰ In *Maryland-National*, the local planning commission attempted to enjoin construction of a bulk mail center and parking facility on the grounds that the Postal Service failed to prepare an EIS.⁴¹ The court noted several impacts, including increased stormwater and oil runoff,⁴² additional traffic,⁴³ and adverse aesthetics,⁴⁴ that compelled an assessment under NEPA. The court distinguished these cognizable effects from the socioeconomic fears arising from the proposed action.⁴⁵ The court held that only direct impacts on the physical environment, not socioeconomic effects, trigger the EIS process.⁴⁶

A number of courts have adopted a broader standard for EIS requirements than that developed by the *Maryland-National* court. These courts hold that physical and non-physical effects are cognizable under NEPA.⁴⁷ Several decisions hold that the non-physical effects of a project are cognizable only if the primary impact of the

hood Ass'n v. United States Postal Serv., 516 F.2d 379, 386-90 (2d Cir. 1975) (agencies must consider both physical and social science data, such as emotional and physical isolation of people in high-rise apartments, in an EIS).

39. 487 F.2d 1029 (D.C. Cir. 1973).

40. Comment, *supra* note 9, at 501.

41. 487 F.2d at 1030.

42. *Id.* at 1033. The increased stormwater and oil runoff could damage the hydrologic cycle and create health hazards. *Id.*

43. *Id.* Additional traffic, created by the influx of workers to the new facility, would increase congestion and air pollution. *Id.*

44. *Id.* Building a loading facility adjacent to the highway would have an adverse visual and aesthetic impact. *Id.*

45. *Id.* at 1037-40. See also 42 U.S.C. § 4331(b)(2) (1982); *Groton v. Laird*, 353 F. Supp. 344 (D. Conn. 1972) (Navy housing project).

46. 487 F.2d at 1038. The Court found that the EIS requirement of a "substantial inquiry" was "not contemplated as a matter of reasonable construction of NEPA, where the claim . . . focus[es] on alleged esthetic impact and the matters at hand pertain essentially to issues of individual and potentially diverse tastes." *Id.* at 1038-39.

47. See *supra* note 38.

action falls on the physical environment.⁴⁸ In *Breckenridge v. Rumsfeld*,⁴⁹ the Sixth Circuit rejected the argument that the economic impacts of a project necessitated an EIS.⁵⁰ The court ruled that closing an Army base would not significantly affect the physical environment, although it would terminate thousands of jobs in the base area. The court held that NEPA mandates an EIS only when the action has a primary impact on the physical environment.⁵¹

Some courts hold that physical and non-physical impacts are equally important in requiring an EIS.⁵² In *McDowell v. Schlesinger*,⁵³ plaintiffs argued that the Defense Department had to submit an EIS before it could transfer an Air Force base from Missouri to Illinois.⁵⁴ The plaintiffs contended that the closing would have devastating social and economic consequences for Missouri communities close to the base.⁵⁵ The court found that the move would eliminate thousands of jobs in Missouri, with significant social and economic consequences.⁵⁶ The court also ruled that the transfer of Air Force personnel to Illinois would have a serious impact on natural resources in that state.⁵⁷ In concluding that the proposal required an EIS, the court gave equal weight to the project's physical and non-physical effects.⁵⁸

In *Chelsea Neighborhood Association v. United States Postal Service*,⁵⁹ the Second Circuit suggested that an EIS may be necessary

48. *Id.*

49. 537 F.2d 864 (6th Cir. 1976), *cert. denied*, 429 U.S. 1061 (1977).

50. 537 F.2d at 865.

51. *Id.* at 866.

52. *See supra* note 38.

53. 404 F. Supp. 221 (W.D. Mo. 1975).

54. *Id.* at 254.

