UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

UNION OF CONCERNED SCIENTISTS REPLY BRIEF ON THE APPLICATION OF THE NATIONAL ENVIRONMENTAL POLICY ACT

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I. INTRODUCTION

The Union of concerned Scientists ("UCS") has articulated one contention under the National Environmental Policy Act, 42 U.S.C. 4321 et seq. ("NEPA"):

> Contention No. 20. Neither Metropolitan Edison nor the NRC staff has presented an accurate assessment of the risks posed by operation of Three Mile Island Unit 1, contrary to the requirements of 10 CFR 51.20(a) and 51.20(d). The decision to issue the operating license did not consider the consequences of so-called Class 9 accidents, particularly core meltdown with breach of containment. These accidents were deemed to have a low probability of occurrence. The Reactor Safety Study, WASH-1400, was an attempt to demonstrate that the actual risk from Class 9 accidents is very low. However, the Commission has stated that it "does not regard as reliable the Reactor Safety Study's numerical estimate of the overall risk of reactor accident." (NRC Statement of Risk Assessment and the Reactor Safety Study Report (WASH-1400) in Light of the Risk Assessment Review Group Report, January 18, 1979.) The withdrawal of NRC's endorsement of the Reactor Safety Study and its findings leaves no technical basis for concluding that the actual risk is low enough to justify operation of Three Mile Island Unit 1.

The Staff takes the position that the contention is inadmissible on two grounds. First, it argues that NEPA does not apply to this proceeding at all. (Brief of NRC Staff on Psychological Distress Issues, pp. 8-29). In the alternative, it argues that a party wishing to litigate the consequences of so-called "Class 9" accidents as a NEPA issue must make an affirmative showing that the conclusion that such accidents are so improbable as to be incredible is an incorrect one. (NRC Staff Brief in Response to Contention, p. 4). The licensee also opposes the contention but only on the latter ground. (Licensee's Response to Final Contentions of the Union of Concerned Scientists, pp. 17-19).

On the first issue, UCS will demonstrate that the staff is patently wrong. The NRC's obligation to fully consider all nonduplicative issues bearing on the environmental impact of the restart of Unit 1 and to take steps to mitigate those impacts does not disappear by the semantic magic of classifying the present proceeding as "enforcement." As to the second issue, UCS contends that, at the very least, the conceded occurrence of an accident beyond the design basis for TMI - a "Class 9" accident" has shifted the burden to the staff and licensee, if they wish to exclude the consequences of serious reactor accidents from NEPA consideration, to prove by probative evidence that the NEPA analysis for TMI-1 has bounded the consequences of

credible accidents. This is supported by the regulations and official position of the Council on Environmental Quality ("CEQ"), which has been given the authority by the President to promulgate NEPA regulations applicable to all federal agencies. Andrus v. Sierra Club, -- U.S. -- , 99 S.Ct. 2335, 2341 (1979).

II. ARGUMENT

A. NEPA Applies to the NRC's Decision on Restart of TMI-1

The pertinent provisions of NEPA require the federal government, inter alia, to "use all practicable means" to "fulfill the responsibilities of each generation as trustee of the environment for succeeding generations," to "assure for all Americans safe, healthful . . . surroundings," to "attain the widest range of beneficial uses of the environment without degradation, risk to health or safety. . ." 42 U.S.C. §4331(b). This has been construed to require federal agencies to minimize environmental harm in the absence of clear statutory prohibition. Public Service Co. of New Hampshire v. NRC, 582 F.2d 77, 81 (1st Cir. 1978), Flint Ridge Dev. Co. v. Scenic Rivers Ass'n, 426 U.S. 776, 787-788 (1976).

In order to ensure that these broad responsibilities are met, NEPA requires all federal agencies to develop methods to "insure that presently unquantified environmental amenities and values may be given appropriate[1/] consideration in

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1/ "The word 'appropriate in §102(2)(B) cannot be interpreted to blunt the thrust of the whole Act or to give agencies broad discretion to downplay environmental factors in their decision-

decisionmaking along with economic and technical considerations." 42 U.S.C. §4332(2)(B).

