UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
METROPOLITAN EDISON COMPANY, et al.,	)	Docket No. 50-289 (Restart)
(Three Mile Island Nuclear Station, Unit No. 1)	)	

PEOPLE AGAINST NUCLEAR ENERGY
REPLY BRIEF ON PSYCHOLOGICAL DISTRESS ISSUES

The briefs filed by the Nuclear Regulatory Commission (NRC) Staff and Metropolitan Edison (Met. Ed.) reflect exactly the kinds of attitudes that led to the disaster at Three Mile Island (TMI). Rather than being concerned with the health, safety, and well being of the people living in the vicinity of the reactor, both parties present detailed, highly technical, and largely irrelevant arguments in an effort to avoid being required to face the issue of the psychological stress that they have caused by their own failures and inadequacies.

The President's Commission on the Accident at Three Mile Island (hereafter, the Kemeny Commission) concluded that these attitudes must be changed in order to prevent further accidents and to assuage public fears concerning nuclear power:

> To prevent nuclear accidents as serious as Three Mile Island, fundamental changes will be necessary in the organization, procedures, and practices--and above all--in the attitudes of the Nuclear Regulatory Commission and, to the extent that the institutions we investigated are typical, of the nuclear industry.

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> We are convinced that, unless portions of the industry and its regulatory agency undergo fundamental changes, they will over time totally destroy public confidence and, hence, they will be responsible for the elimination of nuclear power as a viable source of energy.

Report of the President's Commission on the Accident at Three Mile Island - The Need for Change: The Legacy of TMI (hereafter the Kemeny Commission Report), at 7, 25 (Emphasis in original). In reaching this conclusion, the Kemeny Commission stated,

> We note a preoccupation with regulations. ...This Commission believes that it is an absorbing concern with safety that will bring about safety--not just the meeting of narrowly prescribed and complex regulations.

Id. at 9.

It is shocking that in the face of these conclusions, the NRC Staff and Met. Ed. are now arguing that mental stress, which the Kemeny Commission found to be the most significant health effect of the accident, should not be considered in deciding whether TMI Unit 1 should be allowed to renew operation. Their arguments are based on exactly the kind of hypertechnical approach about which the Kemeny Commission complained - the narrowest possible interpretation of the NRC's responsibility to protect the public health, coupled with a constant disparagement of serious psychological trauma as vague or unfounded.

Fortunately for PANE's members and the people of the TMI area, the law requires that the NRC consider psychological

distress in this proceeding. The briefs of the NRC staff and Met. Ed., albeit voluminous, cannot change that fact.

I. The Atomic Energy Act Requires That the NRC Consider Psychological Distress Contentions.

Both the NRC staff and Met. Ed. rely almost exclusively on State of New Hampshire v. A.E.C., 406 F. 2d 170 (1st Cir. 1969), for the proposition that psychological distress is not a health effect under the term "health and safety of the public" in the Atomic Energy Act. 42 USC 2133(d). In that case, the First Circuit held that the Atomic Energy Commission's responsibilities were limited to protecting the public health and safety against the "special hazards of radioactivity" and did not extend to health or environmental hazards caused by the thermal pollution that would result from plant operation. With no basis either in law or in logic, the NRC staff and Met. Ed. then conclude that the psychological distress alleged here is somehow not related to the "special hazards of radioactivity," and is therefore not cognizable in this proceeding.

Assuming the First Circuit's decision to be valid, which is arguable in light of United States Supreme Court interpretations of the word "health" in subsequent cases, PANE Brief at 3-4, there is no question that the psychological stress at issue here is a "special hazard of radioactivity." All of the elements of potential psychological stress accompany the use of atomic energy. In its military applications, atomic energy has caused thousands of deaths and poses the threat of nearly complete and permanent destruction of life and

contamination of the planet. Radiation cannot be seen or touched or smelled, yet it can create sickness and genetic damage. Anything related to radiation is marked with sharp warnings. There is great concern for public safety when even a small amount of radiactive material falls into the frozen wastes of northern Canada in a dying Russian satellite. All of these factors lead to a justified public perception of radiation as extremely hazardous. Add to this the fact that a major accident at a nuclear power plant could permanently contaminate a huge land area, and it is clear that the psychological trauma resulting from the TMI-2 accident is uniquely "nuclear" is and certainly a "special hazard of radiactivity."

Met. Ed. suggests that this trauma is not a "special hazard of radioactivity" because there are other sources of radiation, such as piles of coal at coal-fired industrial burners, and other sources of technological disaster. Met. Ed. Brief at 10. This argument can be easily disposed of. A pile of coal poses no danger of a melt-down, and no other industry threatens the kind of extensive and effectively permanent contamination that could result from a major nuclear accident. In any case, even under State of New Hampshire v. AEC, the question is not whether the hazard in question is limited to nuclear power plants, but whether it is one of the special hazards posed by radioactivity. Even if other industrial activities or natural disasters can cause trauma,

this very case illustrates that the psychological stress suffered by the persons living near Three Mile Island is one of the special hazards of radioactivity.