55. *Id.*

56. *Id.* at 236-37. The court found that the loss of jobs in Missouri would cause serious unemployment problems in the communities adjacent to the base. The transfer would create some population decreases in the area, as base personnel moved away. This in turn would ravage the tax base for the area. Finally, the large numbers of persons moving from the area would create a "glut" of empty houses, which would increase vandalism. *Id.*

57. 404 F. Supp. at 234. The court expressed concern that there had been no effort to examine the effect that the numbers of personnel transferred to Illinois would have on water usage, sewage treatment, solid waste disposal and land use. *Id.*

58. 404 F. Supp. at 254.

59. 516 F.2d 378 (2d Cir. 1975). The Second Circuit's clearest expression about

where a project's non-physical impacts are more severe than the physical ones. The court was concerned because the appellee had not prepared an EIS for a plan to build a combination postal facility and public housing project,⁶⁰ and concluded that a failure to analyze the project's non-physical impacts may have been the most serious problem arising from the lack of an impact statement.⁶¹ The *Chelsea Neighborhood* ruling suggests that social impacts may be cognizable under NEPA even if the project's physical impacts are less important than the non-physical ones. The *Chelsea Neighborhood* decision stands in marked contrast to the *Maryland-National* ruling which held that social and economic effects are not cognizable under NEPA.

The cases discussed above all deal with aspects of the general ques-

the purpose of NEPA itself appeared in *Hanly v. Mitchell*, 460 F.2d 640 (2d Cir. 1972), *cert. denied sub nom. Hanly v. Kleindienst*, 409 U.S. 990 (1972). *Hanly* involved a decision to construct a prison in a residential neighborhood in Manhattan. *Id.* at 643. The General Services Administration (GSA), which oversaw the project, had determined that an EIS was not needed for the project. *Id.* at 664. The court ruled that the impacts of the project did require an EIS. Although it found that the jail project would affect the physical environment, the court was particularly concerned with problems created by the inmates themselves, such as the possibility of prisoner demonstrations. *Id.* at 647. In finding that such problems could require an EIS, the court stated:

The National Environmental Policy Act contains no exhaustive list of so-called "environmental considerations," but without question *its aims extend beyond sewage and garbage and even beyond water and air pollution*. . . . The Act must be construed to include protection of the quality of life for city residents. Noise, traffic, overburdened mass transportation systems, crime, congestion and even availability of drugs all affect the urban "environment". . . .

Id. at 647 (emphasis added). Although the court did find that the project had some impact on the physical environment, it was equally concerned with the non-physical impacts of the project. The *Hanly* court clearly held that non-physical impacts were just as important as physical impacts under NEPA.

60. 516 F.2d 378, 381 (2d Cir. 1975).

61. *Id.* at 388. In examining the potential effects of the project, the court stated in part:

The required support services for housing are not adequately discussed. Garbage collection is disposed of by a single paragraph. . . . What will be the expected noise and air pollution from those trucks is not adequately discussed.

A possibly more serious shortcoming of the analysis lies in the *social, not physical sciences*. . . . We do not know whether informed social scientists would conclude that the [housing project] would likely become a human jungle, unsafe at night and unappealing during the day. The question must be faced, however, by those who plan the project.

Id. (emphasis added).

tion of the types of environmental effects that are cognizable under NEPA. Cases involving the question of a project's psychological effects on humans are part of this broader body of law.⁶² In *Hanly v. Kleindienst*,⁶³ a citizens group brought a class action suit against the General Services Administration (GSA) to enjoin construction of a proposed federal building and jail in New York City. Plaintiffs alleged that the GSA failed to consider, in its original EIS, the anxiety and discontentment of area residents from the demolition of existing structures and construction of the jail.⁶⁴ The Court of Appeals for the Second Circuit held that NEPA did not require federal agencies to consider psychological distaste arising from a proposed action.⁶⁵ The court found that while crime and noise levels from the proposed construction could be analyzed quantitatively, psychological reactions have no concrete means of appraisal.⁶⁶

The Court of Appeals for the Seventh Circuit reached a similar

62. Two recent cases, dealing with potential hazards to physical health, provided two district courts with the opportunity to expand the scope of cognizable environmental impacts under NEPA. In *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F. Supp. 908 (D. Or. 1977), the United States Forest Service prepared an EIS for the aerial spraying of herbicides under its Vegetation Managerial Program. The court issued an injunction holding that the EIS inadequately assessed the effects of a herbicide on human and animal health. *Id.* at 909. The majority focused on the potential injuries to human health to justify extending the parameters of NEPA further than previous cases. *Id.* at 908-09.

