



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:  
Charles Bechhoefer, Chairman  
Dr. Frederick P. Cowan  
Mr. Ralph S. Decker

SERVED MAY 6 1981

In the Matter of  
CONSUMERS POWER COMPANY  
(Midland Plant, Units 1 and 2)

Docket Nos. 50-329 OM  
50-330 OM

Docket Nos. 50-329 OL  
50-330 OL

May 5, 1981

PREHEARING CONFERENCE ORDER  
(Ruling Upon Applicant's Motion To Defer  
Consideration of Seismic Issues Until The  
Operating Licensing Proceeding and upon other matters)

On April 27, 1981, the Licensing Board conducted a prehearing conference at Midland, Michigan.<sup>1/</sup> Participating were representatives of Consumers Power Co., the Applicant in the operating license (OL) proceeding and the permit holder in the OM proceeding dealing with the Order Modifying Construction Permits (hereinafter Applicant); the NRC Staff; Barbara Stamiris, an intervenor in the OM proceeding, pro se; Wendell H. Marshall, a representative of the Mapleton Intervenors, an intervenor in the OL proceeding; and Mary Sinclair, an intervenor in the OL proceeding, pro se.

<sup>1/</sup> The conference had earlier been scheduled for different dates; the April 1, 1981 notice of the April 27 conference was published at 46 Fed. Reg. 21125 (April 8, 1981).

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At the conference, most of the time was spent considering and ruling upon the Applicant's Motion To Defer Consideration of Seismic Issues Until The Operating License Proceeding. Our decision on that motion appears in Part I of this Order. Other matters dealt with at the conference are summarized in Part II of this Order.

I.

On March 18, 1981, the Applicant filed a motion seeking to defer consideration of seismic issues "until" the OL proceeding.<sup>2/</sup> By responses dated April 6<sup>3/</sup> and 7, 1981, respectively, Barbara Stamiris and the NRC Staff opposed the motion. We heard oral argument on the motion at the prehearing conference on April 27, 1981 (Tr. 832-905, 930-943). As announced at the conference (Tr. 942), we are accepting an agreement worked out (with our encouragement) between the Applicant and NRC Staff, to which no party objected, and are disposing of the motion on that basis.

A. The seismic issues in question concern the identification of the Safe Shutdown Earthquake (SSE) which is to be utilized in evaluating the adequacy of the site of the Midland facility and in determining the ground

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<sup>2/</sup> The motion was supported by the affidavits of two Consumers Power Co. employees: James W. Cook, the Vice President in charge of Project Engineering and Construction and Dr. Thiru Thiruvengadam, the Section Head, Civil Engineering, Midland Design Production Department.

<sup>3/</sup> By letter dated April 14, 1981, Ms. Stamiris advised us that the other parties had agreed that her response to the Applicant's motion could be submitted at the same time as the Staff's response (April 7, 1981) and that she inadvertently had omitted this information from her response (which otherwise should have been submitted by April 2, 1981).

acceleration which safety structures must be designed to withstand. As stated by the Appeal Board, in a related context, a "plant has to be capable of being safely shutdown despite the effects of whatever vibratory ground motion might be experienced at the site as a result of the SSE". Dairyland Power Cooperative (La Crosse Boiling Water Reactor), ALAB-618, 12 NRC 551 (1980), review declined by Commission, April 21, 1981.

1. The Applicant's motion purportedly stemmed from a discussion at a prehearing conference on January 27, 1981 (Tr. 775-792) concerning issues to be heard at the forthcoming hearing on soils settlement issues in the consolidated OM-OL proceeding. The Applicant sought to have the soils settlement issues (including actions to be taken to correct any settlement which had occurred and to preclude or limit further settlement) heard on the basis of the seismic evaluation performed during the construction permit review. That review ascertained that the SSE would produce a ground acceleration at the site of 0.12g. See Staff's Safety Evaluation, construction permit stage, dated November 12, 1970, p. 13.<sup>4/</sup> The Applicant would have various corrective actions which might be imposed in the OM proceeding (including such items as additional caissons or piles installed to alleviate the settlement conditions) evaluated on the basis of ground acceleration of

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<sup>4/</sup> What is today known as the SSE was, in 1970, denominated as the Design Basis Earthquake. The Safety Evaluation stated that the Applicant had agreed to design the safety features of the facility to withstand the 0.12g acceleration. The initial decision of the Licensing Board at the construction permit stage stated only that "[t]he Staff and their consultants have reviewed and found the seismic design methods acceptable." LBP-72-34, 5 AEC 214, 219 (1972).

up to 0.12g. It sought to defer any further consideration of the seismic questions to what it termed the OL proceeding.

