UNITED STATES OF AMERICA JUN 3 0 1980 NUCLEAR REGULATORY COMMISSION Office of the Secreta

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of

CONSUMERS POWER COMPANY

(Big Rock Point Nuclear Power Station) Docket No. 50-155

DOCKETE

CHRISTA-MARIA, ET AL., INTERROGATORIES TO CONSUMERS POWER COMPANY (SET II)

Pursuant to 10 CFR §2.740, Intervenors Christa-Maria, JoAnne Bier, and James Mills request that these interrogatories be answered fully, in writing, and under oath by any employees or representatives of Consumers Power Company ("Licensee") who have personal knowledge of the facts or issues in question. The answer to each interrogatory should contain the name and identification of each person supplying or contributing to the answer, whether or not he or she has verified the answer. The answer should also explain the role of each individual in preparing the answer.

Each question is to be answered in four parts as follows:

- A. Provide the direct answer to the question.
- B. Identify and provide all documents and studies, and the particular parts thereof, relied upon by the Licensee as the basis for the answer.
- C. Identify and provide all documents and studies, and the particular parts thereof, examined but not relied

upon by the Licensee, which pertain to the subject matter in question.

D. Explain whether the Licensee or any independent contractor is presently engaged in further research or work that may bear on the issues covered in the interrogatory. If so, please identify the research or work and the people responsible for it.

GENERAL

 With regard to each contention and Board Question admitted for litigation in this proceeding by the Atomic Safety and Licensing Board in its "ORDER FOLLOWING SPECIAL PREHEARING CONFERENCE" dated January 17, 1980, or its "MEMORANDUM AND ORDER REGARDING TWO ADDITIONAL BOARD QUESTIONS" dated March 27, 1980:

 (a) Identify each person whom the Licensee expects to call as an expert witness in respect of such contention or Board question;

(b) State the subject matter on which the expert witness is expected to testify;

(c) State the substance of the facts and opinions to which the expert witness is expected to testify and summarize the grounds for each opinion;

(d) Identify all documents relied upon or examinedby the expert witness in answering subparagraph (c) above;

(e) Identify all documents not identified in subparagraph (d) above which the expert witness expects to

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put into evidence or to rely upon in support of his or her testimony in this proceeding.

2. Answer Interrogatory 1 above with respect to each contention identified as being withdrawn subject to reassertion in the Atomic Safety and Licensing Board's "ORDER FOLLOWING SPECIAL PREHEARING CONFERENCE" dated January 17, 1980.

3. With respect to each contention and Board Question admitted in litigation in this proceeding:

(a) Identify any person having knowledge of the facts relating to such contention or Board Question (other than the expert witnesses identified in response to Interrogatory 1). This question is limited to those persons whom the Licensee expects to call as witnesses other than expert witnesses in this proceeding, or with whom the Licensee has consulted or expects to consult in connection with this proceeding.

(b) For each person who has been consulted, state when he or she was consulted and summarize the substance of any facts or opinions communicated by such person to the Licensee relating to the subject matter of any contention or Board Question.

(c) If the Licensee expects to call any person identified in response to Interrogatory 3(a) above to testify, state the substance of his or her testimony, summarize the bas_s for any opinions contained in such testimony, and identify all documents which will be introduced as evidence or relied upon by such person in such testimony.

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4. Answer Interrogatory 3 above with respect to each contention identified as being withdrawn subject to reassertion in the Licensing Board's "ORDER FOLLOWING SPECIAL PREHEARING CONFERENCE" dated January 17, 1980.

5. Identify all documents which the Licensee expects to introduce in evidence or use for impeachment or other cross-examination purposes in this proceeding, other than those identified in the responses to the previous Interrogatories.

6. Please provide access to or copies of the following documents:

- Letter from Licensee (Bixel) to NRC (Z/NRR), dated October 17, 1979.
- Letter from Licensee (Bixel) to NRC (Z/NRR), dated October 30, 1979.
- c. Letter from Licensee (Hoffman) to NRC (Z/NRR), dated November 21, 1979.
- d. Letter from Licensee (Hoffman) to NRC (Z/NRR), dated December 27, 1979.
- e. Letter from Licensee (Fields) to NRC (Z/NRR), dated January 18, 19880.
- f. A current Operating Manual for the Big Rock Point plant.

