

May 25, 1982

Hugh K. Clark, Esq., Chairman
Administrative Judge
P.O. Box 127A
Kennedyville, Maryland 21645

Dr. George A. Ferguson
Administrative Judge
School of Engineering
Howard University
2300 Sixth Street, N.W.
Washington, D.C. 20059

Dr. Oscar H. Paris
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

In the Matter of
Illinois Power Company, et al.
(Clinton Power Station, Unit 1)
Docket No. 50-461 OL

Dear Administrative Judges:

Enclosed is the opinion of the United States Court of Appeals for the District of Columbia Circuit in People Against Nuclear Energy v. United States Nuclear Regulatory Commission, et al., which the NRC Staff had committed to serve on the Board and parties upon receipt.

In accordance with the Board's request to be kept informed of any settlement negotiations among the parties, the Staff reports that no further meetings or negotiations between the parties have occurred subsequent to the Prehearing Conference of May 4, 1982. The Staff is, however, in the process of gathering technical information for the intervenors on several of the contentions and should make that information available in early June. Following review of that information by the intervenors, further negotiations are anticipated.

Sincerely,

Jay M. Gutierrez
Counsel for NRC Staff

Enclosure As Stated

cc: See Page 2

8205270 162 G

DS07
s
1/1

Distribution:
Gutierrez/Goddard
Reis/Lessy
Christenbury/Scinto
Cunningham/Murray
OELD FF (2)
Chron (2)
JMiller-216
JHWilliams/CGrimes-340
Docket Files/PDR/LPDR

cc: (w/enclosure)
Prairie Alliance
Sheldon A. Zabel, Esq.
William van Susteren, Esq.
Philip L. Willman, Esq.
Mr. Herbert H. Livermore
Jeff Urish
Reed Neuman, Esq.
Atomic Safety and Licensing
Board Panel
Docketing and Service Section
Jan L. Kodner, Esq.
Gary N. Wright
Atomic Safety and Licensing
Appeal Board Panel

DS07

OFC	:OELD	:OELD	:	:	:	:
NAME	:JGutierrez	:EReis/dkw	:	:	:	:
DATE	:05/25/82	:05/25/82	:	:	:	:

Notice: This opinion is subject to formal revision before publication in the Federal Reporter or U.S.App.D.C. Reports. Users are requested to notify the Clerk of any formal errors in order that corrections may be made before the bound volumes go to press.

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 81-1131

PEOPLE AGAINST NUCLEAR ENERGY, PETITIONER

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION AND
THE UNITED STATES OF AMERICA, RESPONDENTS

METROPOLITAN EDISON COMPANY *et al.*
(PUBLIC UTILITIES), INTERVENORS

Petition for Review of an Order
of the Nuclear Regulatory Commission

Argued November 17, 1981

Amended Judgment filed April 2, 1982

Opinions filed May 14, 1982

William S. Jordan, III for petitioner.

Peter G. Crane, Attorney, Nuclear Regulatory Commission, with whom *Stephen F. Eilperin*, Solicitor, Nuclear Regulatory Commission, and *Peter R. Steenland*,

Bills of costs must be filed within 14 days after entry of judgment. The court looks with disfavor upon motions to file bills of costs out of time.

Jr. and Jacques B. Gelin, Attorneys, Department of Justice, were on the brief, for respondents.

James B. Hamlin, with whom George F. Trowbridge and Mark Augenblick were on the brief, for intervenors.

Before WRIGHT, Circuit Judge, MCGOWAN, Senior Circuit Judge, and WILKEY, Circuit Judge.

Opinion for the court on the National Environmental Policy Act issue, concurred in by Senior Circuit Judge MCGOWAN. filed by Circuit Judge WRIGHT. Circuit Judge WILKEY dissents in Parts I and III of his opinion.

Senior Circuit Judge MCGOWAN concurs in Part II of Circuit Judge WILKEY's opinion, thereby making that Part the opinion of the court on the Atomic Energy Act issue. Circuit Judge WRIGHT dissents on the Atomic Energy Act issue and files an opinion.