In seeking such deferral, the Applicant began by expressing confidence that the 0.12g ground acceleration value ascertained at the construction permit stage would be sanctioned after a new review. But it asserted that, because of the Staff's inability to be ready to address the seismic issues at the hearings currently scheduled for this July, "deferring consideration of seismic issues, which are not yet ripe for adjudication, is important to achieve expeditious resolution of soil settlement issues, as mandated by the Commission." The Applicant went on to assert that, because a design basis earthquake already had been established for this facility, a change would be a "backfit" decision which, pursuant to 10 CFR § 50.109, would require a finding that such action will provide "substantial additional protection" to the public health and safety. Finally, the Applicant acknowledged that seismic input must be used in connection with some of the remedial work it is proposing, such as the installation of caissons under the auxiliary building. But it claimed that any uncertainty in seismic design of the remedial work represents only a financial risk to itself--a usual ingredient of an operating license review which, because it will be considered prior to operation, presents no health and safety risk. The Applicant stated that some conservatism is contained in the proposed remedial design (Cook affidavit, p. 4; Thiruvengadam affidavit, pp. 2, 7-8; Tr. 893-894) but was unable to quantify that conservatism.

2. The Staff's SSE position was first formalized in a letter dated October 14, 1980, from Robert L. Tedesco, Assistant Director for Licensing, NRC, to Consumers Power Co., titled "Seismological Input for the Midland Site".<sup>5/</sup> At the April 27 conference, we were advised that the letter was the culmination of a series of communications and discussions between the Applicant and Staff (Tr. 869-870). The October, 1980 letter took the position that the establishment of acceptable seismological input parameters is an open item in the Staff's radiological safety review of the OL application. At the conference, the Staff attributed the open item to a progression during the last ten years in the state-of-the-art with respect to seismology (Tr. 867-869). The letter went on to state that "[r]esolution of this open item is also necessary for approval of the remedial actions associated with the soils settlement matter \* \* \*." Further, it suggested two approaches which the Staff would find acceptable--one of which was based on ground acceleration of 0.19g at the site, and the other of which required further information than had been provided the Staff to ascertain the appropriate ground acceleration.

As a result, the Staff opposed granting the Applicant's motion, because (1) the instant proceeding is both an enforcement (OM) and a licensing (OL) proceeding (the two having been consolidated for this purpose); (2) Applicant's affirmative defense in the OM proceeding could involve proposed remedial actions which require seismic considerations; and

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<sup>5/</sup> A copy was served on all parties.

(3) the Licensing Board in deciding the issues in this proceeding could modify the construction permits by its findings on certain design matters which require seismic considerations.

3. In opposing the Applicant's motion, Ms. Stamiris pointed out that seismic issues were encompassed within her contentions 1b, 4c and 4d (which have been admitted to the OM proceeding), as well as within Part II of the modification order, and hence are a necessary part of the OM proceeding. She also claimed that deferring consideration of seismic considerations to a later stage of the OL proceeding will produce a risk to the public health and safety. She illustrated this claim with an example of the diesel generator building as to which, she asserted, a certain option for correction of the soils settlement questions which once might have been a preferred choice (removal and replacement of fill soil) is now no longer feasible in light of the construction which has already been carried out.

B. 1. Before addressing the merits of the motion before us, we turn to several peripheral issues which have been raised.

First, the Applicant claimed that it has been misled by Staff counsel into believing that the seismic issues would be considered in parallel with but not as a part of the other soils settlement issues. It asserted that the Staff counsel reneged on an agreement to proceed in this way. The Staff strongly denied doing so. Ms. Stamiris claimed that, even if such agreement had existed, it is irrelevant to the motion before us, that two parties to a proceeding cannot in any event bargain away another party's right to litigate issues having public health and safety

ramifications. Given the agreement reached by the parties, we need not resolve these claims--except to note our concurrence with Ms. Stamiris' observation that any agreement between counsel for the Applicant and Staff to this effect would be "irrelevant" in light of our duty to consider all aspects of the public interest (including Ms. Stamiris' contentions).

Second, we do not agree with the Applicant that the adoption in this proceeding of an SSE with ground acceleration greater than 0.12g would be subject to the "backfit" requirements of 10 CFR §50.109 (which, in effect, would require a demonstration of "substantial, additional protection which is required for the public health and safety \* \* \*"). Those requirements generally permit the Commission, as an enforcement matter and where such criteria are satisfied, to require the addition, elimination or modification of structures, systems or components of a facility after a construction permit has been issued. But they neither purport to supersede, nor supersede, any particular requirements which are otherwise imposed. For example, the issuance of an operating license, or an amendment to a construction permit or operating license, is subject to specific provisions (see, e.g. 10 CFR §§ 50.34(b), 50.50, 50.91); changes brought about by applications for operating licenses or amendments to construction permits or operating licenses are subject to the specific provisions applicable thereto rather than the more general backfitting requirements. At the April 27 prehearing conference, the Applicant appeared to concede that this is so, although correctly describing the action as being analogous to a backfit even though not technically governed by the backfitting provisions of 10 CFR §50.109 (Tr. 853).

