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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

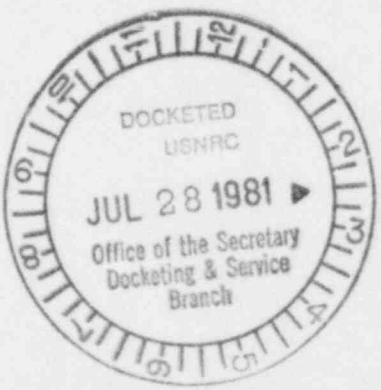
Before Administrative Judges:

Peter B. Bloch, Chairman
Dr. Jerry R. Kline
Mr. Frederick J. Shon

CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL. (Perry Nuclear Power Plant, Units 1 & 2)	Docket Nos. 50-440-OL 50-441-OL
	July 28, 1981

SPECIAL PREHEARING CONFERENCE
MEMORANDUM AND ORDER
CONCERNING
PARTY STATUS,
MOTIONS TO DISMISS AND TO STAY,
THE ADMISSIBILITY OF CONTENTIONS,
AND THE ADOPTION OF SPECIAL DISCOVERY PROCEDURES

A Special Prehearing Conference was held in Painsesville, Ohio on June 2 and 3, 1981. The purposes of this Memorandum and Order are: (1) to discuss a number of motions resolved at that Conference, including the admission of parties and disposition of motions to dismiss and stay, (2) to determine if the intervenors' contentions are admissible as issues in this proceeding, and (3) to adopt special discovery procedures.



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I. STATUS OF PARTIES

A. Summary of Status

A previous order in this case, issued on April 9, 1981, granted party status to all but five of the petitioners for intervention. Subsequently, three of these parties asked to withdraw. Those petitions to withdraw were granted in the course of the Special Prehearing Conference. In addition, we granted four of the intervention petitions that had not yet been granted. Only the Toledo Coalition for Safe Energy was denied party status. As a result, the following are parties to this proceeding:

Sunflower Alliance, Inc. (Sunflower), Northshore Alert, Citizens for Safe Energy, Ohio Citizens for Responsible Energy (OCRE), Evelyn Stebbins, Richard Sering, David Nash, Gail Caduff Nash, Linda Qualls, David Qualls, Wes Gerlosky, Margaret Gerlosky, William Brotzman, Cumings Homsted Park Corp., the Lake County Board of Commissioners (Lake County), The Lake County Disaster Services Agency, and Tod J. Kenney.

B. Petition of Toledo Coalition for Safe Energy

In the course of the Special Prehearing Conference, the Petition for Intervention of the Toledo Coalition for Safe Energy (Coalition) was denied for lack of standing. (Tr. 120-123.) Two witnesses for the Coalition, Mr. Terry Lodge and Mr. Albert J. Waldorf, were permitted to testify. (Tr. 79-102.)

Mr. Lodge, who is attorney for the Coalition, testified that there is no member of the Coalition who lives closer than 125 miles from the Perry Nuclear Power Plant (Perry). (Tr. 83.) The Coalition also asks that it be granted either permissive intervention or standing of right because it will suffer substantial environmental economic injury even though its members reside more than 50 miles from the Perry Plant.

At the close of Mr. Lodge's testimony, the Board was informed that "a member of the audience has come forward who is a member of the Toledo Coalition who does live well within 50 miles of the plant." (Tr. 86.) That alleged member, Mr. Waldorf, then testified that he was a member of the Coalition and had participated in a variety of its activities. (Tr. 88-102.)

The Board credits Mr. Waldorf's belief that he is a member of the Coalition and that he lives within ten miles of the Perry Plant. (Tr. 90.) However, Mr. Lodge testified that he did not know whether Mr. Waldorf is on the membership role of the organization. (Tr. 103.) Mr. Lodge also indicated that he had asked members of the steering committee of the Coalition for the names of members residing in the part of the State near Perry, and no such members had been suggested. (Tr. 116.) In addition, Mr. Lodge stated that one of the persons to whom he spoke about membership status had specifically mentioned Mr. Waldorf as a person whose membership might not be current. (Tr. 116.)

We conclude that membership is a reciprocal relationship. Considering both Mr. Lodge's testimony and his assertions as coun-

sel, the Board finds that the Coalition did not consider Mr. Waldorf a member. Consequently, he was not a member and the Coalition failed to demonstrate that any of its members resides closer than 125 miles from the Perry Plant.

We find that the failure to prove that a member resides within 50 miles of Perry is fatal to the Coalition's assertion of a right to intervene. Our order of April 9, 1981, admitted as parties each individual and business petitioner "located no further than 50 miles from the Perry Nuclear Plant" and stated that "each petitioner may file an amended petition . . . accompanied by one or more affidavits stating the place of residence of members on whom standing is based. . . ." (P. 6.) That Order was authorized by 10 CFR §2.718(1) and is consistent with the "U.S. Nuclear Regulatory Commission Statement of Policy on Conduct of Licensing Proceedings," May 22, 1981. Intervenor acknowledged that the April 9 Order indicated that the Coalition was expected to prove that it had a member who lived within 50 miles of Perry. (Tr. 118-119.)

Although residence within 50 miles is not an explicit requirement for intervention by right; that limit is consistent with precedent and was the standard the Board used in its order. See Houston Lighting and Power Company, et al., (South Texas Project, Units 1 and 2), LBP-79-10, 9 NRC 439 (1979)), 445-449; appeal struck, ALAB-545, 9 NRC 634 (1979). Intervenor now disputes the residence requirement fixed in our order (Tr. 117-118), but the time to do that has passed. Given the potential legal importance of the issue the Coalition raises, the Board finds that petitioner had to

promptly notify the parties of its intention to challenge the Order of the Board. This would have placed parties on notice of the need to be prepared to argue an issue that had apparently already been decided. (See Tr. 83-84 concerning Applicant's reliance on the Board's order.) It also would have permitted the Board to require briefs to assist it in the orderly determination of the issue. However, the coalition merely waited. Indeed, it waited for more days than the regulations permit for the far more onerous task of objecting to an initial decision in an operating license case. (See 10 CFR §2.762.) Under these circumstances, we have determined that it was not proper for the Coalition to question the 50-mile standard applied by the Board.

Even were the validity of the 50 mile requirement legitimately raised, standing based on residence beyond a 50 mile limit is not a sufficient interest to establish standing in this proceeding. The further a person lives from a plant the weaker the claim to adjudicatory standing and the more similar that person's objections to the interests of all citizens. Those general interests need not be protected in litigation. They can be pursued in rulemaking proceedings before administrative agencies and in lobbying before Congress.

Without a showing that a plant has far greater than ordinary potential to injure those outside a 50 mile limit, a person living further away has a weak claim to the costly protection of a full adjudicatory proceeding. Those who are more directly affected can intervene--as they have in this case--and assert issues that will

affect the petitioner. Petitioners living further away should not have the right to further complicate a proceeding. They may petition for permissive intervention. Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, NRCI-76/12 610, 613-14 (December 13, 1976);Tennessee Valley Authority (Watts Bar Nuclear Plant, Units 1 and 2), ALAB-413, 5 NRC 1418, 1422 (1977). Or, they can legitimately be left to their rulemaking and legislative remedies. Compare Virginia Electric and Power Company (North Anna Nuclear Power Station, Units 1 & 2), ALAB-522, 9 NRC 54 (1979) (an appeals board decision discussing whether an organization could intervene if it had one member who lived 35 miles from the plant and another member who canoed in the vicinity of the plant); see also Virginia Electric and Power Company (North Anna Power Station, Units 1 & 2), ALAB-125, 6 AEC 371, 633-34 (1973).

In this proceeding, permissive intervention is not appropriate because the Toledo Coalition's remote interest on behalf of ratepayers of Toledo Edison Co. and residents of northwestern Ohio are economic interests that are not cognizable. Other intervenors who joined with the Coalition in the Sunflower petition can represent its legitimate interests. See Pebble Springs at 1422; Watts Bar at 1421 (1977). The Toledo Coalition did not persuade us to grant it discretionary intervention because of a valuable contribution it alone might make.

II. MOTIONS TO DISMISS AND STAY

On May 22, 1981, Sunflower Alliance filed a motion to dismiss the operating licensing proceeding on the ground that 42 USC §2133(d) deprives the Nuclear Regulatory Commission of jurisdiction over the action. That section of the Atomic Energy Act states:

> No license under this section may be given to any person for activities which are not under or within the jurisdiction of the United States . . .

Sunflower argues that one of the "major activities" of operating a nuclear power plant is emergency plannning and that a portion of those activities must take place outside the United States because Erieau, Ontario is a Canadian town located within 50 miles of Perry.

In the course of the Special Prehearing Conference, the Board denied Sunflower's motion on the ground that emergency planning is merely a factor to be considered in granting a license. It is not an activity for which a license may be granted. (Tr. 2629.) The activity which may be licensed as a result of this proceeding is the operation of a power reactor. That activity takes place primarily within the containment and contiguous facilities. We also might conclude that the activity extends to the boundary of the limited access areas required by 10 CFR §73.45. However, we do not interpret the use of the terms "license" and "activities" in §2133(d) to include anything occurring farther away from the plant.

Since emergency planning is not a licensed activity, §2133(d) should not be interpreted to prohibit the issuance of a license to a power reactor merely because planning has become a prerequisite to the issuance of a license. The possibility that Canadians would need to respond to an emergency, should one occur,

does not indicate that "licensed activities" would take place in Canada. Canadians hardly need a license to respond to an emergency. Furthermore, the recent enlargement of the emergency planning zone, with reprecussions quite far from the site, should not change the interpretation of §2133(d). The promulgation of new regulations does not continuously change the statutory definition of licensed activities.

Because we have explained our reasons for denying the motion, it is not necessary to decide whether Staff has correctly stated that emergency planning activities need not include Erieau. (Staff also asserted that attempts will be made to coordinate planning with affected Canadian jurisdictions.)

However, Sunflower also requested a stay of the operating license proceedings on the ground that certain key documents have not yet been filed by the Staff and that Sunflower is therefore prevented from preparing its contentions in an adequate manner. That motion also was denied (Tr. 43-45), primarily because the rules provide a method by which intervenors may raise new contentions if they were unable to do so prior to the filing of key staff documents.

During the Special Prehearing Conference, the Board agreed to serve on Sunflower portions of the transcript relating to its motions. Since the Board's reasons have now been stated in writing, that is no longer necessary. Additionally, written motions may now be resolved in the course of an on the record proceeding without

service on parties present at the proceeding. 10 CFR §2.730, 46 Fed. Reg. 30328 (June 8, 1981).

III. CONSIDERATIONS AFFECTING THE ADMISSION OF CONTENTIONS

The admissibility of contentions in operating licensing proceedings is governed by 10 CFR §2.714, which requires petitioner to

> file a supplement to his petition to intervene which must include a list of the contentions which petitioner seeks to have litigated in the matter, and the bases for each contention set forth with reasonable specificity.

[Emphasis added.] This requirement has been further elaborated in two Atomic Safety and Licensing Appeal Board decisions, Mississippi Power and Light Company (Grand Gulf Nuclear Station, Units 1 and 2) 6 AEC 423 (1973) and Houston Lighting and Power Company (Allens Creek Nuclear Generating Station, Unit 1) 11 NRC 542 (1980).

These cases both limit the power of licensing boards to exclude contentions. Grand Gulf held that a licensing board should not reach the merits of a contention and should not require the introduction of underlying evidence, providing that "the basis for the contention . . is identified with reasonable specificity." Similarly, Allens Creek found admissible a contention that cited a specific section of the Final Environmental Statement and also cited a government report, Project Independence, as authority for its principal factual assertion. In the course of that opinion, the majority of the appeal board set limits on how deeply a licensing board may go in analyzing the validity of the conclusions of an authority who was cited in support of a contention.

Nevertheless, despite these broad guidelines, this Board feels that the rule requiring reasonable specificity provides broad discretion and little guidance. Consequently, we have decided to review the application of this rule in its complete procedural context, in order to provide us with increased guidance in the interpretation of this standard.

A. Arguments of the Parties

Intervenors have argued that the Federal Rules of Civil Procedure provide useful guidance concerning the specificity expected in pleadings. Generally, those rules contrast with earlier common law practice in which detailed pleadings were commonplace. The Federal Rules were heralded as a modern practice in which less stress was placed on pleadings, which were permitted to be freely amended in the course of federal proceedings.

Applicant argues that the Federal Rules are inapplicable. In particular, it points out that in licensing proceedings, the applicant must bear the burden of proof on contentions admitted into a proceeding. This, it argues, entitles it to clear notice of the issues on which it is expected to bear the burden. Staff argues that Commission guidelines for specificity are similar to Federal Rules requirements governing pleadings and a bill of particulars.

Staff also argues that the requirement that there be a basis necessitates citation to an authority and cannot be satisfied by the statements of the intervenor or its counsel. For example, when Staff discussed Sunflower Alliance's first contention in its

"Comments on Contentions Proposed at Special Prehearing Conference" (Staff Comments), it stated (pp. 7-8):

> [P]etitioners have provided only counsel's statement, which is insufficient to provide the basis required by the Commission's regulations.

B. The Full Procedural Context

In Commission proceedings, Applicant must file extensive documents before the intervenor is required to plead. In this case, the application, including the required Final Safety Analysis Report and the Environmental Report, consists of 22 thick volumes of information. This differentiates licensing proceedings from district court proceedings, in which plaintiffs must start without the benefit of any prior filing by the defendant.

Another difference is that licensing hearings never are the sole method of determining the merits of issues. Whether or not there is a licensing proceeding, the Director of Nuclear Reactor Regulation and the Advisory Committee on Reactor Safeguards must review the safety and environmental effects of reactors before licensing. Each of these independent reviews is seriously conducted by technical experts engaged by the government. A hearing supplements these other reviews and may provide some incentive for increased thoroughness in these parallel processes. But unlike District Court proceedings, hearings never are the sole avenue for determining truth.

The existence of parallel decision tracks provides some support for interpreting "reasonable specificity" to require that

intervenors show enough understanding of the filed materials to indicate that a hearing will have a substantial chance of adding to the preexisting process. Hence, it is reasonable to require that contentions show an understanding of the materials already filed by Applicant about its reactor. See Allens Creek.

