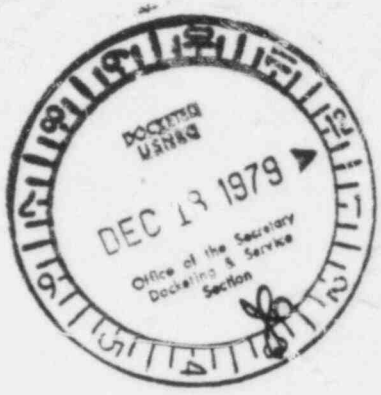
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



ATOMIC SAFETY AND LICENSING BOARD

Ivan W. Smith, Chairman
Dr. Walter H. Jordan
Dr. Linda W. Little

SERVED DEC 18 1979

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

FIRST SPECIAL PREHEARING CONFERENCE ORDER
(December 18, 1979)

Pursuant to the board's order of September 21, 1979 and the Notice of Special Prehearing Conference and Opportunity for Limited Appearance Statement, (44 Federal Register 58008, October 9, 1979), and in accordance with the Commission's Order and Notice of Hearing of August 9, 1979 and 10 CFR § 2.751a, the board conducted several sessions of a special prehearing conference in Harrisburg and Hershey, Pennsylvania on November 8 through 10, and 14 through 17. The sessions on November 8, 9, 10 and 14 were devoted to a discussion among petitioners and participating Commonwealth agencies concerning the scope of the proceeding, the identification of issues, admissibility of contentions, the standing of petitioners to intervene, the consolidation of parties, the schedule for discovery, and

further actions in the proceeding. Each petitioner or representative attended and participated in at least some of the sessions.[1/] The Commonwealth of Pennsylvania, the Pennsylvania Public Utilities Commission and the Pennsylvania Consumer Advocate also participated. No representative of Dauphin County appeared.[2/]

Many members of the public attended the sessions set aside for public limited appearance statements on November 15 and 16 in Hershey, and on November 17 in Harrisburg. Although the Board had announced that because of the many requests to

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1/ Ms. Marjorie M. Aamodt, Anti-Nuclear Group Representing York (ANGRY), Coalition for Nuclear Power Plant Postponement (CNPPP), Chesapeake Energy Alliance (CEA), Environmental Coalition on Nuclear Power (ECNP), Ms. Jane Lee, Mr. Marvin I. Lewis, Newberry Township TMI Steering Committee (Newberry Petitioners), People Against Nuclear Energy (PANE), Mr. Steven C. Sholly, Three Mile Island Alert, Inc. (TMIA), Union of Concerned Scientists (UCS).

2/ The board has been informed by counsel for Dauphin County by letter dated November 14, that on that date, he was present in the audience and listened to a portion of the proceeding. He believed that the discussion among intervenors was a waste of time for Dauphin County, so he withdrew from the audience.

make oral statements, a five minute time limitation might be required, it was not necessary to limit the oral statements. Each person attending was provided an unrestricted opportunity to present his or her views orally, and many did so.[3/] The board has received (and continues to receive) more than one thousand written limited appearance statements, petitions, letters and other written communications, which we are still reading and considering. These statements will be placed on the public record.

The following determinations are based upon the considerations at the special prehearing conference and the briefs of the parties:

3/ In a few instances, speakers who had very lengthy statements were urged to return at the end of the session to conclude if necessary.

SCOPE OF THE PROCEEDING

The licensee would have the board follow a narrowly charted course in delineating the scope of the proceeding. In its broad definition, licensee states that the issues to be considered relate to the concerns identified by the Commission as the bases for the suspension of the operation of TMI-1. Licensee Response to Petitioners' Amended Petitions, October 31, 1979, p. 4, and Tr. 118-20, 143-49. Addressing the Commission's suspension order of July 2, licensee acknowledges that the major basis for suspending operation is the lack of reasonable assurance that TMI-1 can be operated without endangering the health and safety of the public in view of a "variety of issues raised by the accident" at TMI-2 as of that date. "Variety" is quite broad, but licensee points out that the Commission, as it said it would, later specified the bases for its concerns and the suspension in its order of August 9.

As to the August 9 order, licensee asserts that the only reasonable reading is that the issues to be considered "... relate only to the necessity and sufficiency of the [NRR] Director's recommendations to resolve the concerns identified by the Commission as the bases for suspension of operation of TMI-1." Response, p. 4. The recommendations and concerns, which bound the issues, according to licensee, are those related to the suspension of all Babcock and Wilcox reactors and those related to TMI-1 in particular.

As to the former category, all B&W reactors, licensee states that we may consider only those concerns reflected in the August 9 order, pages 2 through 4 and the documents referenced in the order, namely the various I&E bulletins, and the Staff's Status Report of April 25. Tr. 119. By inference, we believe that counsel for licensee also intended to include referenced portions of NUREG-0578, TMI-2 Lessons Learned Task Force Status Report, into this category, although we recognize that counsel has reservations about the relevance of some of the recommended actions in that document. Tr. 120.

As to the latter category, those concerns and recommendations relating particularly to TMI-1, licensee states simply that only those issues specifically incorporated into the Commission's August 9 order in pages 4 and 5, may be considered in this hearing.[4/] Tr. 119.

In sum, we view licensee's position to be that this board may consider only those individual factual issues which are expressly stated in the Commission's August 9 order, or in the documents referenced in that order. For the

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4/ (1) Potential interaction between Unit 1 and the damaged Unit 2, (2) questions about the management capabilities and technical resources of Metropolitan Edison, including the impact of the Unit 2 accident on these, (3) the potential effect of operations necessary to decontaminate the Unit 2 facility on Unit 1, and (4) recognized deficiencies in emergency plans and station operating procedures. Pp. 4-5.

reasons stated below we do not accept that argument. We view the scope to be broader. But before we move on to the positions of the other parties, licensee makes another point requiring mention. Counsel states that the Commission did not mean to encompass in this proceeding all of the lessons which have been, or some day may be learned from the TMI-2 accident. Tr. 147. We agree that the scope is not that broad. This accident will doubtless be examined and reexamined far beyond the time contemplated by the Commission in its recommended schedule for this proceeding. We have taken licensee's observation into account as we have ruled upon contentions below.

The NRC staff submits for the scope of the proceeding a test that there must be some clear and close analogue, [and/or] some reasonable nexus between the issue sought to be raised and the TMI-2 accident. Tr. 152. The NRC staff also recognizes that the scope of the proceeding is whatever the Commission says it is in its August 9 order, which includes by reference NUREG-0578, the Lessons Learned Report. Tr. 764-65.

Counsel for UCS describes its view of the scope quite directly and simply:

> What you ought to consider when you look at each of these contentions one by one and decide on its admissibility I think is whether the issue raised can be related to the Three Mile Island Unit 2 accident, [and] whether it is relevant to the question of whether Three Mile Island Unit 1 can be safely operated without posing an undue threat to the public health and safety. I think that's clearly the standard before you now.

Tr. 133.

Both conditions must exist in UCS's standard. Id. UCS is joined in this view by intervenors ANGRY (Tr. 135), Sholly, (Tr. 138) and Aamodt (Tr. 139).

Intervenors ECNP, PANE, CEA, and TMIA state that no connection to the TMI-2 accident is required, that any issue pertaining to health and safety is appropriately cognizable in this hearing. Tr. 128-129, 138-141. The principal foundation for this view is the language in the August 9 order setting forth subjects to be heard in the hearing. These subjects are whether the short term and long term actions recommended by the Director of NRR are necessary and sufficient to provide reasonable assurance that TMI-1 can be operated without endangering public health and safety and whether these actions should be required before resumption of operation. August 9 order, p. 12.

The key here is whether the short term and long term actions are sufficient. Licensee mentions briefly in passing that the "sufficiency" of the Director's recommendation must be considered in the proceeding but provides no analysis of the reach of that mandate. Response, pp. 4-5. We believe that the charge to consider the sufficiency of the recommended short and long term actions clearly draws the scope of the hearing beyond the limits urged by the licensee.

We see an additional fallacy in licensee's position. To accept its view, we would have to conclude that as of the August 9 order and notice of hearing, the Commission already

had in mind all possible factual issues to be considered in the hearing, and that the Lessons Learned report was the final word on the subject. This is not the case, of course. The Lessons Learned Final Report, NUREG-0585 has since issued, other inquiries continue, and in fact this very hearing is a form of NRC investigation into the relationship between the TMI-2 accident and the operation of TMI-1.

On the other hand we do not believe that the Commission intended an unrestricted inquiry into all possible safety questions as urged by ECNP, PANE, CEA and TMIA. The concerns specified by the Commission and the mandatory issues all relate to the accident at TMI-2. The phrase "necessary and sufficient" pointed to by these intervenors applies to the Director's recommended actions referred to elsewhere in the order which, in turn, are all somehow related to the accident.

We see little practical difference between the staff's definition of scope and the definition by those sharing UCS's view. We could accept either as reasonable. The problem lies in applying the test once it is defined. Even though the staff seems to agree with intervenors UCS, Sholly, ANGRY and Aamodt on scope, the staff has objected to many of their contentions, which we see to be a matter of judgment. Our rulings too have required some judgment. We have resolved doubts in favor of including safety-related issues. We have also adopted

some practical tests in evaluating the litigability of some contentions.

There is a pattern in many of the contentions where the petitioner asserts an example said to be related to the accident and from there seeks to enlarge the contention to embrace all possibilities in the class of events or circumstances represented by the example. For example, UCS in its Contention 9 specifies that there was no system to inform the operators that the auxiliary feedwater system valves were open. From this UCS seeks to justify a contention that operators should be informed when any safety system has been disabled. 5/

This class of contentions has been difficult to evaluate. On one hand we do not expect intervenors now to be able to specify each circumstance related to the TMI-2 accident which should be considered, nor do we believe that only these system components alleged to have contributed directly to the accident may now be considered. On the other hand practical evidentiary considerations and due process require that there be some reasonable bounding of the example-type contentions. Frequently we have permitted a broadening of the contention to include the class of system components in the major safety system involved, most often the core cooling system and the containment isolation system. However, intervenors must be aware that this broadening

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5/ Other samples are in UCS Contention 10 where premature shutting off of the ECCS is alleged to base a contention that no operator action should prevent the completion of a safety function once initiated. ECNP Contention 1(c) follows the same pattern with respect to a false signal that the PORV was closed.

may not produce the showing sought by the contention. The specificity of the contention will necessarily shape the specificity of the evidence produced in response. The discovery process should be used to refine these contentions so that only those circumstances reasonably related to the accident are identified for hearing.

In its August 9 order the Commission requires compliance with Category A recommendations specified in Table B-1 of NUREG-0578 as a part of the short term actions and Category B recommendations in the same table as part of the long term actions. Order, pp. 7, 8. One recommendation, Section 2.1.9, Transient and Accident Analysis, is in neither Category A nor B. It is designated by a double asterisk which refers to a time schedule in Table B-2 of NUREG-0578. To avoid question about the scope of this proceeding we now rule that Section 2.1.9 should be viewed as a long term action to be included inferentially in the "long term actions" No. 3, page 8 of the August 9 order. Section III(2), p. 9, of the Commission's order anticipates the completion of all long term actions listed in Table B-1. Section 2.1.9 is one of the longer term recommendations of the Table. The staff and the licensee agree that Section 2.1.9 of Table B-1 is appropriately within the scope of this proceeding. Tr. 756-66.

Class 9 Contentions

There are several contentions advanced by intervenors which in effect seek to litigate generally the consequences and/or risks of so-called "Class 9" accidents. 6/ For the reasons set forth, the board concludes that except for the approach outlined in our discussion below of UCS contention 13, it would be too broad and non-specific and inconsistent with still viable Commission precedent to open up this proceeding to the extent of embracing generally the litigation of unspecified Class 9 accidents. Such an approach would be particularly inappropriate in this proceeding, since as we state above, the board must be able to find at least a reasonable nexus between the TMI accident and matters sought to be litigated. However, we do not construe Commission precedent, particularly in the light of more recent events and issuances, as precluding the litigation of certain specified accidents which heretofore may have been regarded as Class 9 accidents unsuitable for litigation in individual proceedings.

The historical framework of the consideration of Class 9 accidents has been well presented in pleadings submitted to us

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6/ E.g., UCS contentions 13, 16 and 20; ECNP contentions 4(d) and 14; ANGRY contention 6.

by the parties[7] and in decisions in other NRC proceedings.[8] Accordingly, there is no need to rehearse that history in detail here. To briefly highlight, however, the term "Class 9 accident" stems from a 1971 proposed rule issued for "interim guidance". That proposed rule, now codified as a proposed Annex to 10 CFR Part 51, still exists as of this writing and has been relied upon in AEC and NRC decisions[9] and by Courts of Appeals.[10]

Pursuant to the proposed Annex, a nuclear power plant must be designed either to preclude or minimize the occurrence, or to mitigate the consequences, of accidents up through Class 8.

7/ NRC Staff Brief on the Effect of Rulemaking upon the Issues of the TMI-1 Suspension Proceeding, November 16, 1979, pp. 5-7; Licensee's Response to NRC Staff Brief on the Effect of Rulemaking upon the Issues of the TMI-1 Suspension Proceeding, November 30, 1979, pp. 2-4.