The seismic questions which the Applicant sought to defer are significant to public health and safety, and they are specifically required to be considered in the OL review. See 10 CFR § 50.34(b)(1). That being so, we will not consider the seismic questions under the backfitting criteria but, rather, under normal standards for evaluating operating license applications.

As a final preliminary matter, we note that the Applicant was seeking deferral of the consideration of seismic questions to the "OL proceeding." As the Staff pointed out, however, by virtue of the consolidation ordered by our Prehearing Conference Order dated October 24, 1980, the OM proceeding has in fact been consolidated with issues in the OL proceeding relating to soil conditions and plant fill materials. The seismic issues would fall under that general rubric. For that reason, we have interpreted the Applicant's motion as seeking deferral of any seismic issues until the portion of the OL proceeding which is to follow our consideration and ruling on the soils settlement questions.

2. On the merits, the Applicant sought deferral because it believed that the delay which would ensue from hearing the seismic issues along with (or at least prior to the resolution of) the soils settlement issues would have an adverse impact on its scheduled completion of the facility. It claimed--and the Staff conceded--that the Staff's review of seismic issues could not be completed in time for the hearing scheduled to begin in July, 1981. At the prehearing conference on April 27, Staff counsel's best estimate for the completion of the seismic review was August 15, 1981. Preparation of testimony would take an additional 30 days, and the hearing could commence three or four weeks thereafter. These estimates all

assumed that the Applicant will supply additional information sought by the Staff by May 15, 1981. See Tr. 832-835. The Applicant in addition perceived a substantial period for determining whether new and existing structures conform to new criteria (Tr. 846, 857-860). The Applicant claimed that it has voluntarily halted soils related remedial work in deference to the concerns expressed by the Staff in the modification order, and that it must have the Board's resolution of the soils settlement issues by the end of this year in order to meet its projected construction schedule (Cook affidavit, p. 2).

We recognize that, if seismic matters are included in the soils settlement hearings, it is unlikely that we can reach a decision by the end of this year. On the other hand, the weak link in the Applicant's position is the assumption that the soils settlement questions can be "resolved" without reference to seismic considerations. True, if we were to find that the precise remedy requested by the modification order were warranted--i.e., cessation of all soils related construction activities--a prior review of seismic issues would be unnecessary. (See Tr. 840.) But if the Applicant's desired construction schedule is to have any relation to reality, we do not perceive that the Applicant would accede to a resolution of this type. On the other hand, as the Staff cogently pointed out, other proposed resolutions do involve seismic considerations. The Applicant did not deny this (Cook affidavit, pp. 2-3; Thiruvengadam affidavit, pp. 6-7). That being so, we fail to see how we could meaningfully resolve the soils settlement questions--except to grant the full relief sought by the modification order--without ruling upon at least certain of the seismic parameters of the proposed remedial actions. To grant the Applicant's

motion in its entirety and defer the consideration of seismic issues to a later stage of the OL proceeding would likely strip us of the tools for reaching an informed decision on the soils settlement questions.

In this connection, it should be stressed that more than a theoretical possibility of deviation from the already approved SSE is involved. As reflected in Dr. Thiruvengadam's affidavit (at pp. 3-4), and as acknowledged by the Staff at the April 27 conference (Tr. 867-869), there appear to be technical considerations (i.e., the dispute over the proper tectonic province) which at least present a valid basis for questioning the continuing validity of the earlier SSE determination. We note that, if the Central Stable Region being advocated (according to Dr. Thiruvengadam) by the Staff for the governing tectonic province were found to be applicable, the 0.20g ground acceleration adopted by the Staff in the Tyrone proceeding might as well be applicable here.<sup>6/</sup> In any event, despite certain factual differences, the considerations which convinced the Licensing and Appeal Boards in the La Crosse proceeding to insist on a new SSE determination appear to us to be equally applicable here. See Dairyland Power Cooperative (La Crosse Boiling Water Reactor), LBP-80-26, 12 NRC 367, 376-378 (1980); ALAB-618, supra.<sup>7/</sup>

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<sup>6/</sup> See Tyrone SER, NUREG 75/102, October 1975, Section 2.5.2. The 0.20g ground acceleration adopted in Tyrone was derived from the same earthquake as the 0.19g acceleration which the Staff has proposed to use here.

<sup>7/</sup> Using the Appeal Board's terminology, the 0.12g acceleration value is a "suspect" here as it was in La Crosse.