WRIGHT, Circuit Judge: On March 28, 1979 Three Mile Island Unit 2, a nuclear reactor operated by Metropolitan Edison Company, was seriously damaged in the worst nuclear accident Americans have yet experienced. The incident precipitated widespread alarm and led to the evacuation of many neighboring residents from their homes. At the time of the event, Three Mile Island Unit 1 (TMI-1), another Metropolitan Edison nuclear reactor of similar design which shared some common facilities with Unit 2 (TMI-2), was not in operation. The Nuclear Regulatory Commission (Commission) ordered that it remain in a cold shutdown condition pending further investigation of whether it could be operated safely. Since then the Commission has held extensive hearings on technical, managerial, and operational issues related to the proposed restart of TMI-1. The Commission has refused, however, to consider whether renewed operation of TMI-1 might cause severe psychological harm to neighboring residents and serious economic and social deterioration in nearby communities.

People Against Nuclear Energy (PANE), one of the intervenors in the restart proceeding, is composed primarily of neighbors of TMI. It seeks judicial review of the Commission's decision to limit the scope of its inquiry in this manner. PANE contends that, under the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.* (1976), and the Atomic Energy Act, 42 U.S.C. § 2133 (1976), the Commission must take into account potential harms to psychological health and community well-being. We hold that these environmental impacts are cognizable under NEPA. Therefore, the Commission must make a threshold determination, based on adequate study, whether the potential psychological health effects of renewed operation of TMI-1 are sufficiently significant that NEPA requires preparation of a supplemental environmental impact statement.¹

I. STATEMENT OF THE CASE

In 1974 Metropolitan Edison Company received an operating license for Unit 1, a nuclear power plant facility at Three Mile Island, Pennsylvania. Four years later the company received an operating license for Unit 2, a nuclear facility of similar design at the same site. On March 28, 1979 Unit 2 suffered a serious nuclear accident which damaged the reactor, caused acute and widespread anxiety, and led the Governor of Pennsylvania to recommend temporary evacuation of pregnant women and preschool children from a five-mile radius surrounding the plant.

At that time Unit 1 had been taken out of operation for refueling. The Nuclear Regulatory Commission ordered Metropolitan Edison to keep Unit 1 in a cold shut-

¹ Today this court also holds that the Atomic Energy Act does not require the Commission to consider potential harms to psychological health. See Part II of Judge Wilkey's opinion. Judge Wright dissents from the Atomic Energy Act holding. See Judge Wright's dissenting opinion, *infra*.

down condition pending further order by the Commission. It also announced that a hearing would be conducted to determine whether TMI-1 operations could safely be resumed. Order of July 2, 1979, 44 Fed. Reg. 40461 (1979), Joint Appendix (JA) 21. On August 9, the Commission published an order and notice of hearing regarding the restart of TMI-1. 10 NRC 141-151 (1979), JA 22. Specifying a number of issues for consideration at the hearing, the Commission's order also stated, "While real and substantial concern attaches to issues such as psychological distress and others arising from the continuing impact of aspects of the Three Mile Island accident unrelated directly to exposure to radiation on the part of citizens living near the plant, the Commission has not determined whether such issues can be legally relevant to this proceeding." The Commission invited parties wishing to raise such subjects in the restart proceeding to submit briefs to the Commission's Atomic Safety and Licensing Board (Licensing Board) for consideration. 10 NRC at 148, JA 29.

Petitioner PANE, an intervenor in the restart proceeding, filed two draft contentions which are at issue in this case: it asserted, first, that restart of TMI-1 would cause severe psychological distress to persons living in the vicinity of the reactor, and second, that renewed operations would seriously damage the stability, cohesiveness, and well-being of the neighboring communities because it would perpetuate loss of citizen confidence in community institutions and would discourage economic growth. JA 84-86. In support of its draft contentions, PANE submitted a supporting brief, JA 91-117, and a preliminary plan for presentation of evidence on psychological distress, JA 88-90.

After considering briefs from PANE, other intervenors, the Commonwealth of Pennsylvania, the licensee, and the Commission's staff, the Licensing Board issued a certification to the Commission on psychological dis-

stress issues. 11 NRC 297 (1980), JA 63. Discussing legal issues arising from the Atomic Energy Act and NEPA, the Board concluded that "the Commission, within its discretion, may and should consider psychological distress and community fears under NEPA for the purpose of mitigating the effects of its TMI-1 licensing activity." *Id.* The Licensing Board accepted the contentions of the staff and the licensee that the Commission's responsibility under the Atomic Energy Act to protect the "public health and safety" did not extend to psychological health. It described the issue as a question of first impression. "[P]sychological stress," it concluded, "is probably not cognizable under the Atomic Energy Act but . . . the Commission might conclude to the contrary for reasons not discussed by the parties." 11 NRC at 299, JA 65. On the other hand, the Board agreed with PANE that psychological distress was cognizable under NEPA. It asserted that psychological factors were sufficiently quantifiable to be considered, 11 NRC at 301-303, JA 67-69. Considering psychological factors in the restart proceeding would assist the Commission in mitigating community fears, the Board explained. 11 NRC at 305-309, JA 71-75. It took no position on whether the Commission should prepare an environmental impact statement. 11 NRC at 304-305, JA 70-71.