8/ Offshore Power Systems (Floating Nuclear Power Plants), ALAB-489, 8 NRC 194, 209-25 (1978). Pennsylvania Power and Light Company (Susquehanna Steam Electric Station, Units 1 and 2), LBP-79-29, 10 NRC ____, Memorandum and Order Concerning Class 9 Accident Contention, October 19, 1979. In view of the fact that we believe this Susquehanna order to be well articulated and well reasoned, our approach here substantially parallels that of the Susquehanna licensing board. Copies of the Susquehanna Slip Opinion have been previously served in this proceeding by the NRC staff.

9/ See the decisions cited in Offshore Power Systems, ALAB-489, supra, 8 NRC at 210, n. 52. The special case of floating nuclear plants is not applicable to this proceeding. Accordingly, our discussion is limited to the context of land-based nuclear power plants.

10/ See, e.g., Hodder v. NRC, Nos. 76-1709 and 78-1149 (D. C. Cir., December 26, 1978); Lloyd Harbor Study Group v. NRC, No. 73-2266 (D. C. Cir., November 29, 1978); Porter County Chapter of the Izaak Walton League v. AEC, 533 F.2d 1011 (7th Cir.), cert. denied 429 U. S. 858 (1976); Carolina Environmental Study Group v. United States, 510 F.2d 796 (D. C. Cir. 1976).

Accidents so classified are "design basis accidents" which are considered the most serious accidents sufficiently credible to be considered in environmental and safety design analyses.

"Class 9 accident" is a term which cannot be defined with reference to any particular sequence of events or types of failure. Rather, the class encompasses the residual totality of accidents more severe than the "design basis accidents" of Class 8 -- consisting of an indefinable number of conceivable sequences of postulated successive failures. Because of their improbability, nuclear power plants need not be designed to guard against their occurrence and the consequences need not be considered in environmental analyses. Offshore Power Systems, ALAB-489, supra, at 209-210.

Even without recent promulgations, the somewhat older precedent assembled in Offshore Power Systems, supra, and Susquehanna, supra, and referred to above, provides sufficient support for the reasoning expressed by the Susquehanna licensing board. We agree with that reasoning and the conclusion that the occurrence of the accident at TMI Unit 2 constitutes a prima facie showing as to the probability of occurrence of that specific accident (particularly at the similar Unit 1 reactor) sufficient at least to form the basis for an admissible contention.

The proposed Annex itself does not preclude the possibility that accident assumptions other than those specified in the Annex "may be more suitable for individual cases". The Appeal Board

has historically implemented this flexibility by permitting parties to attempt such a showing in individual cases. See cases referred to in footnote 9, supra. For example, Shoreham, supra, 6 AEC at 836, recognized this flexibility by holding:

> In the absence of a showing that, with respect to the reactor in question, there is a reasonable possibility of the occurrence of a particular type of accident generically regarded as being in Class 9, NEPA does not require a discussion of that type of accident.

We rule that contentions which use the actual events at TMI as a base and then add or change a credible specific occurrence or circumstance, set forth sufficiently specific accidents which have a close nexus to the TMI accident. These contentions, therefore, are admissible. As is obvious under NRC adjudicatory procedures, the admissibility of contentions which involve the specific TMI accident or other specific accidents with a close nexus to the TMI accident does not imply any view whatsoever as to the merits of such contentions.

More recent promulgations have added weight to the correctness of our rejection of an approach which would narrowly construe Commission precedent so as to exclude contentions because they involve consideration of Class 9 accidents. The recent statement by the Commission relating to modified adjudicatory procedures for licensing proceedings cautions:

> In reaching their decisions the Boards should interpret existing regulations and regulatory policies with due consideration to the implications for those regulations

> and policies of the Three Mile Island accident. In this regard it should be understood that as a result of analyses still underway the Commission may change its present regulations and regulatory policies in important respects and thus compliance with existing regulations may turn out to no longer warrant approval of a license application. 11/

In this particular TMI Unit 1 proceeding, we apply the Commission's guidance to hold that no further special showing is required of intervenors to admit a contention alleging a specific Class 9 accident which is either the same as or closely related to the actual accident which took place at TMI Unit 2.

In addition, as pointed out by a recent decision of the Appeal Board, 12/ the Commission has indicated that it is rethinking the policy, formulated in proposed Annex A, against considering Class 9 accidents. Offshore Power Systems (Floating Nuclear Power Plants), CLI-79-9, 10 NRC ____ (September 14, 1979). Specifically, in the interim before a formal rulemaking proceeding on this subject is completed, the Commission has directed the staff to:

(1) provide it with recommendations on how the guidance of the Annex might be modified on an interim basis

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11/ Suspension of 10 CFR § 2.764 and Statement of Policy on Conduct of Adjudicatory Proceedings, p. 5 (November 5, 1979) (44 Fed. Reg. 65049, at 65050, November 9, 1979).

12/ Public Service Company of Oklahoma, et al. (Black Fox Units 1 and 2), ALAB-573, 10 NRC ____, Slip Op. at 30 (December 7, 1979).

pending completion of the rulemaking to reflect recent developments and current staff policy;[13/] and to

(2) bring to the Commission's attention any individual cases in which the staff believes the environmental consequences of Class 9 accidents should be considered.

At this time, we take these recent and still evolving developments to be consistent with and indeed supportive of our rulings on Class 9 contentions. However, it is possible that events as a result of the Commission's Class 9 rulemaking proceeding may overtake us and require adjustments to our approach of admitting Class 9 contentions which set forth a specific accident within the scope of this proceeding.

13/ We are aware of an information report from the staff to the Commission (SECY-79-594, October 31, 1979), entitled "Class 9 Accident Considerations". This report is apparently intended, in part, as a preliminary outline of the staff response to the Commission's Offshore Power Systems decision. In it, the staff states its intention to develop for Commission consideration, by January 1980, a policy statement which as an interim measure would withdraw the old proposed Annex and instead abandon the system of classes of accidents in favor of a continuum representation of the probability of exceeding selected consequences based upon developments in quantitative risk assessment techniques and in the light of the TMI-2 accident.

Finally, we note that the Appeal Board in Black Fox, supra, Slip Opinion at 31-32, has applied the Commission's directive to the staff in Offshore Power Systems, supra, to mean that the staff must advise the Commission promptly (within thirty days in the Black Fox case) of the reasons why it believes the consequences of Class 9 accidents should or should not be considered in that individual licensing proceeding. Consistent with this approach and our approach with respect to UCS contention 13, we direct the staff to inform this board and the Commission whether or not (and the reasons therefor) any specific accident sequence, which has a reasonable nexus to the TMI-2 accident and which heretofore may have been regarded as a Class 9 accident, should be considered in the analyses of the acceptability of returning TMI Unit 1 to operation. This should be done as soon as possible, and not later than February 1, 1980.

Deferral of Rulings

The intervenors who submitted emergency plan contentions are in the process of reviewing the licensee's recently issued plans for dealing with emergencies. They will be submitting revised contentions as a result of that review by December 19, 1979. Tr. 864. Accordingly, the board will defer ruling on emergency plan contentions until we have had an opportunity to consider the revised contentions. We agree with both the staff and the licensee that the board should consider the issue of emergency planning notwithstanding the pending rulemaking. See NRC Staff Brief on the Effect of Rulemaking Upon the Issues of the TMI-1 Suspension Proceeding, pp. 7-9 (November 16, 1979); and Licensee's Response, pp.8-9 (November 30, 1979).

Pursuant to the Commission's Order and Notice of Hearing of August 9, 1979, p.13, the board in the future will certify the question to the Commission of whether psychological distress contentions advanced by the parties should be considered in the proceeding, with our recommendations, if any. Accordingly, rulings on psychological distress contentions are deferred at this time.

As pointed out below in the context of ruling upon contentions, we are at this time deferring our ruling on the admissibility of contentions which involve the post-accident generation of combustible gas. We expect to rule

shortly. That ruling in part involves the question of whether 10 CFR 50.44 bars the contention, and if so, whether the application of the regulation as such a bar should be waived. Pending that ruling, and for reasons to be explained in that ruling, we are permitting discovery to proceed on those contentions as if they were admitted by this order.

UCS Contentions

UCS Contentions Nos. 1 and 2 relate to the adequacy of natural circulation to remove decay heat. Contention No. 2 is essentially the basis for Contention No. 1. The licensee objects to these contentions as being outside the scope of the proceeding. The board accepts the contentions over licensee's objection. Tr. 192-202.

UCS Contentions Nos. 3 through 8 are not objected to and are accepted by the board.

UCS Contention No. 9 refers to a need for a system to inform operators that a safety system has been disabled. Licensee does not oppose the example provided in the contention but objects as to other unspecified safety systems. The board accepts the contention but limits the contention to the core cooling and containment isolation systems. Tr. 205-215.

UCS Contention No. 10 asserts that the safety systems must be modified so that an operator cannot prevent the completion of a safety function once initiated. The licensee would accept the contention with respect to the example submitted (the ECCS) but objects to unspecified systems. The board accepts the contention but limits it to the core cooling and containment isolation systems. Tr. 215-19.

UCS Contention No. 11 challenges the assumption that the design of the hydrogen control system may assume that only five percent of fuel cladding will react. This contention is the subject

matter of a petition under 10 CFR §2.758 by petitioner Sholly and will be ruled upon at the time the board rules upon Mr. Sholly's petition. In the meantime, however, discovery may proceed under Contention No. 11 over the objection of the NRC staff and licensee who assert that the contention is a challenge to 10 CFR 50.44. Tr. 220-34, 240-52.

UCS Contention No. 12 asserts that the environmental qualification of safety related equipment at TMI is deficient. The licensee has no objection to the specific example which relates to the pressurizer level instruments functioning in an accident environment, but objects to the balance of the contention on the basis of specificity. This contention differs from the other contentions which go from the specific to the general in that it depends upon a common initiating event -- the environment created by the accident. Even so, the contention is too broad in that its reference to GDC-4 would extend it to structures, systems and components without further limitation. The board will permit the contention to be expanded beyond the example to the equipment important to safety in the containment building and auxiliary building. The board is particularly interested in the aspect of the contention which relates to instrument reliability within the containment building. Tr. 235-39.

UCS Contention No. 13 brings into question the staff's methods of determining which accidents, in the realm of possible accidents, fall within the design basis. Both licensee and staff objected to the contention as originally framed on the grounds that it lacked the necessary specificity

for litigation and was outside the scope of the hearing. After lengthy oral argument (Tr. 252-283) we suggested that the contention be redrafted so as to better define the petitioners' concerns and to challenge the staff's methods. The amended contention has been objected to by licensee for much the same reasons that were advanced against the original contention. It is petitioners' position that TMI-2 has demonstrated that there are accident sequences which lead to core damage that are not included in the design basis accidents addressed by the licensee -- that some of these sequences may be so likely that TMI-1 should not be allowed to restart. They charge that staff has failed to identify such sequences.

We recognize and share some of the petitioners' concerns but we do not see how the licensee or staff can precisely respond to such a broad charge. Moreover, we recognize that Robert D. Pollard is the technical advisor to the Union of Concerned Scientists and that UCS has other people with expertise in the field of nuclear safety. UCS can better specify its concerns. We are, as of now, admitting the contention for the purposes of discovery. We believe that UCS can further define its contention, yet keep it within the scope of this proceeding and relate it to the accident at TMI-2. The sooner UCS specifies the areas or sequences that must be addressed by licensee and staff, the greater will be

the showing required in response to that specificity. Regardless of the final specificity of this contention, the board itself expects the staff to provide evidence adiressing the general method by which the staff has determined whether accidents within the scope of this proceeding fall within or outside the design basis.

UCS Contention No. 14 relates to components presently classified as non-safety related which can have an adverse effect upon the integrity of the core. Licensee objects because of lack of specification of the non-safety related systems and because it is outside the scope of the proceedirg. We accept the contention despite licensee's objections but we limit the consideration to the core cooling system. Tr. 330-32.

UCS Contention No. 15 states that the short and long term recommendations of the staff specified in the Commission's order of August 9 should all be implemented before TMI-1 is permitted to resume operation. Neither the licensee nor the staff object. Even so, the board is unwilling to accept this contention as an issue in the hearing. If the contention is meant to question the basic concept of the Commission in its order of August 9 concerning the short term/long term approach to the proposed restart we reject the contention because it is beyond our jurisdiction. If, as counsel stated at the prehearing conference, the contention is meant to cover all of the issues

which have not been independently challenged by UCS as a catch all contention, we reject it on the basis that, without any justification, it lacks specificity.

UCS Contention No. 16 asserts that emergency planning, specifically evacuation, should be based "on a worst case analysis of the potential accident consequences of a core melt with breach of containment." For the reasons set forth in our introductory discussion of Class 9 accidents, we rule that the assumption of such an unspecified Class 9 accident upon which the contention depends is too vague, of insufficient bases and lacks nexus to the accident at TMI-2. However, emergency planning will be addressed in this proceeding in the context of other contentions which will be later specified and as a mandatory issue to be considered by the board pursuant to the Commission's Order. As part of the inquiry on emergency planning, and consistent with our introductory Class 9 discussion, evidence may have to be presented on the question of whether evacuation plans adequately consider the credible consequences of an accident. As an emergency planning contention the consideration of the matter shall be deferred as provided for other emergency planning contentions above. Tr. 333-47.