However, we disagree with Staff that a basis for a contention can be provided only by citation to authority. A citation may be helpful in establishing a basis, particularly when the subject is highly technical. Sometimes intervenors may be able to provide good reason for raising a contention, and they may be unable to provide more basis without discovery. If intervenors' reasons support their contention, and if those reasons provide a logical basis for believing that discovery is appropriate, then it is improper to impose a stricter standard at this stage of the proceedings. In particular, Allens Creek, cited by staff, does not impose the criterion that a contention must be supported by an authority or it will not be admitted. That case merely supports the converse proposition, that a contention supported by an authority can be admitted.

An additional factor influencing action on contentions is that the financial, safety and environmental impacts of Board decisions generally exceed the impact of district court cases, and great care should be taken before rejecting a potentially important contention that is poorly framed.

In this proceeding, the decision concerning "reasonable specificity" occurs in a context somewhat dissimilar to other proceedings because we adopted a special procedure in our April 9

Order. In that Order, we required the parties to file a brief prior to the Special Prehearing Conference, "stating in reasonable detail . . . reasons, supported by legal authorities, why issues included in petitions should be considered relevant to the proceedings in whole or in part or should be considered irrelevant to the proceedings." In order to permit adequate time to prepare this special brief, amended petitions -- required by the Order to "state contentions with particularity" -- were to be filed a full 25 days prior to the conference.

Applicants and Staff availed themselves of the opportunity to submit this brief. Intervenors, though required to do so, did not.

In their brief, Applicants and Staff cited sections of the Final Safety Analysis Report (FSAR), the Environmental Report or the regulations of the Commission, dealing with the subject matter of intervenors' contentions. Although these briefs dealt with each contention separately, they were not voluminous. Each contention elicited a few paragraphs of response, including references to sections of the FSAR alleged to be relevant. Although intervenors would need some knowledge of the factual bases for their contentions to reply to these points, they were not so barraged with arguments that it would be unfair to require them to respond.

At the Special Prehearing Conference, intervenors were given substantial latitude in introducing new factual material and arguments in support of their contentions. This practice is consistent with Grand Gulf, in which the Licensing Board was upheld

in permitting substantial "particularization." In fact, the particularization was relied on by the Appeal Board in its decision to admit a contention concerning alternatives to the construction of the Grand Gulf plant.

C. Additional Relevant Factor

The degree of specificity required of a contention depends in part on the nature of the challenge to its admissibility. For example, if a contention is opposed as a challenge to a Commission regulation, then intervenor should be able to explain why the contention is consistent with the regulation. At times, this may require increased specificity. Similarly, if a contention is opposed as fully litigated during the construction permit stage (collateral estoppel), enough specificity must be found to indicate what is new about the current contention and how it differs from what was previously litigated.

Although it is not possible to anticipate the challenges a contention may provoke when a contention is framed, intervenors in this case were notified of the challenges before the special prehearing conference; and they either should have been able to respond by increasing the particularity of the contentions or by indicating why additional time for particularization was needed.

D. Summary of Factors Affecting Particularity

After considering all the special factors affecting the

admissibility of contentions, the Board has applied the following criteria in determining whether the basis for a contention has been stated with reasonable specificity:

(1) Have intervenors shown how the contention relates to specific sections of the FSAR or Environmental Report cited in the brief filed by Applicants or Staff?

(2) Is the contention sufficiently specific so that Applicant has general notice of the issues on which it may bear the burden of proof at a hearing?

(3) Is there either a reasonable explanation or plausible authority for factual assertions?

(4) If a contention has been thoroughly litigated in the construction permit proceeding and has been challenged on that ground, is intervenor's allegation significantly different from the construction permit issue or has it shown sufficiently changed circumstances or policies to permit relitigation?

(5) If all the facts alleged in the contention were proved, would those facts require imposition of a licensing condition or the denial of an operating license?

(6) Has intervenor indicated enough familiarity with the subject of its contention so that its contribution to the proceeding may be expected to be helpful and so that minor shortcomings should be overlooked?

IV. RULINGS ON CONTENTIONS

In this section of the memorandum we rule on the admissibility of contentions. Generally, we review the contentions in the order presented by Sunflower, referring to contentions of the Ohio Citizens for Responsible Action (OCRE) when they are related to Sunflower contentions. We discuss other intervenors' contentions after completing our consideration of the Sunflower contentions. Occasionally, we have grouped contentions together for ease of discussion or have modified the wording of contentions.

In the course of the Special Prehearing Conference, consistent with a practice that dates at least to Grand Gulf, the Board let intervenors further particularize their contentions by introducing related arguments and factual information. 10 CFR §2.714(b) requires that particularization should occur no later than 15 days prior to the Special Prehearing Conference. Furthermore, the Board's April 9 Order required that particularization occur 25 days before the Conference. However, §2.714(b) also permits the Board to extend the time for particularization by balancing the factors found in §2.714(a) and we have done so, primarily out of concern for intervenors' lack of experience at this stage of the proceedings.

On the other hand, intervenors' tardiness placed Applicant and Staff in the unfair position of having to respond to new factual and legal arguments for which they were unprepared. Consequently, the Board provided Applicant and Staff the opportunity to file "last word" briefs. Those briefs were both filed on July 6 and have been considered in the course of writing this memorandum.

In reading Staff's last word brief, we learned that OCRE had filed a "Post-Special Prehearing Conference Brief" on June 10, 1981. Because that Brief was not addressed to the Board members by name but merely to the "Board," none of the Board members had received a copy when it was originally mailed. However, a copy was available from docketing personnel and we have obtained and read this filing.

OCRE's filing exceeds our tolerance even at this early stage of the proceeding. It is our conclusion that OCRE has not shown good cause for its lateness. As it points out in its Brief, OCRE was directed to make its filing prior to the Conference. We do not accept as good cause for late filing the excuse that Mr. Jeffrey Alexander, OCRE representative, had to take graduate school examinations and was involved in an "ongoing experiment" which took his attention away from this case. While problems such as those might have provided reason for rescheduling a hearing, they are insufficient reason to excuse late filing. The excuse is particularly unsatisfactory because the Board tried unsuccessfully, in the course of the hearing, to obtain information from Mr. Alexander, who preferred to cite precedent to the Board rather than to assist it with requested information. (Tr. 445-446, 547.)

A. Emergency Planning Contentions

1) The Contentions

There are several related emergency planning contentions. Sunflower alleged:

> [T]he emergency and evacuation plans for the subject facilities are fatally defective in numerous respects including but not limited to inadequacy of notification plans; deficiencies in radiation exposure measurement techniques, insufficient practical workability; no agreement with local response organizations as to cost and implementation of plans and inadequate notification of and information to media and residents within the ten (10) and fifty (50) mile radii.

The Lake County Board of Commissioners seeks the Licensing Board's help on the "adequacy" of the emergency response plan which Applicant has submitted to Lake County and wants "to independently verify all monitoring [of possible accidental releases of radioactivity] so that we can adequately provide our citizens with an emergency warning if any dangerous or unsafe releases of radiation from the Perry Nuclear Power Plant occur." Furthermore, Robert E. Martin, president of the Board of Lake County Commissioners, stated at the conference that

> the development, capitalization, implementation and maintenance of a workable and adequate emergency response plan is beyond the financial capabilities of Lake County.

(Tr. 145.)

OCRE (3) is a contention that Applicant should distribute potassium iodide to every household within ten miles of the plant in order to help protect the thyroid gland and "help calm citizen fears during a nuclear crisis."

Tod J. Kenney had not particularized his contentions prior to the Special Prehearing Conference. However, at the Board's invitation he managed during the conference to review the emergency planning sections of the FSAR and to present 14 points, complete with detailed references to the FSAR, before the Conference

adjourned. (Tr. 596-603.) Then, at applicant's request, Mr. Kenney was required to submit his contentions in writing and to serve them on both applicant and staff by Express Mail, which he has done. Kenney's contentions included a reference to findings by Dr. Edward Radford concerning allegedly increased risks from radiation exposure, and they also include the following allegations that went beyond the allegations of the other intervenors:

- † that applicant's FSAR has not clearly defined the criteria used to determine who will receive special attention in an emergency,
- † that the method of decontaminating affected persons is not adequately defined,
- † that applicant should install off-site monitors with continuous readout of radiation so that it will be able to determine during an emergency whether population exposure levels may have risen to a dangerous level,
- † that the Radford calculation of radiation risks should result in recalculation of a variety of paramaters of the emergency plan, including definitions of "contaminated areas," "emergency action levels," "plume exposure pathway," "protective action guides," and "emergency planning zones,"
- † that during an emergency, monitoring should be expanded to include the human population residing within the ingestion pathway of Iodine 131,

† that offsite radiological monitoring should routinely include samples from the human population, and

† that potassium iodide should be stockpiled at receiving hospitals. (Mr. Kenny's other contentions either reiterated those of other intervenors or, in one instance, did not relate to emergency planning.)

At the conference, Sunflower introduced further specification of its emergency planning contention, including the following points:

† that the City of Mentor has a road pattern with limited numbers of routes in and out, and this would impede efficient evacuation,

† that there are too few buses to serve schools in the emergency planning zone and that there is as yet no agreement with the Regional Transit Authority or other localities to remedy this situation,

† that there are not enough tow trucks, and

† that local volunteer fire fighters might prove inadequate in assisting in the evacuation of people who do not own automobiles.

(2) Arguments Opposing the Contentions

In its brief, prior to the extensive additional particularization which occurred at the conference, Applicant opposed this contention primarily because there was no "basis" and there was a failure to particularize sufficiently by explaining the nature of

the alleged deficiencies. Staff concurred in the argument that intervenors' generalized assertions of injury or defectiveness are not admissible.

In the course of the conference, Applicant raised a series of questions concerning the specific facts raised by intervenors, including the adequacy of radiation monitoring and the sufficiency of the number of buses to be utilized. However, Applicant's principal problem with the contention was that:

> They are claiming they do not have enough tow trucks; they don't have school buses; too many schools; too many hospitals. It could just go on forever, and there is really no basis for him saying it's unworkable. How do we draw the line and how do we come up with a specific contention?

(Tr. 188.)

Applicant also was troubled because it is confident that agreements will be reached with localities concerning emergency planning and that the incompleteness of current plans will be remedied. Consequently, Applicant suggested that these were the kind of issues on which new contentions might be admitted later in the proceedings but that it was inappropriate to admit contentions about deficiencies which are likely to be cured.(Tr. 205-208.)

In its "Brief on Contentions," filed July 6, Applicant continues to contend that Sunflower relies on "broad, conclusory allegations" that are without basis. (At 6-7.) It also identifies a portion of the record as standing for the proposition that intervenors were criticizing on-site emergency plans rather than the

state and local off-site plans, which apparently have not yet been filed. (Brief on Contentions at 7.)

Staff, on the other hand, acknowledges specificity when intervenors attack the number of school buses available for evacuation, the lack of agreements with local counties, the resistance of the counties to financing emergency plans and the inadequacy of evacuation plans for certain hospitals. It asserts that, despite this specificity, there is no "basis" because the contentions rest on the "ipse dixit conclusionary statement of Sunflower's counsel." (Comments on Contentions at 7.)

Applicant conceded that OCRE's contention concerning potassium iodide was admissible (Tr. 226); but Staff contested the admissibility on the ground that a letter of March 25, 1981, from the Commission to Mr. Lou E. Gurfitta, contained a position of the Commission concerning potassium iodide and precluded this Board from acting on this matter.

With respect to the Kenney contention concerning conclusions reached by Dr. Edward Radford about the effect of radiation on people, Applicant argues that Radford conclusions diverge from those reached by the majority of the Biological Effects of Ionizing Radiation (BEIR) III report. However, Applicant further argues that even if Radford's conclusions are accepted as true they are consistent with the dose-effect estimates which formed the basis for Commission regulations and for Applicant's emergency response plans. Hence, Applicant considers that citation to the Radford report does not provide any basis for challenging the

emergency planning regulations and that it certainly provides no basis for challenging emergency plans made pursuant to the regulations. (Applicant's Brief at 36-45.) Applicant also makes a variety of specific factual points about specific Kinney contentions. (Ibid.)

For its part, Staff generally agrees with Applicant but argues forcefully that the Radford article relates to a conflict over the shape of the dose-response curve for ionizing radiation and is not new. (Staff Comments at 19.)

(3) Conclusions

Intervenors contentions on emergency planning were not presented as a single contention. However, viewed as a whole, these contentions raise many concerns about the off-site emergency planning process. These contentions, including the separately argued Potassium Iodide issue and the other separate contentions discussed in this section, are admissible as an issue in this proceeding.

In reaching its decision on admissibility, the Board reviewed the specificity factors. (Its review of those factors is set forth below.) For ease of subsequent reference, we shall refer to admitted contentions as "issues." This particular issue has been rephrased by the Board as follows:

> ISSUE #1: Applicant's emergency plans do not provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property.

The contentions combined in this generally phrased issue raised a series of specific factual concerns related to the overall proposition that the emergency plan is not "workable." We interpret these contentions to apply to state and local emergency plans, which have not yet been completed, and to imply that Applicant has not yet filed plans that comply with NRC regulations found in Appendix E to Part 50. In particular, intervenors are understood to have asserted that Applicant has not satisfied the requirement of Section III of Appendix E, that:

> [Applicant must] . . . demonstrate that the [emergency] plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property.

Intervenors also may be inferred to be alleging that Applicant has not complied with the joint Commission-Federal Energy Management Agency Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (NUREG-0654; FEMA-REP-1; Rev. 1) at 56, 58 (criteria 8 and 9).

We have considered Staff's argument that an intervenor should not be permitted to establish basis through statements of counsel. (See Tr. 188, where Applicant appears to agree with this argument.) Were this argument limited to technical conclusions, it would be more persuasive. For example, we would be unlikely to accept a bare contention on stress corrosion cracking unsupported by any statement of authority. On the other hand, the regulations on emergency planning require that there be "reasonable assurance" of

"appropriate measures." These are broad standards subject to differences of opinion. The Lake County Disaster Services Agency, which has official planning responsibilities, made a statement supportive of portions of the contentions included in this issue. (Tr. 224-225, 144-150.) There are other experts in emergency planning whose opinion may have special evidentiary weight, but this is a subject on which even the man in the street may have a credible opinion. We see no reason to require, at this stage of the proceeding, that intervenors disclose the experts they will call as witnesses or that they otherwise disclose their evidence on an issue in which opinion plays so important a part. Such a requirement would exceed the standard established in Grand Gulf.