Finally, the Act requires that for all "major Federal actions significantly affecting the quality of the human environment," the federal agency in question must prepare a "detailed statement" on

> (i) the environmental impact of the proposed action,
>
> (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
>
> (iii) alternatives to the proposed action,
>
> (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity . . . 42 U.S.C. §4332(2)(C)

Of course, it has long been established that the decision to authorize operation of a nuclear power plant is a major federal action significantly affecting the human environment. Calvert Cliffs Coordinating Committee v. A.E.C., 449 F.2d 1109 (D.C. Cir., 1971).

First, the staff argues that NEPA does not apply here because this proceeding is claimed to be an "enforcement action" to which the obligations of the Act are said not to apply. In support of this argument it cites two wholly inapposite cases and an NRC regulation which clearly does not apply to the case at bar.

1/ (cont.) making processes. The Act requires consideration appropriate to the problem of protecting our threatened environment, not consideration 'appropriate' to the whims, habit or other particular concerns of federal agencies." Calvert Cliffs Coordinating Committee v. A.E.C., 449 F.2d 1109, 1113 n.8 (D.C. Cir., 1971)

We note at the outset that whether or not this sui generis proceeding is called an enforcement action is a matter of little or no analytical consequence. What is significant is whether the federal action in question - here the decision on restart of TMI-1 - may significantly affect the human environment. One need go no further than the two cases cited by the staff for the proof of this proposition. In both Gifford Hill & Co., Inc. v. F.T.C., 523 F.2d 730 (D.C. Cir., 1975) and Mobil Oil Corp. v. F.T.C., 562 F.2d 170 (2d Cir., 1977), the courts' reasoning was based on an analysis of the potential environmental consequences of the F.T.C. decision to initiate adjudicatory investigative proceedings.

In both cases the courts held the complaints to be premature, since no federal action affecting the environment takes place at the commencement of such a proceeding.[2/] Moreover, in both cases, despite their "enforcement" nature, the courts held that the proper time to prepare an Environmental Impact Statement, if one became necessary, would be at the stage of shaping a remedy.[3/] Thus, even if this proceeding could plausibly be characterized as analogous to F.T.C. enforcement, NEPA still applies at the present stage, when the decision on restart will have direct environmental consequences. At the most, the F.T.C. precedents

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2/ Mobil Oil Corp. v. F.T.C., supra at 173.

3/ Mobil Oil Corp. v. F.T.C., supra at 173; Gifford-Hill & Co., Inc., supra at 733.

would argue that NEPA did not attach to the original decision to shut the plants down on July 2, 1979.

Beyond that, UCS does not believe that a plausible case can even be made that this is an enforcement action in the sense which the staff argues. First, neither of the Commission's Orders of July 2 or October 9, 1979, so characterize it. In fact, in each instance where the Commission specifies procedures to be followed in this case, those are the procedures in Subpart G of 10 CFR Part 2, the Rules of General Applicability, and not the provisions of Subpart B which govern classic enforcement actions, the Procedures for Imposing Requirements by Order, or for Modification, Suspension, or Revocation of a License, or for Imposing Civil Penalities.[4/] In addition, with respect to actions necessary to safety but uncompleted at the conclusion of the hearings, the Board is specifically given the same authority as an Operating License Board, pursuant to 10 CFR 50.57(b) to impose such conditions and limitations as it deems necessary.[5/]

Thus, this proceeding much more closely resembles a reopened operating license proceeding than it does an enforcement action. Indeed, there already is an ongoing enforcement proceeding flowing from the accident at TMI-2; that is the action by the Division of Inspection and Enforcement to

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4/ See particularly, Order and Notice of Hearing, August 9, 1979, 1979, p. 10.

5/ Id. at 13.

levy fines on the licensee for various violations of NRC regulations. It is significant that the I&E action has been conducted in accordance with Subpart B of 10 CFR Part 2.