UCS Contention No. 17 relates to the so-called "generic unresolved safety issues" and contends that all of those which may be applicable to TMI-1 must be resolved before operation is

permitted to resume. Virginia Electric Power Company (North Anna Nuclear Power Stations, Units 1 and 2), ALAB-491, 8 NRC 245, (1948). The UCS provides two examples of the unresolved safety issues: 1) the failure of the pressurizer power operated relief valve as a failure of non-safety systems as contributors to the accident and 2) the qualification of safety related equipment in an accident environment. These have been identified as generic issues A-17 and A-24, respectively. The staff would accept the two examples but objects to the balance of the contention because it is not specific. Licensee makes a general objection with respect to insufficient bases. The board would be able to accept the contention limited to the specific examples cited except that these examples are adequately covered in other UCS contentions. UCS Contentions Nos. 5 and 12 together relate to PORV valves and environmental qualification of safety related equipment. UCS Contentions Nos. 7 and 14 relate to water level in fuel assemblies and the interrelation of non-safety related equipment on the integrity of the core. Given the lack of specificity of Contention No. 17, it is rejected. The issues stated therein are adequately covered. Tr. 347-56.

UCS Contention No. 18 would require that licensee demonstrate conformance with each regulatory guide presently applicable to plants of the same type. Both the staff and the licensee object because, except for the example, the contention

is too broad. The example given, which relates to the indication system as required by Regulatory Guide 1.47 is already the subject of UCS Contention No. 9. Apart from this example the contention is too broad for litigation and is therefore rejected in its entirety. Tr. 356-58.

UCS Contention No. 19 is centered around the possibility that a postulated fire may damage both redundant divisions of shutdown systems but is without further specificity. It is objected to on that basis. The board rejects the contention because it is without specificity and is outside the scope of the proceeding in that no relationship to the TMI-2 accident has been demonstrated. Tr. 359-67.

UCS Contention No. 20 asserts that there has been no accurate assessment of the risks associated with the operation of TMI-1; that the Commission's withdrawal of endorsement of WASH-1400 leaves no technical basis for concluding that the actual risk is low enough to justify its operation and, by implication, that a NEPA analysis of Class 9 accidents is required before TMI-1 may be permitted to resume operation. We have above discussed our standards for accepting Class 9 contentions. Contention No. 20 is too vague and unfounded. The board has before it the issue of the need for an environmental impact statement which will be addressed in a later order of this board. In the meantime, the contention is rejected.

TMIA Contentions[14/]

TMIA Contentions Nos. 1 and 2 are addressed to potential cumulative effects on the offsite population if gaseous and liquid effluents from restart of TMI-1 are added to those which have already been released in normal operation of TMI-1 and 2, during the accident at TMI-2, and which will be released during cleanup of TMI-2. Licensee objected to these contentions asserting that they challenge Appendix I to 10 CFR 50 which considers radiation releases on an individual reactor basis, i.e., that releases of radiation from TMI-1 are to be considered independently from those at TMI-2. Staff originally asserted that 10 CFR 20 barred consideration of these contentions, but in the course of the prehearing conference decided that licensee's analysis, i.e., opposing the contentions as attacking Appendix I was the better approach. Tr. 394.

Neither 10 CFR 50 nor 20 can be construed so as to eliminate TMIA Contentions Nos. 1 and 2. Section 50.34a is addressed to numerical design objectives applicable to effluents from normal operations or expected operational occurrences; specifically, these guidelines "are not to be construed as radiation protection standards." Part 20 of 10 CFR does set forth standards for protection against radiation. Cumulative

14/ "Revised" contentions. See Appendix.

exposures are addressed in §20.102 but apply to individuals in restricted areas. Section 20.106 sets forth regulations applicable to limitations on radioactivity in effluents to unrestricted areas; however, these regulations are framed in terms of average exposures over a period not exceeding one year. Further, the tabulated numerical limits are not in themselves restrictive since higher limits are acceptable if the licensee can demonstrate "... a reasonable effort to minimize the radioactivity discharged in effluents to unrestricted areas." Thus, it appears that the matters addressed in 10 CFR Parts 20 and 50 fail to include that matter which is the main thrust of TMIA Contentions Nos. 1 and 2, i.e., cumulative effects including the effects of releases during the accident. Therefore, these sections cannot be construed to bar consideration of these contentions.

The "necessary and sufficient" language of the Commission's August 9 order relates to the "health and safety" of the public, terms usually associated with the Atomic Energy Act. Order, p. 12. For this reason, the board is uncertain of the reach of its jurisdiction in the matter of cumulative or residual risks. The board takes note of the strong public interest in this very matter, as abundantly indicated in the numerous limited appearances received during the prehearing conference. The board also notes that, in the matter of Maine Yankee Atomic Power Company, (Maine Yankee Atomic Power Station), CLI-74-2, 7 AEC 2, 1974, the Commission considered the statutory bases for consideration of residual effects and stated, "The real question turns not upon a choice of statutory labels, but upon the

requisite weighing of the residual risks at some point of the licensing process." Id. at 4.

In consideration of the above points the board exercises its discretion and accepts TMIA Contentions Nos. 1 and 2.

TMIA Contention No. 3 is a psychological stress issue and consideration is deferred.

TMIA Contention No. 4 was revised on November 13 to make it clear that the contention relates to plant security and is not a psychological issue. This contention predicts that if TMI-1 is restarted, wide-spread civil disruption would occur threatening the security of Three Mile Island with a consequence that there would be a release of high levels of radiation into the air and into the water causing sickness and death.

Licensee and NRC staff oppose this contention on the dual grounds that the allegation is beyond the scope of the proceeding and it is without basis. We see sufficient connection between the accident and the predicted effect on the safe operation of TMI-1, but reject the contention because it is without basis. TMIA Contention No. 4 would depend upon four essential assumptions. The first is that a group of demonstrators would seek to invade Three Mile Island. We do not reject this assumption out of hand; it has happened at other nuclear stations.

Second, the contention requires us to assume that there is a collapse of the TMI-1 security system and that law enforcement authorities have lost control. As the staff points out in its opposition to the contention, even in a case worse than that predicted by TMIA, i.e., an assault by well-armed and trained saboteurs, there is no need to assume that "... settled and traditional governmental assistance ...." will not meet the occasion. Consolidated Edison Co. of New York (Indian Point Station, Unit No. 2) ALAB-197, 7 AEC 826, 830.

Third, TMIA would, by implication, have us assume that in the event of an intrusion upon the plant site, and a breach of security, TMI-1 would not be shut down safely, as compared to continued operation in the face of the threat. Finally, the contention would require an assumption that demonstrators, assertedly opposed to nuclear energy and the operation of TMI-1, would seek, and cause a result opposite to their very purpose, -- the release of radiation.

To the extent that the contention raises issues about the threat upon the TMI-2 cleanup operations, the contention is beyond the scope of this hearing.

TMIA Contention No. 5 is accepted without objection because TMIA modified the concluding phrase to change "revoked" permanently to "suspended" permanently. Tr. 415-16.

TMIA Contention No. 6 raises an issue of the financial capability of the licensee. Licensee objects to paragraph numbered (1) on the basis that it is so unbounded as to exceed the scope of the proceeding. We disagree. The scope on financial qualifications is quite broad as it is set forth in the Commission's order. Commission's order, pages 7, 12 and 14. Paragraph numbered (2) is not accepted as a part of Contention No. 6 because it is only a basis for paragraph numbered 1. Tr. 416-31.

TMIA Contention No. 7 is not objected to and is accepted.

TMIA Contention No. 8 asserts the need for an environmental impact statement. This will be considered in a separate order.

Ms. Aamodt Contentions

Ms. Aamodt Contention No. 1 would require a program of psychological testing and counselling for TMI-1 operator personnel and management. The contention is rejected because it is without basis and is outside the scope of the proceeding. Tr. 432-39, 446.

Ms. Aamodt Contention No. 2 is accepted without objection.

Ms. Aamodt Contention Nos. 3 through 6 relate to emergency planning. Consideration is deferred pending the revised emergency contentions.

Ms. Aamodt Contention No. 7 would require an assessment of the "nuclear environment" of the petitioner's family including TMI-2, Peach Bottom and Salem. The contention is rejected as being beyond the scope of the proceeding. Tr. 459-60.

Ms. Aamodt Contention No. 8 relates to the effect of radwaste management upon the operation of TMI-1. At the special prehearing conference Mr. Aamodt explained that the contention was intended to refer to short term recommendation 5. Commission's August 9 order, pages 6 and 7. So limited the board accepts this contention. Tr. 453-57.

Ms. Aamodt Contention No. 9 this contention as originally presented and as explained by Mr. Aamodt asserts that the perceived effect upon the products produced by the Aamodt farm by the accident at TMI-2 and the operation of TMI-1 would have real and direct economic effects upon the Aamodts and therefore upon their health. Despite Mr. Aamodt's disclaimer, this contention depends directly upon psychological stress. Therefore it is deferred. Tr. 461-63.

Ms. Aamodt Contention No. 10 would require that representatives of licensee and the NRC who interface with the public must be subject to criminal prosecution for false statements as a condition for restart of TMI-1. This contention is beyond NRC jurisdiction and is beyond the scope of the proceeding.

Ms. Aamodt Contention No. 11.1. is essentially an argument that there must be a cost-benefit balancing and an environmental impact statement. The board defers this consideration until a future order.

Ms. Aamodt Contention No. 11.2. asserts that the routine operation of TMI-1 denies the public the opportunity for life, liberty and the pursuit of happiness. This contention is rejected as beyond the scope of the proceeding.

Ms. Aamodt Contention No. 12 is a restatement of her Contention No. 11 but with a different direction. Aamodt Contention No. 12 includes many allegations and was not discussed by Mr. Aamodt. Tr. 468. In its entirety the contention

is unacceptable for litigation because it goes to the ultimate legal conclusions. The individual allegations relate, in some instances, to mandatory issues which, in any event, will be given consideration during the proceeding.

Mr. Sholly Contentions

Mr. Sholly Contention No. 1 relates to the adequacy of the TMI-1 containment isolation system. Mr. Sholly defined the scope of his contention to the satisfaction of the licensee who withdrew its objection. Tr. 560-562.

Mr. Sholly Contention No. 2 is accepted subject to his explanation at Tr. 563.

Mr. Sholly Contentions Nos. 3, 4 and 5 are not objected to and are accepted.

Mr. Sholly Contention No. 6 is not opposed in the form in which he has redrafted it for clarity. We accept this contention as it has been redrafted at Tr 563-567, and by his communication dated December 11, 1979.

Mr. Sholly Contention No. 7 is accepted without objection.

Mr. Sholly Contentions Nos. 8 and 9 refer to emergency preparedness and consideration is deferred.

Mr. Sholly Contention No. 10 is accepted without objection.

Mr. Sholly Contention No. 11 challenges the cladding failure assumptions of 10 CFR 50.44. He has now filed a petition under 10 CFR 2.758. The board will act upon this

petition in the very near future. In the meantime the parties may proceed to discover on the issues raised by this contention.

Mr. Sholly Contention No. 12 asserts in general that an environmental impact statement is required and, in particular, that the psychological impact of the Unit 1 restart must be evaluated in an EIS. Both the general and specific portions of this contention will be deferred until further order.

Mr. Sholly Contention No. 13 deals with the adequacy of the Unit No. 1 computer system. Licensee objects to the contention on the basis that it was not included in the Commission's bases for suspension. For the reasons set forth above, (Scope of the Proceeding) the board accepts the contention over licensee's objections.

Mr. Sholly Contention No. 14 brings into question the management and administrative capabilities of licensee. Both the licensee and the staff agree that the subject matter is within the scope of the proceeding but would require greater specificity. Mr. Sholly has agreed that, in the course of discovery, the contention will be further defined. Tr. 577. With this commitment the board accepts the contention.

Mr. Sholly Contention No. 15 is not objected to. The board accepts it.

Mr. Sholly Contentions Nos. 16 and 17 were not submitted until November 29. The staff has not yet responded to these contentions. The board will rule upon them in a future order.

ANGRY Contentions

ANGRY Contention No. 1 is a statement, not challenged by anyone, that adequate emergency response plans should be made a precondition to the restart of TMI-1. It is therefore consolidated with ANGRY's Contention No. 2. Tr. 578-586.

ANGRY Contentions Nos. 2 and 3 pertain to emergency planning. Consideration is deferred.

ANGRY Contention No. 4 relates to management capability. Licensee has no objections. The staff believes that the contention is inadmissible because it lacks specificity. We accept the contention over the staff's objections. We note that ANGRY has added an additional basis for the contention which is accepted. Tr. 597.

ANGRY Contention No. 5 in general would require four modifications to the design of the TMI-1 reactor. 5(A) relates to the hydrogen recombiner and is challenged by the licensee on the basis of 10 CFR 50.44. As we did with Mr. Sholly's Contention No. 11, we will accept this contention for discovery pending our ruling upon the motion under Section 2.758. ANGRY's Contention 5(B) and (C) are not objected to and the board accepts them. Tr. 599-601. Licensee withdrew its objection. Tr. 600. ANGRY's Contention 5(D) is objected to by the licensee on the basis of specificity. It would

require rapid filtration of large volumes of contaminated gases and fluids in effluent pathways. The contention is lacking in specificity but the board will accept it with the understanding that ANGRY must specify in the course of discovery.