We also reject Applicant's plea to delay ruling on this contention. (See Tr. 216.) Intervenors have given reasons for concern about the adequacy of the local plan which will be filed. Furthermore, they are required to file contentions now. If they find a current deficiency, it seems appropriate to admit the contention subject to dismissal through summary judgment if the deficiency is cured.

There is one aspect of the emergency planning contentions which is not admissible. One of the arguments made by Sunflower at the hearing appeared to challenge the suitability of the Perry site because of the highway patterns in Mentor. We do not believe that this contention properly raises the issue of site suitability, which was litigated at the construction permit stage.

However, we reject Staff's argument that the contention relating to potassium iodide is barred because of the content of a letter of March 5, 1981, sent to Mr. Lou E. Gurfitta by the Commission. (Tr. 226-230.) That letter, which was not published for notice and comment and did not specifically bind this Board, simply refused to endorse use of potassium iodide at present. (Tr. 228.) Applicant does not consider this letter binding on the Board. (Tr. 230.) The Board does not consider itself bound, and the potassium iodide considerations are therefore admissible.

In reviewing the specificity factors, we determined that Issue #1 satisfied specificity factor (1) because intervenors collectively demonstrated knowledge of Applicant's emergency plans, including a knowledge of the planning process and of the relationship between the proposed plan and the requirements of the surrounding community. This knowledge is not surprising. Intervenors live in the area of Perry, are well versed in its traffic patterns and facilities, and have raised a number of specific factual issues which, if accepted as true, cast substantial doubt on the overall workability of the emergency plan. Applicant's argument that petitioners did not understand the limited applicability of the on-site emergency plan included in the FSAR does not convince us that this contention should be excluded.

Factor (2) is satisfied because Applicant knows what is being challenged. We do not interpret the requirement of specificity of contentions to mean that only narrow issues can be raised. When, as here, intervenors challenge the overall workability of an

emergency plan, together with making a number of narrower assertions concerning why it will not work, they cannot be barred from their broader contention on the ground that it is not specific. In the course of the special prehearing conference, Applicant and Staff learned specifically what intervenor asserts. That the assertion is broad does not prevent it from being asserted with specificity.

Factor (3) is satisfied because intervenors' specification of a number of emergency plan particulars provided a reasoned basis for their overall challenge to the workability of the plan. It is not necessary at this point for us to inquire into the truthfulness of each of the particulars. Indeed such an inquiry would place us in the position of disregarding Grand Gulf and Allens Creek. While providing a "reasoned basis" for a technical contention may at times require citation to a plausible authority, a reasoned basis does not always require a citation. The workability of an emergency plan is the kind of issue on which knowledgable local citizens can form a reasoned opinion. In particular, the Lake County Disaster Services Agency has participated in raising doubts about the workability of the emergency plan; and we do not think it appropriate to reject that Agency's opinion, particularly at this early stage of the proceedings.

Factor (4) is not applicable because the issue of prior litigation has not been raised. Factor (5) is not applicable because intervenors' contentions could affect the outcome of the proceeding decisively. The regulations require a workable emergency

plan. Factor (6) is not applicable because there was no showing of technical shortcomings of many parts of intervenors' showings.

On the other hand, the admission of Issue #1 should not be interpreted as endorsing the accuracy of intervenors assertions or the relevance of the Radford conclusions, which Mr. Kenney cited. In particular, intervenors will need to show the relationship between the Commission's emergency planning regulations and evidence concerning increased estimates of the somatic effects of radiation.

The admission of this broad issue should not necessarily be interpreted as foreshadowing a full evidentiary hearing on this entire subject. Parties have available a motion for summary judgment, and that procedure may be used to pare down this issue before hearing. The standard provided in the rules for application to a motion for summary judgment is more rigorous than the standard applicable to the admission of contentions.

B. Financial Responsibility Contentions

(1) The Contentions

Sunflower alleged that Applicant lacks the financial resources to complete, operate and decommission the Perry units. The principal source of its concern arises from alleged construction cost increases from a planned total cost of $1.2 billion to current cost projections of $3.85 billion. (Tr. 235.) Sunflower cites Charles Kominov, an economist, for the proposition that the actual completed costs of Perry will be about $5.25 billion. (Tr. 236.)

Additionally, Sunflower states that there has been "a very substantial change in the circumstances [and] . . . methods of financing and the overall characteristics of the cash flow requirements" of Applicant. (Ibid.) It cites a General Accounting Office study, EMD 8125, for the proposition that the utility industry in general has experienced a capital crunch arising from construction delays, sagging sales and sharply rising fuel costs. (Tr. 240.) It questions whether Applicant may have sufferred financially from its participation in the Davis-Besse nuclear power plant, whose construction costs are alleged to have increased from a $136 million original estimate to $650 million. (Tr. 241.)

According to Sunflower, the Ohio utilities commission applies a rule which disallows from a utility rate base the cost of work in progress, prior to 75 percent completion of construction. (Ibid.) Since both Perry units are less than 75 percent complete, this is alleged to have an important financial impact on Applicant and its partners in financing Perry. (Tr. 241-242.) Indeed, one of the partners, the Penn Power Company, is alleged to be having financial difficulties that could prevent it from accepting its full share of the financing responsibilities. (Tr. 261-262)

Backfitting of plants since the Three Mile Island accident has been a substantial expense, and Sunflower alleges that there is a need to anticipate the need to finance further backfits in the future. (Tr. 242.) Furthermore, the abandonment of recent nuclear power projects in the area was cited as an indication that such

projects are generally now far less attractive financially than they have been in the past. (Tr. 244.)

Applicant's ability to provide properly for decomissioning is challenged by Sunflower because the size of the decommissioning surcharge imposed by the Public Utility Commission of Ohio has allegedly become inadequate due to inflation. (Tr. 245-246.) OCRE (7), a related contention, expresses the following broader concern with decommissioning:

> In the aftermath of a TMI-type accident, Applicant's solvency would be imperative for the health and safety of OCRE members and the public. Applicant will need to promptly institute clean-up procedures to reduce further public jeopardy while maintaining containment integrity throughout that clean-up. The current financial straits of General Public Utilities (TMI) demonstrate that responsible and safe operation of a nuclear plant includes adequate preparation for such contingencies.

[Emphasis in original.]

This contention, which the Board interprets to relate to clean-up as well as decommissioning, is buttressed by an OCRE concern that the public has suffered a series of "rotating rate hikes" and that the utility could not look to the public for further increases to pay for a clean-up, should one be needed. (Tr. 250-251.)

(2) Arguments Opposing the Contentions

Applicant contends that its financial ability to complete construction is irrelevant at the operating license stage. It cites 10 CFR §50.33(f) as controlling. That section states:

> If the application is for an operating license [for a commercial or industrial facility, the applicant shall show that it] . . . possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of operation for the period of the license . . . plus the estimated costs of permanently shutting the facility down and maintaining it in a safe condition.

Applicant also argued in the course of the Conference that this section must be interpreted in light of Part B of Appendix C, which states:

> [I]t will ordinarily be sufficient to show at the time of filing of the application, availability of resources sufficient to cover estimated operating costs for each of the first 5 years of operation plus the estimated costs of permanent shutdown and maintenance of the facility in safe condition. It is also expected that, in most cases, the applicant's annual financial statements contained in its published annual reports will enable the Commission to evaluate the applicant's financial capability to satisfy this requirement.

Applicant's brief on these contentions alleged that they were "concluso.y" and failed to provide a basis for doubting Applicant's financial capability. With respect to premature decommissioning, Applicant cites NUREG-0586 as an indication that a rulemaking on the "financial implications of 'premature decommissioning'" is imminent; and it contends that the Board should not concern itself with matters that are the subject of rulemaking.

In addition, Applicant argued at the conference that:

> We have had absolutely no basis advanced for suggesting that the companies will be unable financially to operate this plant while it's selling the electricity being produced from this plant during that time, other than a statement that the costs of construction have gone up.
>
> Well, the costs of everything have gone up. That in itself doesn't mean . . . that companies are financially unable to operate the plants.

(Tr. 256.) Applicant also argued that although most costs have gone up, the cost of nuclear fuel has come down, offsetting some portion of its other increased costs. (Tr. 485.)

At the request of the Board, Applicant also submitted further information on its financial standing. It stated the commercial ratings of its bonds for the record and represented that there are only two or three utilities in the country whose bonds are rated above Applicants' by the nationally recognized bond rating services. Furthermore, Applicants' bonds trade on the New York Stock Exchange and the current yield for the bond with longest maturity is 14 percent, which the Board considers comparable to the yields of bonds issued by large companies with sound financial reputations. (Tr. 453-456.)

In the course of the Conference, the following dialogue between Applicant and the Board occurred:

> JUDGE BLOCH: Does the application contain all of the information that responds to the contention of [Sunflower] . . ., that is, ha. the financial condition all been adjusted to include realistic increases in the cost of construction?
>
> MR. CHURCHILL (APPLICANT): Well, at this point what the application contains is the information that's normally on the public record outside the application, the annual reports, prospectuses and so on.
>
> JUDGE BLOCH: Then is the answer that you have not projected the finances of the company to the time of completion to be able to show in the application that you will have adequate financial resources to operate the plant safely?
>
> MR. CHURCHILL: There is information that's required in Appendix C and in 50.33(F) for operating the plant that has not yet been submitted. All of the information required by the regulations has not yet been submitted. Typically this

> isn't done. NRC asks for it at a point in time closer to operation, so take a look at it then.

(Tr. 257-258.)

In general, Staff concurred with the position of Applicant, stressing the alleged lack of basis for this contention.

(3) Conclusion

The intervenors' contentions on financial responsibility shall be admitted as an issue, rephrased as follows:

> ISSUE #2: Applicant has not demonstrated that it possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of operation, including the costs of reasonably forseeable contingencies, for Perry Nuclear Power Plant, Units 1 and 2.

Sunflower's allegation that Applicant lacks the financial resources to complete construction shall be interpreted to relate to other allegations concerning its financial ability to operate the reactor. The Board will not consider arguments concerning the validity of the construction permit because those arguments have been fully litigated and are not properly part of this proceeding.

The Board's further analysis of this matter was complicated by the issuance on May 13, 1981, of a memorandum from the Commission's Secretary to its Executive Director for Operations concerning a proposal to stop requiring applicants for operating licenses to prove the financial ability to operate power reactors. The memorandum reported unanimous agreement among the Commissioners that 10 CFR 650.33(f) should be amended so that applicants need no longer demonstrate financial capability. However, the memorandum concluded that "OGC [the Office of General Counsel] and ELD [the Office of Execu-

tive Legal Director] should be consulted to assure that they are in agreement with the scope of the rule as it applies to financial considerations under NEPA." Consequently, there is still some uncertainty concerning the direction which the Commission will take in issuing a proposed rule, which will itself of course be subject to modification or withdrawal in the course of rulemaking.

Under these circumstances, we do not consider ourselves barred from considering the financial qualifications contention. There is no clear direction to us to refuse to consider the contention, and an existing rule of the Commission remains in effect and binding on us.

That rule requires that Applicant demonstrate its financial capability to run Perry. Although it is generally true, as Applicant has contended orally, that income will exceed expenses while a power reactor is operating, it is not possible to accept that general statement as proof that the rule's requirements are fulfilled. (See Tr. 253-259.) Were we to accept that general statement in fulfillment of the requirement, we would have erected an irrebuttable presumption which would make it unnecessary for an applicant ever to prove its financial capability.

This, under the current state of the rules, we cannot do. The present rule requires proof of financial capability. When specific challenges are made to that capability, those challenges must be answered. Although it is unclear whether the operator of a reactor must be financially prepared to provide for cleanup of an accident, or the extent to which it must provide, this issue of

interpretation also is open and cannot be excluded at this stage of the proceedings.

The current rule has an important purpose. It is possible for an applicant to scrape by financially during the construction stage. That is, due to unanticipated cost increases and backfit requirements, it might barely manage to complete construction. If it does just scrape by, then the company's financial straits could interfere with its sound judgment in safety matters. Safety measures that might be taken by a financially healthy company might not be taken.

The Statement of Consideration which accompanied the latest amendment to the financial requirements regulation indicated, in the following language, that these requirements are designed to protect public health and safety:

> ...The Act and the Commission's regulations reflect that the fundamental purpose of the financial qualifications provision of that section is the protection of the public health and safety and the common defense and security.
>
> Although the Commission's safety determinations required for the issuance of facility licenses are based upon extensive and detailed technical review, an applicant's financial qualifications can also contribute to his ability to meet his responsibilities on safety matters.

33 FR 9704 (1968).

The information Applicant submitted concerning the ratings of its bonds and their current yields in New York Stock Exchange trading provides a general indicator of financial health. Indeed, these favorable financial signs show that intervenors may have great

difficulty proving their case. However, recent experience concerning the financial markets' ability to anticipate financial difficulties--including trading in the bonds of Penn Central, New York City and Chrysler Corporation--indicates that financial ratings and market prices are incomplete assurance of future financial safety. Hence, we are unable to preclude inquiry into Applicant's financial responsibility because of its current financial reputation.

Timing. The one remaining aspect of Applicant's response to this contention is the argument that Applicant is not yet required to produce financial projections showing its position at the time the reactor will commence operation. However, that argument appears to be without basis in Appendix C, Part 50, which requires applicants for operating licenses to show "at the time of filing of the application, availability of [sufficient] resources . . . ." Although the section goes on to state what will "ordinarily" be sufficient and what "in most cases" will be sufficient, intervenors questions concerning increased construction costs and costs for backfitting are sufficient to overcome those presumptions. Nor is it sufficient that Applicant intends to update its filings at a later date. We have no choice but to judge the adequacy of contentions now. Subsequent events, prior to a motion for summary judgment under 10 CFR §2.749, could influence the outcome of a summary judgment motion; but the possibility of a later change cannot influence the decision on the admissibility of contentions.

C. Need for Power Contentions

(1) The Framework

Cleveland Electric Illuminating Company, after a complete environmental review, was awarded a construction permit for Perry. During the construction stage, 10 CFR §51.26 required a "final environmental statement" that included "a final cost-benefit analysis and a final conclusion as to the action called for."

At the construction permit stage, the required cost-benefit conclusion balanced the advantage of generating nuclear power against the economic and environmental costs of construction and the potentially adverse economic and safety effects of loading fuel, operating and decommissioning the reactor. At the construction permit stage it also was necessary to consider whether other methods of generating power might be preferable to the use of nuclear power generation.

