UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 24, 1979

MEMORANDUM FOR: Chairman Hendrie
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Bradford
Commissioner Ahearne



FROM: LB Leonard Bickwit, Jr., General Counsel

SUBJECT: CONSIDERATION OF PSYCHOLOGICAL EFFECTS IN PROCEEDING ON THREE MILE ISLAND UNIT 1

This is in response to various questions from Commissioners concerning whether psychological effects on the public are properly within the scope of the hearing to be held prior to the restart of TMI-1, and what the implications of that determination might be for the composition of the hearing board and for the possible use of consultants. It should be emphasized that our views on the following questions are tentative, and subject to change in light of any submissions which may be filed on these issues.

1. Does "public health" as used in the Atomic Energy Act encompass mental as well as physical health?

The Atomic Energy Act does not explicitly address this question. The definition of "public health and safety" was considered by the First Circuit Court of Appeals in New Hampshire v. AEC, 406 F.2d 170 (1969). In that case, New Hampshire had contended that the AEC was required to consider the effects of thermal pollution of the Connecticut River. Discharges of warm water, the state argued, reduced the river's capacity to assimilate waste and thereby impinged on public health. The court rejected this contention, based on its reading of the Act and its legislative history — though not before quoting Justice Holmes' aphorism that "A page of history is worth more than a volume of logic."

The court found that though the Act did not define "health" or "safety," every reference in the legislative history made clear "that the Congress, in thinking of the public's health

CONTACT: Peter G. Crane, GC
X-43288

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and safety, had in mind only the special hazards of radioactivity." 406 F.2d at 174. It noted that amendments added to the Act in 1959 spoke explicitly of "protection of the public health and safety from radiation hazards," and that the Joint Committee on Atomic Energy had described AEC's regulatory authority as "limited to considerations involving the common defense and security and the protection of the health and safety of the public with respect to the special hazards associated with the operation of nuclear facilities." Id. at 475.

The case, admittedly, is not directly on point. While thermal pollution clearly is not a "special hazard of radioactivity," it is less clear that mental illness traceable to fear of radiation is outside the reach of the clause. The case fairly stands for the proposition, however, that courts will be inclined to read narrowly the Act's use of "public health and safety" and will look at the legislative history for evidence of Congressional intent to reach questionable areas. We have found none which would suggest an intent to protect mental health.

Moreover, the historical context of the Act's enactment suggests the contrary. Congress was well aware that atomic energy was a subject about which many Americans had substantial apprehensions, based on their associations with the use of atomic energy in weapons. In earlier years, one of the major reasons for holding public hearings was to educate the public, and reduce thereby their concerns about nuclear energy.*/ There is no intimation in the act, its history, or the course of legislative oversight by the Joint Committee that suggests that the Commission should — or legally could -- refuse a license to a plant which it considered to be safe, simply because persons in the environs of the plant were afraid it was not. Congress' apparent intent was that the Commission's expert judgment should influence public opinion, rather than the reverse.

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*/ See, e.g., the 1965 report to the AEC by the Regulatory Review Panel. As described by Prof. Harold Green in Safety Determinations in Nuclear Power Licensing: A Critical View (43 Notre Dame Lawyer 633, 652), the Panel characterized the most significant functions of the public hearings as including: showing the public that "the AEC has been diligent in protecting the public interest," and giving the public a "convincing demonstration" that the applicant's proposal has received a "thorough and competent review." (Quotations are from the Panel's report.)

2. Does the Commission have any obligation under NEPA to examine the "psychological impact" of licensing TMI1?

The issue of whether psychological impacts of the restart of TMI must be considered as part of the Commission's NEPA responsibilities, and whether NEPA applies at all to the restart of TMI, are interrelated. The interconnections are somewhat complex. We shall attempt to set them forth.

First, NRC's NEPA regulations require an environmental impact statement prior to full operation of a nuclear plant. 10 CFR 51.5(a)(2). While returning a licensed plant to operation after it has been shut down is not among the actions specifically listed as in all cases requiring an EIS, the regulations provide that an EIS will be prepared on "any other action which the Commission determines is a major Commission action significantly affecting the quality of the human environment." 10 CFR 51.5(a)(10). The Commission thus has come discretion in determining whether an EIS--or other environmental document, such as an environmental assessment--is required in this case. The regulations also provide that in determining whether an EIS is required, the Commission will be guided by the CEQ guidelines. 10 CFR 51.5(b). CEQ's NEPA regulations, which succeed its earlier guidelines, provide that the effects to be considered in impact statements include "ecological..., economic, social or health, whether direct, indirect, or cumulative." 40 CFR 1508.8(b). The following regulation is a significant qualification, however: "exclusively economic or social effects are not intended by themselves to require preparation of environmental impact statement," according to CEQ. 40 CFR 1508.14.