ANGRY Contention No. 6 is a generalized contention the essence of which would require that all safety related systems in TMI-1 must be subjected to thorough analysis and modification to show their ability to withstand hypothetical accident scenarios that reflect all conceivable combinations of human and mechanical failures. For the reasons we have discussed in the section on the scope of the hearing we reject this contention. However, we will permit ANGRY to adopt UCS Contention 13.

ECNP Contentions

ECNP Contentions Nos. 1 through 10 were contained in a supplement to its petition dated October 22, 1979. That petition incorporated by reference the ECNP Contentions 1 through 12 filed on October 5. The October 5 contentions have been renumbered to begin as Contention 11 running through Contention 22.

ECNP Contention 1(a) refers to the adequacy of the TMI-1 computer. Licensee objects to the contention as being beyond the scope of the proceeding. The contention is accepted over licensee's objection because it compares the computer with that at Unit 2 and alleges that the computer at Unit 2 was involved in the accident.

ECNP Contention 1(b) is accepted without objection.

ECNP Contention 1(c) alleges that electronic signals sent to the control room record the wrong parameters, giving as an example the electromatic relief valve. The licensee does not object to the specific part of the contention but objects to the generalized challenge to unidentified control systems. The board observes the contention is properly limited to signals sent to the control room. The board will further limit the contention to core cooling systems and containment isolation systems. This contention is regarded by the board as being parallel to and complementary to UCS Contention No. 9.

ECNP Contention 1(d) alleges that many monitoring instruments are of insufficient indicating range for their assigned purposes. ECNP modified its contentions during the special prehearing conference to limit the contention to all important safety related monitoring instruments and to important safety related radiation monitoring equipment. Tr. 641. With respect to paragraph 1 of Contention 1(d) the board accepts the contention but limits it to core cooling and containment isolation systems. The references in both paragraphs to the worst case and worst possible accidents are not accepted for the reason specified in the Class 9 discussion above.

ECNP Contention 1(e) is accepted to the extent that it relates to a further analysis of the spectrum of small break loss-of-coolant accidents. The balance of the contention is

too broad for litigation. The contention as a whole is closely related to UCS Contention No. 8 which we will permit ECNP to adopt.

ECNP Contention 1(f) raises the issue of many vital instrument controls and other components failing to function properly because they were not considered "safety related". The example given, pressurizer level indicators, are alleged to have failed in accident conditions and environment. The board rejects ECNP Contention 1(f) as written but will permit the intervenor to substitute in its place related UCS Contentions Nos. 12 and 14.

ECNP Contention 1(g) is not objected to as it was modified at the special prehearing conference. Tr. 665-66. It is therefore accepted with the deletion of the words "substantially more than".

ECNP Contention 1(h) is accepted without objection.

ECNP Contention 1(i) raises issues concerning the design of the control room panel. The licensee withdrew its objection to this contention and joined the staff in its position that it will seek a better definition of the problem later in the proceeding. We note that this contention raises the same issues through slightly different approaches as does Mr. Sholly's Contention No. 15.

ECNP Contention No. 2 pertains to emergency planning and consideration is deferred.

ECNP Contention No. 3 alleges a lax management attitude on the part of licensee. Licensee does not object to the contention except for the language "which lead to the wholesale rush to get TMI-2 into commercial operation". The board agrees that this may not be an appropriate part of the contention; however, it is not inappropriate to consider the allegation as a possible basis for the contention.

ECNP Contention No. 4 asserts that the range of possible consequences of an accident such as the one at TMI-2 must be considered in light of four additional postulated circumstances:

ECNP Contention 4(a) raises the question of operator skills. The board rejects this contention because it is not a quantifiable question and ECNP offers no guidelines. We note however that the subject matter will be included in evidence submitted in this proceeding under Section 2.1.9 of NUREG-0578, Item 3, Transients and Accidents, page A-45 which requires that failures of operators to perform required control manipulations shall be given consideration for permutation of the analyses.

ECNP Contention 4(b) postulates the TMI-2 accident in a reactor with a full inventory of fission products and is accepted over the objections of the licensee and the staff.

ECNP Contention 4(c) postulates a site evacuation during an accident and the board accepts the contention. We wish to consider evidence on the contention addressing the need to evacuate the site in an accident situation.

ECNP Contention 4(d) assumes a core meltdown during the TMI-2 accident which is rejected for the reasons stated under our Class 9 discussion above.

ECNP Contention No. 5 relates to the cumulative impact of radiation exposure and is accepted over the objection of the licensee and the staff on the same basis that the board has accepted TMIA Contentions 1 and 2. Although we accept this contention for discovery the board notes that the contention is intertwined with bases and argument. We will expect the contention to be redrafted in the course of discovery curing the defect. Tr. 674-77.

ECNP Contention No. 6 raises psychological stress issues and consideration will be deferred.

ECNP Contention No. 7 was originally framed immediately following the TMI-2 accident. It charges that the ECCS design is inadequate in that it will not limit core temperatures in accordance with 10 CFR 50.46. The contention was objected to by licensee on the grounds that the basis for the contention was incorrect. Further explanation (Tr. 796-800) by the petitioner brought out its view that operator actions were responsible for the failure of the ECCS and left the thrust of their contention in doubt. Rather than reject the petitioners' right to litigate their concerns, we will allow

them to adopt UCS Contention No. 10 which addresses the allegation of misoperation of the ECCS.

ECNP Contention No. 8 asserts that operation of TMI-1 or TMI-2 under any circumstances would subject the people involved to double jeopardy and would constitute cruel and unusual punishment. The contention is rejected because it raises no litigable issue and because it is beyond the jurisdiction of the board and beyond the scope of the proceeding. Tr. 800.

ECNP Contention No. 9 asserts that the regulation and enforcement processes of the NRC are fundamentally inadequate and specifies that the practice of "regulation by audit" is not reliable. The contention continues in the vein that, to allow TMI-1 to operate, other operators of nuclear plants will not be deterred from unsafe operation. The contention is rejected because it is beyond the scope of the proceeding and the jurisdiction of the board. Tr. 801,806.

ECNP Contention No. 10 follows the same theme started in its Contention No. 9 and is denied for the same reasons.

ECNP Contentions Nos. 11 through 13 each relate to various aspects of the fuel cycle and are rejected as being beyond the scope of the proceeding.

ECNP Contention No. 14 would require TMI-1 to remain shutdown until the full range of accidents including risk of Class 9 accidents have been fully analyzed for the TMI site.

We will reject this contention for the reasons set forth in our discussion of Class 9 accidents above but we will permit ECNP to adopt UCS Contention No. 13 relating to the staff's methods for analyzing such accidents. Tr. 650-65.

ECNP Contention No. 15 contends that TMI-1 should remain shutdown until investigation has been completed inquiring into whether perjury was committed by various witnesses in the licensing of either Unit 1 or Unit 2. ECNP concedes that this contention as stated is not litigable; that it is in function more closely related to a motion for such an investigation. Tr. 813. As a motion, the board denied it because such an investigation is beyond the board's jurisdiction. Tr. 833-34.

ECNP Contention No. 16 asserts that the emissions from the normal operation of TMI-1 had had adverse effect upon the reproductive success of farm and domestic animals which effect was worsened by the accident at TMI-2. The board rejects the contention because it is premised upon the normal operation of TMI-1 which is a consideration beyond the scope of this proceeding. Tr. 814-16. ECNP may, however, adopt TMIA Contentions 1 and 2.

ECNP Contention No. 17 relates to licensee's emergency planning and consideration is deferred. Tr. 816.

ECNP Contention No. 18 asserts in advance that the testimony of representatives of licensee cannot be accepted as credible by the licensing board. During the special prehearing conference the board identified this contention as a motion to determine in advance that witnesses in

the proceeding will not be credible. Upon further discussion ECNP's representative recognized that Contention No. 18 is not a suitable matter for litigation in this proceeding. Tr. 818.

ECNP Contention No. 19 is accepted without objection.

ECNP Contention No. 20 alleges that larger-than-design basis aircraft and smaller aircraft crashing into the site should be considered because of a loss of protective barriers as a result of the accident. Tr. 819-830, 837-853. The Appeal Board in the TMI-2 operating license proceeding has made determinations bearing upon this issue. ALAB-486, 8 NRC 9, 25-49 (1978); ALAB-570 (November 2, 1979.)

It has been determined that at present levels at Harrisburg airport the probability of a crash of heavy aircraft is less than one chance in ten million. ALAB-570, slip op. p. 2.[15/] Therefore this board need not consider a larger-than-design basis aircraft crash into the facility in the short term while fission products released from the core remain in the containment. There is no basis upon which we can expect that purging of fission products from the containment will extend significantly into the period when the probabilities of a large aircraft crash remain undetermined. Events may prove us wrong on this point, but if that should be, it is still premature to consider the large aircraft possibility now. The determination by the TMI-2 Appeal Board on longer term probabilities can be later considered in our proceeding.

15/ The surviving aircraft issue before the Appeal Board relates to the probability of heavy aircraft crashes over the normal life of the reactor.

By definition of the contention and by determination, the safety-related structures in normal configuration are designed to withstand the effects of a crash of a small airplane weighing 200,000 pounds flying at 200 knots. ALAB-570, n. p. 2. ECNP would bring this possibility into issue by its assertion that protective barriers between the fission and activation products and the outside environment have been diminished, thus a crash could affect the safe operation at TMI-1. If the protective barriers referred to in the contention are the plant's vital structures, power supplies and cooling water sources, ECNP has provided absolutely no basis indicating that the TMI-2 accident has affected these barriers, nor can we envision any basis for such an assumption.

There remains, however, one other issue -- whether fission products on the site unprotected by the containment or other safety-related structures exposed during the course of clean-up of TMI-2, (e.g. the EPICOR II, process), could be dispersed by a crash of any size aircraft. The probability of a crash of any size aircraft into the site has not been adjudicatively determined. Nevertheless the board declines to accept this aspect of the contention as an issue because ECNP has provided no basis to assume that the chain of crash probability, over-all consequences and specific effect on TMI-1 creates a credible danger to the health and safety of the public. First, the exposure of an aircraft crash into radioactive materials

outside of safety-related structures will be during a relatively short time period. We can identify no basis for assuming that the release of radioactive material being processed outside of safety-related structures would be in amounts and intensity to result in crash consequences so severe that the operators of TMI-1 could not safely shutdown the reactor. This consideration, of course, differs from the environmental effects of a release of radiation during TMI-2 clean up, which is beyond the scope of this proceeding. The Board has accepted ECNP's Contention 4(c) relating to the need to evacuate the TMI site. This contention, we believe, embraces the basic thrust of any cognizable portion of ECNP's aircraft contention. ECNP has withdrawn the second paragraph of its Contention 20, relating to EPICOR II. Tr. 820.

ECNP Contention No. 21 alleges construction irregularities particularly with respect to the concrete of the TMI-1 containment building. It is beyond the scope of this proceeding and is rejected.

ECNP Contention No. 22 is a conclusionary contention asserting that for a variety of reasons Met-Ed has demonstrated that it should not be permitted to operate TMI-1 because it has no concern for the safety and the health of the public. This vague contention is not acceptable. ECNP seems to have withdrawn it. Tr. 818.

CEA Contentions

CEA Contention No. 1 is a general contention arguing for an environmental impact statement. Consideration is deferred.

CEA Contention No. 2(a) would require evacuation planning within 100 miles because of radiation emanating from a core meltdown and breach of containment. The board does not accept this contention for the reasons set forth with respect to UCS Contention No. 16. Contentions 2(b), (c) and (d) which relate to general emergency planning will be considered separate from Contention 2(a) which is tied to a core meltdown and breach of containment. 2(b), (c) and (d) are accepted without objection but consideration will be deferred pending CEA's consideration of the licensee's revised emergency plans. However we note that Contention 2(c) which relates to adequate emergency measures to prevent dumping of highly radioactive water into the Susquehanna, CEA has intertwined the possible dumping with the economic consequences of such dumping and possible measures to guard against such consequences. Upon resubmitting this contention CEA is urged to break it into specific declarative statements.

CEA Contention No. 3 relates to offsite monitoring and CEA has agreed to reconsider this contention in light of the revised emergency plans. Tr. 708-09.

CEA Contention No. 4 as originally drafted challenged the accuracy of the licensee's offsite radiation monitoring and the

perception by the public of that accuracy. During the special prehearing CEA explained that the reach of the contention was primarily addressed to the public's perception of the accuracy of the licensee's monitoring. To the extent that the contention is concerned with the public's perception of licensee's truthfulness we regard the contention as being one potentially cognizable under psychological stress issues. To the extent that it relates to the accuracy of the offsite monitoring the determination will be deferred pending CEA's consideration of licensee's revised emergency preparedness plans. Tr. 709,711.

CEA Contention No. 5 contends that TMI-1 should not be permitted to resume operations until radioactive water from TMI-2 is disposed of. This contention is within the scope of the proceeding and is accepted. However, only the first sentence of CEA Contention 5 is suitable for litigation, the remainder of the contention is basis.

CEA Contention No. 6 is not objected to considering the amendment by CEA during the special prehearing conference. Tr. 713. On that basis, it is accepted.

CEA Contention No. 7 is accepted without objection.

CEA Contention No. 8 relates to licensee's management capability. The contention is accepted without objection except that the last sentence relating to the show cause requirement as a result of the accident has been deleted by CEA. Tr. 715-16.