When the Commission initially voted, in December 1980, on the question of whether to include psychological distress issues in the restart proceeding, one of the five seats on the Commission was vacant. The four Commissioners were evenly divided. Each Commissioner wrote a separate opinion expressing different reasons for his vote. Then-Chairman Ahearne and Commissioner Hendrie voted to exclude psychological stress issues. Then-Chairman Ahearne believed that the Commission was permitted, but not required, to consider psychological stress and community fears, but maintained that the best way to minimize these fears was to ensure that the

plant was safe before approving restart. 12 NRC 609-611 (1980), JA 3-5. Commissioner Hendrie took the position that neither the Atomic Energy Act nor NEPA required the Commission to consider public fears, and he added, "Congress had already decided that the country is to have a nuclear power program even if it makes some people uneasy." 12 NRC at 612-618, JA 6-12.

Commissioners Gilinsky and Bradford voted to allow psychological stress contentions to be considered in the Licensing Board proceeding. Commissioner Gilinsky was influenced by the Licensing Board's recommendation and, more importantly, by the contention of the Commonwealth of Pennsylvania that the Commission should investigate and consider the psychological effects of restarting TMI-1. 12 NRC at 619-620, JA 13-14. Also accepting the Licensing Board's analysis, Commissioner Bradford noted that no other agency had authority to assess and act on stress-related issues in connection with restart of TMI-1. 12 NRC at 624, JA 18. He asserted that full consideration of the extent of stress was the most effective way to deal with stress-related harms. 12 NRC at 621-626, JA 15-20.

The 2-to-2 vote constituted an effective rejection of the Licensing Board's recommendation. Therefore the evidentiary hearing proceeded without consideration of PANE's psychological distress and community deterioration contentions.² In addition, the Commission staff ex-

² The Licensing Board, after extensive hearings, issued a first partial initial decision on August 27, 1981, dealing with management issues, and a second partial initial decision on December 14, 1981, discussing plant design and procedures, separation issues, and emergency planning issues. The Board concluded that TMI-1 could be operated in the short term without endangering the health and safety of the public and that the licensee had made reasonable progress with respect to various long-term actions which provided reasonable assurance of safe operation in the long term. The Commission has not yet determined whether the Board's decision on the ac-

cluded these issues from its environmental impact appraisal, submitted to the Commission in March 1981 and supplemented in May 1981, which recommended that no environmental impact statement be prepared in connection with the proposed restart of TMI-1.³ On September 17, 1981, after the appointment of a fifth Commissioner, Chairman Nunzio Palladino, the Commission adhered by a vote of 3-to-2 to its previous result. Chairman Palladino did not write an opinion or concur in any of the previous opinions.

ceptability of restart at low power should be made effective. A judgment of this court, issued January 7, 1982, ordered the Commission not to "make a decision to restart TMI-1" until it had complied with the requirements of NEPA as set forth in the previous paragraph of the order. On April 2, 1982 this court amended its judgment, vacating the injunction but ordering the Commission to give 30 days' notice to the court and to petitioner if it "intends to make a final decision regarding the restart of TMI-1 prior to complying with its obligations under NEPA."

³ Early in the proceeding several intervenors filed contentions that an environmental impact statement (EIS) should be prepared before the Commission decided whether to restart TMI-1. The Commission staff took the position that no EIS was required. Pursuant to Commission regulations, it undertook to prepare an environmental impact appraisal (EIA) setting forth the basis for its position that NEPA did not require an EIS on the restart decision. On March 27, 1981 the staff issued an EIA. In response to criticisms expressed by the Commonwealth of Pennsylvania regarding the adequacy of the EIA, the staff supplemented the appraisal on May 11, 1981. Neither document addressed the contentions raised by PANE—psychological health effects and community deterioration in the area surrounding Three Mile Island. On December 15, 1981 the Licensing Board issued a memorandum and order stating its conclusion that there was no need for any additional evidentiary hearings on any of the contentions relating to the adequacy of the EIA or the need for an EIS, and that there was no basis for ruling that the EIA was inadequate or that an EIS should be prepared. Memorandum and Order on NEPA—Compliance Issues, December 15, 1981.