If psychological impacts are cognizable under NEPA, they may influence not only the NEPA balance in the current situation but also the determination of whether NEPA requirements are applicable at all. For example, if such impacts are extensive and are considered "health", as opposed to "social", effects, they could, in and of themselves, be the basis for an impact statement requirement (nothwithstanding an earlier statement which did not take them into account.) The Board might thus have to make some preliminary examination of whether psychological impacts are cognizable under NEPA, and of the extent of those impacts, in order to determine whether NEPA is applicable to this case.

On the issue of whether psychological effects are cognizable, most courts seem to take the position that such impacts are too intangible and difficult to quantify to require analysis under NEPA. There are, however, cases to the contrary. In Hanly v. Mitchell (Hanly I), 460 F.2d 640 (1972), the

Second Circuit Court of Appeals considered a challenge by neighborhood residents to the planned construction of a combined courthouse and jail in lower Manhattan. The court stated:

> Plaintiffs claim that the living environment of all the families in this area will be adversely affected by the presence of the jail and by the fears of "riots and disturbances" so generated.
>
> ... Defendants argue to us that these are not "environmental considerations, as they are defined in" the act and that the injuries plaintiffs envision are speculative at best. As to the latter point, it may be that some of plaintiffs' fears are vague and speculative, but clearly all of them are not and the "responsible official" of GSA has apparently never considered any of them...460 F.2d at 647.

In a second decision in the same case, however, considering plaintiffs' objections to a revised environmental assessment prepared by GSA, a different panel of the same court took a seemingly opposite view:

> Appellants offer little or no evidence to contradict the detailed facts found by the GSA. For the most part their opposition is based upon a psychological distaste for having a jail located so close to residential apartments, which is understandable enough. It is doubtful whether psychological and sociological effects upon neighbors constitute the type of factors that may be considered in making such a determination /i.e. whether an impact statement is required/ since they do not lend themselves to measurement (emphasis added). Hanly v. Kleindienst (Hanly II), 471 F.2d 823, 833 (1972).

The court found that it did not need to reach the question whether psychological impacts of the jail had to be evaluated, since the plaintiffs were residents of an apartment building which was constructed near an existing jail, in a neighborhood long zoned for a wide range of uses, specifically including prisons.

Judge Friendly dissented in Hanly II, saying he saw no grounds for the majority's doubt whether psychological and sociological impacts were within NEPA's scope. He suggested that the case would have been decided differently if the building had been planned for Park Avenue. 471 F.2d at 839.

In a 1975 case, a third panel of the Second Circuit gave renewed support to the expansive ruling of Hanly I. In Chelsea Neighborhood Associations v. U.S. Postal Service, 516 F.2d 378, the court faulted the Postal Service for the inadequacy of its impact statement on a mail facility above which public housing would be constructed:

> A possibly more serious shortcoming of the housing analysis lies in the social, not physical sciences. What effect will living at the top of an 80-foot plateau have on the residents of the air-rights housing? Will there be an emotional as well as physical isolation from the community? Will that isolation exacerbate the predicted rise in crime due to the increase in population density? That an EIS must consider these human factors is well established (emphasis supplied). /citing Hanly I/. 515 F.2d at 388.

In general, other courts have preferred the narrower reading of Hanly II to the broad reading of Hanly I. In First National Bank of Chicago v. Richardson, 484 F.2d 1369 (1973), the Seventh Circuit was presented with a very similar case, also involving a federal detention center adjoining a courthouse. The court agreed with the Hanly II majority as to the consideration of psychological and sociological factors, adding:

> 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 convincing evidence that the safety of the neighborhood is in fact jeopardized. 484 F.2d at 1380, n.13.

The Sixth Circuit, in Nucleus of Chicago Homeowners v. Lynn, 524 F.2d 225 (1975), considered a claim by certain Chicago residents that a low-income housing project would, if built in their neighborhood, increase the incidence of violence, law violation, and destruction of property. Citing the First National Bank case, the court stated:

> To the extent that this claim can be construed to mean that HUD must consider the fears of the neighbors of prospective public housing tenants, we seriously question whether such an impact is cognizable under NEPA. 524 F.2d at 231.

The court made clear that its doubts were centered on the concept, put forward by the plaintiffs, that people themselves could be a form of environmental pollution, rather

than on the notion that fears were a proper subject for NEPA analysis.

The District of Columbia Circuit Court of Appeals has not directly faced the issue of psychological impacts, so far as our research has uncovered, although a passing reference in one case indicates support for the reasoning of Hanly II. In Maryland-National Capital Park and Planning Commission v. U.S. Postal Service, 487 F.2d 1029 (1975), Judge Lewenthal commented, with respect to "some questions of esthetics":

> Like psychological factors they "are not readily translatable into concrete measuring rods." (citing Hanly II).