CEA Contention No. 9 alleges that the licensee has inadequate financial resources to operate TMI-1 safely. We will accept this contention as being one of the mandatory issues required by the Commission in its order of August 9. Only the first sentence of the contention however raises any issue, the balance is bases and, as such, it is separated from the contention.

CEA Contention No. 10 would require consideration of spent fuel and other waste from TMI-1, Table S-3, Radon 222 and the possible theft of enriched uranium destined for TMI-1. No subject matter within the scope of this proceeding is identified. CEA's attempt to withdraw Contention No. 10 and add it to Contention No. 1 will not serve to salvage the subject matter of the contention which is rejected.

CEA Contention No. 11 challenges the fundamental regulatory process in NRC licensing. It is rejected as being too vague and, in large part, beyond the scope of this proceeding. Tr. 722-24.

CEA Contention No. 12 would require an evaluation of all possible sequence of events that could occur at TMI-1. It is totally unbounded and without specificity and the board cannot accept it as an issue. However, CEA will be permitted to adopt UCS Contention No. 13 on the basis discussed by the board above. Tr. 724-40.

CEA Contention No. 13 is accepted without objection.

Newberry Petitioners Contentions

Newberry Petitioners Contentions Nos. 1 and 2 raise issues of psychological stress and are therefore deferred.

Newberry Petitioners Contention No. 3 refers to evacuation planning. The counsel for Newberry has agreed to consider the licensee's revised emergency plans and to specify its concerns by December 19.[16/] This is the agreement which was adopted by the board for all emergency plan contentions. In the meantime, however, the board rules that Newberry Petitioners Contention No. 3 satisfies the requirements of 10 CFR 2.714(b) in that it has listed at least one contention suitable for litigation.

PANE Contentions

PANE Contentions Nos. 1 and 2 are psychological stress issues, consideration of which is deferred.

PANE Contention No. 3 relates to emergency planning. However, by motion dated December 15, 1979, PANE moved to withdraw its Contention No. 3. It is PANE's prerogative to withdraw the contention; board permission is not required.

Because PANE has not submitted at least one contention presently acceptable for litigation, the board defers ruling upon PANE's status as an intervenor until the Commission determines whether psychological stress issues may be considered.

16/ An extension until December 24 was granted by telephone on December 17. Counsel expects to file by December 20, however.

In the course of ruling on the contentions of the petitioners discussed above, we have in each case, except for PANE, admitted at least one contention as an issue in this proceeding. Accordingly, each of the other petitioners ruled upon above has now satisfied the contention requirement of 10 CFR 2.714(b) and is admitted as an intervenor in this proceeding.[17/]

17/ We have previously ruled that each of these intervenors had satisfied the standing requirement of 10 CFR 2.714. Memorandum and Order Ruling on Petitions and Setting Special Prehearing Conference (September 21, 1979); and, with respect to Ms. Aamodt, at the special prehearing conference. Tr. 46. In addition, at the special prehearing conference (Tr. 46), we ruled that the Pennsylvania Consumer Advocate has demonstrated his right to participate as a representative of an interested governmental agency pursuant to 10 CFR 2.715(c).

Petition of Ms. Jane Lee

Ms. Jane Lee wrote to the Commission on August 14, 1979 requesting permission to "participate in testifying" in these hearings. The Board and the licensee regarded the letter to be a request to make a limited appearance statement. No action was taken on her communication. Ms. Lee reinforced the thought that her request was to make a limited appearance statement when in her "Notice ..." dated October 11, she protested what she perceived to be a five minute limitation on limited appearances. On October 15 Ms. Lee filed an "Amendment to Intervention" in which she stated that her purpose was to intervene pursuant to 10 CFR 2.714(a). Her amendment recited the following "contentions" in their entirety:

1. I reside within three miles of Three Mile Island.

2. Medical and Environmental information indicating the feasibility or prudence of pursuing the operation of nuclear power at the Three Mile Island Station.

   a) Birds
   b) Farm Animals
   c) Plant Life

3. Malfunctions of Unit 1 prior to the Unit 2 accident.

   I will take the position that any resumption of nuclear power plants in the vicinity of Three Mile Island will intensify the on-going detrimental effects on the environment and animals. These adverse conditions will increase the degenerating health problems for the animals and eventually affect the human populous in the same area.

The licensee objected to Ms. Lee's intervention on the basis of timeliness and lack of specificity of her contentions.[18/] The NRC staff also opposed her petition for essentially the same reasons but proposed that she be heard at the special prehearing conference on these issues.[19/]

On November 3, Ms. Lee filed a written reply to the staff's response in which she addressed the question of timeliness by observing that her "original petition" was filed August 17, 1979. The board accepts Ms. Lee's explanation and notes that no harm has resulted from the timing of her filing. Her contentions were filed before the date set by the board for the filing of contentions in final form, October 22.

The board announced at the special prehearing conference that Ms. Lee had demonstrated "standing" to intervene because she had shown the requisite interest in the proceeding. Tr. 45-46.

Ms. Lee was cautioned, however, that she was not then accepted as an intervenor because the board had not yet ruled that at least one of her contentions is acceptable. Tr. 45-47. Ms. Lee attended the special prehearing conference session on November 8, 9 and 10. On November 10, when it appeared that the business of the special prehearing conference would have

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18/ Licensee response dated October 31, 1979

19/ NRC Staff's response dated October 31.

to be carried over to November 14, Ms. Lee indicated that she would prefer to return then to address the objections to her contentions because she wanted to discuss her intervention on the basis of ECNP's Contention 16. Tr. 697-98, 741.

Ms. Lee did not appear on November 14, having been called out of town unexpectedly. Tr. 853. She did not, however, ask anyone to speak for her, (Tr. 853-54) nor has she communicated with the board since. ECNP indicated that it expected to use Ms. Lee as a witness on its Contention 16. Id.

The board infers from these events that Ms. Lee had intended to adopt ECNP's Contention 16, which contention has now been rejected. Ms. Lee is left then with the contentions quoted above. They lack the specificity and bases required to be accepted as issues. Also, our ruling on ECNP's Contention 16 would apply to Ms. Lee's contentions. They are beyond the scope of the proceeding. Therefore the board rules that Ms. Lee has not qualified as an intervenor in this proceeding. She has not listed any contention acceptable as an issue as required by 10 CFR 2.714(b). This ruling means that Ms. Lee's petition for leave to intervene is wholly denied and it is therefore appealable to the Commission within ten days after the service of this order. Commission Order of August 9, p. 15; 10 CFR 2.714a.

In rejecting ECNP's Contention No. 16, the board noted that issues raised by TMIA's Contentions Nos. 1 and 2 are

related and we permitted ECNP to adopt them. It is possible that Ms. Lee may yet make a contribution to this proceeding by assisting the intervenors on these issues, and she may qualify to testify with respect to her concerns, but it is premature for the board to make a ruling to that effect now.

Petition of Marvin I. Lewis

In our memorandum and order of September 21 ruling on petitions, we noted that Mr. Lewis resides about 90 miles from the TMI facility, and that, despite his several communications and many arguments, he had failed to demonstrate that he has standing to intervene. Subsequently we received from Mr. Lewis a 9-page undated amendment received by the Secretary of the Commission on September 27; a 12-page amendment dated September 26; 9 pages of undated draft contentions which he states were mailed on October 1; a 2-page letter dated October 3 with additional draft contentions; a letter dated October 9; three pages of additional contentions dated October 11; and 19 pages of final contentions dated October 22. We have reviewed all of Mr. Lewis's communications and his arguments at the special prehearing conference to determine whether he has now established his standing to intervene.

As with his earlier written submittals, many of his points are argumentative and difficult to relate to this proceeding. He asserts that there is a pattern of conduct by the various elements of the Commission designed to frustrate his participation; (Final Contentions, pp. 2-3) that the NRC is violating Pennsylvania statutes against murder and equal rights when men (to which subgroup Mr. Lewis belongs) are not included in evacuation plans. Final Contentions, pp. 4-7. He has devoted many pages of his filings to a detailed discussion of the Silkwood

episode and litigation. Final Contentions, Appendix, pp. A4-A10. He has twice referred to intervenors' burden in responding to discovery requests in the Susquehanna proceeding involving another utility. Undated letter, p. 8; Final Contentions, p. 3. He also discusses cruel treatment of slaves in the pre-civil war era, and again refers to Nazis and Germany. Undated amendment, pp. 8-9.

In distilling his arguments, the board sees three areas which arguably could be said to relate to Mr. Lewis's cognizable interest in the proceeding. He states very generally several times that in the event of a Class 9 accident at TMI-1 his life is in danger. E.g., Amendment dated September 26, pp. 2-4; Tr. 772. Above we have ruled upon the unacceptability of generalized Class 9 contentions. Mr. Lewis, residing 90 miles away, has not attempted to particularize how his direct personal interest would be affected by any specific Class 9 accident, and given his lack of proximity, we discern no obvious basis to support "standing".

His effort to establish a personal interest as a member of the subgroup not included in the TMI-2 evacuation is without bases as it applies to the TMI-1 proceeding, and, at 90 miles away, Mr. Lewis's interest cannot be seen to be affected whether he is included in the population to be evacuated or not. Final Contentions, pp. 4-7.

He again raises the allegation that his interests are affected because he consumes milk and explains this earlier statement of interest: "6. Improper dose to public analysis. Many food pathways are ignored. Even a major release produces no deaths if you

don't look for them. This was my point about I [drink] milk, but was misinterpreted by the Staff & Board." Amendment dated September 26, p. 11. The statement adds nothing to his earlier inadequate statement about milk to establish his interest in the proceeding.

Accordingly, the board rules that Mr. Lewis has not shown that he has standing to intervene pursuant to the requirements of 10 CFR 2.714(2). We do not comment upon these inadequate or digressive statements of interest by Mr. Lewis as a disparagement of his attempts to intervene. His efforts in the public interest are commendable. He devoted at least four days of his time attending the special prehearing conference where he demonstrated that he has worked to familiarize himself with the proceeding. Tr. 772-94.

In its response to amended petitions dated October 31, 1979, the NRC staff separated and described Mr. Lewis's various contentions and numbered them 1 through 11. Id., pp. 17-19. Mr. Lewis accepted staff's numbering and description. Tr. 780 in particular, Tr. 772-94 generally. The licensee also discussed Mr. Lewis's contentions in accordance with the staff's designation. Tr. 790. The staff in general believes Lewis contentions 4, 5, 6, and a portion of 11 raise appropriate issues. The licensee agrees that Lewis contentions 4, 5, and 6 are within the scope of the proceeding, although licensee believes that specificity is lacking in some instances.

The board agrees that Mr. Lewis's contentions 4, 5, and 6 pertain to issues within the scope of the proceeding.[20/] Contentions 4 and 6 are covered by contentions of other intervenors. Mr. Lewis's contention 5 concerning filters and preheaters, however, is not advanced by any other party. It is set forth as Item B on page 8 of Mr. Lewis's amended petition of October 22. (See Appendix). The board believes that this contention is important and should be included in the issues to be determined at the hearing. We believe that Mr. Lewis can make a contribution to the record with respect to that contention, which hereafter we will refer to as the Lewis Contention. Accordingly as a matter of discretion, Mr. Lewis will be admitted as an intervenor on a strictly limited basis pursuant to 10 CFR 2.714(e). He may engage in discovery and present evidence on that one contention. Since his petition does not demonstrate his interest in the proceeding, he may not cross-examine witnesses on the contentions of other intervenors or on board-initiated issues. He may however, cross-examine on his contention. Since this ruling partially grants a petition for leave to intervene, it is appealable to the Commission within ten days after service of the order by any party other than Mr. Lewis on the issue of whether the petition should have been wholly denied. August 9 order, p. 15; 10 CFR 2.714a.

20/ No. 4, control room design; No. 5, filter and filter preheaters; No. 6, need for TMI-1 storage tanks for TMI-2 clean-up. Contention No. 11 restates his contention No. 6 and adds an issue of ultimate waste disposal which is beyond the scope of the proceeding.

Petition of Ms. Frieda Berryhill

In the board's memorandum and order of September 21 we ruled that Ms. Frieda Berryhill, representing herself to be the chairman of the Coalition of Nuclear Power Plant Postponement, had failed to demonstrate her interest and standing to intervene. She supplemented her original terse statement of interest and aspects as to which she seeks to intervene by her letter dated September 24, 1979. We regard her letter as an amended petition and as a supplemental petition listing contentions under 10 CFR 2..14(a)(3) and (b).

The board had expressed the view that if, as it appeared, Ms. Berryhill resides in Wilmington, Delaware, her residence would be 75 miles to TMI. Ms. Berryhill is uncertain about the distance from her home to Three Mile Island, but at the special prehearing conference she reported that her residence is in Newark, Delaware, not Wilmington as her address suggests. Tr. 180-82. We are therefore able to calculate the distance on a Rand McNally Road Atlas as 65 miles directly from the facility.