CONTENTION 2

2-1. According to recent reports, 21 fuel assemblies in the Big Rock spent fuel storage pool have been referred to as "leakers."

- a. What is meant by the term "leakers?"
- b. Please describe in detail all leakers now found in the Big Rock spent fuel storage pool.

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- c. Please explain in general the impact that the existence of leakers has on the level of radiation in and around a spent fuel storage pool.
- d. How does the existence of the leakers now in the Big Rock spent fuel storage pool affect radiation levels in and around the pool, and particularly at and outside the south wall?
- e. Does the Licensee intend to store additional leakers in the Big Rock spent fuel pool?

2-2. How much plutonium is in the spent fuel pool?a. Please respond in pounds or kilograms.

2-3. Does Licensee intend to store any more plutonium in the spent fuel storage pool?

- a. If so, when, and how much, measured in pound or kilograms?
- b. If Licensee expects to increase the amount of plutonium gradually over time, please provide a chart of the expected increases by date.

CONTENTION 4

4-1. The original spent fuel pool design was based on the assumption that spent fuel assemblies would periodically be shipped off-site for reprocessing.

- a. What was the basis for the original design capacity of 193 fuel assemblies?
- How do the calculations establishing the alleged safety of the 193 fuel assemblies

differ from those used to justify the increase to 441 fuel assemblies?

- c. What are the existing inside dimensions of the spent fuel pool? Have they changed since the Big Rock spent fuel storage pool was first installed? If so, how, when, and why?
- d. Has the slope of the spent fuel storage pool changed since it was installed? If so, how, when, and why?

CONTENTION 7

7-1. Please identify and provide access to or copies of any studies reports, or other documents of which the Licensee is aware that establish or discuss cancer rates within a fifty mile radius of the Big Rock Plant or the possible connection between low level radiation emitted by the Big Rock Plant and cancer levels in the surrounding area.

7-2. Upon what control circuitry does the functioning of the containment isolation valves depend?

- a. Please provide a history of all failures of the circuits, including "stuck" contacts, failures of solenoid values, and "hot shorts."
- b. Is the history of circuitry failures at Big Rock consistent with Rasmussen's postulations concerning the probability of such failures? Please explain.

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7-3. Please describe and explain the containment ventilation supply relief system.

7-4. What limits on gaseous effluents and radionuclide emissions now govern the Big Rock Plant? Are these equal to or stricter than the most recent limits adopted by the NRC or EPA for nuclear power plants?

CONTENTION 8

8-2. What effects have severe weather and high wind conditions in the area of Big Rock Point had on the progressive aging of the steel structured dome?

8-2. What is the procedure for examining welds in the steel dome?

8-3. How are the reactor vessel support pad welds inspected?

8-4. How are the reactor vessel penetration welds inspected?

8-5. Are any lines, piping, or other systems normally used for operation of the reactor also used for operation or maintenance of the spent fuel pool? If so, please identify them and explain how, why, and when they are used for the spent fuel pool.

8-6. How long do operators and plant personnel have to evacuate the containment building after a high-pressure-in-containment alarm?

 Please answer this question with respect to a low-steam-drum-water-level alarm. b. Please answer this question with respect to a low-steam-drum-water-level alarm.

8-7. Explain the procedure in the event of a steam line break causing containment isolation and reactor scram.

a. What is done in this situation to prevent pressure build-up in the containment?

8-8. The containment at Big Rock must be ventilated at all times so that vital equipment will be accessible to plant personnel.

- a. What equipment must be accessible in the containment to facilitate operation of the reactor? Of the spent fuel pool?
- b. What equipment must be operated manually?
- c. What level of radiation would preclude ingress into containment?
- d. What area must be accessable to plant personnel to connect redundant air compressors for the air supply to vital buses?
- e. What effect does continuous ventilation have on the ability to detect and initiate action in the event of a loss of coolant accident caused by a small pipe break?