PANE filed a petition for review of the Commission's order, issued December 5, 1980, which excluded its psychological stress and community deterioration contentions from the TMI-1 restart proceeding. It sought reversal on the basis of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (1976), and the Atomic Energy Act, 42 U.S.C. § 2133 (1976).

On January 7, 1982 this court issued an interim judgment, pending issuance of opinions, which ordered the Commission to prepare an environmental assessment of the effects of the proposed TMI-1 restart on the psychological health of neighboring residents and on the well-being of the surrounding communities. The judgment ordered the Commission to determine on the basis of this study whether to prepare a supplemental environmental impact statement. Until the Commission had complied with the requirements of NEPA, it was ordered not to make any decision to restart TMI-1. On the Atomic Energy Act question this court ordered the Commission to submit to the court a statement of its reasons for concluding that the statute did not require consideration of psychological health in the restart proceeding. Judge Wilkey dissented from the judgment. The Commission's statement of reasons was filed with this court on March 30, 1982.

After further consideration of the NEPA issues, the court replaced the January 7, 1982 judgment with an amended judgment, entered on April 2, 1982.⁴ The amended judgment gave the Commission discretion to choose its procedures for studying the significance of the alleged psychological health impacts arising from the proposed restart of TMI-1. It made clear that the initial study should focus on psychological health effects. The

⁴ Much of Judge Wilkey's dissent is directed to the January 7, 1982 judgment, which was replaced on April 2, 1982 and is no longer in effect. The opinion of the court discusses only the requirements set forth in the amended judgment.

Commission would be required to consider the secondary impacts on community well-being only if a full supplemental EIS was prepared. Finally, noting that the operators of TMI-1 had announced that extensive corrosion problems were likely to delay the restart by six to twelve months,⁵ the amended judgment lifted the injunction against restart as unnecessary to preserve the status quo. The court instructed the Commission, however, to give notice to the court and to petitioner if subsequently it intended to make a final decision regarding the restart of TMI-1 prior to complying with its obligations under NEPA.

II. NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act is designed to assure that governmental agencies take a "hard look" at the environmental consequences of major proposed actions, and that they adjust ongoing programs in light of new information or changed circumstances. PANE urges us to hold that NEPA requires the Commission to prepare a new or supplemental environmental impact statement (EIS) on the psychological health effects and community deterioration that might result from restart of TMI-1. We agree with PANE that these environmental effects fall within the scope of NEPA, and that the Commission has a continuing responsibility to comply with NEPA's procedural requirements in its supervision of licensed nuclear facilities, including TMI-1. At the same time, we recognize the agency's role in making a threshold determination of whether changed circumstances and new information regarding environmental effects require a supplemental EIS. We therefore remand the record to the Commission for a decision on the EIS question.

⁵ New York Times, Feb. 11, 1982, A18, at col. 1.

A. *Cognizability of Psychological Health and Community Deterioration*

PANE contends that NEPA requires the Commission to prepare a new or revised EIS to evaluate two distinct environmental effects of reopening TMI-1. First, PANE alleges that renewed operation of the nuclear reactor would cause "severe psychological distress" to persons living in the vicinity of the reactor, including PANE's members. According to PANE, the accident at TMI-2 created intense anxiety, tension, and fear, accompanied by physical disorders including skin rashes, aggravated ulcers, and skeletal and muscular problems. JA 84-86. Post-traumatic neurosis, PANE asserts, can be diagnosed with reasonable medical certainty on the basis of standardized quantitative tests. Petitioner's brief at 46-47. Moreover, PANE argues, reopening TMI-1 would severely aggravate existing problems and would prevent Three Mile Island's neighbors from resolving and recovering from the trauma they have suffered. JA 84-86.

Second, PANE contends that resumption of operations at TMI-1 would cause severe harm to the "stability, cohesiveness and well being of the communities in the vicinity of the reactor." *Id.* In petitioner's view, citizens have lost confidence in the ability of community institutions to function effectively during a crisis; therefore the renewed danger of nuclear accidents would impose great strains on the community infrastructure. Moreover, PANE asserts, restarting TMI-1 would perpetuate the area's image as an undesirable location for residents and businesses, thus causing permanent damage to the economic and social health of the community.

Thus PANE's first contention deals with individual health; its second addresses the social and economic impacts that perceived nuclear hazards might create in the communities in the vicinity of Three Mile Island. Both contentions allege environmental effects within the meaning of NEPA.