In the discussion of her interest in the amended petition, Ms. Berryhill states that, as chairman of CNPPP, she has a mailing list of 9,000 people whom she serves as a symbol. She was consulted about TMI-2 by the news media on March 28, 1979 and, in turn, she contacted the Delaware Civil Defense Office and others concerning communication. She states that she had

an "awesome" responsibility to conduct herself as an example to hundreds of people to avoid a panic following the TMI-2 accident. For these reasons she resents any requirement that she must now present a petition to intervene in "legalese" language of bureaucrats.[21/]

Even taking into consideration Ms. Berryhill's service to the people who look to her for guidance, the board is without authority to waive the requirements of the Commission's Order and Notice of Hearing concerning intervention standards, and the requirements of the Commission's intervention rules as they pertain to interest and standing to intervene. Order and Notice of Hearing, August 9, 1979, pp. 15-16; 10 CFR 2.714(a)(2). Ms. Berryhill identifies none of the persons she serves as a symbol, and in fact does not even assert that she has been authorized to represent any of these persons in this proceeding. There is no information from which derivitive standing may be inferred. Ms. Berryhill was provided an opportunity to expand upon her statement of standing to intervene at the special prehearing conference but she provided no further bases. Tr. 173-74.

21/ Intervention petitions are not required to be in technical or legal language. Other petitioners in this proceeding have succeeded in intervening with uncomplicated and direct statements.

Mr. Bernard J. August, writing under the letterhead of the Committee Against Atomic Power, has requested that Ms. Berryhill be granted intervenor status on behalf of the thousands of Delaware citizens, none of whom are identified except for Mr. August who also has a Wilmington address. Letter, August to Secretary, September 22, 1979.

Ms. Berryhill's residence 65 miles from TMI-1, with nothing more, does not establish her standing to intervene.[22/] Considering this distance in light of the activities she asserts to be the basis of her interest, she has still failed to demonstrate her standing to intervene. She has not identified any person or group of persons represented by her who have a greater interest in the proceeding than her own. She may not on her own without authorization undertake to represent the interests of third persons. Tennessee Valley Authority (Watts Bar Nuclear Plant, Units 1 and 2) ALAB-413, 5 NRC 1418, 1421 (1977).

Ms. Berryhill's petition for leave to intervene is also defective in that it fails to list any contentions which are acceptable as issues for litigation. Contentions Nos. 1 and 3 pertain to generic issues relating to Table S-3 of 10 CFR Part 51. These issues are outside the scope of the proceeding. In addition, except for the issue of Radon 222 raised in

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22/ See a discussion of the relationship of distance to facility and standing to intervene in our memorandum and order of September 21, p. 8, n.3.

Contention 3, they are not acceptable because they attack the Commission's regulations. 10 CFR 2.758. Contention No. 2 is simply a complaint that hearings in TMI-2 were scheduled after the facility was licensed to operate, a point irrelevant to this proceeding.

Her Contention No. 4 is a generalized statement that "... Class 9 must be introduced in these proceedings," As we have ruled previously, such contentions are not acceptable for litigation.

Ms. Berryhill states that the remainder of her contentions "... are self explanatory and it was my intention to present documentation that Emergency Evacuation, Waste Disposal and Radiation Monitoring are woefully inadequate."[23/] These contentions, lacking in stated bases and specificity, are not self explanatory. As stated, they are inadequate as issues to be litigated.

Ms. Berryhill apparently would also have this board adopt as one large contention the subject matter of Commissioner Bradford's address of August 2, 1979 at East Lansing, Michigan. This short reference to the Commissioner's remarks does not sufficiently identify any issue germane to the Order and Notice of Hearing, nor does her passing reference to civil disruptions

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23/ At the special prehearing conference, Ms. Berryhill briefly discussed the contentions contained in her supplemental petition but added nothing to qualify her contentions as issues in this proceeding. Tr. 173-78.

in the final paragraph of her supplement of September 24. By letter received by the Secretary on November 2, Ms. Berryhill added a new contention by enclosing her letter to the Commission of October 29, and she discussed this contention at the special prehearing conference. Tr. 178-80. This contention challenges the need to intervene in this and other proceeding until there is a cost benefit balancing of permanent waste disposal and it raises other aspects of the uranium fuel cycle. It is outside the scope of this proceeding.

Having failed to establish her standing to intervene and having failed to list at least one contention acceptable for litigation, Ms. Berryhill's petition to intervene is wholly denied on two bases. She may appeal this order to the Commission within 10 days after its service. Commission Order of August 9, p.12; 10 CFR 2.714a.

Consolidation

The Commission instructed the board to consolidate the participation of the parties pursuant to 10 CFR 2.715a to the maximum extent possible pursuant to that section. August 9 order, p. 10. The board and the participants extensively discussed the possibility of consolidations at the special prehearing conference. Tr. 477-520. Petitioners for intervention and Commonwealth agencies were virtually unanimous that consolidation of parties would not be workable in view of the disparity of interests and the fact that relatively few contentions are shared by petitioners. Even the licensee, who has the greatest interest in an expeditious hearing, did not urge consolidations under Section 2.715a, but proposed a single spokesman approach as authorized by Section 2.714(e). Letter from Trowbridge to board members, November 2, 1979. This procedure, on a voluntary basis, was generally favored by the petitioners. Overall the board believes that a single spokesman, lead counsel or lead intervenor approach has merit. Intervenors are urged to work toward designating a single spokesman or lead spokesman on major issues, and in particular designations of a single or lead person for the cross-examination of witnesses. Voluntary agreement on lead persons will serve the intervenors better than board designation and the traditional board controls used to avoid cumulative and repetitious cross-examination.

In the event a voluntary approach which satisfies the goal of efficiency without sacrificing substance is not agreed upon and found acceptable by the board, the board will take mandatory consolidation measures. The intervening parties are directed to furnish the board with their voluntary plan not later than ten days before the prehearing conference pursuant to 10 CFR 2.752, which will be later scheduled. Negotiations among intervening parties pursuant to this directive shall begin no later than the close of general discovery.

Discovery

At the special prehearing conference the board authorized informal discovery to begin immediately on contentions not objected to and on mandatory issues. Tr. 520-24. Formal discovery pursuant to 10 CFR 2.740-2.742 is now authorized. In at least two instances as of this writing interrogatories have already been served. The date of service of interrogatories or other formal discovery requests already served shall be deemed to be the date of the service of this order. General discovery shall be completed no more than sixty days after the service of this order. Discovery on new matters contained in the staff's Safety Evaluation Report (SER) is authorized, and must be completed no later than 30 days following service of the SER. The staff predicts that the SER will issue in January, 1980. Tr. 553.

Summary Disposition

The board will entertain motions for summary disposition pursuant to 10 CFR 2.749. As discovery draws to a close, a deadline for the filing of summary disposition motions will be set, probably 30 days following the close of discovery. This deadline may not be the same as the 45 days before the time fixed for the hearing as set forth in Section 2.749. Motions for summary disposition may be filed any time before the established deadline. It may be that a party opposing a summary disposition motion cannot justify its opposition without further discovery. That answer, if reasonably supported, will be considered by the board under Section 2.749(c).

Appendix

A reproduction of each contention as filed in final form is appended. Modifications tendered at the special prehearing conference are not shown.

Motions for Corrections

Motions for corrections of this order shall be filed within 10 days after its service.

The Atomic Safety and
Licensing Board

Walter H. Jordan by IWS
Walter H. Jordan

Linda W. Little by IWS
Linda W. Little

Ivan W. Smith
Ivan W. Smith, Chairman

Dated at Bethesda, Maryland
this 18th day of December, 1979.

A P P E N D I X

REPRODUCTION OF PETITIONERS' CONTENTIONS

FINAL CONTENTIONS OF THE UNION OF CONCERNED SCIENTISTS

The Union of Concerned Scientists (UCS) contends that neither the short or long term measures recommended by the Director of Nuclear Reactor Regulation are sufficient to provide reasonable assurance that the Three Mile Island Unit 1 ("TMI-1") facility can be operated without endangering the health and safety of the public and that each of the following contentions must be satisfactorily resolved prior to resumption of operation.

1. The accident at Three Mile Island Unit 2 demonstrated that reliance on natural circulation to remove decay heat is inadequate. During the accident, it was necessary to operate at least one reactor coolant pump to provide forced cooling of the fuel. However, neither the short nor long term measures would provide a reliable method for forced cooling of the reactor in the event of a small loss-of-coolant accident ("LOCA"). This is a thre
a violation of both General Desig
GDC 35 of 10 CFR Part 50, Appendi

2. Using existing equipment at TMI-1, there are only 3 ways of providing forced cooling of the reactor: 1) the reactor coolant pumps; 2) the residual heat removal system; and 3) the emergency core cooling system in a "bleed and feed" mode. None of these methods meets the NRC's regulations applicable to systems important to safety and is sufficiently reliable to protect public health and safety:

a) The reactor coolant pumps do not have an on-site power supply (GDC 17), their controls do not meet IEEE 279 (10 CFR 50.55a(h)) and they are not seismically and environmentally qualified (GDC 2 and 4).

b) The residual heat removal system is incapable of being utilized at the design pressure of the primary system.

c) The emergency core cooling system cannot be operated in the bleed and feed mode for the necessary period of time because of inadequate capacity and radiation shielding for the storage of the radioactive water bled from the primary coolant system.

3. The staff recognizes that pressurizer heaters and associated controls are necessary to maintain natural circulation at hot stand-by conditions. Therefore, this equipment should be classified as "components important to safety" and required to meet all applicable safety-grade design criteria, including but not limited to diversity (GDC 22), seismic and environmental qualification (GDC 2 and 4), automatic initiation

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

REVISED CONTENTIONS OF THREE MILE ISLAND ALERT INC.

Pursuant to the Board's Memorandum and Order dated September 21, 1979, intervenors were directed to file revised contentions by October 22, 1979. Accordingly, Three Mile Island Alert Inc. (TMIA) files the following contentions:

REVISED CONTENTION 1.

It is contended that the short term actions proposed by the licensee will not adequately protect the members of TMIA, whose members live within twenty (20) miles of the plant, from abnormal and unhealthy additional releases of radiation. As a result of the accident at TMI Unit #2, radioactive gases in excess of permissible limits were released into the atmosphere. These releases included:

(a) I-133, which was released over a thirty-four (34) day period following the accident in amounts in excess of 26.84 Ci;

(b) Krypton-88, which, during the first day of the accident alone, was discharged into the atmosphere in an amou

(c) Xenon releases of at least 10 million Curies, far in excess of NRC regulations. For example:

(i) Xenon133M: 170,000 Curies over a ten day period

(ii) Xenon 135: 1.5 million Curies over a seven (7) day period

(iii) Xenon 135M: 140,000 Curies over a three (3) day period

Other radioactive gases released as a result of the accident at Unit #2 include Ruthenium - 103, - 106; Tritium; and Bromine -82, -83, -84, -85.

These releases will have long term health effects on the members of TMIA. If TMI Unit #1 were to be reopened, the adverse health effects to the members of TMIA would be magnified since Unit #1 will release additional amounts of radiation into the environment. Since radiation affects the body in a cumulative manner, the additional releases from Unit #1 will have a direct adverse health effect on the members of TMIA.

In addition, the cleanup of Unit #2 will undoubtedly result in both planned and unplanned discharges of radiation into the environment. Since the members of TMIA have already received dosages of radiation far in excess of that which would have been received had there been no accident, the cumulative effect as described above may ultimately cause sickness and death to some members of TMIA.

It is contended that the short term actions proposed by licensee do not adequately deal with this problem.

1824. 154

Ms. Aamodt Contentions

The following contentions are respectfully set forth by petitioner:

1. It is contended that TMI-1 should not open until a program of psychological testing and counseling of operator personnel and management be instituted and routinely maintained to observe and/or alleviate or ameliorate fatigue, boredom, hostility, confusion, substance abuse, and/or other characteristics deemed inconsistent or contrary to the safe operation of said nuclear plant.

Basis: Personality characteristics have threatened safety (Surry).
Human errors in plant operation vary in type. (TMI-2 Lessons Learned NUREG-0578, Investigation - NUREG0600)
Time of accident and lack of adequate response by operating personnel. (NUREG-0578, NUREG-0600)
Inadequacy of performance of supervisory personnel and management. NUREG-0578, NUREG-0600)

2. It is contended that TMI-1 should not open until the performance of licensee technicians and management can be demonstrated to be upgraded as certified by an independent engineering firm. This upgrading should include 100% test performance of job description with provision for retraining and retest, or discharge of those who cannot consistently and confidently master all necessary information for safe conduct of their job description under all anticipated critical situations as well as routine situations.

Basis: TMI-2 technicians who passed tests at 71% level or above were not retrained . (NUREG-0600)
Licensee in Response to NRC on restart proposes a level of 80% test proficiency for lessons taught. Licensee assigns in this proposal the evaluation of testing to trainee and instructor rather than independent, qualified authority.
18% of all incidents in 1978 were due to human error. (NUREG-0578)
TMI-2 accident was contributed to by human error. (NUREG-0578,0600)
TMI-2 operators were not instructed on Davis Besse September 24, 1978 incident, similar to TMI-2 incident. (NUREG-0600)

3. It is contended that the licensee has not made adequate provision for assessing the potential risk to h[illegible] and animals from accidental discharge of airborne radioactive gasse[illegible] that existing environmental monitor[illegible]
1. monitoring several important [illegible]
2. quantifying total emissions f[illegible]
3. defining danger to health and [illegible] direction and time.
It is further contended that these c[illegible] licensee before restart of TMI-1.

Basis: Derives from NUREG-0578, 10CFR50, expert opinion and public documents.

