UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION ATOMIC SAFETY AND LICENSING BOARD

9/4/81

In the Matter of CONSUMERS POWER COMPANY

(Big Rock Point Nuclear Plant)

Docket No. 107111 (Spent Fuel Pool Modication)

ADDITIONAL CONTENTIONS OF INTERVENORS

CHRISTA-MARIA, JIM MILLS AND

JOANNE BIER

OR ALTERNATIVELY

MOTION FOR LEAVE TO FILE ADDITIONAL CONTENTIONS

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Orice of the Secretary
Branch Service

Intervenors hereby file additional contentions as of right pursuant to the Order Following Special Prehearing Conference dated January 17, 1980 as amended by order of June 16, 1981. Because Intervenors anticipate motions by licensee or staff asserting that some contentions are not within the intention of the Order of January 17, 1980, Intervenors hereby also move for leave to file as an additional contention any contention which this Board may determine is technically beyond the intended scope of said Order. Each of the contentions raises a legitimate question relating to the health and safety of the public. As Chairman Gorssman scated during the Special Prehearing Conference (Tr. 195-96).

"Let me say this: any time during the proceeding that you discover a safety question that cught to be addressed, you certainly ought to apply to the Board, and I can't see that we would ever deny a request if there is a legitimate safety question."

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CONTENTIONS

- 1-1. The additional emissions of Iodine-129 and Krypton-85 that will result from handling and storage of additional spent fuel is inimical to the public health and safety.
- 1-2. In addition, the failure of licensee to calculate such additional emissions precludes a finding that the proposed amendment is not inimical to public health and safety.
- 2-1. The failure of the licensee to encapsulate all defective spent fuel elements before placing them in the spent fuel pool is inimical to the public health and safety.
- 2-2. Alternatively, if the license amdendment is approved, a condition should require such encapsulation.
- 3-1. The application fails to provide that (a) all fuel transfer operations be conducted with the containment isolated, (b) the isolation must be intersperced with breaks during which no fuel transfer operations are conducted so that containment may be vented to allow dissipation of humidity and airborn concentrations of radiation and (c) the containment should be isolated as a precaution against faulty isolation equipment coupled with fuel handling accidents which would release unacceptable levels of radiation to the enviornment. For each of these reasons, the expansion is inimical to the public health and safety.
- 3-2. Alternatively, if the license amendment is approved, conditions requiring the above should be imposed.

- being added to the pool from the moving of stored fuel elements and the washing down of the old racks, contamination levels may not be kept within limits in the pool area. Therefore, before work begins licensee should measure and record ambient radiation levels around the pool. After the replacement of the storage racks and the fuel elements currently stored in them, the licensee shall again measure the radiation levels around the pool, monitoring such levels and operating the cleanup system until levels return to those typical before the rack modification was begun. No further activities which would then increase the radioactive content of the pool (such as refueling) shall be carried out until the levels return to those typical of the period before the modification. Failure of the application to so provide is inimical to the public health and safety.
- 4-2. Alternatively, if the license amendment is approved, conditions requiring the above should be imposed.
- 5-1. The application does not provide for shipment of the old spent fuel storage racks whole in large crates rather than cut up into smaller pieces and is therefore inimical to public health and safety.
- 5-2. Alternatively, if the license amendment is approved, conditions requiring shipment whole should be imposed.
- 6-1. The application does not limit quantity or heights of loads which are carried over the spent fuel pool so as to preclude impact energies in excess of 240,000 in-lb. and is inimical to public health and safety.

- 6-2. Alternatively, if the license amendment is approved, conditions requiring such limits should be imposed.
- 7-1. The absence of a pool cover to preclude heavy object drops and cask tipping accidents is inimical to public health and safety.
- 7-2. Alternatively, if the license amendment is approved, a condition requiring a pool cover should be imposed.
- 8-1. The application is inimical to public health and safety because it does not provide that:

the pool shall be borated to 2,000 ppm during the removal and installation of the racks and until completion of rack replacement to preclude criticality due to overturned racks and consequent spilled fuel elements, or due to the dropping of racks on one another.