1. *Potential damage to psychological health*

The President's Commission on the Accident at Three Mile Island reported that the "major health effect of the accident appears to have been on the mental health of the people living in the region of Three Mile Island and of the workers at TMI." REPORT OF THE PRESIDENT'S COMMISSION ON THE ACCIDENT AT THREE MILE ISLAND, THE NEED FOR CHANGE: THE LEGACY OF TMI at 35 (Oct. 1979), JA 267. As the Nuclear Regulatory Commission's staff has acknowledged, a great deal of study and attention has been devoted to attempts to measure the effects of the March 1979 accident at TMI-2 upon persons in the area, "including attempts to measure effects on mental health." JA 177. The staff listed a number of separate studies, conducted by organizations including the Hershey Medical Center, the Pennsylvania Department of Health, the Western Psychiatric Institute of the University of Pittsburgh, and Central Pennsylvania Blue Shield, that considered the psychological effects of the Three Mile Island accident. *Id.*

Nevertheless, the Commission's brief contends that the psychological effects alleged by PANE, which were caused by the TMI-2 accident and would assertedly be perpetuated by restart of TMI-1, are beyond the scope of NEPA. Commission's brief at 50-55. This assertion is far-reaching. Regardless of the severity of psychological health effects, the position taken in the Commission's brief would exclude them from consideration at any stage of the NEPA procedures relating to any proposed federal action. We find this interpretation of NEPA unpersuasive.⁶ The Commission's brief ignores the simple fact

⁶ The question whether NEPA requires consideration of psychological health effects is an issue of law. See *Hanly v. Kleindienst*, 471 F.2d 823, 838 (2d Cir. 1972), *cert. denied*, 412 U.S. 908 (1973). Because NEPA is a mandate addressed by Congress to all federal agencies, 42 U.S.C. §§ 4331(b), 4332(2) (1976), the Commission's position is not entitled to

that effects on psychological health are effects on the health of human beings.

In the National Environmental Policy Act, Congress accorded prominence to the effects of government actions on health and safety. NEPA was designed to "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man." 42 U.S.C. § 4321 (1976). The Act declared a national environmental policy of "encourag[ing] productive and enjoyable harmony between man and his environment," *id.*, and explicitly recognized that each person "should enjoy a healthful environment," *id.* § 4331(c).⁷ In its regulations implementing NEPA's procedural requirements, the Council on Environmental Quality required agencies to consider "[t]he degree to which the proposed action affects public health and safety" as a factor in deciding whether a federal action "significantly" affected the human environment. 40 C.F.R. § 1508.27(b)(2) (1981). In short, "[n]o subject to be covered by an EIS can be more important

the deference that courts must give to an agency's interpretation of its governing statute. See *FEC v. Democratic Senatorial Campaign Committee*, — U.S. —, —, 50 U.S.L.W. 4001, 4004 (Nov. 10, 1981).

⁷ 42 U.S.C. § 4331(b) (1976) establishes the goals of "assur[ing] for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings," *id.* § 4331(b)(2), and "attain[ing] the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences," *id.* § 4331(b)(3) (emphases added). See 40 C.F.R. § 1508.8 (1981) ("effects" under NEPA include direct, indirect, and cumulative health effects); *id.* § 1508.27 (interpretation of whether action has "significant" impact on human environment includes "degree to which the proposed action affects public health and safety"); 115 Cong. Rec. 40416 (1960) (statement of Senator Jackson that NEPA declares that "we do not intend, as a government or as a people, to initiate actions which endanger the continued existence or the health of mankind").

than the potential effects of a federal program upon the health of human beings." *Citizens Against Toxic Sprays, Inc. v. Bergland*, 428 F.Supp. 908, 927 (D. Ore. 1977).⁶

We conclude that, in the context of NEPA, health encompasses psychological health. To implement a national policy based on "the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man," 42 U.S.C. § 4331(a) (1976), Congress required each federal agency to utilize a "systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts." *Id.* § 4332(2)(A); see 40 C.F.R. §§ 1502.6, 1507.2 (1981); cf. *Chelsea Neighborhood Ass'ns v. U.S. Postal Service*, 516 F.2d 378, 388 (2d Cir. 1975) (social as well as physical sciences relevant under NEPA; agency must consider dangers of emotional and physical isolation of high-rise apartment building, which might as a result become a "human jungle").