This contention is of unique interest to petitioner because the location of petitioner's farm outside 10 mile perimeter of TMI-1, Peach Bottom, Berwick, Limerick and Salem facilities, all of which are from 25 to 50 miles away.

4. It is contended that licensee has not made provision for timely dissemination of information in the event of accidental release of airborne radioactive gases or particulates. It is contended that licensee must made information available to the public which will allow appropriate action to be taken to protect persons, livestock, foodstuff and feed in the event of a discharge of significant proportions. It is further contended that licensee must provide this capability before restart of TMI-1 .

Basis: Derives from public documents, recent hearings by Lancaster County Commissioners, and experience gained in preparing to leave our farm during TMI-1 incident.

5. It is contended that present evacuation plans do not provide for care and/or relocation of livestock. It is further contended that such provision should be made before restart of TMI-1.

Basis: Petitioner's experience when preparing to evacuate during TMI-2 accident; another basis is the fact that dairy cattle can develop mastitis or go dry if left unattended for any protracted period of time. Lack of adequate provision for [illegible]

6. It is contended that present emergency plans do not adequately provide for the health and safety of persons living more than 10 miles fro TMI-1. Radioactive plumes pose substantial risk for distances far in excess of 10 miles. Adequate detection and monitoring capability is not presently planned to assess or predict risk to health and safety of persons in the path of plumes, nor is a mechanism available to inform them of the danger to which they would be exposed. It is further contended that emergency plans must be upgraded accordingly before restart of TMI-1.

Basis: Published reports of studies conducted by several agencies; recent study at Princeton University. Petitioner requires additional time to complete analysis of literature, including WASH 740 & Rev., Brookhaven Report.

7. It is contended that TMI-1 should not open until an assessment is made of the "nuclear environment" of the petitioner and family, their domestic animals and livestock. TMI-1 is included in that environment as well as reactors at Peach Bottom and Salem.

Mr. Sholly Contentions

Contention # 1

It is contended that the Unit 1 containment isolation system does not meet the following requirements:

a. Conformance with the Standard Review Plan Section 6.2.4, "Containment Isolation System";

b. Compliance with GDC 16, Containment Design;

c. Compliance with GDC 50, Containment Design Basis;

d. Compliance with GDC 54, Piping Systems Penetrating Containment.

It is further contended that as a result of the design and construction of the Unit 1 containment and the containment isolation system, Unit 1 is rendered incapable of compliance with 10 CFR 20.105, 10 CFR 20.106, and Appendix I of 10 CFR 50, and that, therefore, there exists reasonable doubt that Unit 1 can be operated without endangering the health and safety of the public. Inasmuch as the Commission has the authority pursuant to 10 CFR 50.109 to require backfitting when such backfitting is required to provide substantial, additional protection of public health and safety, it is contended

6.2.4, GDC 16, GDC 50, GDC 54, 10 CFR 20.105, 10 CFR 20.106, and Appendix I of 10 CFR 50 is required to protect the public health and safety, and that therefore backfitting of the Unit 1 containment and containment isolation system is a necessary precondition to permission to restart.

Basis for Contention # 1

The General Design Criteria of 10 CFR 50 establish design, fabrication, construction, testing, and performance requirements for components, structures, and systems in a nuclear power plant which exist to provide reasonable assurance that the plant can operate without undue risk to the health and safety of the public. Failure of a particular plant to meet any of the General Design Criteria is a very serious matter requiring corrective action to provide reasonable assurance that the plant can be operated without endangering the health and safety of the public.

The 3/23/79 accident at Unit 2 revealed a number of shortcomings of the containment and containment isolation system at Unit 2 and, because of similarities in design and construction, also at Unit 1. The failure of the containment to isolate on diverse signals, including high radiation in the containment and initiation of high-pressure injection from the emergency core cooling system, led to the release of millions of curies of radioactive noble gases into the environment, resulting in offsite doses

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:	:	
	:	
METROPOLITAN EDISON COMPANY	:	
	:	
(Three Mile Island Nuclear Station, Unit No. 1)	:	Docket No. 50-289

CONTENTIONS OF ANTI-NUCLEAR GROUP REPRESENTING YORK (A.N.G.R.Y.)

In compliance with the Atomic Safety and Licensing Board's September 21 Order setting a schedule of pre-hearing procedures, intervenor Anti-Nuclear Group Representing York hereby submits the contentions it intends to advance in the course of the proceedings in the above-captioned matter.

I. The development and effectuation of adequate and effective Emergency Response Plans by the licensee and by state and local governmental units are necessary for the public health and safety to be adequately protected and therefore should be made a pre-condition to the restart of TMI-1.

II. The conditions set forth in the NRC's August 9 Order (44 F.R. 47821-25) for TMI-1's resumption of operation are insufficient to provide rea
resumption can occur without en
safety for the reason that they

and effectuation of adequate and effective Radiological Emergency Response Plans to protect the population surrounding TMI-1 from the consequences of any future nuclear accident. Such insufficiency is in particular demonstrated by the following flaws:

(A) There is no requirement that restart be conditioned on the Radiological Emergency Response Plan of the Commonwealth of Pennsylvania being brought into compliance with reasonable standards of adequacy and effectiveness for such plans which include but are not limited to standards promulgated by the NRC itself (e.g., NUREGS 75/111 and 0396; GAO EMD-78-110; H.R. Rept. 96-413);

(B) Resumption of operation would be permitted before the licensee had completed the process of extending its capability to take effective emergency response actions to a distance which defines the area within which such capability is deemed necessary in order to protect public health and safety;

(C) The distance to which the NRC Order requires the licensee to extend its emergency planning capability Ten (10) miles is insufficient to

ENVIRONMENTAL COALITION ON NUCLEAR POWER

Co-Directors: Mr. George Boomsma—R.D. #1, Peach Bottom, Pa. 17563 717-548-2836
Dr. Judith Johnsrud—433 Orlando Avenue, State College, Pa. 16801 814-237-3900

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

SUPPLEMENT TO ECNP PETITION TO INTERVENE:
FINAL CONTENTIONS

The Environmental Coalition on Nuclear Power (ECNP), in accordance with the Commissioners' Order and Notice of Hearing (Federal Register, August 15, 1979) and 10 CFR 2, herein amends its Petition to Intervene in evidentiary hearings on the reopening or revocation of operating license of Three Mile Island, Unit 1 (TMI-1) and sets forth the following contentions[1].

Contention 1. ECNP contends that:

(a) The plant computer for TMI-1 is old, obsolete, and inadequate to respond appropriately in emergency situations. During the accident at the adjacent TMI-2, the alarm printer on the similar computer at Unit 2 had a delay time of over two and one-half hours at one point, and ran more than an hour behind events for over seven hours.(1) This delay cannot be viewed as having adequately served the needs of the operators of TMI-2, and there is no reason to believe that a similar accident situation, with as severe or worse consequences, cannot occur at TMI-1 and be severely aggravated by slow and ambiguous computer alarm printer readings.

(b) The low volume of primary cooling system water(2) has the effect o reducing time available to operators and the plant control systems to apply remedial measures in the event of a loss of coolant accident (LOCA) such as the TMI-2 accident is now admitted to be(3). The low water volume design defici means that possible operato or electronic failure must either a repeat of the TMI-

1 Because numerous studies and re 2 accident have not been comple report of the Presidential Comm expand or add to these contenti available (10 CFR 2.714 (a)(3)

(c) The electronic signals sent to the control room in many cases record the wrong parameters, and may, thereby, mislead the the reactor operator. For instance, in the case of the Electromatic Relief Valve ("ERV; the Metropolitan Edison designation is RC-RV2), the signal sent to the control room to indicate a closure of this valve indicates only the electrical energizing of the solenoid which closes the valve, not the actual physical valve closing itself(4). This misleading signal aggravated the accident at TMI-2. There is no reasonable assurance that this same problem, or comparable ones, cannot arise many times over at TMI-1. It is the obligation of the Suspended Licensee to provide sufficient information on the performance capability of all pertinent components of the control system to reasonably ensure that electronic signals will record, accurately and in a timely manner, all necessary and correct parameters.

(d) The TMI-2 accident showed that many monitoring instruments were of insufficient indicating range to properly warn control room operators of ambient conditions. For example, the "hot-leg" thermocouples went off-scale at 620°F and stayed off-scale for over 8 hours for reactor coolant loop A and about 13 hours for reactor coolant loop B(5). A higher temperature limit would have provided important information to the reactor operators. This situation is unchanged at TMI-1. All monitoring instruments for TMI-1 must be calibrated to provide full and accurate readings of the complete range of possible conditions under both normal and worst-case conditions.

In addition, it is reported that the radiation monitors went off-scale during the TMI-2 accident(6). It should be noted here that this eventuality was predicted in 1974 by the TMI-2 Intervenors, but dutifully denied by the NRC Staff and the Applicant during the TMI-2 licensing hearings. Needless to say, the TMI-2 Licensing Board accepted the assurances of adequate monitoring offered by the Staff and Applicant. Yet a similar situation still exists at TMI-1. All radiation monitoring equipment must be capable of recording the maximum possible releases of radiation in the event of a worst-possible accident (Class 9) in excess of Design Basis Accidents

(e) The accident analyses performed by both the Staff and Applicant were inadequate. Over the previous few years, and even in the brief pre-operational and operational life of TMI-2, a series of feed-water transients had been observed in B & W reactors. A seemingly unrelated problem with the "power operated relief valve" (PORV), whose first malfunction was on or about March 29, 1978, combined with a feed-water transient to bring about the March 28, 1979, accident at TMI-2. This sequence of multiple failures at TMI-2 could have been prevented if either the Applicant or the inspection arm of the NRC had been diligent concerning safety matters. This kind of multiple failure, combined with reactor operator errors, underscores the inadequacy of the accident analysis at TMI-2 and at TMI-1. There is no assurance that other "small break" "loss of coolant accidents" cannot occur a TMI-1 with similar or greater consequences.

/1. Pursuant to the April 11, 1978, Order of the Commissioners which voided the 74.5 curies per year value of emissions of radon-222 in Table S-3 (10 CFR 51.20(e)) and opened all reactor licenses to litigation on radon and its health effects, the ECNP Petitioners contend that TMI-1 should not be allowed to operate until Table S-3 contains a value of radon-222 emissions consistent with NRDC v. USNRC,547 F.2d 633, 639, at n. 12 (which requires that the Commission evaluate the full period of toxicity of residual by-products of the nuclear fuel cycle). Since radon-222 emissions from abandoned mines, mill tailings, and depleted uranium have the potential for being far larger a source of radioactivity to the environment than all other sources of radioactivity combined (all per annual fuel requirement), this suspended Operating License should not be reinstated; the Operating License was granted in the first place by ignoring these prodigious emissions of radon-222, in violation of the National Environmental Policy Act of 1969. Furthermore, ignoring the radon emissions is inconsistent with the Commission's legal obligation to protect the health and safety of the public.

/2. The Operating License of TMI-1 should not be reinstated -- if at all -- until Table S-3 (10 CFR 51.20(e)) is full and complete, which it now is not. For example, one large source of environmental contamination in the fuel cycle comes from technetium-99, which has until recently also been ignored by the Staff. In addition, the Staff has seriously and irresponsibly underestimated the hazards to human beings resulting from the ingestion of technetium-99.

/3. The Staff of the Commission, in its publication Regulatory Guide 1.109, sets forth conversion factors for calculating exposures to humans as a result of ingestion of, inhalation of, or immersion in a cloud of radioisotopes. For a number of radioisotopes of biological importance, these conversion factors have been underestimated by factors ranging from 10 to over 1000. The Operating License for TMI-1 should not be reinstated until the true and full environmental effects for the entire fuel cycle have been properly, fully, and accurately determined, without omission or subterfuge.

/4. The Operating License for TMI-1 should remain in suspension until the full range of accidents, including risk (sequences and consequences

14. (cont'd.) of events) of Class 9 accidents, has been fully analyzed for the TMI site, with due consideration to the applicable populations, previous accident experience, local weather conditions, and local geography. ECNP contends that there can be no justification for further jeopardizing the lives, the mental, physical, and genetic health, and the properties and economic security of all individuals within the lethal zone of TMI.

15. ECNP contends that the suspension of the Operating License for TMI-1 should remain in effect until a full and unbiased investigation has been completed to answer the question: Was perjury committed by witnesses for the Applicant, the NRC Staff, or the Commonwealth of Pennsylvania during the evidentiary proceedings which led to the licensing of either TMI-1 or TMI-2? ECNP believes that perjury was committed by witnesses for the above mentioned parties. A refusal by the Commission to investigate this matter would further undermine public confidence in the Commission's objectivity and would also represent a violation of the Commission's legal obligation to protect the health and safety of the public above all else.

16. ECNP contends that the emissions from the normal operation of TMI-1 have had an observable and adverse effect on the reproductive success of farm animals and domestic pets (notably cats) in certain areas around the facility. These problems with fauna have been substantially worsened by the accident at TMI-2 which has also been followed by observable damage to local flora, including, but not limited to, the deaths of local apple, pear, and pine trees. No further operation of this facility should be permitted, as it may lead to the economic decline of the local agricultural community.