It is, of course, the environmental and safety effects of loading fuel and operating a reactor that are of greatest concern to intervenors. Hence they believe operation of the reactor should not be authorized even after its construction is completed. They do not think that the benefits of power generation outweigh the costs even after subtraction from the cost-benefit balance of the environmental effects of construction and the $1.5 to $5 billion that will be spent pursuant to the construction permit that was already granted.

However, the prior adjudication concluded that construction of the reactor was justified despite these huge construction costs and the environmental costs of massive construction. Furthermore,

principles governing the finality of adjudications require us to respect findings reached during the construction permit adjudication. Alabama Power Company (Joseph M. Farley Nuclear Plant, Units 1 and 2), HLAB-182, 7 AEC 210 (1974) (collateral estoppel prevents rehashing issues already ventilated and resolved at the construction permit state).

We may readjudicate issues, but only if there is a significant change of circumstances or policy. Reasonable interpretation of "changed circumstances" requires consideration of the shift in the cost-benefit balance that always occurs after construction is licensed. At that point, construction is authorized. Consequently, at the operating license stage, the monetary and environmental costs of construction are irrelevant. Therefore, , an adverse change in one or more of the other factors considered in the cost-benefit balance at the construction stage must offset the construction costs, which were considered prior to the issuance of the construction permit but which are no longer relevant.

For the Board to conclude that there are significantly changed circumstances, it must accept the alleged changes as true. Then it must find that the changes are sufficient for a power plant, whose construction has been authorized, to be forced to sit idle because the economic and environmental costs of operation exceed the benefits derived from the generation of power. If this balance indicates that the plant should not be operated, then the Board must

admit the issue. If the Board finds that this overall environmental balance is not affected even if the allegations are accepted as true, then there would be no purpose in having discovery for the purpose of proving the allegations. That would be a pointless waste of time. Instead, if this balance is in favor of operation of the plant, even when the allegations are assumed to be true, then the contention should not be admitted as an issue.

Collateral estoppel. We are aware that this legal interpretation represents an extension of the equitable doctrine of "collateral estoppel." That doctrine, which was recently reviewed in Houston Lighting and Power Company, et al. (South Texas Project, Units 1 and 2), LBP-79-87, 10 NRC 563 (1979), aff'd summarily, ALAB-575, 11 NRC 14 (1980), has traditionally been applied only when both parties in a case were also parties (or their privies) in a previous case. An explanation of this limitation is that it would be improper to apply decisions to persons who have not had an opportunity to be heard. Id. at 572.

As an equitable doctrine, collateral estoppel is capable of flexibility to meet the equities of particular proceedural contexts. For example, the Supreme Court of the United States approved a limited extension of that doctrine to permit "offensive" collateral estoppel--the claim by a person not a party to previous litigation that an issue had already been fully litigated against the defendant and that defendant should be held to the previous decision because he has already had his day in court. Parklane Hosiery Company,

Inc., et al., v. Leo M. Shore 439 US 322, 58 L.Ed.2d 552, 99 S Ct 645 (1979).

In Parklane the Supreme Court weighed the equities involved and determined that it was appropriate to apply collateral estoppel, even though application of the doctrine defeated a constitutional claim to a jury trial. (Mr. Justice Rehnquist dissented on this point.) In the course of the decision, the Court approved broad discretion for trial courts in applying the doctrine to cases of offensive collateral estoppel. (Id. at 331.) It also explained that:

> Collateral estoppel, like the related doctrine of res judicata, has the dual purpose of protecting litigants from the burden of relitigating an identical issue with the same party or his privy and of promoting judicial economy by preventing needless litigation.

[Emphasis added.]

The Board has decided to apply the spirit of Parklane to this case. In this context, we find that the arguments opposed to collateral estoppel are comparatively weak and the arguments in its favor are comparatively strong. Hence, we shall apply collateral estoppel to this proceeding.

Commission licensing is dissimilar from many other forms of litigation. Unlike many other kinds of cases, licensing cases are notorious. Their existence is not merely noticed in the federal register. Universally, plans to build a nuclear plant receive widespread news coverage; and the licensing proceedings themselves also are extensively covered. Consequently, residents living in the area of a proposed plant have actual notice rather than just constructive

notice. Furthermore, even late petitioners with serious concerns and good cause for late filing are commonly granted intervention. See, e.g., Public Service Company of Oklahoma Associated Electric Cooperative, Inc., et. al, (Black Fox, Units 1 and 2), LBP-77-17 (March 9, 1977).

In addition, intervenors who are admitted play a different role in Commission proceedings than in many other kinds of litigation. Although they are admitted to the proceeding because of their own interest, often because of residence near to the plant, their safety and environmental concerns often are quite general, as they were in the construction stage of this proceeding. Hence, while intervenors do not have any obligation to represent persons who are not parties, they often attempt to litigate generally any concerns which might also bother other residents in the community. Furthermore, even when intervenors' ability to broadly represent the community may be called into question, it is the obligation of the Staff, which always participates, to represent the public interest. In addition, the Commission's staff attempts to protect the public further by conducting an independent safety and environmental review that is required by statute.

On the other hand, Applicant in a construction permit proceeding litigates all the issues that are raised. At the conclusion of the proceeding, it may obtain a license to construct the facility. It often invests over $1 billion in reliance on the license. Of course, Applicant knows that it is continuously responsible for revising its plans in light of current knowledge and that it may

face a serious challenge at the construction permit stage. However, its reliance on its construction license is substantial.

When the Board balances the equities, it concludes that collateral estoppel can properly be applied so that issues decided at the construction permit stage need not be rehashed at the licensing permit stage even when new parties have intervened in the latter proceeding. See Northern States Power Company (Prairie Island Nuclear Generating Plant, Units 1 and 2)),ALAB-455, 7 NRC 41, fn. 4 at 46 (1978) (in a proceeding to amend a license to enlarge a spent fuel pool, the environmental inquiry may be limited to the consequences of the amendment). Of course, in each instance the Board must not reject a petition which raises significant new material. Given this extension of an old and venerable doctrine, the Board must welcome any argument that casts significant fresh light on an issue decided during a construction permit proceeding in which the party was not directly represented. However, something that is fresh and significant must be added to avoid merely rehashing old issues.

In this Memorandum, whenever the issue of collateral estoppel has been raised, specificity factor (4) becomes involved. Necessarily, a decision that specificity factor (4) has not been met will mean that the Board also has concluded that the issue should be barred because of the equitable doctrine of collateral estoppel.

(2) The Contentions

Sunflower alleges that a reasonable forecast of the net

energy demand for the next two to eight years does not justify an operating license. It points out that Applicants have revised their demand forecasts downward about 24% between their 1978 and 1979 projections. At the conference, it pointed out that the reduction was from a 4.4% projected growth rate to a 3.3% projected growth rate. (Tr. 520.) In addition, Sunflower relied on a study by Energy Systems Research Group to indicate that a more realistic ten year projection might be growth of 1.98% per year. (Tr. 529-530, 532.)

Sunflower also cites some general literature for support for the contention that forecasts of growth rates may be off by up to 100 percent. Sunflower alleges insufficient consideration of alternative enrgy possibilities, including cogenration and conservation. Furthermore, innovative management options--such as load management plans, innovative rate structures and power-exchange alternatives--are said to have been ignored

At the Conference, Sunflower argued that Mr. Richard Rosen, of the Pennsylvania Office of Consumer Advocate, has testified that the Perry plant will cause Applicant and its partners to be over-baseloaded. (Tr. 469-470.) It also argued that Perry would undergo a substantial shakedown period during which its reliability might be far lower than predicted and its costs of operation might be far higher. Sunflower cited experience at the Davis-Besse reactor in support of the proposition of lower-than-expected reliability. (Tr. 480-482.)

OCRE also is concerned that Applicant has not taken into account in its demand growth projection "all significant factors affecting demand" and that it has not internalized all significant external costs, "so that the total cost of electricity is charged to those using it." It also asks for increased energy conservation and management options similar to those sought by Sunflower.

Mr. Kenney joined in these contentions and also expressed concern that the cost of financing an emergency plan and an emergency response capability had not been included in Applicant's cost estimates. (Tr. 479-480.)

(3) Arguments Opposing the Contentions

The brief on contentions which we received from Applicant seven days before the Special Prehearing Conference, said that:

> Petitioners have failed to provide an explanation of why or how its proposed alternatives have been inadequately considered, or how any of the allegations would upset the cost-benefit analysis to the extent that licensing the operation of the facilities would be inappropriate. This lack of basis for the contentions is reason alone for rejecting the contentions pursuant to 10 CFR §2.714(b).

Applicant also argues that it is unreasonable to review the need for power during consideration of an operating license because the issues have been fully reviewed during the construction permit stage. It cites the "rule of reason" applicable to the consideration of alternatives in NEPA reviews. For authority it cites several federal court cases, including Natural Resources Defense Counsel v. Morton, 458 F.2d 827, 834-36 (D.C.Cir. 1972), Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council,

Inc., 435 U.S. 519 (1978) and Concerned About Trident v. Rumsfeld, 555 F.2d 817,825 (D.C.Cir. 1977). Further citations are offered in support of the proposition that "alternatives to completed projects need not be considered." These further citations are to cases dealing with a dam and with a Federal housing project.

Applicant's last argument in its brief is that the National Environmental Policy Act "is not an authorization to undo what has already been done" and that such an effort "would be a vain attempt to reform past decisionmaking." Citations are offerred to Jones v. Lynn, 477 F.2d 885,890 (1st Cir. 1973) and to National Wildlife Federal v. Appalachian Regional Commission, __F.2d__, 15 E.R.C. 1945 (D.C. Cir. 1981).

At the conference, Applicant argued that intervenor's contention acknowledged that Applicant had already taken account of reduced need for power in its Environmental Report. (Tr. 484.) Furthermore, Applicant reported that it has dropped plans for 4,200 megawatts of capacity in 1983, representing over a 20 percent capacity reduction for that year.

Applicant also argued that in the construction permit stage there were numerous motions to reopen the record whenever a load forecast was changed; and Applicant argues there is no reason to reopen the issue again in the operating license stage.

In the course of argument and in its post-hearing brief, Applicant pointed out that Mr. Richard Rosen, cited as an authority on the need for power issue by intervenors, had testified in favor of the need for power at Perry Unit 1 and had reservations only for

Unit 2. (Tr. 488-490.) This clarification was accepted by Sunflower. (Tr. 521.) Applicant also argued that Mr. Rosen's testimony was rejected by the Public Utility Commission. (Brief on Contentions at 14.)

Staff points out that changes in the growth of the need for power do not necessarily require the abandonment of a plant. Indeed, it argues that all changed estimates would require is a delay in the operating date of the plant. (Tr. 514.) Given this consequence of an adjusted estimate of need, Staff argues that these are not the kind of changed circumstances required to reopen a previously litigated issue.

(4) Conclusions

After reviewing the factors discussed above we have concluded that the need for power contentions should not be admitted as an issue in this proceeding.

Intervenors have made a variety of general assertions concerning the need for power. In particular, they have cited a variety of studies showing a general decline in the need for power in the period since the grant of the construction permit.

However, when intervenors contentions are narrowed to the Perry plant, they focused primarily on the 1978-1979 time period. During that time period, we are informed that Applicant revised its estimates of the rate of growth in need for power downward by 24%. Even if a study cited by intervenors should be accepted, all intervenors are claiming is that a 4.4% projected growth rate in need for

power should be reduced to a 1.98% growth rate. Furthermore, most of this alleged reduction was addressed by Applicant in its Environmental Report and has caused Applicant to reduce its planned power capacity for 1983 (the first year Perry is projected to operate) by over 20%. Intervenors give no reason or basis for the Board to believe that this response by Applicant was inadequate.

To admit the "need for power" issue, we must find that there are sufficiently changed circumstances to permit intervenors to challenge the overall environmental balance struck at the construction permit stage. This we cannot find. Changes in the need for power and the supply of power must be viewed in relationship to changes in the entire environmental context, including the fact that Applicant has constructed a power plant pursuant to its license at a cost of over $1.3 billion (adjusted upward for inflation) and has inflicted all the environmental damage resulting from construction. Hence, construction costs for the Perry plant are, in the jargon of economists, sunk costs; and the original environmental balance, which was formally determined to favor that plant, now weighs far more in its favor.

We find these circumstances controlling, even if we accept as true the full weight of Sunflower's contentions. Consequently, we find that Sunflower has not alleged sufficiently changed circumstances for us to review the entire environmental balance. Compare Pennsylvania Power and Light Company, Allegheny Electric Cooperative, Inc. (Susquehanna Steam Electric Station, Units 1 and 2) 9 NRC 291, 302-305 (1979)(where the low growth rate scenario in

the Environmental Report contemplated all nuclear power being sold outside Applicant's service area, and where intervenors had other significant environmental contentions shown not to have been litigated during the construction stage).

In terms of the factors set forth in Part II of this memorandum, our decision not to admit this contention has been most affected by factors (1), (4) and (5). Applicant acknowledged a change in the need for power in its environmental report, and intervenors have not indicated in what way Applicant's handling of that problem is incomplete. In addition, intervenors have not shown why circumstances have changed sufficiently to permit relitigation of issues already thoroughly litigated at the construction permit stage. Furthermore, even if Sunflower's factual assertions are accepted as true, there would be no basis for concluding that consideration of environmental factors favors abandonment or curtailment of Perry.

We need not decide whether the National Environmental Policy Act requires the Commission to consider need for power as part of its environmental review. Need for power generally is addressed in the Environmental Impact Statement and is considered by the Director of Nuclear Reactor Regulation in his determination of whether to issue an operating license. The Director's review satisfies NEPA requirements. We are not required by NEPA to adjudicate need for power.

D. Spent Fuel Storage Pond Contentions

(1) The Contentions

Sunflower contends that neither the Environmental Report nor the Final Safety Analysis Report adequately consider

> the health, safety and environmental effects of a possible major radiation release accident in the spent fuel storage pond [and the] . . . impacts [of such an accident] on the off-site emergency plans.

(Sixth ground of intervention.) At the Conference, Sunflower limited its contention to an allegation that the pool could flood over its banks (tr. 314); and it also limited this contention by stating its concern with the adequacy of preparations to continue the circulation of coolant in the pond in the event of an on-site radiation release or a power outage. (Tr. 305-306.) Sunflower also expressed its concern that the Perry site is in a flood plain and that releases of coolant mixed with radioactive material might therefore result in pollution of ground water. (Tr. 307.)