The staff articulates the policy justifications which are claimed to support treating this proceeding in the same manner as the decision by the F.T.C. to initiate enforcement action. These are said to be the need for administrative discretion, the need to leave the agency free to negotiate and respond quickly and the need to preserve the "prosecutorial" function incumbered. (Brief of NRC Staff on Psychological Distress Issues, p. 24) These are so clearly inapposite as to require little rebuttal. What the staff seems to overlook is that this proceeding is now on the record, with the scope of the agency's discretion governed by a host of applicable rules and law and by the Orders of the Commission. There is no "prosecutorial discretion" to be exercised by this Board. Nor is it free to negotiate with the licensee. The analogy is specious.

Finally, the staff cites both its own NEPA-implementing regulations and the CEQ regulations. In particular, it quotes 10 CFR 51.5(d):

> Unless otherwise determined by the Commission, and environmental impact statement, negative declaration, or environmental impact appraisal need not be prepared in connection with the following types of action:
>
> (1) Issuance of notices and orders pursuant to Subpart B of Part 2 of this chapter.

Subpart B of 10 CFR Part 2

> prescribes the procedures in cases initiated by the Staff, or upon a request by any person, to impose requirements by order on a licensee or to modify, suspend, or revoke a license, or for such other action as may be proper. 6/

Thus, the staff seeks to leave the impression that this is is a proceeding pursuant to Subpart B and is therefore exempted by NRC regulations from the scope of NEPA. This argument is disingenuous. If anything at all is clear about the nature of this proceeding, it is that this is not a Subpart B proceeding. The proceeding governed by Subpart B are orders to show cause (§2.202) Orders by the Commission containing specific license amendments (§2.204) 7/ and proceedings to institute civil penalties (§2.205). The procedures governing each and the situations to which each applies are spelled out clearly in the regulations and will not be repeated here. The Board need only read those regulations to see that the Staff's argument has no merit.

6/ Brief of the NRC Staff on Psychological Distress Issues, p. 19.

7/ It cannot be maintained that this fits within §2.204. That section governs only when the Commission modifies a license "by issuing an amendment on notice to the licensee that he may demand a hearing. . ." Although this proceeding has already resulted in de facto modifications to the TMI-1 license, the case goes far beyond what is contemplated by §2.204 and is governed procedurally by the Commission's Order of October 9, 1979, which incorporates most of the procedural provisions of Subpart G rather than Subpart B.

Nor do the CEQ regulations provide any support for the staff's position. It is true that CEQ, like the Gifford-Hill and Mobil Oil courts, recognizes that the decision to bring judicial or administrative action does not trigger NEPA. 40 CFR §1508.18(a). However, as we have shown, this proceeding cannot fairly be characterized as the kind of action to which that exception applies, nor are any of the policy arguments which support the exception operative in this case.

The staff argues in the alternative that, even if the decision to authorize restart of Unit 1 is a separate federal action to which NEPA may apply, it does not constitute a "major federal action significantly affecting the quality of the human environment." (Brief of the NRC Staff on Psychological Distress, p. 24-25) This is the heart of the question. The CEQ regulations mandate and the courts have held that the "continuing responsibility" placed on the agencies by 42 U.S.C. 4331 requires the preparation of a supplemental environmental impact statement if "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" 40 CFR §1502.9(c)(ii) 8/

8/ As noted earlier, by virtue of Executive Order 11991 of 1977, CEQ's regulations are no longer guidelines, but are mandatory for all federal agencies. Andrus v. Sierra Club, 99 S. Ct. 2235, 2341 (1979).

In this case, as UCS will argue more fully in the next section of this brief, new information arising out of the Class 9 accident at TMI-2 and new analyses reflected in the staff's "lessons learned task force" documents make it clear that the NEPA analysis for TMI-1 must include consideration of the consequences of accidents beyond the design basis for the plant. The concerns raised by the parties pressing "psychological damage" contentions and those raised by TMIA concerning the interaction of Units 1 and 2 also fall within the category if "significant new circumstances" which have arisen since the accident and were not considered in the FES for TMI-1 at the operating license stage.