Lending some support to the other side of the issue, the Fifth Circuit has cited Hanly I for the proposition that "socio-economic impacts" may be considered where there is a primary physical impact on the environment (Image of San Antonio v. Brown, 570 F.2d 517, 522 (19 ')).

Thus, there is some limited support for the evaluation of psychological impacts in environmental impact statements, and the cases which so hold remain good law, but this position remains a minority view among the circuits which have addressed or approached the issue. This is a question on which the Commission will undoubtedly benefit from having the briefs of the parties.

To sum up, it appears that the Board -- or the Commission, if the issues are certified to it -- will have a series of difficult questions to answer. First, are psychological impacts cognizable under NEPA? If so, should those impacts be considered as "health impacts" or as "social impacts"? If the former, they may justify preparation of an impact statement even if there are no other physical impacts on the environment. If viewed as "social impacts," on the other hand, they may require examination only if an EIS must be prepared because of other more direct impacts on the environment. Even if considered to be health impacts, the likelihood of psychological impacts would not necessarily require preparation of an EIS. NEPA does not require a crystal-ball ability to predict the future, and the Board could determine that the psychological impacts of the restart of TMI-1 were simply unforeseen consequences of the original decision to license TMI-1 to operate. Whether those unforeseen impacts were so severe as to require a new examination -- i.e., the treating of the restart of TMI-1 as a new federal action, with new consequences -- might require a preliminary assessment of the gravity of the psychological impacts.

3. Should the question of whether psychological effects are part of the Commission's responsibility to protect public health be certified to the Commission if it is raised before the Board?

We see no need to direct at this time that the question be certified to the Commission for decision. In any case, we believe that the progress of the TMI-1 hearing should be monitored, so that the Commission may step in if it sees serious problems arising with respect to this or other issues. If the briefs on this point did not justify the decision below, certification to the Commission might then be appropriate.

4. If the Commission decides that this is an issue for consideration in the hearing, can it add a fourth member to the Board?

No. The statute explicitly contemplates three-member boards. Section 191 of the Atomic Energy Act states that "the Commission is authorized to establish one or more atomic safety and licensing boards, each comprised of three members, one of whom shall be qualified in the conduct of administrative proceedings and two of whom shall have such technical or other qualifications as the Commission deems appropriate to the issues to be decided...." Presumably, the Commission could put a psychologist on the Board, perhaps borrowed from another federal agency, but only at the expense of one of the other members.

In one case -- the Greene County proceeding -- a joint hearing was conducted by the NRC and New York State authorities. An Atomic Safety and Licensing Board of three members heard the case for NRC, while two members of a state panel also participated. In effect, the same proceeding was going on before two separate boards. Under the terms of a protocol between NRC and the state, the same evidence might be admissible for the NRC proceeding but not for the state's, and vice versa. The Greene County proceeding is thus not precedent for departing from the statutory three-person board.

5. Could the Commission or a Board rely on consultants for help in reaching its decision, if psychological impacts are among the issues to be considered?

Legally, yes. Just as the Commission can rely on OPE for technical expertise in arriving at a decision, it can rely on consultants, provided that those consultants limit themselves to

analysis of evidence in the record. However, there is always a danger that the expert consultant who is hired will supplement the record out of his own knowledge, thereby infecting the decision with extra-record evidence. Apparently, EPA has run into this problem repeatedly, despite efforts to make clear to the consultants the limits of their charter.

A case in point is the experience of the EPA Administrator in the Seabrook case. In Seacoast Anti-Pollution League v. Costle, 572 F.2d 872 (1978), the First circuit considered challenges to the use by the Administrator of a panel of in-house experts, to assist his review of the Regional Administrator's disapproval of once-through cooling for Seabrook. The court upheld the Administrator's use of expert assistance, stating that the contention that he was barred from relying on staff expertise for his decision "runs counter to the purposes of the administrative agencies which exist, in part, to enable government to focus broad ranges of talent on particular multi-dimensional problems." Id. at 881. The court observed: "The decision ultimately reached is no less the Administrator's simply because agency experts helped him to reach it." Id.

The court found that the Administrator erred, however, in relying on the experts where they went beyond the record of the administrative proceeding. In several instances cited by the court, the experts noted that the hearing record was thin, but observed that the "scientific literature" or other "substantial studies" contained the necessary information. These extra-record references were then adopted by the Administrator. The court commented that the experts were free to introduce the additional material if they appeared as witnesses, but could not do so as decisionmakers. The court reversed EPA and remanded the decision to the Administrator. Among his options on remand, the court said, were to make a new decision based on record evidence only, or to hold a new hearing at which the experts could be cross-examined as to the additional material.

With regard to the use of consultants by the hearing board, it would be better practice for the board to call on the consultants to testify as board witnesses, so as to make their views a part of the decisional record.

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