- 8-2. Alternatively, if the license amendment is granted, a conditon requring such location should be imposed.
- 9-1. The application cannot be approved because no assessment of alternatives has been made as required by Section 102(2)(E) of the National Environmental Protection Act (NEPA) including the assessment of whether there is any need for power. For example, licensee itself has stated in an application to the Michigan Public Service Commission requesting a rate increase, that there has been a decline in demand for power, and Big Rock Point produces only one percent of licensee's power. The Environmental Impact Assessment is deficient in numerous ways, including without limitation its statement that the costs of the no-need for power alternative are

the costs of shutting down the plant. Shut-down costs must be incurred sooner or later, even if the spent fuel pool is expanded. This shut down costs are unrelated to the no need for power alternative. Costs for this alternative are in fact minimal, basically the security and maintenance costs for the ten years of operation the proposed amendment permits, and even then only if plant is currently operating without loss.

- 10-1. By increasing on-site storage of spent fuel, the enlargement of the spent fuel pool would increase the danger to public health and safety of an accident involving tornado or turbine missiles impacting the spent fuel pool. The pool as modified will not withstand such accidents within the limits set in NRC regulations.
- 11-1. NEPA §102(2)(C) requires an Environmental Impact Statement on the environmental impacts of the spent fuel pool expansion.
- 11-2. NEPA §102(2)(C) requires an Environmental Impact
 Statement on the additional plant operation which will be made
 possible by the expansion of the spent fuel pool.
- 12-1. If a steam explosion or a melt-down occurred at Big Rock Point, the radiological consequences of an expanded spent fuel would be greater than at present and inimical to the health and safety of the public.
- 12-2. If a steam explosion occurred in which spent fuel is expelled through the containment, the increased quantity of spent fuel increases the damage to the health and safety of the public.

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- 13-1. Big Rock Point does not have alternative sources of power in the event its primary power source fails. Such failure would render inoperative safety equipment in the expanded spent fuel pool including, without limitation, the cooling system, to the detriment of the health and safety of the public.
- 14-1. Since the spent fuel pool at Big Rock Point is not borated, any accident, including, tornado missle, earthquake or earthquake missile, tipping of a cask into the pool, or drop of a heavy object into the pool which could result in a denser configuration of the fuel assemblies thereby makes criticality excursions more likely if additional fuel is stored in denser configurations than it is presently stored. The exparsion is therefore inimical to the health and safety of the public.
- 15-1. The additional spent fuel will increase the heat discharged into Lake Michigan, creating an unacceptable thermal impact, a deleterious imbalance of ecosystems in the area of Lake Michigan and a danger to the health and safety of the public.
- 16-1. The existence of additional plutonum enriched spent fuel on site will increase leakage or di tharge of radioactive matter to the detriment of thehealth and safety of the public.
- 17-1. Big Rock Point has not been seismically qualified and does not meet NRC seismic standards. No license amendement may be approved for a plant which does not meet NRC standards.
- 17-2. Big Rock Point has not been seismically qualified and does not meet NRC seismic qualifications. In the event of an earthquake, an increase in the quantity of spent fuel on site increases the possibility of a melt down and the dangers to the health and safety of the public from a release of radioactive water or materials.

18-1. The application is deficient because it does not disclose or address the problems arising from expansion of the spent fuel pool and the construction and operation of a rad-wast facility licensee proposes to build at Big Rock Point.

18-2. The increase in on site radioactive material from the expansion of the spent fuel pool and the proposed rad-waste facility is inimical to the health and safety of the public.

18-3. The purpose of expansion of the spent fuel pool is to provide storage space for spent fuel from other nuclear facilities of licensee and nuclear wastes from other organizations. Big Rock Point has not been licensed for such storage purposes. Therefore the application should be denied.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing additional Contentions and alternative Motion for Leave to File Additional Contentions were served upon the persons named in the attached list by depositing copies in the United States Mail, first class, postage prepaid, this 4th day of September, 1981.

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