In *National Org. for the Reform of Marijuana Laws v. United States Dep't of State*, 452 F. Supp. 1226 (D.D.C. 1978), a nonprofit corporation brought an action seeking a declaratory judgment. Plaintiffs claimed that defendants violated NEPA by failing to prepare an EIS analyzing herbicide spraying of marijuana and poppy plants in Mexico. Declaring that defendants violated NEPA, the court emphasized that the determinative factor was the potential health hazard caused by the spraying. The court held that where there is a health hazard, NEPA mandates the preparation of an EIS. *Id.* at 1234.

63. 471 F.2d 823 (2d Cir. 1972), *cert. denied*, 412 U.S. 908 (1973).

64. *Id.* at 827.

65. The GSA did not prepare an EIS initially since it determined that the proposed facility would not significantly affect the quality of the human environment. *Id.* at 826. See *supra* notes 3 & 7 and accompanying text.

66. *Id.* at 828. See also *Hanly v. Mitchell*, 460 F.2d 640 (2d Cir. 1972) (social values and psychological health factors precluded from judicial review due to problems of quantification and predictive analyses), *cert. denied*, 409 U.S. 990 (1972). But see *Robinson v. Knebel*, 550 F.2d 422 (8th Cir. 1977) (since environmental factors are not amenable to quantification, absolute quantification is unnecessary); *Trout Unlimited v. Morton*, 509 F.2d 1276 (9th Cir. 1974) (formal, mathematical cost-benefit analysis is not required).

conclusion. In *First National Bank of Chicago v. Richardson*,⁶⁷ plaintiffs protested the planned construction of a correctional facility. The court acknowledged that plaintiffs' psychological concerns were real but held that fears and sensibilities are not cognizable under NEPA.⁶⁸

The Court of Appeals for the District of Columbia Circuit in *People Against Nuclear Energy v. Metropolitan Edison Co.*⁶⁹ further extended the cognizability of potential health hazards under NEPA. It represented the first time a court has held psychological stress, allegedly arising from the fear of a proposed federal action, to be a primary impact under NEPA.⁷⁰ The court found that effects on human health may include psychological health.⁷¹ The court believed this was sufficient to require the NRC to assess whether the risk of an accident at TMI-1 might cause harm to the psychological health of area residents.⁷²

In reversing the appellate court's decision⁷³ in *Metropolitan Edison*,⁷⁴ the Supreme Court observed that the lower court's analysis disregarded an important step: consideration of the causal relationship between changes in the environment and the alleged effects on its inhabitants.⁷⁵ To determine when an effect would require assessment under NEPA, the Court promulgated a requirement of a rea-

67. 484 F.2d 1369 (7th Cir. 1973).

68. The Court concluded that: "As regards public 'sensibilities' aroused by criminal defendants, we question whether such factors, even if amenable to quantification, are properly cognizable in the absence of clear and continuing evidence that the safety of the neighborhood is in fact jeopardized." *Id.* at 1380 n.13. See *Nucleus of Chicago Homeowners v. Lynn*, 524 F.2d 225 (7th Cir. 1975), *cert. denied sub nom. Nucleus of Chicago Homeowners Ass'n v. Hills*, 424 U.S. 967 (1976) (fear resulting from proposed low-income housing project not cognizable under NEPA).

69. 678 F.2d 222 (D.C. Cir. 1982), *rev'd*, 103 S. Ct. 1556 (1983).

70. *Id.* at 228.

71. *Id.* The Court relied on legislative history, especially Sen. Jackson's comments, to interpret NEPA's provisions.