The case most directly on point is Essex Cty Preservation v. Cambell, 536 F.2d 956 (1st Cir., 1976).[9]/ The project in question involved doubling the width of Rte. I-95 north of Boston. In 1972, the governor of Massachusetts announced a moratorium on road-building inside Rte. 128, a beltway around the city. Therefore, I-95 north of Boston would terminate at Rte. 128. Although the final EIS for the project was not completed until 1973, it was prepared too late to include consideration of the highway moratorium. The citizens group challenging the EIS claimed that a supplement was required because the inability to complete the road all of the way into Boston would call into question the

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[9]/ See, also Aluli v. Brown, 437 F.Supp. 602 (D. Haw. 1977)

traffic estimates used to justify the northern portion of the highway. This issue "was never exposed to the type of analysis and public comment envisaged by NEPA." id at 960. The court held that this constituted significant new information concerning the project's environmental aspects and called for a supplemental EIS, in light of the basic policy embodied in NEPA favoring full disclosure of all relevant factors affecting agency decisions. Id at 961. This reasoning imposes a continuing obligation on the agency so long as "certain agency decisions' remain "open to revision." Id at 961.10/

The Court's reasoning also rebuts the staff's argument to the effect that there is nothing left for NEPA to act on since the only alternative is "abandonment." First, total abandonment or, in this case, a decision not to authorize restart of Unit 1 is a clear possibility as a result of this proceeding and must be considered as an alternative. This was decided as early as Calvert Cliffs supra, 449 F.2d 1109, 1114 (1971) and has repeatedly been held to apply in cases involving small remaining segments of otherwise completed highways. Monroe City Conservation Council, Inc. v. Volpe, 472 F.2d 693 (2d Cir., 1972).

Of course, there are in this case other alternatives beyond abandonment. The agency is under a duty to consider

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10/ See also Jones v. Lynn, 477 F.2d 885, 890 (1st Cir., 1973); Monroe County Conservation Council, Inc. v. Volpe, 472 F.2d 693 (2d Cir. 1972).

alternatives which would alter the environmental impact and the case-benefit balance. Calvert Cliffs, supra at 1114. In addition, it is under a duty to order mitigating measures to minimize such environmental damage as will occur. Public Service Co. of N. H. v. NRC, 582 F.2d 77 (1st Cir., 1978). Thus, for example, in conjunction with disclosing the consequences of a major reactor accident, the staff would identify measures which could be taken to mitigate those consequences and would consider their adoption as conditions for the license.[11] These would range from design changes (e.g., additional containment) through changes in emergency procedures. There is a range of alternatives to be disclosed, analyzed on the record and considered in the decision:

> Clearly it is pointless to consider environmental costs without also seriously considering action to avoid them. Such a full exercise of substantive discretion is required at every important, appropriate and non-duplicative stage of an agency's proceedings.[12]

UCS is convinced that NEPA requires a supplemental environmental impact statement now in light of the significant new circumstances arising form the accident at TMI-2. However,

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[11] This generally describes the procedure used for the floating nuclear plant in the FES for Offshore Power Systems. See Offshore Power Systems (Floating Nuclear Power Plants), CLI___, September 14, 1979, Slip op. at 1-2.

[12] Calvert Cliffs, supra at 1128.

even if this Board does not agree that the facts are as clear as we believe them to be, it should not rule at this stage that no EIS in necessary. CEQ regulations, particularly 40 CFR 1501.4, directly address the situation where an impact statement is neither obviously required nor categorically excluded. In those cases, the agency is required to prepare an environmental assessment (governed by §1508.9). Moreover, if "the nature of the proposed action is one without precedent" (§1501.4(e)(2)(ii) and the agency determines on the basis of the assessment that there is "no significant impact" requiring an EIS, it must make that determination available for public review for 30 days prior to a final decision on whether to prepare an EIS. 40 CFR §1501.4(e)(2).