(2) Arguments Opposing the Contentions

Applicant and Staff both alleged in their written briefs that there is no basis for Sunflower's contentions. They state that intervenors should have specified the nature of the inadequacy of which they complained.

At the conference, Applicant argued that two recent cases had determined that contentions involving spent fuel pools used by pressurized water reactors were without merit. (Tr. 307-308.) With respect to the statements of Sunflower at the hearing, Applicant stated:

> There is absolutely no basis for any of these statements. The statement is that a halt in the circulating process of water for several hours could cause severe radiation release. The facts in [recently litigated] . . . cases show that if you loose coolant you may reach boiling. The pool may boil. That's not a safety concern. You only get to a safety concern when you fill the water down to a level that the fuel is exposed. Calculations for that in general show that you have several days. Those calculations I believe are reflected in the FSAR.

(Tr. 309.)

* * *

> You have many sources of redundant makeup water, some of which are seismically qualified.
>
> In this case we have Lake Erie. You can take a fire hose down to Lake Erie and run it up to the spent fuel pool.
>
> The FSAR .9.1-24 in volume 13 calculates that you have approximately 364 hours under the most conservative conditions . . . before you would get to 160 degrees Fahrenheit, let alone before you would get to boiling.

(Tr. 310. See also Tr. 312.)

Staff argues that all Sunflower had done was to question whether boiling off or flooding could happen at the spent fuel pool. (Tr. 304-312.) It also indicates that in the course of the conference the chairman asked petitioners "what is the deficiency you're alleging?" (Tr. 304.) However, petitioners never were able to specify a deficiency.

(3) Conclusion

We have decided to reject this contention. A careful review of the record shows that Staff is correct in arguing that Sunflower has indicated a concern about the spent fuel pool boiling over; but it has not alleged any specific deficiency in this plant.

Study of the record is persuasive. Here are the passages in which Sunflower tried to indicate the deficiency which it is alleging, in response to the Chairman's question:

> MR. LODGE (Sunflower): There are several problems that come to mind. One is the adequacy of preparations to continue the cooling process, the circulation of coolant in the pond in the event of a major on-site radiation release.
>
> * * *
>
> . . . There is a certain small amount of decay heat from the fuel storage pond. My understanding is it usually ranges up to approximately seven percent of the former energy increase.
>
> JUDGE BLOCH: Do you have any idea what length of interruption of coolant to the storage pond would be necessary for there to be an independent danger?
> MR. LODGE: Only very generally. I am aware that in 1980, that in intervention by a township government in a New Jersey licensing case for, I think, Salem III, and I do not have any cite information beyond that, that there were contentions raised by the township government . . . that the spent fuel pond raised a number of health and safety considerations, that a halt of the circulatory process in that pond for a period of, I believe, several hours duration could cause a very severe radiation release. . . .
>
> JUDGE BLOCH: Do you know if that pond is similar to the pond in this case?
>
> MR. LODGE: No, I do not.
> Another concern is the availability of energy to circulate coolant in the event of a major off-site power outage or an on-site power outage or some combination of the two which might retard the operation of the coolant circulation process.
> Also, with specific respect to the Perry site, the eastern portion of the county, at least along the lake, is in a flood plain. Thus, if there were liquid releases of coolant mixed with radioactive material, there would be a strong possibility of accumulation in ground water supplies as well as the soil surrounding the storage pond itself.

(Tr. 304-307.)

Our review of the specificity factors persuades us that this contention is not admissible as an issue. Generally, we have required that when Applicant relied on a particular section of its FSAR, intervenors must provide a basis either in reason or authority for rejecting Applicant's response. In this instance, Applicant did not cite a specific section of the FSAR in its response; consequently, a less rigorous standard of specificity may be appropriate. However, intervenors have failed to satisfy factor (1) because they have not indicated any deficiency in this particular plant. Knowledge that there may be some problem in spent fuel pools that may not even be similar to Perry's pool is not sufficient specificity either for factor (1) or factor (2).

Furthermore, risk from the spent fuel pool is not a subject amenable to popular opinion, similar to emergency planning issues which we discussed above. To raise a technical issue of this nature, there need be more than counsel's unsupported statement that release could occur through "boiling over." Without a plausible mechanism or accident scenario, Sunflower has failed to indicate what it seeks to prove in order to demonstrate that Perry's fuel pool should be considered a danger to the community. Hence, factor (3) also has not been satisfied.

In addition, we examined factor (6); but Sunflower's lack of knowledge of Perry's spent fuel pool precludes us from deciding that this contention should be admissible despite its technical shortcomings.

E. Hydrogen Bubble Contention

(1) The Contention

Sunflower alleged in its petition that Applicant had not documented the ability of the containment structures "to safely inhibit a hydrogen explosion of the magnitude and type which occurred at the Three Mile Island Unit 2 . . . ." (Seventh ground of intervention.) OCRE's contention 5 was similar to this Sunflower contention.

(2) The Regulatory Setting

As intervenors were informed at the conference (Tr. 320-322), this issue is controlled by Metropolitan Edison Company (Three Mile Island Nuclear Station, Unit No.1), CLI-80-16, 11 NRC 674 (1980). In that decision, the Commission stated its belief that:

> quite apart from 10 CFR 50.44, hydrogen gas control could properly be litigated in this proceeding under 10 CFR Part 100. Under Part 100, hydrogen control measures beyond those required by 10 CFR 50.44 would be required if it is determined that there is a credible loss-of-coolant accident scenario entailing hydrogen generation, hydrogen combustion, containment breach or leaking, and offsite radiation doses in excess of Part 100 guideline values.

[Emphasis added.] Id. at 675. (Ignore garbled transcript 320-322.)

Applicant and Staff claim this issue is barred from the proceeding by the publication of an Advance Notice of Proposed Rulemaking, "Consideration of Degraded or Melted Cores in Safety Regulation," 45 Fed. Reg. 65474 (1980). However, the Commission's decision in Three Mile Island 1 plainly contemplated the prompt initia-

tion of a rulemaking on degraded core conditions. Ibid. That rulemaking has commenced. Since the notice of that rulemaking does prohibit further Board consideration of hydrogen bubble contentions it appears appropriate to continue to apply the just-cited language of the Commission. Intervenors are not barred by the pending rulemaking from raising this question but they should be aware that issuance of a final rule would remove this question from our jurisdiction.

At the conference, intervenors were informed of the applicability of this standard to the hydrogen bubble question. Sunflower Alliance said that they could not meet this standard in the course of the Conference. (Tr. 322.) OCRE also expressed an inability to meet the standard. (Tr. 323.)

Since the conference, the Commission issued its decision in Duke Power Company (William B. McGuire Nuclear Station, Units 1 and 2) __ NRC __ (June 29, 1981). Although that Commission decision approved the result reached by the Licensing Board in that case, two of the four participating Commissioners were highly critical of the result and one, who refused to be critical because of the procedural posture of the case, said that technical questions are not properly resolved in licensing cases. Accordingly, the appropriate treatment of hydrogen contentions is somewhat unclear. We apparently could adopt Commissioner Gilinsky's view that the requirement of a specific credible accident sequence "amounts to saying that there is no need to protect against an accident that cannot be anticipated in detail, even when a closely related accident has already occurred."

Id., at p. 8. However, we find that the TMI decision is still law and that we are "forced to act in blinders." Id. at p. 10. Were intervenors to propose a specific accident scenario, we might adopt a broad view of what is "credible," in light of the accident at TMI and this ambiguous legal background, but without such a scenario we are now powerless to admit this particular contention.

Intervenors may desire to raise this contention at a later time. Should they do so they will need to meet the requirements of §2.714, governing late filings of contentions. Obviously, as time passes, the criteria of that section will be harder and harder to meet.

(3) Related Matter

In the same contention as the hydrogen bubble matter, Sunflower challenged the licensing of Perry "to emit certain minimal amounts of radiation." This contention was not discussed at the conference and is therefore considered to have been dropped. Had it been discussed, there are several independent reasons to consider it inadmissible, including the conclusion that it is a challenge to Appendix I to Part 50 and that it lacks specificity.

F. Tandem Licensing Concern

In the discussion of this item, Sunflower stated that it was not really a contention but a legal argument. Sunflower expressed concern that Perry Unit 2 is still 6 years from completion

and that it would not be appropriate for this Board to make recommendations in the course of this proceeding that would influence the licensing of Unit 2. The Board explained that a license would not be issued for Unit 2 until the Director of Nuclear Reactor Regulation determined that it had met the standards of 10 CFR §50.57; and that those findings require, among other things, that the facility be "substantially completed." In addition, the Board could retain jurisdiction of the licensing proceeding, if--as does not seem to have happened--there are pending issues specifically questioning the licensing of Perry Unit 2.

G. Quality Assurance Contention

(1) The Contention

Sunflower alleged, as ground 9(1), that:

> Applicants have demonstrated throughout the construction process their inability to comply with the Quality Assurance Program established by both the Commission and the Applicants. Applicant's construction practices, as demonstrated in the Commission's own inspection reports, are totally inexcusable.

In the course of the Conference, intervenors indicated that the failure of quality assurance was evidenced by a voluntary stop work order in February 1978. (Tr. 338-339.) Sunflower also alleged faulty quality assurance in the placing of concrete. (Tr. 340-341). It filed, at the request of the Board, several other reports by Commission inspectors finding that there were quality assurance deficiencies.

(2) Arguments Opposing the Contention

In their briefs, neither Applicant nor staff responded to this sub-contention. Applicant stated that the way in which the contention was worded misled it into believing that this particular wording was simply an introduction to the quality deficiencies that Sunflower listed as examples for the ninth ground of intervention. (Tr. 345.) (The listed examples are discussed in the next section of this memorandum. In the discussion of this contention, intervenor explained at the hearing that the listed examples really are separate contentions not related to its overall claim of lack of quality assurance.)

With respect to the substance of the contention, Applicant stated that quality assurance incidents had occurred, as they always do on large projects. They are not extraordinary. (Tr. 346.) Furthermore, none of the deficiencies assessed against Perry related to defects in the physical plant; all of the deficiences related to failure to properly implement the paper procedures and organizational requirements for quality assurance. (Tr. 618.) Applicant assures the Board that those problems were resolved through a complete restructuring of the quality assurance program, including a fourfold increase in the number of personnel involved. (Tr. 619.)

(3) Conclusion

This contention, simplified as follows, shall be admitted as an issue:

ISSUE #4: Applicant has an inadequate quality assurance program that has caused or is continuing to cause unsafe construction.

The Board shared in the confusion engendered in Applicant and Staff concerning the scope of this multi-faceted contention. (Tr. 348.) Our concern was heightened when we learned, near the conclusion of the hearing, that this contention was available in far more particularized form than Sunflower chose to make available to the Board. Sunflower's attorney admitted that he had petitioned United States Senator John Glenn for the cessation of all licensing of nuclear reactors and that he had used the deficiency reports in support of the petition. (Tr. 621-626.)

The fact that Sunflower possessed far more detailed information than it presented to the Board has a bearing on whether it can show cause for failure to comply with the Board's order to particularize this contention 15 days prior to the Conference. Under these circumstances, we have decided to treat this particular contention differently and to prohibit Sunflower from further particularizing its contention in the course of the Conference.

However, we have reexamined the language used by petitioner in its ground for intervention. Although we were confused because the introductory sentences were combined with the specific examples that followed, we now find that the wording of the contention indicated that the listed examples were not the only problem alleged by intervenors. Indeed, Sunflower referred specifically to "the Commission's own inspection reports" and alleged Applicant's general inability to comply with its Quality Assurance Program. This should

have alerted Applicant and Staff to consult with quality assurance personnel and to review the inspection reports to ascertain further what was being alleged. (Specificity factor (2).)

Close reading of the predicate to the additional, listed deficiencies also indicates that the passage should not have been misleading. The list is introduced as "the following but by no means the only deficiencies."

Of course, merely interpreting the allegation does not conclude our determination of its admissibility. This is particularly so because of the possible adverse safety effect of the treatment of this allegation in this proceeding.

An allegation of a deficient quality assurance program has the inherent danger that it can interfere with the efficient operation of the very program it questions, both at this plant and at others. A good, working quality assurance program identifies deficiencies for correction. If deficiencies are reported the system is working; and intervenor cannot fashion an admissible contention merely by filing deficiency reports without further explanation. Otherwise, we would create an adverse incentive for reporting deficiencies; and this incentive could seriously impact plant safety.

However, the allegations in this case do not stem solely from routine quality assurance reports. Perry's problems were serious enough to stop work and to require reorganization of its entire quality assurance program. Under these circumstances, adverse effects on quality assurance programs must be accepted

because of our primary responsibility to resolve contentions about plant safety.

Applicant's response concerning the complete correction of all deficencies is insufficient assurance. We carefully read the letter from William J. Dircks, Acting Director for Operations of the Commission, to Senator John Glenn and we find that less is resolved by this letter than does Applicant. In particular, Mr. Dircks confirms Sunflower's allegation that an immediate action letter was issued to Perry for "significant site construction practices . . . in January and early February 1978." Dirks's letter also stated that "Our Region III office instituted an augmented inspection program . . . to assure that the construction which had been completed under the previous program was acceptable."

However, the Dirks letter does not state findings from that "augmented inspection program" and consequently leaves Sunflower and the Board without any way of determining the impact of the quality assurance deficiencies on plant safety. We cannot tell at this time whether there may be serious construction deficiencies. Additionally, there is insufficient basis for us to conclude that the reorganization effected by Perry was adequate to cure the problem that had existed.

We find this contention to be admissable as an issue because of each of the specificity factors other than (4). However, in rewording the contention we have introduced the requirement that any quality assurance deficiency must be linked to a construction deficiency. That is, intervenors must provide us with a reason to

believe that quality assurance deficiencies have led to some safety defect in Perry.

H. Nozzle Cracking Contention

(1) The Contention

Sunflower alleged that General Electric boiling water reactors have developed cracking at the primary coolant nozzles, resulting in an ongoing investigation of these reactors. At the hearing, Sunflower could not expand on this contention. At that point, the Chairman stated that Applicant had cited §5.3.3.1.4.5 of the FSAR, which cited General Electric reports that were said to have fully responded to this problem. However, Sunflower's attorney stated that he had not read that part of the FSAR. (Tr. 351-352.)