Although we are not aware of any cases that have considered the cognizability of post-traumatic psychological health effects under NEPA, it is not surprising that this is an issue of first impression. Americans have never before experienced the psychological aftermath of a major accident at a nuclear power plant, one that aroused fears of a nuclear core meltdown and led to mass evacua-

⁶ See *Maryland-Nat'l Capital Park & Planning Comm'n v. U.S. Postal Service*, 487 F.2d 1029, 1039-1040 (D.C. Cir. 1973) (allegations that inadequate water run-off system will endanger health by causing floods; agency must consider "genuine issues as to health" before deciding whether to prepare an environmental impact statement); *Nat'l Organization for Reform of Marijuana Laws v. U.S. Dep't of State*, 452 F.Supp. 1226, 1232 (D. D.C. 1978) (department must prepare EIS with respect to U.S. participation in herbicide spraying of marijuana and poppy plants in Mexico because of potential health hazards associated with contaminated marijuana).

tion from the surrounding communities. See REPORT OF THE PRESIDENT'S COMMISSION ON THE ACCIDENT AT THREE MILE ISLAND, *supra*, JA 257-271. PANE alleges that restarting TMI-1 would perpetuate the psychological health effects of the TMI-2 accident—intense anxiety, tension, and fear accompanied by physical disorders. Despite the sweeping language of Judge Wilkey's dissent, PANE is not seeking to extend NEPA to "mere 'anxieties.'" Wilkey dissent at 11.

Nevertheless, the Commission's brief contends that psychological distress is beyond the scope of NEPA because it is not readily quantifiable. Commission's brief at 51-52. The Commission's staff was unable to state "with any degree of certainty whether the psychic distress associated with continued operation of the TMI 1 facility is sufficiently susceptible of measurement to permit a meaningful assessment of the phenomenon." 11 NRC at 305, JA 71. On the other hand, the Licensing Board asserted that psychological factors were sufficiently quantifiable to be considered, noting that "some quantification of stress upon the community is being undertaken by responsible organizations." 11 NRC at 302, JA 68. NEPA, moreover, does not authorize federal agencies to deal with intangible factors by ignoring them. It expressly instructs all federal agencies to identify and develop methods and procedures "which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." 42 U.S.C. § 4332(2)(B) (1976).^{*} This expression of congressional purpose led the Commission's Licensing Board to conclude, correctly, that "[p]recise

^{*} In its binding regulations to implement NEPA's procedural requirements the Council on Environmental Quality defined the term "human environment" as "the natural and physical environment and the relationship of people with that environment." 40 C.F.R. § 1508.04 (1981).

numerical quantification is not necessary" under NEPA. 11 NRC at 302, JA 68.

To support its position that "psychological distress" need not be considered at all in the NEPA process, the Commission's brief relies on cases that rejected the cognizability of sociologically based community anxieties. Commission's brief . . . 50-55. In these cases neighborhood associations, businesses, or other groups unsuccessfully sought to use NEPA to block or delay proposed construction of government projects—low-income housing, federal detention centers, Job Corps centers, postal service facilities—primarily because they were afraid the projects would change the character of the neighborhood, reduce property values, and increase the dangers of crime. See, e.g., *Como-Falcon Community Coalition, Inc. v. U.S. Dep't of Labor*, 609 F.2d 342, 345-346 (8th Cir. 1979), *cert. denied*, 446 U.S. 936 (1980) (Job Corps center); *Nucleus of Chicago Homeowners Ass'n v. Lynn*, 524 F.2d 225, 231 (7th Cir. 1975), *cert. denied*, 424 U.S. 967 (1976) (low-rent housing for low-income families); *Maryland-Nat'l Capital Park & Planning Comm'n v. U.S. Postal Service*, 487 F.2d 1029, 1037 (D.C. Cir. 1973) (bulk mail postal facility in suburban area); *First Nat'l Bank of Chicago v. Richardson*, 484 F.2d 1369, 1380 n.13 (7th Cir. 1973) (federal parking garage and detention center in downtown area); *Hanly v. Klein-dienst*, 471 F.2d 823, 833 & n.10 (2d Cir. 1972), *cert. denied*, 412 U.S. 908 (1973) (detention center in downtown area not far from residential apartments). None of these cases, of course, presents the holocaust potential of an errant nuclear reactor.