Faced with these considerations--and particularly the fact that we are being asked to approve construction involving seismic considerations--we inquired whether at least the type of seismic inquiry which would be performed at the construction permit stage could be performed here fairly expeditiously. In response to that inquiry, the Applicant and Staff agreed that inquiry into the following subjects could be performed in the time frame outlined by the Staff (pp. 8-9, supra):

1. Establishment of seismic criteria, including determination of an SSE, ground motion, and associated response spectra.
2. The analysis model for each structure as modified by the remedial action, which would include the basis on which the spring constants are to be derived.

This would leave for the later stages of the OL proceeding the difficult technical questions of whether the structures as built in fact conform to the newly determined seismic criteria. New structures would have to be analyzed and existing structures reanalyzed under such criteria later in the OL proceeding.

This division of issues is comparable to the normal division of issues between the construction permit and OL stages, and it does not require us to reach a decision approving the construction of certain structures on the basis of potentially invalid criteria. While some delay may result, it is not likely to be significant or to affect adversely the Applicant's schedule for operation. No party objected to this division. That being so, we accepted it (Tr. 942).

3. Given our decision stated above, we need only note our agreement with Ms. Stamiris that the resolution of all seismic issues relating to corrective actions cannot reasonably be left for consideration at a later stage of the OL proceeding, within the meaning of 10 CFR §50.35(a)(2).

C. For the reasons stated above, it is

ORDERED

That the questions raised by the Applicant's "Motion To Defer Consideration Of Seismic Issues Until The Operating License Proceeding" be resolved in accordance with the agreement described above.

## II.

A. Several discovery motions had been filed by the Applicants and Staff regarding discovery requests submitted by each of them. Some were predicated (in terms of relevancy) upon our response to the motion regarding seismic matters. At the conference, the Applicant and Staff announced that they had reached agreement on the discovery matters outstanding between them (Tr. 907-908). We accepted that agreement (Tr. 909). The motions to compel discovery filed by the Applicant and Staff with respect to discovery between them are therefore dismissed as moot.

B. Several motions also have been filed concerning Ms. Stamiris' discovery requests. Ms. Stamiris has filed several motions against the Applicant to compel discovery, whereas the Applicant has filed objections to several of Ms. Stamiris' requests. We asked questions regarding these motions but, in the absence of our receipt of all responses to these motions, we deferred ruling pending such receipt.

C. In our Prehearing Conference Order dated October 24, 1980, which denied intervention in the OM proceeding to Wendell H. Marshall but permitted him to participate in the consolidated proceeding by virtue of his status as an intervenor in the OL proceeding, we ruled that Mr. Marshall would be permitted to present witnesses in the OM proceeding subject to approval by this Board. Mr. Marshall has proposed two witnesses, one by mailgram dated February 21, 1981, and the other at the prehearing conference (Tr. 951-952). Mr. Marshall was unable to specify the substance of the testimony he proposed to present (Tr. 953). Nonetheless, the Applicant (and other parties) had no objection per se to Mr. Marshall's presentation of witnesses but reserved the right to challenge the qualifications of the witnesses and the relevance of proposed testimony.

Accordingly, we ruled that Mr. Marshall could file proposed testimony on the same schedule as other parties (i.e., by June 8, 1981) and that other parties would have the right to challenge the admissibility of the testimony on the grounds of its relevance or the expertise of the witness. We explained to Mr. Marshall that the testimony, even if sponsored by a qualified expert, had to be directly material to the particular issues under consideration in the soils settlement portion of the proceeding.

D. Ms. Sinclair mentioned the discovery of some new seismic data which could be pertinent to this proceeding (Tr. 886). We asked the Staff to make certain that the information was available to the Staff's technical reviewers (Tr. 890-891).

E. On February 11, 1981, Sharon K. Warren, an intervenor in the OM proceeding, notified us of her withdrawal from the proceeding. We accepted the withdrawal but requested the Applicant and Staff to make certain that the substance of her contentions (which parallel to some extent questions raised by the modification order) is covered in their testimony (Tr. 907).

F. After discussion with the parties, we adopted the following revised schedule:

Filing of prepared testimony:	June 8, 1981
Evidentiary hearings:	July 7-11
(to the extent required)	July 13-17
	July 27 or 28-August 1
	August 3-7
	August 17-22

Further evidentiary sessions will be held with respect to the seismic questions considered in Part I of this Order, at a time and place to be announced. Limited appearance statements will be heard at the commencement of the evidentiary session on July 7.

For the information of the parties, the scheduled evidentiary hearings will be held at the Midland County Courthouse Auditorium, 301 W. Main Street, Midland, MI 48640.

FOR THE ATOMIC SAFETY AND  
LICENSING BOARD

*Charles Bechhoefer*  
Charles Bechhoefer, Chairman  
ADMINISTRATIVE JUDGE

Dated at Bethesda, Maryland  
this 5th day of May, 1981.