72. *Id.* at 226, 235.

73. 678 F.2d 222 (D.C. Cir. 1982). See *supra* note 23 for a summary of the appellate opinion.

74. *Metropolitan Edison Co. v. People Against Nuclear Energy*, 103 S. Ct. 1556 (1983). The only issue addressed by the Court was whether the NRC failed to comply with NEPA. No party sought review of the court of appeals' holding that permitting TMI-1 to renew operations was a major federal action. *Id.* at 1557 n.5. Likewise, no one appealed the AEA holding. *Id.*

75. 103 S. Ct. at 1558.

sonably close causal relationship between a change in the physical environment and the effect at issue.⁷⁶

The Court conducted a three-part analysis to conclude that the causal link between human fear and renewed operation of TMI-1 was too attenuated. First, the Court evaluated the intended scope of NEPA by looking at the language of the Act and its legislative history.⁷⁷ The Court defined the term "environment" to mean physical environment, and concluded that NEPA does not apply to every effect arising from a proposed action, but only to effects on the environment.⁷⁸ In reviewing NEPA's legislative history,⁷⁹ the Court found that Congress was concerned with human health and welfare.⁸⁰ The Court concluded that the term "environmental impact" should be read to include a requirement of a reasonably close causal relationship between impacts on the physical environment and the effect at issue.⁸¹

The majority next considered whether mere risk of environmental impact can bear a reasonably close causal relationship to the alleged effects.⁸² The Court determined that in a causal chain from renewed

76. *Id.* at 1557-58. Justice Rehnquist wrote the majority opinion.

77. *Id.* at 1560. The Court quoted a portion of 42 U.S.C. § 4332(C). It concluded that the theme of this section "is sounded by the adjective 'environmental'" *Id.*

78. *Id.* The Court, defining the term "environmental" outside the context of NEPA, determined that "adverse environmental effects" might embrace virtually any consequence of federal actions. *Id.* The Court then defined "environment" within the context of NEPA and concluded that Congress was talking about the physical environment. *Id.*

79. The Court quoted statements made by two principal NEPA sponsors, Senator Jackson and Representative Dingell, which emphasized the congressional intent of not irreparably damaging the air, aquatic, and terrestrial environments. *Id.* See *supra* note 25 for Senator Jackson's remarks.

80. 103 S. Ct. at 1560-61.

81. The Court illustrated this requirement by discussing the impact arising from the Department of Health and Human Services implementing extremely strict requirements for health care facilities receiving federal funds. Because these strict standards would force some facilities to close and raise the price of health care in others, many people would be unable to afford adequate medical treatment, thereby suffering severe health damage. The Court concluded that NEPA would not require the Department to prepare an EIS evaluating that health damage because, analogizing to the tort doctrine of proximate cause, it would not be proximately related to the change in the physical environment. *Id.* at 1561.

82. 103 S. Ct. at 1562. The court found that direct effects on the environment from renewed operation of TMI-1 would include release of low-level radiation, increased fog and release of warm water in the Susquehanna River; these effects would

operation of TMI-1 to psychological harm, the elements of risk and its perception by PANE's members are necessary links.⁸³ Because, by definition, risk is unrealized in the physical world, it cannot constitute an environmental effect.⁸⁴ The Court concluded that the element of risk extended the psychological harm beyond NEPA's reach.⁸⁵

Finally, the Court examined whether extending NEPA to include risks would promote Congress' goals.⁸⁶ The Court again analyzed legislative history to determine Congress' intent with respect to psychological harm arising from a "perceptual" action.⁸⁷ The Court then found that requiring agencies to expend considerable resources developing psychiatric expertise would inhibit them from adequately pursuing their legislative mandate of protecting the physical environment.⁸⁸ Even if federal agencies could develop such expertise, the Court questioned the effectiveness of distinguishing between genuine claims of psychological harm and politically-motivated claims.⁸⁹