It should be noted that perhaps in recognition of this requirement, the staff stated for the first time in oral argument that it intends to conduct an environmental impact appraisal as a prelude to a decision on whether to issue an EIS, "purely discretionally" (TR. 373), but it would provide no further details on the scope or content of the inquiry, nor on whether public participation will be permitted. This position is mystifying at best, given that the staff argues vigorously throughout its brief on psychological distress issues that an environmental impact statement is not required. In any case, the orderly and open process mandated by CEQ is not discretionary. Thus, this Board should not refuse to admit any contention raised under NEPA at least until the conclusion of that process.

B. NEPA Requires the Consideration in This Proceeding of the Consequences of Accidents Beyond the Design Basis

UCS contends that NEPA requires at this stage a consideration of the consequences of accidents beyond the design basis of this plant. In so doing, we recognize that there is a considerable body of agency precedent from the period preceding the TMI accident that the staff may exclude such accident consequences from NEPA consideration on the grounds that their occurence is so improbable as to be incredible. This is the position adopted in the 1971 proposed and still-pending Appendix D to 10 CFR Part 50. Absent an affirmative showing by intervenors that the conclusion of "vanishingly small" probability is incorrect, it has been permitted to stand. Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 348 (1973 hereinafter "Midland"). Wisconsin Electric Power Co. (Point Beach Nuclear Plant Unit 2) ALAB-137, 6 AEC 491, 502 (1973). However, the Appeal Board noted from the beginning that its approval of the exclusion of Class 9 accidents was based on an uncontested factual presentation by the staff and licensee supporting the conclusion that the probability of such an accident was exceedingly remote. Midland, supra at 346-348. The proposed Appendix D is "entitled to be accorded some weight,"[13/] as an expression of interim

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13/ Midland, supra at 347.

guidance but in no way estabilised as an uncontrovertible fact that accidents beyond the design basis are incredible. Over the years, application of this principle has resulted in placing a burden on intervenors to show that there is some defect in the staff's generic reasoning concerning the low probability of high-consequence accidents.

The Staff relies principally on two cases to support its position, Carolina Environmental Study Group v. United States, 510 F.2d 796 (D.C. Cir. 1975), and Porter County Chapter of Izaak Walton League v. A.E.C., 533 F.2d 1011 (7th Cir. 1976). Both decisions do consider the distinction between Class 9 and other types of accidents, but the decision in each case is based explicitly and clearly on the record of that case. For example, in Carolina Environmental Study Group, supra, relied on heavily by the Appeal Board, the petitioners had not introduced any evidence to challenge the conclusions stated in the A.E.C.'s environmental impact statement with regard to the remote probability of Class 9 accidents. Rather, they challenged the basic policy of excluding certain events on probability alone, without consideration of consequences. The Court held that "there is a point at which the probability of an occurrence may be so low as to render it almost totally unworthy of consideration. (Id., p. 799). The Court was correct in this statement of general principle, and other courts have ruled in similar fashion, articulating the "rule of reason" for NEPA implementation. NRDC v.

Morton, 458 F.2d 827, 837 (D.C. Cir., 1972). The Court went on to make it clear that its acceptance of a Class 9 accident as one of such low probability was based soley on the record of that proceeding, consisting of the unchallenged statements of the A.E.C.:

> We find nothing in the instant record which would indicate that the A.E.C. findings regarding Class 9 accidents are clearly erroneous . . .
>
> (Id., p. 800 Emphasis added.)