(2) Conclusion

Intervenor's inability to comment on the cited portion of the FSAR is fatal to its contention. (Factor (1).) A contention need not be admitted just because an intervenor has become aware of a general problem relating to a particular kind of reactor. A contention must be sufficiently specific to show why a particular portion of the FSAR is deficient and to indicate some reason or authority in support of the asserted deficiency. Unless intervenor can satisfy the requirement of specificity, there is little reason to expect that it can contribute to the resolution of the particular problem. To the extent that there are unresolved generic problems related to nozzle cracking, the public interest will not go

unprotected. Staff, with possible oversight from the Board, will review those issues. However, when intervenor is unable to relate its contention to any specific occurrences at Perry and cannot respond to a section of the FSAR cited in a required filing, the specificity factors have not been satisfied and the contention should not be admitted.

I. Geologic Fault Contention

(1) The Contentions

Sunflower contends that Perry stands on a geologic fault and "has not been built to earthquake standards." At the Conference, Sunflower suggested that it was appropriate to relitigate this issue, which was extensively litigated in the construction permit stage, because a "mild tremor" had occurred in the general area. (Tr. 353.) Under questioning from the Board, Sunflower admitted that it was not alleging that the quake had exceeded the design specifications for Perry or that a fault on the site had become active during the tremor.

OCRE contends that the previous litigation concerning the fault on the Perry site was tainted because the investigation on which the findings were based was conducted by Applicant, which had a financial interest in the outcome of the proceedings. In addition, OCRE mentioned that a second fault (tunnel fault), which was discovered while a construction tunnel was being built, starts at the tunnel and extends under Lake Erie. (Tr. 360; see also Tr. 361 concerning a possible 22 inch slip of the strata.)

(2) Arguments Against the Contentions

Applicant argued that the tremor recently felt in the area had a Modified Mercalli intensity rating of two to three and was centered in the Cincinnati-Louisville area. Since the plant was designed for a quake with a Modified Mercalli intensity rating of six to seven, the occurrence of this weak, distant tremor is no ground for reconsidering fully litigated seismic issues. (Tr. 362.) On the other hand, Applicant admitted that the tunnel fault was a new issue.

In its brief, Applicant stated that seismic issues were fully discussed in FSAR §§2.5,3.2,3.7, and 3.10. At the conference, it stated that it had conducted a seismic investigation of the tunnel fault and that the results of the investigation are fully reported in the FSAR. (Tr. 362.)

(3) Conclusion

After reviewing the specificity factors, we conclude that this contention should not be admitted into this proceeding at this time.

The significance of a geologic fault was fully litigated during the construction permit stage of this proceeding. At that stage, both the Licensing Board and the Appeal Board concluded that the fault was of glacial origin and that it did not pose any threat to the safety of the power reactor. The existence of a distant mild tremor provides no ground for reopening that question or for ques-

tioning the safety of the Perry reactor, which is designed to withstand a far stronger quake.

The nature of the "tunnel fault" has, on the other hand, not yet been litigated. If intervenors had some specific reason for finding the analysis in the FSAR to be defective, this would be an issue not barred by previous litigation. However, Applicant cited its FSAR in its answer and intervenors have not shown any reason to believe that the Applicant's answer is incomplete. Had intervenor presented an expert opinion that this fault could become active, then the issue might have been accepted as a valid contention. However, at the present time intervenor has not provided any reason or authority to provide a basis for the admission of this contention.

The specificity factors involved in rejecting the contention concerning the tunnel fault are sections (1), (2), and (3). The contention concerning the preexisting fault and the tremor was rejected primarily because of factor (4).

J. Asbestos Contention

Sunflower contends that asbestos, used by the plant in cooling towers, will flake, causing asbestos to leak into the air and otherwise interfering with the safe operation of the plant. However, Applicant responded in its brief that this was a fully litigated issue; and Sunflower had no response. (Tr. 364.) Consequently, this contention is found to have been previously adjudicated and is not admitted as an issue.

K. High Water Table Contention

Since Sunflower had no response to Applicant's statement that this issue was fully litigated (Tr. 365), this contention is found to have been previously adjudicated and is not admitted as an issue.

L. Davis-Besse Contertion

Sunflower had contended that Cleveland Electric Illuminating Company (CEI) had failed to operate the Davis-Besse reactor properly. CEI, which the Applicant, stated that it is not the operator of the Davis-Besse reactor.

At the conference, Sunflower dropped this contention. (Tr. 365.) Consequently, it is not admitted as an issue.

M. Decommissioning Plan Contention

This contention has been limited to an assertion that Applicant has not satisfactorily explained what will happen to Perry once its useful life has expired. (Tr. 371-372.) Applicant contends that the regulations require the filing of a decommissioning plan prior to decommissioning but that no such plan is required as a condition of the issuance of an operating license. See 10 CFR §50.34(b). Applicant also contends that this allegation is the subject of an Advance Notice of Proposed Rulemaking on Decommissioning Criteria for Nuclear Facilities. 43 Fed. Reg. 10370. It argues

that the notice, including a statement of the questions addressed, indicates that this subject is exclusively the subject of rulemaking and ought not to be considered in this proceeding.

Although it is possible that an applicant for an operating license may need to address some facets of the decommissioning process in its application, we need not decide that issue. Sunflower's contention is very general. It states that Applicant has not adequately addressed the decommissioning process, but it provides no basis for a concern that Perry will not be safely decommissioned. The regulations require applicant to show its financial responsibility for accomplishing the decommissioning process. This is in itself some measure of protection for the public. Sunflower has not specified why this is not sufficient protection at the operating licensing stage. Consequently, it fails to meet factor (2) and on balance has not satisfied the specificity factors. We find that this contention is not admissible as an issue in this proceeding.

N. Final Safety Testing Contention

(1) The Contentions

Sunflower alleges that Perry will use a GE BWR/6 reactor and that it will therefore be a prototype plant. As a prototype plant, Sunflower argues that Perry must assure the public of its safety by performing a variety of tests, including: tests of core spray distributions, a full scale 30 degree sector steam test, a core spray and core flooding heat transfer effectiveness test, a

test of the pressure suppression design of the containment structure and a critical heat flux test. At the Conference, intervenor specified that the contention relates to §1.5.1.2 of the Perry FSAR. (Tr. 373.)

(2) Arguments Against the Contentions

Applicant's brief argues that all the suggested tests relate to the emergency core cooling systems of the Perry units and that Applicant has met the acceptance criteria in 10 CFR §50.46 and Appendix K to Part 50. Applicant interpreted this contention as an assertion that compliance with Appendix K was insufficient. It therefore argued that the contention constituted a challenge to the regulations.

At the conference, Applicant read into the record portions of the cited section of the FSAR. (Tr. 374-375.) However, Applicant was unable to respond to a Board question concerning whether the tests named by the Intervenors were in fact required to be performed in order to meet Appendix K requirements for "appropriate experimental data." (Tr. 379-380.) Furthermore, an additional Board question elicited the information that there are no other BWR 6 plants currently licensed to operate in the United States. (Tr. 380.)

Applicant also stated that testing of core spray and core flooding heat transfer effectiveness has been accomplished, citing the same sections of the FSAR cited by the intervenors. In the course of the citation, Applicant mentioned three licensing topical

reports in which the results of these tests were reported. These citations were said to respond to the first and third types of tests called for by intervenors. (Tr. 381-382.)

Staff indicated that §1.5.1.4 of the FSAR shows that testing of the performance characteristics of the Mark III containment has been completed and reported in a licensing topical report. (Tr. 386.) Staff also reads from the FSAR that critical heat flux testing has been completed. (Tr. 387; FSAR §1.5.1.5.)

(3) Conclusions

Four of the five tests which Sunflower seeks to have performed have been performed according to the sections of the FSAR from which Sunflower drew its contention. That the Board was required to read in detail the very materials on which Sunflower relies is a waste of the Board's time. Furthermore, it is the kind of error which Sunflower made elsewhere in its filings and which interferes with the confidence which the Board wishes to be able to place in the filings of each of the parties.

On the other hand, we conclude that the following issue should be admitted:

> ISSUE #4: The safety of Applicant's emergency core cooling system has not been demonstrated with appropriate experimental data because a full scale 30 degree sector steam test has not been performed.

Applicant has no good answer concerning the need for a full scale 30 degree sector steam test, and the need to perform this test prior to licensing is admitted as Issue #4. This contention meets specificity factors (1) and (2) and it has no demonstrated shortcomings.

The authority for the need for this test is Applicant's own FSAR. §1.54.1.2 states that General Electric's program to study core spray distributions "will be confirmed by a full scale 30° sector steam test." Furthermore, that section cites an unidentified Commission authority for the proposition that the overall method, which apparently includes the promised test, is an acceptable method. (See also Tr. 375-376.)

In the absence of any showing to the contrary by Applicant, this particular test appears to be required by Appendix K, Part I, ¶D6, which requires that "convective heat transfer shall be calculated using coefficients based on appropriate experimental data." Hence, Sunflower's contention is not a challenge to Appendix K; and there is little reason to question the degree of specificity of this contention, which relies on a detailed portion of Applicant's own FSAR.

O. Scram Discharge Volume Contention

This contention was developed by OCRE as its 13th contention, which cited the April 7, 1981 report to the Commissioners by Carlyle Michelson, NUREG 0785, resulting from an investigation into the June 28, 1980 partial scram failure at the Brown's Ferry, Unit 3, nuclear power plant. That report pointed out that a pipe break in the scram dicharge volume could lead to an unrecoverable loss of coolant accident. The admissibility of the contention is conceded both by Applicant and Staff, and it shall be admitted as an issue, as follows:

> ISSUE #5: Applicant has not demonstrated the safety of its reactor from an unrecoverable loss of coolant accident, which could occur from a pipe break in the scram discharge volume. See NUREG 0785.

In the course of the conference, Sunflower was unable to show how its 12th ground of intervention differed from OCRE's contention. Consequently, its 12th ground shall be considered to be included within Issue #5.

P. Scram System Contention

(1) The Contention

Sunflower alleges that Perry's GE-built scram system is ineffective and that modifications have been ordered by the NRC. It demands that licensing not be permitted until the scram system complies with NRC regulations. At the conference, Sunflower asserted that its contention rested on the loss of fluid testing program (LOFT), being conducted at Idaho Falls testing facility. (Tr. 392.) Sunflower further stated:

> It is my understanding, limited as that might be, that when a scram occurs that there is a triggering of the ECCS system, that the ECCS tests, the LOFT tests . . . are at least in part a computer simulated series of tests of ECCS reliability which have been taking place at Idaho Falls since approximatcly December of 1978; and that the contention of the intervenor is that the . . . relationship between the scram and the ECCS at the Perry units is such that the core cooling system may not operate reliably.

(Tr. 394-395.)

(2) Arguments Against the Contention

Applicant argues that it cannot understand what is being

alleged. It complains that intervenors have not identified aspects of current regulations that are not being met and has not specified how the scram system at Perry fails to meet those regulatory requirements. At the hearing, Applicant responded to intervenor's comments by stating that it did not understand what intervenor was saying and that a scram does not trip the emergency core cooling system (ECCS). Staff agreed with Applicant.

(3) Conclusion

This contention fails to notify Applicant of a deficiency in its scram system and, after consideration of the specificity factors, especially factor (2), the contention is not admitted as an issue.

While this contention might be interpreted to refer to scram system deficiencies uncovered at Brown's Ferry, Sunflower does not mention Brown's Ferry and does not question the adequacy of the new requirements the Commission instituted after Brown's Ferry. At the conference, Sunflower was informed that this contention might not be admitted unless it could specify a particular defect in the scram discharge system or in the ECCS. However, it could not do so. (Tr. 397.) Certainly, an intervenor wishing to introduce an issue into a hearing and thereby to parallel the review already being conducted by staff should have a greater degree of knowledge about the alleged deficiency.

Q. Airplane Crash Contention

(1) The Contention

Sunflower alleged that the FSAR's analysis of airplane crash probabilities is incorrect because of projected air traffic expansion at a local airport. At the conference, Sunflower explained that Lost Nation, a business airport, is reported in the FSAR as planning an expansion. Sunflower said that the FSAR did not use the planned expansion as a basis for calculating the probabilities of a crash. (Tr. 398-399.) Sunflower also stated that Lost Nation has 70,000 flights per year. (Tr. 404.) It alleged that the Concord airport is near the plant but that "no statements in the FSAR were made" relative to it. (Ibid.)

When asked to comment on the appropriateness of the Staff's guidelines for calculating the threshhold below which risk from Lost Nation might not have to be calculated, Sunflower argued that it should be permitted to make that argument at the evidentiary hearing rather than at this early stage of the proceedings. (Tr. 403-410.) (See subsection (2), below, for a statement of that staff guideline.)

(2) Arguments Against the Contentions

Applicant contends that FSAR §2.2.2.5 (volume 1) accurately discusses the air traffic considerations for local airports. Furthermore, it alleges that those considerations are correctly reflected in FSAR §3.5.1.6 (volume 6), which complies with the Standard Review Plan for "Aircraft Hazards." (Tr. 400, 401-402.)

Lost Nation airport is stated to be 15 miles from Perry. According to the Standard Review Plan, risk associated with that airport would be included in overall risk assessment only if the number of movements at the airport exceed 1000 x D^2 (the distance in miles [15] squared). Thus, for the number of movements at Lost Nation to matter they would need to amount to 1000 x 225, or 225,000 per year. (Tr. 406-408.) That would represent more than three times the current number of movements per year. (Tr. 408.) (We note that Sunflower may have been in error in stating that there were 75,000 "flights" per year since its data were drawn from the FSAR, which states that there are 75,000 movements per year, and there apparently can be more than one movement per flight.)

In addition, Applicant argues that the probability of air crash at Perry is far less than required. The probability of crash is calculated to be 6.21 x 10^{-7}. (Tr. 402.) Staff explained that the standard which is applied is 10^{-6}. (Tr. 403.) This means that the risk from air crash could increase by about 50 percent and still meet Staff's standards.

(3) Conclusion

Although this contention seems specific because it is derived from the FSAR and mentions specific airports and numbers of flights, this specificity is chimerical. It fails to meet the test of the specificity factors. It is particularly deficient in complying with factor (5).

Sunflower cited the FSAR in support of the proposition that air traffic at Lost Nation would grow. However, it does not provide a basis for estimating the extent of the growth. Since Lost Nation has been conceded to be 15 miles from Perry, the amount of growth would have to be very great to have any impact on the calculation of risk, particularly since there is no allegation that there are plans for any physical expansion of the airport. There would still need to be more than three times as many "movements" before there would be any impact on the risk calculation. Even at that point, in order to affect the overall risk calculation, there would need to be enough additional flights to increase the overall risk to Perry by over 50 percent. Sunflower has not provided any basis for expecting such an increase.