The NRC staff notes that "the [Atomic Energy] Act was passed in a historical context which involved widespread apprehension of a weapons-linked technology" and that the public participation provided for in the Act was perceived by some as a means of educating the public and reducing concerns about nuclear energy. NRC Staff Brief at 7. The Staff then argues that the passage of the AEA in the face of public misgivings supports the proposition that psychological stress need not be considered by the NRC. To the contrary, the fact that public participation was presented as a means of minimizing public concern indicates that Congress recognized the psychological stress that would be caused by the use of atomic energy and acted to alleviate that stress by providing for public participation. If any inference is to be drawn from this background, it is that if Congress had forseen that public misgivings would become diagnosable trauma in the event of an accident, Congress would have considered the trauma a proper subject for public participation.

II. NEPA Requires that the NRC Consider Both the Psychological Trauma and the Socio-Economic Impacts that Would Result from Renewed Operation of TMI Unit 1.

Stripped of excess verbiage, the NRC Staff and Met. Ed. briefs contain the following four arguments for the proposition that the NRC need not consider psychological stress under NEPA in this case: (1) the original EIS on TMI Unit 1 is adequate, (2) this is an "enforcement action," and enforcement actions do not require NEPA analysis, (3) psychological distress cannot be measured adequately for NEPA purposes, and (4) the NRC need consider only the causes of psychological trauma, not the trauma itself. The first argument is irrelevant, the second fatuous, and the third and fourth incorrect of matters of fact and law.

A. The Adequacy of the Original EIS on TMI Unit 1 Is Irrelevant.

The NRC Staff expends considerable effort arguing that the original EIS for TMI Unit 1 is adequate and that it did not consider psychological stress. Apparently the Staff's logic is that since they did not consider psychological distress when the reactor was originally licensed, and since the original EIS was adequate under the circumstances then existing, they never need to consider psychological distress regardless of later developments. However, the Staff later admits that discovery of new environmental impacts may require supplementation of an EIS. NRC Staff Brief at 24-29. As a result, even on its own terms, the Staff's argument requires the conclusion that the discussion

of the adequacy of the original EIS is irrelevant to the question of whether NEPA analysis is required before TMI Unit 1 is allowed to renew operations in the wake of the accident at Unit 2.

B. The NRC Staff's "Enforcement Action" Argument Misstates the Law and Mischaracterizes this Case.

Citing two cases involving Federal Trade Commission antitrust enforcement proceedings, the NRC Staff argues that this case is an enforcement action and that enforcement actions do not require NEPA analysis. This argument is little more than semantic slight-of-hand. This proceeding does not at all resemble the prosecutorial proceedings to which the staff strains to analogize it. The "enforcement" action involving Met. Ed. is the proceeding begun by the Division of Inspection and Enforcement to levy fines against the utility.

The major federal action to which NEPA attaches is the decision to order resumption of operation. In light of the psychological impacts of renewed operation, which did not exist when the original EIS was issued, the NRC must prepare a new EIS before reaching a decision here. Essex County Preservation Association v. Campbell, 536 F.2d 956, 961 (1st Cir. 1976), 40 CFR 1502.9 (c)(i)(ii).

The cases cited by the Staff do not even establish that enforcement actions are exempt from NEPA requirements. To the contrary, both cases quite clearly leave open the possibility that NEPA analysis may be required. In the first case, Gifford- Hill & Co., Inc. v. FTC, 523 F.2d 730 (D.C. Cir.

1975), a defendant in a Federal Trade Commission antitrust proceeding argued that the FTC was required to prepare an EIS before deciding to prosecute such cases. The Court of Appeals rejected that argument on the ground that the zone of interests protected by NEPA did not extend to delaying antitrust enforcement proceedings and that the NEPA arguement was premature because the ultimate action that the agency might take was still so undefined that NEPA analysis was not possible. The Second Circuit reached essentially the latter conclusion in Mobil Oil Corp. v. FTC, 562 F.2d 170 (2d Cir. 1977), in which it held that an EIS could not yet be required because it was too early to tell whether the order that might be issued in the case would result in actions that would significantly affect the quality of the human environment.

The logic of these cases does not apply here. The proposed federal action here is the renewed operation of TMI Unit 1. There is no question that this action is adequately defined to allow NEPA analysis. It is exactly the same as the proposed federal action in any reactor licensing proceeding.

Finally, the Staff argues that the "prosecutorial function," in which it says the NRC is now engaged, must be free from the encumbrances of NEPA analysis. NRC Staff Brief at 24. Applying this argument to this case stands logic on its head. No one has challenged on NEPA grounds the original prosecutorial action of closing the

plant or levying fines. Far from being the prosecutor, the NRC in this context is the parole officer who is charged with the responsibility of seeing that the prisoner does not do further damage to the community. This case bears much more similarity to an operating license proceeding than it does to an enforcement action.