Justice Brennan, in his concurrence, concluded that psychological injuries are cognizable under NEPA. Nevertheless, he distinguished the psychological injury at issue from cognizable psychological injuries on the basis of perception of risk.⁹⁰ He concluded that psychological harm arising from direct sensory impact due to change of physical environment would be cognizable under NEPA.⁹¹

The Supreme Court's decision in *Metropolitan Edison* supports two

require assessment in an EIS. Another cognizable effect would be the impact caused by the risk of an accident. The NRC considered, in its original EIS, the possible effects of a number of accidents that might occur at TMI-1. The Court concluded, however, that the psychological health damage effect resulting from the risk of nuclear accident is not cognizable under NEPA because it is too attenuated. *Id.* at 1558.

83. *Id.*

84. *Id.* at 1562.

85. *Id.*

86. *Id.*

87. *Id.*

88. "Time and resources are simply too limited for us to believe that Congress intended to extend NEPA as far as the court [of appeals] . . . has taken it." *Id.*

89. The Court cited two cases which it believed bore a strong resemblance to the instant case: *Como-Falcon Community Coalition, Inc. v. United States Dep't of Labor*, 609 F.2d 342 (8th Cir. 1979), and *First Nat'l Bank of Chicago v. Richardson*, 484 F.2d 1369 (7th Cir. 1973).

90. *Id.* at 1560 (citing *Chelsea Neighborhood Ass'n v. United States Postal Serv.*, 516 F.2d 378, 388 (2d Cir. 1975)).

91. *Id.*

interpretations. First, a narrow reading of the Court's holding results in the conclusion that fear arising from the risk of a proposed action is too attenuated to require an EIS. The Court establishes the standard that a change in the physical environment must have a reasonably close causal relationship to the effect at issue.⁹² Applying this standard, the Court would not require an assessment in cases where the risk of an effect is a vital middle link between a change in the physical environment and the psychological harm.⁹³

Metropolitan Edison also could stand for a second proposition: psychological effects are cognizable under NEPA. Three elements of the ruling support this proposition. First, the Court recognizes that all parties to the suit agreed that impacts on human psychological health may be cognizable under NEPA.⁹⁴ Second, Brennan's concurrence emphasizes that psychological harm comes within the purview of NEPA.⁹⁵ Finally, the Court's "impact cognization" standard provides additional support for this proposition. The majority opinion does not list all the types of environmental impacts cognizable under NEPA. The Court instead establishes a standard for application on a case-by-case basis. Psychological harm would be cognizable under the Court's standard if it had a reasonably close causal relationship to the proposed impact.⁹⁶

Metropolitan Edison is not a setback for NEPA proponents. It will not permit federal agencies to ignore the environmental effects of their proposed actions. Rather, by devising the "impact cognization" standard, *Metropolitan Edison* alleviates some of the confusion created by NEPA's sweeping goals and general language. Thus, while fear arising from the risks of a proposed action is too attenuated to compel assessment under the standard, the federal government will

92. *Id.* at 1557.

93. Thus, the Court implicitly affirms the following decisions because in each case the change in the physical environment has a reasonably close causal relationship to the effect at issue: *Maryland-Nat'l Capitol Park & Planning Comm'n v. United States Postal Serv.*, 487 F.2d 1029 (D.C. Cir. 1973) (*see supra* notes 39-46); *Hanly v. Kleindienst*, 471 F.2d 823 (2d Cir. 1972), *cert. denied*, 412 U.S. 908 (1973) (*see supra* notes 63-66 and accompanying text); *First Nat'l Bank of Chicago v. Richardson*, 484 F.2d 1369 (7th Cir. 1973) (*see supra* notes 67-68 and accompanying text); *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F. Supp. 908 (D. Or. 1977) (*see supra* note 62).

94. 103 S. Ct. at 1557 (1983).

95. *Id.* at 1564. *See supra* notes 89-90 and accompanying text.

96. *Id.* at 1558.

continue to monitor “tangible” impacts on the physical environment and human health.

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