Most recently, in a agency proceeding briefed and argued prior to the TMI accident, but decided afterward, the Commission upheld the consideration of Class 9 accidents for floating nuclear plants and explicitly recognized that developments since 1971 and current staff policy may require modification of the position reflected in Appendix D for land based plants, both generically and on a case-by-case basis. Offshore Power Systems (Floating Nuclear Power Plants) CLI-(Sept. 14, 1979). It particulary directed the staff to

> 1. Provide us with its recommendations on how the interim guidance of the Annex might be modified, on an interim basis and until the rulemaking on this subject is completed, to reflect developments since 1971 and to accord more fully with current staff policy in this area; and
>
> 2. In the interim, pending completion of the rulemaking on this subject, bring to our attention, any individual cases in which it believes the environmental consequences of Class 9 accidents should be considered
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> (Slip. op. at 9-10)

Thus, it is simply inaccurate to maintain that the Commission has mandated the Staff to proceed with "business as usual" with regard to land-based plants. Nor can the staff frustrate the Commission's directions by delaying to present it with an interim recommendation that reflects present knowledge and recent developments, the most significant of which is the TMI-2 accident.

UCS believes that the effect of the TMI-2 accident, which the staff has conceded to have been a Class 9 accident,[14/] has been to shatter the basic premise inherent in the staff's previous position. That basic premise is that, in determining which accidents are to be included within the design basis, it has included a spectrum of accidents which bound those which can credibly occur. To state it slightly differently, in order for the staff's position to be accepted, it must show that it has identified all "credible" accidents.

14/ ". . . [T]he Staff has concluded that the Three Mile Island accident 'involved a sequence of successive failures (i.e., small-break loss of coolant accident and failure of the emergency core cooling system) more severe than those postulated on the design basis of the plant'. . . Applying this information to the description of a Class 9 accident contained in the Annex to Appendix D, the Staff has concluded that the occurrence at Three Mile Island was a Class 9 accident." NRC Staff Response to Board Question No. 4 Regarding the Occurrence of a Class 9 Accident at Three Mile Island, p. 2. Submitted in Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Unit No. 1), Docket Nos. 50-272, DPR-70.

Prior to TMI, this showing was made on the basis of "technical judgment." Midland, supra at 347. Later, this judgment was said to be supported by the results of the REactor Safety Study, WASH-1400. As to the latter, the Commission has made it clear that the figures for accident probability presented by WASH-1400 are not reliable:

> In particular, in light of the Review Group Conclusions on accident probabilities, the Commission does not regard as reliable the Reactor Safety Study's numerical estimate of the overall risk of reactor accident.15/

15/ NRC Statement on Risk Assessment and the Reactor Safety Study Report (WASH-1400) In light of the Risk Assessment Review Group Report, January 18, 1979. p.3.

As to the former, the evidence is overwhelming that the staff's best "engineering judgment" no longer supports the conclusion that its method of analyzing accidents has succeeded in identifying and protecting against all credible accidents. The best evidence of this can be found in the documents prepared by the lessons learned task force in the aftermath of the accident. The following quote from pages 16 and 17 of NUREG-0578, the short-term lessons learned, makes this clear:

> At Three Mile Island, some of the safety systems were challenged to a greater extent or in a different manner than was anticipated in their design basis. Many of the events that occurred were known to be possible, but were not previously judged to be sufficently probable to require consideration in the design basis. Operator error, extensive core damage, and production of a large quantity of hydrogen from the reaction of zircalloy cladding and steam were foreseen as possible events, but were excluded from the design basis, since plant safety features are provided to prevent such occurrences. The Task Force will consider whether revisions or additions to the General Design Criteria or other requirements are necessary in light of these occurrences. A central issue that will be considered is whether to modify or extend the current design basis events or to depart from the concept. For example, analysis of design basis accidents could be modified to include multiple equipment failures and more explicit consideration of operator actions or inaction, rather than employing the conventional single-failure criterion. Alternatively, analyses of design basis accidents could be extended to include core uncovery or core melting scenarios. Risk assessment and explicit consideration of accident probabilities and consequences might also be used instead of the deterministic use of analysis of design basis accidents.

