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August 27, 1982

Peter B. Bloch, Esquire
Administrative Judge
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Board Panel
U.S. Nuclear Regulatory
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Washington, D.C. 20555

Dr. Oscar H. Paris
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Mr. Frederick J. Shon
Administrative Judge
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Washington, D.C. 20555

RE: In the Matter of Consumers Power Company
(Big Rock Point Nuclear Power Plant), Docket
No. 50-155-OLA (Spent Fuel Pool Modification)

Gentlemen:

In accordance with Consumers Power Company's
("Licensee") policy of full disclosure, I am enclosing a copy
of Mr. Vincent's August 5, 1982 letter to Mr. Crutchfield of
the NRC Staff. This letter pertains to the seismic issues
underlying O'Neill Contention II.C.

Sincerely,

Joseph Gallo
Joseph Gallo

Encl.: As stated.

cc : Service List



**Consumers
Power
Company**

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COPY

August 5, 1982

Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-06 -
BIG ROCK POINT PLANT - SEP TOPIC III-6, SEISMIC DESIGN CONSIDERATIONS

In a letter dated February 2, 1982, Consumers Power Company indicated that by June 1982, we expected to submit results of various seismic analyses for the Big Rock Point Plant. The purpose of this letter is to discuss the current status of our efforts and the anticipated general schedule for remaining work as well as to propose a meeting in the near future to discuss criteria for those remaining efforts.

In our letter of August 26, 1981, a report was submitted which provided analyses of the safety-related plant structures and the primary coolant system. As you are aware we are now engaged in extensive interaction with the staff to resolve questions and comments on that report. These questions are being addressed insofar as possible as they are raised during the staff reviews which are now in progress.

In April, 1982, we became aware of new NRC concerns about possible anomalous soil conditions at the Big Rock Point site. These concerns had the potential for changing the NRC developed site specific response spectrum for the site. There was even uncertainty as to whether the .12 R.G.1.60 spectrum used for the structural analyses would continue to be acceptable to the staff as a conservative enveloping spectrum. At that time Consumers Power Company was in the process of having the structural analyses rerun using the site-specific spectrum to obtain revised floor response spectra for various locations of interest within the structures. These floor response spectra then were to be used as inputs to other analyses for piping, equipment, etc. Because of the uncertainty regarding the fundamental spectrum upon which all other work has to be based, analyses of other piping and equipment could not reasonably

DMCrutchfield, Chief
Big Rock Point Plant
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continue. This was discussed with the staff by telephone in early May, and in a letter dated May 5, 1982 (letter subsequently withdrawn on May 14, 1982 for resubmission of enclosed report as evidence in the Spent Fuel Pool proceedings).

In a letter dated June 30, 1982, the NRC confirmed the adequacy of the original site-specific spectrum. This letter still does not allow completion of final floor response spectra, however, because of questions which remain concerning the treatment of soil-structure interaction in the analyses. This item will be discussed further in a meeting with the NRC scheduled for August 5, 1982. In essence this open issue concerns the staff's desire for multiple analyses of the structures with assumed variations in soil properties (not typical design practice) as opposed to the Consumers Power Company/D'Appolonia approach which included a single analysis using soil properties based on actual site test data. Under the staff's approach the floor response spectra to be used presumably would be the most conservative spectra determined by the multiple structural analyses. Because of this remaining uncertainty we are still unable to finalize floor response spectra and proceed with other analyses.

Although other analyses have not been completed, work has continued in the development of piping system computer models and in other areas in which productive work can be performed prior to finalizing the floor response spectra. Additional uncertainty has been introduced, however, with the issuance of an NRC letter dated July 26, 1982 (received August 2) entitled "Staff Guidelines for Seismic Evaluation Criteria for the SEP Group II Plants." Although our review of this document is not complete, we do note some differences with the criteria developed by Consumers Power Company and discussed in draft form during a staff visit to Big Rock Point on March 4 and 5, 1982. We intend to discuss these criteria in more detail with the staff in the near future.

For our mutual future planning, the following represents the approximate lengths of time which will be required to complete the necessary plant seismic analyses. Note that the listed time periods can not start until floor response spectra are finalized; generation of final floor response spectra will not be complete until approximately two months after current staff concerns about soil-structure interactions have been completely resolved. The approximate time periods are:

Completion of Piping analyses and design of support modifications (if any)	12-18 months
Completion of Equipment anchorage analyses	4 months
Completion of equipment nozzle analyses	Following relevant piping analyses

To discuss and resolve questions on criteria to be applied to this work, it is proposed that a meeting be held between the staff, Consumers Power Company and our respective consultants during the week of August 23, 1982 (subject to availability of consultants). Final arrangements for this meeting will be made through the Big Rock Point Project Manager.

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On July 27, 1981, Consumers Power Company provided a detailed discussion of the bases for our conclusion that the seismic hazard to Big Rock Point was acceptably low to allow plant operation to continue during Consumers Power Company analysis/modification (if any) efforts. An NRC SER, issued on September 29, 1981, supported that conclusion. Consumers Power Company is well aware that the schedule for the Big Rock Point SEP Seismic analyses is now substantially different from that envisioned a year ago. Neither Consumers Power Company nor, we believe, the staff could have anticipated the schedular impact of the various related issues which have arisen over that period. In spite of the schedule differences, however, the original bases for continued operation continue to be as valid today as they were when the staff SER was written. From the standpoint of overall plant safety, therefore, the seismic risk remains very low and operation continues to be justified.

Robert A Vincent (Signed)

Robert A Vincent
Staff Licensing Engineer

CC Director, Region III, USNRC
NRC Resident Inspector - Big Rock Point