In the course of the conference, Sunflower indicated that it might like to challenge the staff guidelines regarding risk. However, there was nothing in its written contention suggesting any challenge to the guidelines and there was nothing said at the conference to suggest that Sunflower has, at the present time, any basis for challenging those guidelines. Consequently, we find that even if Sunflower's factual allegations are accepted in their entirety, they have no implications for this proceeding and this contention is not admissible as an issue.

R. ATWS Contention

Sunflower's fifteenth ground of intervention was:

> The applicant should be required to provide a redundant and diverse automatic shutdown system to mitigate the consequences of anticipated transients without scram. The FSAR

> indicates that applicant is not sufficiently protected against ATWS. It is now conceded that about 20 transients per year are typical of new reactors with about 6 transients per year typical after several years. Applicant's protection from ATWS is currently insufficient.

[Emphasis added.]

We have decided to admit a portion of this contention, as follows:

> ISSUE #6: Applicant should install an automated standby liquid control system to mitigate the consequences of an anticipated transient without scram.

At the Conference, the Board attempted to ascertain what part of the FSAR stated that there was insufficient protection against ATWS. It also attempted to find out who concedes that 20 transients per year are typical of new reactors. However, these efforts were to no avail. (Tr. 414-416.) Instead, the Board was given additional "data" that in each of the years 1978 to 1980 there have been over 2,300 anticipated transients without scram. (Tr. 416.) In view of the potentially serious nature of an ATWS event, these data seem exaggerated. Indeed, further questioning indicated that Sunflower was making no distinction between serious ATWS events (of which there have been none) and the many small malfunctions or mistakes reported on license event reports each year. (Tr. 417-418.)

It seems to us unlikely that a group that appears to know as little about ATWS as Sunflower could knowingly raise a substantial safety matter with respect to that long-recognized problem. However, the emphasized portion of Sunflower's contention raises an important question about which Applicant currently seems undecided.

On page 418 of the transcript Applicant said that Perry will have a standby liquid control system that will be automated. Later, Applicant corrected this impression and said it was not yet committed to an automated system at present but probably would be eventually. (Tr. 436-437.) We note that such a system is one form of "redundant and diverse automatic shutdown system," mentioned in the contentions. We note that the Staff has recommended an automated system as one of several requirements to aid in dealing with ATWS in GE BWRs and that the recommendation was made more than two years ago. (NUREG-0460, Vol. 4,) Anticipated Transients Without Scram for Light Water Reactors at p. 21).

In view of the potential importance of the ATWS problem and the apparently undecided state of the Applicant's approach to ATWS we have decided that Sunflower's contention should be interpreted to raise this narrow point. The specificity factors relied on are (2), (3) (here Applicant has supplied the factual basis) and (6). We have decided that the remainder of this contention is not admissible as an issue.

Factor (3) is most crucial to the refusal to admit portions of the contention.

S. Fast Flaming Contention

The contention that Perry's electrical wiring is susceptible to fast flaming was withdrawn voluntarily and shall not be an issue in this proceeding. (Tr. 418.)

T. Strength of Containment Contention

(1) The Contention

Sunflower alleged that, "It has not been established that the Mark III containment structure accounts for buckling." It also contends that there are dynamic and static loads which the shell must bear but which it is not designed to withstand. It states that "the final testimony on the structure has not been completed."

At the hearing, Sunflower could not specify the dynamic and static loads it was referring to. (Tr. 419-420.)

(2) Arguments Against the Contention

In its pretrial brief, Applicant objected that it did not know what dynamic and static loads intervenor was referring to and it cited §3.8.2.4 of the FSAR as accounting for buckling. At the conference, Applicant admitted that it had not finally tested its containment because construction has not been completed.

Applicant also asserts that issues concerning testing of a plant should be admitted only if there is some basis to suspect that there is something wrong or that there is some cause for concern. (Tr. 427.)

(3) Conclusion

This contention is not admissible as an issue. Applicant is disadvantaged by the lack of specificity because it does not know what loads are being alleged so it cannot respond concerning the ability of the containment to withstand them. (Factor (2).)

Nor has intervenor responded to Applicant's citation to its FSAR (Factor (1).)

The portion of Sunflower's contention concerning final tests of the shell requires further consideration. The problem with this contention is that it is correct in stating that a test which must be done has not been done; however, if Sunflower has its contention admitted on that ground alone, then any intervenor could have an issue admitted concerning every test which must later be performed.

We are unwilling to permit challenges concerning unperformed tests to go as far as Sunflower suggests. It cannot challenge Perry for not performing an unspecified test, whose safety importance is impossible to judge. Although we are sympathetic to the plight of intervenors who must consider contentions now about things that are yet to happen in the future, we believe contentions as to future events need be admitted only on highly important matters. It is for that reason that we admitted the emergency planning contention, which is an allegation that an explicit regulatory requirement has not been met. But we would not extend this same leniency to every contention regarding an uncompleted test.

Under the circumstances, an evaluation of the specificity factors requires us to conclude that no sufficient basis has been established for this contention. Should intervenors provide a more specific basis for suspecting the adequacy of the containment or the appropriateness of the planned tests, then they would be permitted to attempt to show cause for the late admission of such a

contention. As time passes, it will of course become increasingly more difficult to show cause.

U. Control Rod Ejection and Cooling Lake Contentions

These contentions were withdrawn and shall not be admitted as issues.

V. Blockage of ECCS Pump Suction Line Strainers

Sunflower contends that during a loss of coolant accident "thermal shielding and insulation may be ripped off or otherwise released or separated from in [sic] containment building piping where it would block off the drain of water, preventing it from being recirculated for cooling from the sump pump." However, Applicant represented that it has no sump pump which could be blocked off. Furthermore, Applicant cited FSAR §6.2.2.2 as explaining why insulation is very unlikely to block the strainers in the ECCS suction lines. Intervenor had no response to these factual assertions. (Tr. 432-434.)

Consequently, this contention shall not be admitted as an issue. In particular, Sunflower failed to show how its contention related to a specific cited portion of the FSAR. (Factor [1].)

W. Diesel Generator Contentions

(1) The Contentions

Sunflower alleges that:

> The diesel generator which powers components in the high pressure core spray system and the diesel generators which power the rest of the plant are not reliable in automatic start-up and operation because they are identical to generators that have failed. NUREG/CR-0660.

(See Tr. 443 concerning the correct identification of the cited document.) At the hearing, Sunflower asserted that at least one of Perry's diesel generators is "operating on standby continually and that [failure to lubricate]...the shaft bearings would cause a failure of the generator." (Tr. 438-439.)

OCRE's contention concerning diesel generators is similar, alleging an unspecified violation of 10 CFR Part 50, Appendix A, criterion 17, "Electric Power Systems." However, OCRE specifically requested that there be three independent diesel generating systems with at least two different suppliers/manufacturers for the units.

(2) Arguments Against the Contentions

Applicant stated in its brief that it has three diesel generators for each plant and that they are manufactured by two different manufacturers. Applicant also cites in its brief, FSAR §8.3 and argues that:

> Nowhere do Petitioners explain how the information in [NUREG/CR-0660] . . . , which predates the FSAR, negates the information submitted in the FSAR. General reference to a 250- plus page document cannot be considered a basis which is "set forth with reasonable specificity."

(3) Conclusion

Intervenors have not provided a basis for believing that

the Perry system for on-site generation of power is unreliable. The citation of NUREG/CR-0660, which was prepared before the FSAR, is not helpful because intervenors have not shown any deficiency in the FSAR related to that NUREG.

Intervenors did not respond at all to Applicant's citation of a portion of the FSAR. They were ignorant of even the most elementary aspects of the system about which they are concerned. Sunflower did not know how many generators Perry has. (Tr. 435,437-440.) It could not explain what it meant in its contention by saying that Perry's diesel generators are "identical to generators that have failed." (Tr. 435.) It stated, without a reference, and it repeated in response to a question, that Perry's generators "are running on a standby basis." (Tr. 437.) And when Applicant denied that any of its generators would be kept running, it did not not offer any response.

For its part, OCRE was unable to comment about whether Applicant had already implemented the safety measures it requested. (Tr. 441.) Even after OCRE's representative had consulted with Mr. Jeffrey Alexander at the suggestion of the Board (Tr. 441-442, 534), she was unable to comment on this issue. (Tr. 452-654 shows no such comment.) OCRE did assert, after consultation with Mr. Alexander, that it wanted "assurances that the generators have not been exposed to the elements outside, the rain, and have not been damaged in any way before being used." (Tr. 558.) But this was an entirely new assertion that was not related to the filed contention and the

Board's liberality in permitting clarification of contentions does not extend to entirely unrelated statements such as this.

Under these circumstances, intervenors are sorely deficient with respect to specificity factors (1), (2) and (3) and there is insufficient reason to admit the issue pursuant to factor (6).

X. Clam Biofouling Contention

(1) The Contention

OCRE alleges that Asiatic clams, corbicula fluminea, have displayed strong proclivities to foul steam-generating plants like Perry 1 and 2. It cites L. B. Goss, et al., "Control Studies on Corbicula for Steam Generating Plants," First International Corbicula Symposium, Tex. Christian U. at 139 (1977). It then asserts, without further citation to authority, that, "There is at least a fifty percent chance that Lake Erie is suitable for corbicula."

OCRE fears that clam fouling could "cause partial blockage of intake vessels and condensers, leading to a loss of coolant accident." It asserts that chemical control may not be environmentally acceptable and that Applicant should meet the operational and financial requirements for preventing or controlling fouling.

(2) Arguments Against the Contention

Applicant asserts that the cited Goss study

> only speaks to the presence of Asiatic clams in the Tennessee Valley region. It neither mentions Lake Erie nor predicts where they might occur. The contention alleges

> that '[t]here is at least a fifty percent chance that Lake Erie is suitable for corbicula", but provides no basis for this assertion.

In addition, at the conference, Applicant noted that OCRE had been asked what kind of research its expert had conducted as a basis for his conclusions; and OCRE chose to rely on the principles it asserts are found in Allens Creek rather than to respond to the question. (Tr. 547; see also Tr. 445-446 [request for information], Tr. 538-541 [refusal to supply requested information] and Tr. 552 [inability to supply Mr. Alexander's resume].)

Applicant also stated that in response to NRC Bulletin 81-03, its environmental consultant is looking again to reassure the company that these organisms are not found near Perry; but they never have been found in Lake Erie, where there are other power plants creating environmental conditions in which they presumably would thrive were they present. (Tr. 548, 549.) Furthermore, one can look for them; as Applicant allegedly has done and has recorded in its Environmental Report. (Tr. 548.)

There is, Applicant asserts, no possibility that clams could enter the closed cycle cooling system and cause a loss of coolant accident. Intake and discharge tunnels are stated to be 10 feet in diameter. Even were clams to enter, they could not reasonably be expected to close up so large a diameter. (Tr. 550, 558.)

(3) Conclusion

We conclude that this contention should be admitted as an issue, as follows:

ISSUE #7: Applicant has not demonstrated that Asiatic clams, corbicula fluminea, will not foul its safety-related cooling systems and it has not demonstrated how it could adequately cope with these clams should they be present."

The Board is displeased by the uncooperative attitude of OCRE with respect to this issue, but it has decided that it is not yet appropriate to impose sanctions, such as adverse factual findings, pursuant to its general authority. See 10 CFR §2.718. However, a future failure to supply requested information can result in a decision that OCRE is wrong on that issue and that the underlying facts are adverse to its position.

The principal issue concerning the admissibility of the contention is whether there is a basis for expecting these clams to appear in Lake Erie. None of the parties has asserted that they have been found there. However, Applicant did not persuade us that it used a biological search method that rules out the possibility that a very small number of corbicula, which could become a large number, are now present in Lake Erie. (See Tr. 545-550.)

The sole authority cited by OCRE for the likelihood of corbicula being present is the expert opinion of Mr. Jeffrey Alexander, who is principal representative of an intervenor in this case and therefore lacks credibility as an objective witness. In addition, Mr. Alexander refused to divulge the empirical basis for his conclusion or even to state the nature of the research on which the conclusion is founded. Furthermore, his status as a marine biologist and expert on clams rests on assurances given by another OCRE representative, Ms. Hiatt, who told the panel that he was unable to at-

tend the conference because he was taking examinations for his masters' degree.

There is little doubt in our mind that we could reject this contention for its lack of basis. However, we take official notice of a letter of May 22, 1981, from Mr. Richard P. Crouse of Toledo Edison to Mr. James G. Keppler, Regional Director of Region III of the Nuclear Regulatory Commission. In that letter, Mr. Crouse responded to IE Bulletin No. 81-03, dealing with corbicula. Toledo Edison's response was that:

> Corbicula is a fresh water clam that has recently been found in Lake Erie - the source and receiving water for Davis-Besse. Late last fall and again this spring, on May 14, 1981, field investigators from Detroit Edison discovered substantial numbers of Corbicula at the mouth of the overflow canal at the coal-fired Monroe Power Plant, located on the western shore of Lake Erie. The density of the clams was about 15 individuals per square foot.

Attachment at 1.

Under the circumstances, we must admit OCRE's contention. On the other hand, OCRE did not respond to Applicants' statements that clams cannot be found in the core or primary cooling system; and they are not known to have been found in such systems. Consequently, it does not seem credible to the Board that clam biofouling could cause a loss of coolant accident, in the accepted technical sense of that term. We interpret the contention to relate to the likelihood of corbicula fouling the auxiliary cooling systems. Since some of these systems are required for safety, the presence of corbicula is potentially a problem and one that

Applicant will have to account for unless it can prove that these clams are not found in Lake Erie.

Y. Steam Injury Contention

(1) The Contention

OCRE cites an accident at Sequoia Unit 2, in which five workers were burned while testing a valve on a steam line and it asserts that Applicant must show "that technicians and maintenance workers necessary to the safe operation of the plant are not injured by escaping steam." At the conference, OCRE added that "even if [injured] technicians are not necessarily nuclear operators . . . , it may lead to serious consequences within the plant."(Tr. 560.)

(2) Arguments Against the Contention

Applicant asserts that the Sequoia accident occurred at a Westinghouse-designed pressurized water reactor and that there is no reason to believe it could happen at a GE-designed boiling water reactor. Furthermore, the injured maintenance workers were not reactor operators and "there is no basis presented for any safety significance of the Sequoyah injuries or their applicability to Perry."