In these and other cases federal courts have consistently rejected the contention that socioeconomic anxieties are environmental impacts within the meaning of NEPA. The agency fulfills its responsibilities under NEPA in this context if it considers and mitigates the underlying causes for alarm, such as the possibility of increased

noise, increased crime, and increased congestion. "Concerned persons might fashion a claim, supported by linguistics and etymology, that there is an impact from people pollution on 'environment,' if the term be stretched to its maximum," Judge Leventhal explained. "We think this type of effect cannot fairly be projected as having been within the contemplation of Congress." *Maryland-Nat'l Capital Park & Planning Comm'n v. U.S. Postal Service*, *supra*, 487 F.2d at 1037; see *Nucleus of Chicago Homeowners Ass'n v. Lynn*, *supra*, 524 F.2d at 231.

In this case, in contrast, PANE is not asking the agency to evaluate the effect of "people pollution" on the environment, but rather the effect of a governmental decision on human health. We conclude that PANE's allegation—in the wake of a unique and traumatic nuclear accident—that renewed operation of TMI-1 may cause medically recognized impairment of the psychological health of neighboring residents is cognizable under NEPA.

The key to our decision is the potential effect on health. Not all physical effects have an impact on physical health; similarly, not all psychological effects rise to the level of psychological health effects. In our view, Congress intended to include psychological *health* within the meaning of "health" for purposes of NEPA. NEPA does not encompass mere dissatisfactions arising from social opinions, economic concerns, or political disagreements with agency policies.¹⁰ It does apply to post-

¹⁰ See cases cited in text *supra*. Similarly, in the esthetic realm Judge Leventhal recognized that some effects were intended by Congress to be considered and that others, pertaining "essentially to issues of individual and potentially diverse tastes," were outside the scope of NEPA. See *Maryland-Nat'l Capital Park & Planning Comm'n v. U.S. Postal Service*, *supra* note 8, 487 F.2d at 1038-1039. He referred to psychological factors as an analogy; in both realms, he wrote, some questions are "not readily translatable into concrete

traumatic anxieties, accompanied by physical effects and caused by fears of recurring catastrophe. Therefore, the severity of a psychological effect is not only relevant to whether an EIS is required under NEPA, as Judge Wilkey concedes, Wilkey dissent at 13, but also to the cognizability of the impact under the statute.

We need not attempt to draw a bright line in this case. Three Mile Island is, at least so far, the only event of its kind in the American experience. We cannot believe that the psychological aftermath of the March 1979 accident falls outside the broad scope of the National Environmental Policy Act.

2. Possible deterioration of the community

PANE's second contention alleges that the communities surrounding Three Mile Island would be severely damaged by the proposed restart of the TMI-1 facility because fears of nuclear accidents will diminish citizen confidence in local institutions, cause local businesses and residents to leave the area, and discourage potential newcomers who perceive the area as an undesirable location. JA 85-86. The Commission concedes that this contention presents a "classical 'socio-economic' issue." Commission's brief at 49. Social and economic effects, also described as "secondary impacts," do not by themselves require preparation of an environmental impact statement. 40 C.F.R. § 1508.04 (1981) (mandatory Council on Environmental Quality regulations).¹¹ However,

measuring rods." *Id.*, quoting *Hanly v. Kleindienst*, *supra* note 6, 471 F.2d at 833 n.10. But the difficulty of measurement does not exclude the beauty of scenery in the national parks from consideration under NEPA, nor should it exclude the medically diagnosed effects of traumatic accidents on the human mind.

¹¹ See *Como-Falcon Community Coalition, Inc. v. U.S. Dep't of Labor*, 609 F.2d 342, 345-346 (8th Cir. 1979), *cert. denied*, 446 U.S. 936 (1980); *Image of Greater San Antonio, Texas v. Brown*, 570 F.2d 517, 522-523 (5th Cir. 1978);

when an environmental impact statement is prepared, it must discuss economic or social effects that are inter-related with other environmental effects. *Id.* Deterioration of a community's economic base or social stability, as alleged in PANE's second contention, is a cognizable "secondary impact" under NEPA. See, e.g., *City of Rochester v. U.S. Postal Service*, 541 F.2d 967, 973 (2d Cir. 1976) (danger of economic and physical deterioration in downtown area, urban decay and blight); *Trinity Episcopal School Corp. v. Romney*, 523 F.2d 88, 93-94 (2d Cir. 1975) (displacement and relocation of residents, decay and blight, implications for city growth policy and neighborhood stability). If NEPA requires the Commission to prepare a supplemental EIS regarding the TMI-1 restart decision because the agency makes a threshold finding of significant new information on psychological health effects, see Part II-C *infra*, PANE's contentions regarding secondary effects on the community must be evaluated in the supplemental EIS.