The discussion in NUREG-0585, TMI-2 Lessons Learned Task Force Final Report, is even more explicit:

> To varying degrees the risk from core-melt accidents is already an implicit factor in the requirements for nuclear plant siting, emergency response plans, and containment leak rate.... However, an explicit consideration of core-melt accidents in the design and operation of light water nuclear power plants has not been a part of current and past licensing scrutiny. Because the accident at Three Mile Isand exceeded many of the present design bases by a wide margin and was evidently a significant precursor of a core melt accident, the Task Force has concluded that the NRC should begin to formulate requirements for design features that could mitigate the consequences of core melt accidents.
>
> NUREG-0578, p.3-5.
>
> The Task Force believes that events of this type (i.e., core damage beyond the current design basis acceptance criteria but not including substantial melting should be considered in the design of nuclear power plants and that additional design features should be provided to assure that off site exposure can be limited.
>
> NUREG-0578, p. 3-6.

Surely this evidence forms a prima facie demonstration that the staff's basic premise for excluding NEPA consideration of the consequences of Class 9 accidents can no longer be maintained. In the face of this, the staff's claim that UCS must provide it with a mechanistic scenario of some other Class 9 accident beside the TMI-2 accident is simply a non-sequitur. Implicit in that response is the proposition that the "basic premise" remains operative. But it is totally inconsistent

with the results of the lessons learned task force for staff to contend that all other accidents beyond the design basis are so improbable as to be incredible. The task force concluded precisely the opposite.

In summary, we have established from the staff's own official statements that its present method of determining design basis events does not identify all credible accidents. It follows that the staff has excluded from its safety analysis and from its NEPA analysis a consideration of the consequences of at least some major reactor accidents which are not so remote as to place them within the speculative realm. Therefore, the staff's previous analysis have not fully disclosed the range of potential environmental impacts associated with operation of TMI-1. Now that the staff has been made aware of this circumstance, it is its obligation to remedy the deficency. It cannot continue to hide behind the discredited rationale that Class 9 accidents are essentially impossible.

Thus, the effect of the TMI-2 accident at the very least has been to shift the burden from the intervenors to the staff. As with any other NEPA issue, it is now the staff's obligation to identify and analyze the potential environmental consequences of those accidents which are credible and to consider any appropriate mitigating

measures16/ If it cannot now confidently identify the appropriate spectrum of accidents, it must indicate the degree of uncertainty involved in its analysis. "One of the functions of a NEPA statement is to indicate the extent to which environmental effects are essentially unknown." Scientists Institute for Public Information v. A.E.C., 481 F.2d 1079, 1092 (D.C. Cir., 1973).

This approach is also compelled by CEQ regulations:

> When an agency is evaluating significant adverse effects on the human environment in an environmental impact statement and there are gaps in relevant information or scientific uncertainty exists
>
> (b) If...(2) the information relevant to adverse impacts is important to the decision and the means to obtain it are not know (e.g., the means of obtaining it are beyond the state of the art) the agency shall weigh the need for the action against the risk and severity of possible adverse impacts were the action to proceed in the face of uncertainty. If the agency proceeds, it shall include a worst case analysis and an indication of the probability for improbability of its occurence.

40 CFR §1502.22. Emphasis added.

In addition, CEQ has begun the process of reviewing NRC's NEPA regulations and has informed NRC that "the Commission's exclusion of Class Nine accident effects from

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16/NEPA contains "a mandate to consider environmental values at every distinctive and comprehensive stage of the agency's process: The primary and nondelegable responsibility for fulfulling that function lies with the Commission." Greene Cty Planning Bd. v. F.P.C., 455 F.2d 412, 420 (2d Cir., 1972).

EIS analysis (because of their remote likelihood) can no longer be supported in view of the events at Three Mile Island."17/ NEPA requires the forthright disclosure and informed analysis of the potential consequences of major reactor accidents.

III. CONCLUSION

On the basis of the arguments herein, this Board should permit UCS' Contention 20 to be litigated in this proceeding.

Respectfully submitted,

THE UNION OF CONCERNED SCIENTISTS

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17/Letter from C. Foster Knight, Acting General Counsel, CEQ to Howard Shapar Executive Legal Director, NRC, September 26, 1979, p.2. A copy is attached.