C. PANE Has Established that Psychological Distress Is a Measurable Impact to Which NEPA Applies.

Relying on Hanly v. Mitchell, 471 F.2d 823 (2d Cir. 1972), cert. denied, 412 U.S. 908 (1973) ("Hanley II"), and its progeny, both the NRC Staff and Met. Ed. argue that psychological impacts are too diffuse and vague to be measurable for NEPA purposes. PANE has addressed the measurability issue at some length in its main brief (pp. 11-13). We have demonstrated that the particular trauma caused by the accident at Unit 2 has been recognized as a diagnosable condition by the American Psychiatric Association and that psychological trauma is considered measurable in most courts that now face the issue. None of the cases cited by the NRC Staff or Met. Ed. in support of their position involved psychological distress even vaguely similar to that alleged by PANE. Fear of crime in an urban neighborhood[1/] and discomfort about an influx

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1/ Hanly II, supra, First National Bank of Chicago v. Richardson, 484 F.2d 1369 (7th Cir. 1973); Como-Falcon Coalition v. U.S. Department of Labor, 465 F. Supp. 850 (D. Minn. 1978); Monarch Chemical Works, Inc. v. Exxon 446 F. Supp. 639 (D. Neb. 1979).

of low-income residents or workers,[2] admittedly difficult to measure, are not comparable to the specific identifiable individual trauma alleged by PANE here. In any case, the NRC Staff admits that

> [W]e cannot say 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.

NRC Staff Brief at 54-55. In so doing, the Staff defeats its own argument by effectively admitting that both measurability and the extent of the stress itself are issues of fact that the NRC must consider. It is up to PANE and the other intervenors to prove their case, and the NRC may not simply assume that they will be unable to do so.

D. The NRC May Not Limit Its Consideration to the Causes of Psychological Stress, but Must Consider the Stress Itself.

The fourth argument presented by the NRC Staff and Met. Ed. is that an agency need consider only the underlying causes of psychological stress, not the actual illness itself. Apparently, this theory holds that the NRC will deal so effectively with the technical issues that it will assure absolute safety at the reactor, so that any public concern would be invalid. PANE presumes that the purpose of the original licensing proceedings for TMI Unit 2 was to assure that the accident would not happen. However,

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[2] / Nucleus of Chicago Homeowners Association v. Lynn, 524 F.2d 225 (7th Cir. 1975), cert. denied, 424 U.S. 967 (1976); Trinity Episcopal School Corporation v. Romney, 523 F.2d 98 (2d Cir. 1975).

the accident did happen, and it resulted in the trauma that PANE's members and their neighbors are now experiencing. It is hardly unreasonable or unjustified for them now to believe that the NRC will not assure their safety.

The flaw in the NRC Staff-Met. Ed. approach, and the reason that they had to develop it by inference and could not find it in any cases, is that it ignores the fundamental NEPA requirement that an agency consider the effect of its actions. The effect here is psychological trauma that is as real as any cancer or other physical illness. The question is whether that trauma will occur, not whether the plant will be so safe that there is no reason to fear another accident. This question must be answered in the context of the accident at TMI Unit 2 and its effects on the residents of the TMI area. It must also be answered in light of the Kemeny Commission's conclusion that even its new recommendations are not necessarily enough to assure the safety of nuclear power plants. Kemeny Commission Report at 7.

PANE's members and their neighbors suffer from post-traumatic stress disorder as a result of the accident at Unit 2. As Exhibit 1 to PANE's main brief explains, to a large degree that disorder involves reliving and being haunted by the original disaster, often as the result of some stimulus in everyday life. To PANE's members, the siren at TMI already serves as such a stimulus. The very

fact that TMI Unit 1 was in operation would do so as well, and they would be unable to escape their trauma. This would be true regardless of whether TMI Unit 1 were absolutely safe, which cannot be the case. The point is not so much the actual safety threat of TMI Unit 1 as it is the forced constant reliving of the disaster at TMI Unit 2. Just as the NRC must consider the health effects of the uranium fuel cycle in licensing proceeding, 10 CFR 51.23 (c), n. 1, so must the NRC consider this health effect of its proposal to allow the restart of TMI Unit 1.

Finally, both the NRC Staff and Met. Ed. try to deal briefly with Chelsea Neighborhood Associations v. United States Postal Service, 516 F.2d 378 (2d Cir. 1976), in which the Second Circuit held that psychological questions must be considered under NEPA. The Staff simply notes the existence of the case with no comment. NRC Staff Brief at 45. Met. Ed., on the other hand, tries to distinguish it by saying that it does not establish that "unfounded emotional or psychological impacts are cognizable under NEPA." Met. Ed. Brief at 23 (Emphasis in original). However, neither party is able to hide the fact that the Second Circuit, which in Hanly II had originally raised doubts about the consideration of psychological issues firmly resolved those doubts in favor of consideration of psychological issues in Chelsea Neighborhood Association.

Conclusion

For the foregoing reasons, PANE urges the Licensing Board and the Commission to admit its first contention concerning individual psychological stress and its second contention concerning the threat to the health and stability of the surrounding community.

Respectfully submitted,

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