B. Applicability of NEPA to the TMI-1 Restart Decision

PANE contends that the March 1979 accident at TMI-2 significantly changed the psychological and socio-economic effects of operating TMI-1. Therefore, PANE argues, the Commission must comply with NEPA before it decides whether to authorize restart of TMI-1's operations. This assertion does not depend on the happen-

Breckinridge v. Rumsfeld, 537 F.2d 864, 866 (6th Cir. 1976), cert. denied, 429 U.S. 1061 (1977); *Monarch Chemical Works, Inc. v. Exon*, 466 F.Supp. 639, 655-656 (D. Neb. 1979); *Nat'l Ass'n of Gov't Employees v. Rumsfeld*, 418 F.Supp. 1302, 1306 (E.D. Pa. 1976); *Nat'l Ass'n of Gov't Employees v. Rumsfeld*, 413 F.Supp. 1224, 1229-1230 (D. D.C. 1976), aff'd mem., 556 F.2d 76 (D.C. Cir. 1977). *Contra* *Jackson County, Mo. v. Jones*, 571 F.2d 1004, 1007 (8th Cir. 1978) (proposed closing of most of an Air Force Base); *McDowell v. Schlesinger*, 404 F.Supp. 221 (W.D. Mo. 1975) (same).

stance that TMI-1 was shut down for refueling at the time of the accident. PANE relies more generally on the continuing close supervision that the Commission exercises over nuclear power plants under the Atomic Energy Act. We agree with PANE that the extent of the Commission's statutory responsibilities over licensed nuclear facilities creates a continuing obligation to comply with NEPA.¹²

The Commission's brief contends that its pending decision on whether to allow resumption of operations at TMI-1 is not a "major federal action" within the National Environmental Policy Act and is therefore not subject to NEPA's requirements. Conceding that the initial grant of an operating license requires preparation of an EIS, the brief asserts that, once a private activity such as a nuclear reactor has been licensed, federal involvement in its continuation is "limited and discontinuous" and therefore "lacks the elements of federal purpose and discretion generally associated with the requirement for impact statements." Commission's brief at 46. This position takes too narrow a view of the relevant federal activity. The "major federal action" in the case of TMI-1 is not solely the initial licensing decision, but the Commission's continued exercise of supervisory responsibility over its operation and maintenance.

The position argued in the Commission's brief is inconsistent with binding regulations promulgated by the Council on Environmental Quality (CEQ) and with previous judicial decisions defining "major federal actions" for purposes of NEPA. The CEQ regulations, applicable to all federal agencies including the Commission, 40 C.F.R. § 1500.3 (1981), were expressly designed to establish uniform procedures for implementing NEPA

¹² We remand the record in this case to the Commission to determine what procedures NEPA requires in light of its evaluation of alleged psychological health effects. See Part II-C *infra*.

and to eliminate inconsistent agency interpretations. 43 Fed. Reg. 55978 (1978); see *Andrus v. Sierra Club*, 442 U.S. 347, 356-357 (1979).¹³ "Federal action," under the regulations, encompasses "new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies." 40 C.F.R. § 1508.18(a) (1981).¹⁴

The Commission's NEPA responsibilities did not come to an end when it prepared an initial EIS; the "continuing activity" of regulating TMI-1 is federal action within the scope of NEPA. The Commission has an ongoing responsibility to assure that nuclear power plants will operate without endangering the health and safety of the public. 42 U.S.C. §§ 2012(e), 2201(b), 2236 (1976). It maintains a resident inspector at each nuclear facility, see 10 C.F.R. § 50.70(b) (1981), and operates a licensing program for nuclear power plant operators, see *id.* §§ 55.1-55.60.

In the immediate aftermath of the nuclear accident at TMI-2 the Commission ordered Metropolitan Edison, the

¹³ The CEQ regulations were issued pursuant to Executive Order 11991, May 24, 1977, 3 C.F.R. 124 (1978). The Executive Order was based on the President's constitutional and statutory authority, including NEPA, the Environmental Quality Improvement Act, and § 309 of the Clean Air Act. The Executive Order delegated the President's authority to the CEQ, an agency created by NEPA. 43 Fed. Reg. 55978 (1978).

¹⁴ We are not persuaded by the Commission's argument that the TMI-1 restart proceeding is exempt from NEPA because it is an enforcement action. See 10 C.F.R. § 51.5(d) (1) (1981) (NRC regulations implementing more general CEQ guidelines). Unlike initiating an investigation or filing a complaint in federal court, resumption of nuclear operations at TMI-1 might have a direct and immediate effect on psychological health or community well-being.