(3) Conclusion

This contention shall not be admitted as an issue. OCRE has not shown why valve maintenance would be a problem at this particular plant (specificity factor (3)) and, even if its

contention is accepted as true it has not provided a basis for concluding that an accident of this type would compromise the safe operation of the plant. (Factor (5).) Hence, OCRE has raised an issue concerning the safety of workers. This issue is relevant to the concerns of the Occupational Safety and Health Administration of the United States Government. However, OCRE has not demonstrated why this potentially important worker-safety issue also is an issue in Commission proceedings.

Z. Pressure Vessel Cracking

(1) The Contention

OCRE contends that cracks in the pressure vessel would be very difficult to detect or repair. It cites Nature, vol. 283 at 84 (February 28, 1980).

(2) Arguments Against the Contention

Applicant argues that the Nature article relates to a debate in the House of Commons concerning a series of pressurized water reactors being considered in Great Britain. Consequently, OCRE has not shown that there are special circumstances concerning cracking in the vessel of this particular reactor. Applicant and staff argue that this contention cannot be admitted under the rule in Wisconsin Electric Power Company (Point Beach Nuclear Power Plant, Unit 2), ALAB-137, 6 AEC 491 (1973) and Consolidated Edison Co. of New York (Indian Point Unit No. 2), CLI-72-29, 5 AEC 20 (1972). That rule assertedly requires a showing of special circumstances for the admissibility of pressure vessel cracking

contentions. (See Tr. 565-566.) Applicant also said, both in its brief and at the conference, that FSAR §5.3.1.6 contains Applicant's in-service inspection program, which it asserts is in compliance with the regulations. (Tr. 566.) Hence, the contention appears to be a challenge to Commission regulations, prohibited by 10 CFR §2.758.

(3) Conclusion

This contention is not admitted as an issue. Applicant cited a section of its SAR and OCRE did not show why that reference was not dispositive. (Specificity factor (1).) The contention also does not specify any particular deficiency in Perry and consequently does not fulfill specificity factor (2). Furthermore, OCRE has not demonstrated the presence of "special circumstances" under the Indian Point rule, an adjudicatory principle binding on us in addition to the requirement that a basis for a contention be specified. If that is not already enough reason to reject this contention as an issue, we also agree with applicant that it appears to constitute a challenge to Commission regulations concerning reactor vessel integrity. We conclude only that it appears to constitute a challenge to the regulations because it is not sufficiently specific to be sure.

AA. Reactor Pressure Vessel Machining Defects Contention

OCRE contends that Applicant must conduct further testing

of the reactor pressure vessel prior to the criticality stage because of defects which occurred during machining. It cites Interim Report 50-440-148 (November 5, 1975).

Applicant said that the cited Interim Report states:

> A hole for an LPRM [local power range monitor] in-core housing (aproximately 2 inch diameter) was drilled at incorrect coordinates in the bottom head of reactor pressure vessel 1 because of an error in transferring coordinates from a drawing to an operator work sheet. The CBI Nuclear Company system detected the deficiency ard notified General Electric Company who in turn notified the Cleveland Electric Illuminating Company. At present, the CBI Nuclear Company propo fix is to install a plug in the same manner as the LF n-core housings are installed.

Applicant then stated that it had filed a report that was acceptable to the Commission. It gave a citation for the report and for the inspection report that found it acceptable. Applicant also cites the specific FSAR sections which indicate which pressure vessel tests it will perform and argues that the further tests requested are provided for.

We find this contention to be not admissible as an issue. OCRE has not commented on how Applicant's solution to this problem is insufficient or on how its proposed tests are inadequate. (Specificity factor (1).) Furthermore, with respect to the tests Applicant is supposed to perform, there is insufficient specificity for applicant to know whether it is already planning to perform the same tests that are requested. (Specificity factor (2).) On balance, the specificity requirement is not fulfilled.

BB. Population Center Distance Contention

(1) The Contention

OCRE contends that Perry's population center distance is too short in light of the Rogovin report and the TMI experience. In particular, OCRE alleges that the hypothetical fission product release was too low.

(2) Arguments Against the Contention

Applicant's brief argues that this issue was previously litigated and was in any event, controlled by 10 CFR §§100.3(c), 100.11(a)(3) and 100.11(b), plus Technical Information Document 14844, which is referenced in §100.11. It argues that the Rogovin report did not recommend any alteration of the siting criteria for reactors that are now under construction and that the TMI radiation releases were far less than the dose assumptions contained in the regulations. Hence, use of the TMI releases would be less conservative than are existing regulations; consequently, the TMI experience does not constitute new circumstances which might permit relitigating previously determined issues. (See also Tr. 588-589.)

(3) Conclusion

This contention shall not be admitted as an issue.

Applicant analyzed this contention in its written brief and gave its reasons for believing that neither the Rogovin report nor the TMI experience provided new circumstances under which this previously litigated issue could be reopened. OCRE was unable to

respond to this point. (Tr. 590.) Consequently, it has not demonstrated grounds for reopening this issue. (Factor (4).)

It is of course possible that OCRE intends to directly challenge NRC regulations. If it intends to do so, it must file a petition pursuant to 10 CFR §2.758.

CC. CANDU Reactor Contention

(1) The Contention

OCRE asserts that "Applicant should be required to operate a CANDU nuclear steam system because of its lower occupational and environmental radiation doses. AECL-5523 (1975)." At the conference, OCRE contended that this facility could be substituted for the 65 percent-complete Unit 1 and would not require its abandonment.

(2) Arguments Against the Contention

Applicant says that OCRE has cited a 1975 report and has not cited any information that was not available during the construction permit stage. Consequently, 10 CFR §§51.21, 51.23 and 51.26 prohibit consideration of this issue at the operating license stage. Furthermore, Applicant says the proposed alternative would require abandonment of its facility, an unreasonable alternative that NEPA does not require to be considered. (Tr. 593.)

Staff states that the construction permit authorized the construction of the present two unit boiling water reactor station. It argues that an important purpose of the construction stage is to consider authorizing the construction of a particular reactor.

Consequently, this has been litigated and nothing new has been introduced. (Tr. 593-594.)

(3) Conclusion

This contention shall not be admitted as an issue.

At the construction stage, the principal issue for determination is the design of the facility. In reliance on that decision, Applicant is expending hundreds of millions of dollars. For that central issue to be relitigated at the operating license stage, startling new circumstances would need to be demonstrated. However, OCRE has not demonstrated anything new at all. Its information was available before the construction permit stage was completed.

Applicant also is correct in pointing out that this contention would require almost complete abandonment of its facility. OCRE has not provided any reason to doubt that abandonment of the design and construction plans, plus abandonment of completed construction, would cause Applicant to suffer substantially more than a $500 million loss. A statement that the loss will not occur by an OCRE representative with no relevant expertise is an inadequate basis to challenge this factual assertion. (Applicant's Brief on Contentions of Ohio Citizens for Responsible Energy, p. 23.)

Since OCRE has not provided a basis for estimating the extent of the evironmental benefits accruing from shifting to the ANDU alternative, it also has failed adequately to call into ques-

tion the entire NEPA balance which was struck at the construction permit stage. (See section IV,C. of this memorandum for a full discussion of what is needed to call into question the entire environmental balance.) (Factors (4) and (5).)

V. DISCOVERY AND PROCEDURAL RULINGS

A. Objections to Interrogatories

Discovery on admitted issues shall commence immediately, pursuant to 10 CFR §§2.740 to 2.744. As stated at the conference, parties are urged to include in interrogatories general statements of the purposes to be served by one or more of the interrogatories. They are also expected to conduct their discovery efficiently, pursuant to a reasonable written plan for the orderly discovery of information. (Tr. 630-631.) The written plan shall be served on the other parties by August 31, 1981.

The party that is served with an interrogatory should have notice concerning both the specific request and its general purpose. This will permit the responding party to offer to supply substitute information if the specific requested information is not available or is believed to be privileged.

In this proceeding, no objection to an interrogatory will be sustained unless the objector has made a good faith effort to communicate with the proponent of the interrogatory and to discuss the probable objections. ("Required communication.") During the required communication, the parties should discuss alternative ways to comply with the request and, if necessary, the need for an extended

time in which to reply. If a party asserts privilege for trade or commercial secrets, the parties ordinarily should negotiate a non-disclosure order so that the information may be exchanged despite the claim of privilege. Informal agreements reached in these conversations shall be binding, providing that they are not found to be contrary to the public interest and that a party files a memorandum of understanding within five days of the conversation and that memorandum is not objected to by the other allegedly agreeing party or parties.

Objections to interrogatories may be filed only if they state the date of the required communication and report with reasonable completeness the content of that communication. If the parties have failed to resolve a claim of privilege through negotiation of a non-disclosure order, the party objecting to the interrogatory must submit a reasonable proposal for such an order or reasons why such an order is not appropriate.

B. Coordination of Intervenors

The Board considers it helpful to the fairness and efficiency of these proceedings that intervenors coordinate their efforts. Effective coordination should conserve the scarce resources available to intervenors. It also should reduce needless duplication of filings and protect Applicant and Staff from the unnecessarily responding to redundant requests. In addition, the coordination process can establish an effective working relationship

which can form the basis for coordinated strategy in responding to summary judgment motions and conducting the hearing. Generally, the process should assist intervenors to present their arguments effectively.

At the discovery stage, intervenors should submit their interrogatories to the lead intervenor on an issue. To the extent that there are overlapping interrogatories on the issue, the lead intervenor should communicate with the others and suggest ways of reducing unneeded redundancy. It is the responsibility of the lead intervenor to act rapidly to determine the extent of overlaps and to discuss resolution of the overlaps with the other intervenors. However, the lead intervenor is not the representative of the other intervenors and has no authority to act without their consent. Should an intervenor insist on the inclusion of a particular interrogatory, that interrogatory must be included.

Our designation of lead intervenors is not conclusive. If intervenors prefer to redesignate a lead intervenor for an issue they may do so by agreement, filed with the Board. Even if agreement is not possible, intervenors may move for a redesignation.

The designated lead intervenors shall be: Issue #1, Todd J. Kenney; Issue #2, Sunflower; Issue #3, Sunflower; Issue #4, Sunflower; Issue #5, OCRE; Issue #6, Sunflower; Issue #7, OCRE.

C. Briefs on Admissibility of ATWS Contention

In its Brief on Contentions, Applicant argues that a contention on ATWS should be excluded from this proceeding because of the effect of a proposed rulemaking on that subject. In this in-

stance, the Board has not seen the preamble to the proposed rule so it does not know whether it is explicitly precluded from considering the issue. However, it is unusual for there to be an explicit preclusion of issues in a preamble and Applicant is understood to be contending that the issue is barred from the proceeding regardless of explicit language in the preamble. Consequently, we request briefs from the parties to help us to decide whether Applicant is correct. Briefs on this subject must be filed by August 12, 1981.

O R D E R

For all the foregoing reasons and based on consideration of the entire record in this matter, it is this 28th day of July 1981

ORDERED

(1) Petitions to withdraw as parties, filed by the Grand River Winery, Jenny Steindam and Harold Stendam, are granted.

(2) The petition to intervene filed by the Toledo Coalition for Safe Energy is denied.

(3) The petitions to intervene filed by Sunflower Alliance, Inc. (Sunflower), Northshore Alert, and the Ohio Citizens for Responsible Energy are granted.

(4) Sunflower's motion to dismiss the proceeding for lack of jurisdiction is denied.

(5) Sunflower's motion for a stay is denied.

(6) The contentions filed by the intervenors are found not to be admissible unless they are included in the list of issues in paragraph (7) of this order.

(7) The issues in this proceeding are:

Issue #1: Cleveland Electric Illuminating Company's (Applicant's) emergency plans do not provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property.

Issue #2: Applicant has not demonstrated that it possesses or has reasonable assurance of obtaining the funds necessary to cover the estimated costs of operation, including the costs of reasonably forseeable contingencies, for Perry Nuclear Power Plant, Units 1 and 2.

Issue #3: Applicant has an inadequate quality assurance program that has caused or is continuing to cause unsafe construction.

Issue #4: The safety of Applicant's emergency core cooling system has not been demonstrated with appropriate experimental data because a full scale 30 degree sector steam test has not been performed.

Issue #5: Applicant has not demonstrated the safety of its reactor from an unrecoverable loss of coolant accident, which could occur from a pipe break in the scram discharge volume. See NUREG 0785.

Issue #6: Applicant should install an automated standby liquid control system to mitigate the consequences of an anticipated transient without scram.

Issue #7: Applicant has not demonstrated that Asiatic clams, corbicula fluminea, will not foul its safety-related cooling systems and it has not demonstrated how it could adequately cope with these clams should they be present.

(8) Each admitted issue shall be interpreted in light of the discussion in this memorandum.

(9) Each interrogatory or set of interrogatories shall be accompanied by a statement explaining its purpose.

(10) Parties must consult informally and attempt to resolve problems concerning interrogatories before they file formal objections to those interrogatories.

(11) By August 31, 1981, parties shall serve on one another their written discovery plans.

(12) Intervenors whom the Board has selected as lead-intervenors for each Issue shall perform coordinating functions in an attempt to avoid unnecessary overlaps and resulting delays.

(13) Parties may file briefs by August 12, 1981, on the effect of the proposed rulemaking on Anticipated Transients Without Scram on the admissibility of Issue #6.

(14) Pursuant to 10 CFR §2.751a(d) objections to this Order may be filed by a party within five (5) days after service of this order, except that the regulatory

staff may file objections within ten (10) days after service.

(15) This is an interlocutory order, subject to infrequently granted discretionary interlocutory review pursuant to 10 CFR §2.718(i) and 2.785(b)(1), but not appealable except to the extent specified in paragraphs (16) and (17).

(16) To the extent that this Order grants petitions for leave to intervene and a request for a hearing, it is appealable to the Atomic Safety and Licensing Appeal Panel within ten (10) days after service of this order, pursuant to 10 CFR §2.614a(c).

(17) To the extent that this Order denies the petition to intervene of the Toledo Coalition for Safe Energy, it is appealable to the Atomic Safety and Licensing Appeal Panel within ten (10) days after service of this order, pursuant to 10 CFR §2.614a(b).

ATOMIC SAFETY AND LICENSING BOARD

Peter B. Bloch, Chairman
ADMINISTRATIVE JUDGE

Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE

Mr. Frederick J. Shon
ADMINISTRATIVE JUDGE

July 28, 1981

Bethesda, Maryland