17. The recent Class 9 accident at TMI-2 vividly demonstrated the inability of all parties involved -- Met. Ed. management and station operators, state and local Civil Defense personnel, and NRC personnel at any and all levels -- to comprehend the nature of the TMI-2 accident as it unfolded, to communicate the necessary information to one another, the public, and the President in an honest, accurate, and timely manner, and to decide in a timely manner what course to take to protect the health and safety of the public. ECNP contends that timely evacuation of large populations to areas which would not be threatened by changing weather conditions is a physical impossibility. Furthermore, ECNP believes that any representation by those parties that evacuation in the event of a Class 9 accident -- as TMI-2 was -- is a possible or practical preventative measure lies somewhere among self-delusion, falsehood, and willful deception. In addition, we note that the only way to assure the safety of the residents of the area around TMI from future accidents at either reactor is to remove permanently the TMI nuclear facilities themselves. It is these facilities, in conjunction with the slipshod management, operation, and regulation of them, which pose the threat to this area and its residents.

18. ECNP contends that any representation by any Met. Ed. official averring that emergency preparedness or emergency procedures have been adequately augmented since the TMI-2 accident must be viewed with extreme skepticism. Similar assurances of the adequacy of emergency preparedness and emergency procedures were testified to under oath at the TMI-2 Operating License

18. (cont'd.) hearings in 1977 and were found to be wholly without merit in March and April, 1979, when the accident took place. Further assurances under oath at this time in this TMI-1 proceeding that problems have been solved must be viewed in conjunction with past assurances also made under oath that problems could not exist. In addition, the credibility of the officials of Met Ed has been destroyed by the public statements of these officials throughout the course of the TMI-2 accident which is still in progress. Therefore, the testimony under oath of the Suspended Licensee in this proceeding cannot be accepted as credible by the Licensing Board in reaching its decision concerning the possibility of reopening TMI-1 or the permanent revocation of the Operating License for TMI-1.

19. ECNP contends that TMI-1 cannot be operated with reasonable assurance that the health and safety of the public can be adequately protected because of the possibility of further radiological contamination of the TMI plant site during the clean-up and decommissioning of the damaged TMI-2 reactor. The very presence of the damaged reactor and the experimental nature of all decontamination and repair operations at the damaged TMI-2 preclude reasonable assurance of safe operation of TMI-1. Unforeseen problems, difficulties, and accidents at TMI-2 at unpredictable times in the future may require emergency use of the TMI-1 facility to prevent release of radioactive materials into the offsite environment. The present uncertainty concerning the safe operability of the experimental Epicor II decontamination system, plus the pending overflow of intermediate and high-level radioactive waste water, and the potential for increased leakage of reactor coolant or other contaminated water in quantities requiring utilization of TMI-1 for storage purposes exemplify the issue raised in this contention.

20. ~~19~~. ECNP contends that TMI-1 is presently as vulnerable to the crash of a larger-than-design-basis aircraft as was TMI-2 prior to the accident. In the TMI-2 evidentiary proceeding the potential crash of a larger-than-design-basis aircraft into TMI-2 was conceded by all parties to lead to offsite consequences greater than those allowed under 10 CFR 100. Even though TMI-2 is disabled and inoperable at the present time, the Unit and TMI-1 may be even more susceptible to any aircraft crash now than was the case before the accident. This increased susceptibility is due to the successive loss of protective barriers between the fission and activation products and the outside environment as a result of the TMI-2 accident.

We note too that a system called Epicor II has been designed and built in order to decontaminate the approximately one million gallons of highly contaminated water at TMI-2. We are unable to determine whether or not this system is protected against any aircraft crash, because ECNP, although represented by the same Intervenors as in the TMI-2 proceeding, has not yet been served any information whatsoever concerning Epicor II, despite the relevance of such information to the still unresolved aircraft crash issues in the ongoing TMI-2 Operating License proceeding.

21. ~~20~~. ECNP contends that concrete of the TMI-1 containment building is of uncertain quality and has not been appropriately tested to ascertain the

capability of the TMI-1 containment to withstand either externally or internally propagated events (e.g., aircraft crash, hydrogen explosion, or static design basis pressure). Construction irregularities contribute to the uncertainty that the TMI-1 containment is capable of withstanding a Class 9 accident sequence equal to or greater than the Class 9 accident that occurred at the adjacent TMI-2 reactor. For these reasons, the TMI-1 reactor should not be permitted to operate.

22.12. In consequence of the demonstrated deficiencies of design, construction, management, operation, maintenance, monitoring, emergency response, evacuation capability, licensing, inspection, and other regulation by all parties associated with the Three Mile Island Nuclear Station, Units 1 and 2, ECNP contends that the licenses to operate either nuclear reactor should be permanently revoked, in order to protect the health, safety, psychological, economic, and political well-being of the people of Central Pennsylvania. The Suspended Licensee, Met Ed, has demonstrated conclusively that it has no concern for the safety or the health or the very lives of members of the public.

ECNP reserves the right to alter, amend, or add to this list of draft contentions as well as the contentions raised in the June 29 and March 29, 1979, petitions when the final contentions are submitted on October 22, 1979.

Respectfully submitted,

Chauncey Kepford

and

Judith Johnsrud

Representatives of the
ECNP Petitioners

Dated this 5 day
of October, 1979

CEA Contentions

(1) CEA contends that the Atomic Safety and Licencing Board's (ASLB) action in permitting the re-start of TMI-1 would constitute a major Federal action significantly affecting the human environment, and that, therefore, an Environmental Impact Statement (EIS) is required pursuant to the provisions of the National Environmental Protection Act (NEPA) (42 U.S.C. §4332(2)(c)). CEA contends that the scope of the EIS should not be limited to psychological distress issues, but should also evaluate factors such as the impact of the re-start on business decisions to re-locate to, or remain in, the TMI area, the availability of alternative means to meet the energy needs suuplied by TMI-1, and the impact of a decision to permit re-start of TMI-1 on the overall climate of licensing and construction permit decisions involving nuclear power plants.

In support of this contention on the need for an EIS, CEA notes that the ASLB, in its Memorandum and Order on Motions to Modify (October 16, 1979) acknowledges that the Federal action in this proceeding may well be different, in degree at least, from matters such as the location of a jail or garages (each of which required an EIS), with the clear implication that this proceeding involves a more major Federal action (p.3). The fact of the 3/28/79 accident, and of the indisputa
involving the identical design
the identical environment (phy
it clear that by no stretch of

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to re-start TMI-1 be considered as a routine re-start decision (as the licensee might be expected to contend). The Council on Environmental Quality guidelines, 40 C.F.R. §1500, applicable to all federal agencies for the purposes of implementing the EIS provisions of NEPA, and specifically adopted in the NRC regulations, note that "Significantly, as used in NEPA, requires consideration of both context and intensity." 4C C.F.R. §1508.27. Very clearly, the context of TMI-1 re-start can not be separated from the 3/28/79 accident at TMI-2. Furthermore, in evaluating whether the ASLB decision to permit re-start of TMI-1 "significantly affects the environment", the overall context of climate surrounding the nuclear industry and related licensing and construction decisions must not be overlooked, as must equally not be overlooked the potential impact the ASLB's decision in this proceeding on that climate. The recent example of VEPCO's decision to convert North Anna Units 3 & 4 to coal-burning rather than nuclear powered plants, and the severe financial difficulties experienced in the construction of the Seabrook, N.H. reactor are but two of many possible examples of the uncertainty surrounding the nuclear industry. It would be a denial of reality were the ASLB or licensee to contend that the decision in this proceeding will not have a significant affect on the development of the nuclear industry, and hence on all those aspects of the environment that stand to be impacted by, or alternatively, to be spared the impact of, the future development of the nuclear industry. In further support of this contention, CEA submits that the context of alternative meand of providing for the energy needs that might be supplied by TMI-1, including but not limited to the development and awareness of solar, biomass, insulation, and conservation alternatives to nuclear pc :, has changed dramatically since the original EIS

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
et al	:	
(Three Mile Island Nuclear	:	
Station, Unit No. 1)	:	

FINAL FORMAL CONTENTIONS OF THE
NEWBERRY TOWNSHIP T.M.I. STEERING COMMITTEE
AND MICKEY MINNICH; RICHARD J. ZLOGAR; LINDA S. CARLISLE;
VIRGINIA PHILLIPS; C. WILLIS WOLFE; LINDA I. DOMINOSKI;
PATRICIA A. SMITH; DONNA K. UMHOLTZ; COLLEEN M. CLARK;
AND MICHAEL L. GLOCK, M.D.

AND NOW, to wit, this 19th day of October, 1979, comes the Petitioners, by and through their counsel, JORDAN D. CUNNINGHAM, ESQUIRE, and files these final and formal contentions pursuant to 10 C.F.R. 2.714(b) and the Atomic Safety and Licensing Board's Order of September 21, 1979, as follows:

1. The Newberry Township T.M.I. Steering Committee's concern is concentrated, for the purposes of this intervention, to the issue of the psychological and emotional impact upon the citizens of Newberry Township if reactivation of Unit Number 1 is authorized by the NRC in light of the recent accident of March 28, 1979. Operation of Unit Number 1 would be a constant reminder of the trauma which was experienced by the members of the Committe throughout the accident and the possibility that they would re-experience the same trauma in the future, a similar accident took place. It is averred that this is a health concern which involves the quality of the human environment, and therefore is embodied in the NEPA

and thus is an issue and/or contention which is proper for the NRC to consider.

2. The individual petitioners contend that the psychological impact upon themselves as a result of the accident of March 28, 1979, is also an aspect which is relevant to the quality of the human environment and is embodied in the NEPA. Petitioners further contend that the psychological fear generated in the public mind as a result of the March 28, 1979, accident has resulted in a de facto public bias and prejudice against the Newberry Township area with regard to the siting of new residential building, new businesses, and the purchasing of the existing improved parcels of real estate within the Township. It is also contended that the threat of reactivation of Unit Number 1 has and will, in the future, continue to effect the above-enumerated economical concerns. Petitioners aver that these contentions concerning health and socio-economic aspects are embodied in the spirit and language of the NEPA.

3. Evacuation planning done by Metropolitan Edison and the Nuclear Regulatory Commission is inadequate to assure the safety of the public, particularly those persons who live within a five mile radius of the plant. Operation of T.M.I. Unit Number 1 should not be resumed until a plan is in place for the evacuation of the public in the maximum area which could be effected by an accident.

Respectfully submitted,

FOX, FARR & CUNNINGHAM

DATED: October 19, 1979

BY: _____
Jordan D. Cunningham

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
(Three Mile Island Nuclear Station Unit No. 1)	

PEOPLE AGAINST NUCLEAR ENERGY
~~DRAFT~~ CONTENTIONS

Pursuant to 10 CFR 2.714(b) and the Atomic Safety and Licensing Board's Order of September 21, 1979, People Against Nuclear Energy (PANE) submits the following draft contentions:

1.) Renewed operation of Three Mile Island, Unit 1 (TMI 1) would cause severe psychological distress to PANE's members and other persons living in the vicinity of the reactor. The accident at Unit 2 has already impaired the health and sense of well being of these individuals, as evidenced by their feelings of increased anxiety, tension and fear, a sense of helplessness and such physical disorders as skin rashes, aggravated ulcers, and skeletal and muscular problems. Such manifestations of psychological distress have been seen in the aftermath of other disasters. The possibility that TMI Unit 1 will reopen severely aggravates these problems. As long as this possibility exists, PANE's

members and other persons living in the communities around the plant will be unable to resolve and recover from the trauma which they have suffered. Operation of Unit 1 would be a constant reminder of the terror which they felt during the accident, and of the possibility that it will happen again. The distress caused by this ever present spectre of disaster makes it impossible for the NRC to operate TMI 1 without endangering the public health and safety.

2.) Renewed operation of TMI 1 would cause severe harm to the stability, cohesiveness and well being of the communities in the vicinity of the reactor. Community institutions have already been weakened as a result of a loss of citizen confidence in the ability of these institutions to function properly and in a helpful manner during a crisis. The potential for a reoccurrence of the accident will further stress the community infrastructure, causing increased loss of confidence and a breakdown of the social and political order. Sociologists such as Kai Erikson have documented similar phenomena in other communities following disasters.

The perception, created by the accident, that the communities near Three Mile Island are undesirable locations for business and industry, or for the establishment of law or medical practice, or homes compounds the damage to the viability of the communities. Community vitality depends upon the ability to attract and keep persons, such as teachers, doctors, lawyers, and businesses critical to

economic and social health. The potential for another accident, should TMI 1 be allowed to operate, would compound and make permanent the damage, trapping the residents in disintegrating and dying communities and discouraging the influx of essential growth.

3.) Evacuation planning done by Metropolitan Edison and the Nuclear Regulatory Commission is inadequate to assure the safety of the public, particularly those persons living within a five mile radius of the plant. Operation of TMI 1 should not be resumed until a plan is in place for the evacuation of the public in the maximum area which could be affected by an accident.

Respectfully submitted,

Karin P. Sheldon

Karin P. Sheldon

William S. Jordan III (KPS)

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1725 "I" Street, N.W.
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Lewis Contention

B. Filters: There are New filters on the auxiliary building of TMI#2. There are no similar structures on the auxiliary building of TMI#1. Further ,preheaters must be placed on the filters of the auxiliary building because they got wet during the accident on 3/28/79 in TMI#2. To mitigate a similar accident in TMI#1 , preheaterson the filters in the auxiliary building of TMI#1are necessary.
There are many design errors in the filter system and design of same. I am presenting the above as examples of a larger problem.