8-9. If containment isolation occurs as a result of low water level in the leactor or high pressure in the containment, will ingress into the containment be possible? How, and under what conditions?

8-10. Is human ingress into the containment necessary to monitor the spent fuel storage pool water level? If not,

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please explain how this can be done.

8-11. In the event of containment isolation or of an accident preventing entry into the containment, could the necessary data be secured to determine the water level in the spent fuel storage pool and otherwise to monitor the conditions in the pool? Please explain how this would be done.

'8-12. Has the spent fuel storage pool ever drained either partially or completely as a result of siphoning? If so, please explain what actions were taken to remedy the situation and to prevent it from recurring.

CONTENTION 9

9-1. Please answer yes or no:

- a. Is a meltdown a possible accident in the spent fuel storage pool at the present time?
- b. Will a meltdown be more likely in the future as a result of increased decay heat due to increased storage in the pool?

9-2. Has the Licensee evaluated the consequences of a steam explosion in the spent fuel storage pool?

9-3. Does the Licensee maintain alpha monitors in or around the Big Rock Plant?

- a. Where are they located?
- b. How often are they calibrated and otherwise tested to assure effectiveness and accuracy?

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9-4. In the event of a Class 9 accident, releasing core inventory and involving maximum release from the spent fuel pool,

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- a. How large an area would have to be evacuated?
- b. How long would the area be uninhabitable?
- c. As a result of ground water contamination, would areas downstream, on Lake Michigan, or elsewhere, have to be evacuated?

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9-5. Has American Nuclear Insurers, Mutual Atomic Energy Liability Underwriters, or any other insurance company asked the Licensee to make any modifications addressing safety related systems, particularly with respect to the spent fuel pool?

- a. If so, what modifications were requested?
- b. Have the Licensee's insurance rates increased in the last five years as a result of the failure to make such modifications?

9-6. In the event of an unplanned or inadvertant release of radiation into the environment, will employees at Big Rock receive potassium iodine?

a. Will the residents of Charlevoix County?

b. Will seasonal residents?

9-7. What will be done in the event of an accident resulting in a major release of radioactivity to protect and shelter people on boats in the Charlevoix inner harbor?

9-8. If the drawbridge at Charlevoix is closed during an evacuation emergency resulting from a major release of radiation, what will be done to protect people in boats on Lake Michigan, who may run out of gas or lose wind power when the only other docking facilities are miles away? 9-10. What will be the exact procedure to protect school children at the elementary school approximately 3 1/2 miles from the plant, particularly since the road to Boyne City would take them closer to the plant?

- a. Under what circumstances will they be kept in school?
- b. Who decides and recommends actions to the authorities?
- c. Will parents be fully advised of procedures both before any accidents occur and as quickly as possible in the event of an accident?

9-11. What actions will be taken to protect records of assets at local banks, credit unions, savings and loans, and local government buildings from radioactive communication?

9-12. On Tuesday, June 24, 1980, Licensee, in connection with state and local officials, the Federal Emergency Management Agenc, and the NRC, undertook an exercise in the implementation of emergency preparedness plans for the Big Rock area.

> a. Please identify all personnel of the Licensee or of any contractor or consultant to the Licensee who were involved preparing for or performing the exercise, and explain the responsibilities of each person, including his or her location during the exercise.

 Please identify and provide copies of all documents related to the exercise that were

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used by personnel of the Licensee or of any contractor or consultant to the Licensee at the Onsite Technical Support Center or at any other location during the exercise.

- c. Please identify and provide copies of all documents recording the actions or conversations of personnel of the Licensee or of any contractor or consultant to the Licensee during the exercise. This request includes, but is not limited to, any tape recordings or other mechanical recordings of the exercise, minutes, telephone logs, action logs, and notes taken by those observing or evaluating the exercise.
- d. Please identify and provide copies of all reports, evaluations, or written discussions of the exercise prepared by Licensee or its contractors or consultants or otherwise available to Licensee. If any such documents have not yet been completed or prepared, please identify all that are now planned or in progress and provide he expected completion dates.

Respectfully submitted,

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Counsel for Christa-Maria, et al.

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