

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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In the Matter of  
Wisconsin Electric Power Plant  
(Point Beach Nuclear Power  
Plant, Units 1 and 2)

Docket Nos. 50-266  
50-301

INTERROGATORIES PROPOUNDED TO THE APPLICANT  
BY THE STATE OF WISCONSIN

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The applicants herein are required to answer the following interrogatories in accordance with 10 C.F.R. sec. 2.740(b), and to serve a copy of its answers and objections upon Patrick Walsh, Assistant Attorney General, 114 East, State Capitol, Madison, Wisconsin 53702.

INSTRUCTIONS

1. Answer each interrogatory separately and fully in writing under oath, unless it is objected to, in which event the reasons for objection must be stated in lieu of answer.
2. An evasive or incomplete answer is deemed to be a failure to answer.
3. You are under a continuing duty to seasonably supplement your response with respect to any questions directly addressed to the identity and location of persons having knowledge of discoverable matters, and the identity of each person expected to be called as an expert witness at the hearing. Furthermore, you are under a similar duty to correct any incorrect response when you later learn that it is incorrect.

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4. The following terms are defined as follows for the purpose of these interrogatories:

A. Whenever in these interrogatories a request is made to "list," "describe," or "identify" documents, those terms shall be interpreted as a request to supply as to each document the following information where such information is appropriate for each document.

(1) The type of document (e.g. letter, memorandum, report, study, etc.);

(2) The date of the document;

(3) The date on which the document or copy thereof came to the defendants' attention;

(4) The name(s) of the signer(s) of the document, and the author(s) if different from the signer(s);

(5) The name(s), if any, of the person(s) to whom the document is addressed;

(6) The present whereabouts of the document or copy thereof and the name and address of the custodian thereof;

(7) Whether the document requested in these interrogatories was in existence or available to the state, but is no longer available or in existence;

(8) Whether the defendants claim that the document is privileged or otherwise not subject to discovery;

(9) A brief summary of the subject matter of the document; and

(10) Whether the applicant is willing to produce the document.

B. As used in these interrogatories, the term "document" is used in a comprehensive sense and includes, without limiting its generality of meaning, all written, typed, printed, recorded, transcribed or graphic materials, however produced, copied or reproduced, of every kind and description.

C. Whenever in these interrogatories a request is made to "list," "state the name of," "name," or "identify" a person(s), state the name(s), last known address, and the position or relationship of such person(s) to the applicant.

D. Whenever in these interrogatories a request is made to state any facts, bases, and/or information, in addition to stating the requested facts, bases and/or information, identify the natural person(s) most knowledgeable as to each such fact, basis and/or information and list all documents which relate to any such fact, basis and/or information.

#### INTERROGATORIES

##### Contention 1

1. Please state the type of airborne radioactive emissions expected from the spent fuel pool. How will these emissions increase in quality and quantity as a result of the increased fuel expansion? What model is utilized in making the quantitative calculation as to the effect of the interim expansion?

2. Do you plan to increase the air monitoring capability inside of the pool containment structure? If not, why not? If your answer is yes, please describe the contemplated increase.

3. What is the calculated radioactive dose rate to a person standing next to the spent fuel storage pool after the expansion? What model is utilized in calculating this dose?

Contention 2

4. What is the probability that the radioactive releases from the Point Beach Nuclear Power Plant will combine with those from the Kewaunee Nuclear Power Plant? What meteorological conditions would have to exist for the radioactive plumes from these two plants to come in contact with each other and intermingle? Please set forth the model which you base your estimate upon.

Contention 3

Contention 3A

5. What would be the maximum water temperature reached within the spent fuel pool were cores from both nuclear facilities at Point Beach offloaded into the pool? In calculating this temperature, please assume that the offload of both cores would result in the spent fuel pool being full. Please state the model utilized in calculating this temperature, as well as any assumptions relied upon. How would an increase in the water temperature in the spent fuel pool affect the quantity and quality of radioactive emissions from the pool? Were a temperature increase in the pool to

result in boiling and loss of coolant, how would the quality and quantity of radioactive emissions from the pool be affected? Please state the model utilized and assumptions relied upon in making this determination. What would be the radiation dose received by a person standing next to the spent fuel pool during such a rise in temperature?

### Contention 3

6. What precautions have you taken to prevent the blockage of the coolant inflow and outflow pipes in the spent fuel pools? What would be the effect on the temperature of the pool of a blockage of either the inflow or outflow pipe? Would such a blockage cause an increase in radioactive emissions from the pool, due either to the inability to filter the pool's water during blockage or due to increased temperatures during blockage? If not, why not? If your answer is yes, please state the expected increase. Also state the model utilized and the assumptions relied upon in making your determination.

### Contentions 3C, 3D and 3E

7. If the coolant in the spent fuel pool were to boil away, what would be the radiation dose calculated to a person standing at the pool's edge? Please state the model utilized and the assumptions relied upon in making this calculation.

8. What precautions have been taken by you to prevent the possibility of a simultaneous loss of both storage pool coolant pumps? Were both pumps to fail, how long would it

take for the coolant in the spent fuel pool to boil? Were both pumps to fail, what emergency measures would you take to prevent coolant boiling from occurring?

9. How would a loss of coolant in the pool, due to either a fracture of the pool liner or boiling away of the coolant, affect the integrity of the spent fuel storage racks, due to increased thermal stresses? Please assume in your calculation that the racks are filled with fresh spent fuel directly from the core. Please state the model utilized and other assumptions relied upon in making these calculations.

10. What is the probability that a fuel assembly dropped during loading would crack or otherwise damage the pool liner?

11. In the event of damage to the pool and/or pool liner while the spent fuel pool is filled to capacity, how would repairs be made? Would repair necessitate removing the stored fuel assemblies from the pool? If so, where would these fuel assemblies be kept during repair?

#### Contention 3H

12. In your response to Question A-12, you cite long-term radiation studies documented in BISCO Report 1047-1. Under what conditions were these studies conducted; by "conditions," I am referring to the gammaflux to which the boraflex I plates were subjected, the time period in which they were subjected to gammaflux, and the medium (water, air, etc.) in which the experiments took place.

Contention 6

13. Do you presently monitor the groundwater around the Point Beach Nuclear Power Plant for radioactivity? If your answer is no, do you plan to install groundwater monitoring equipment to monitor releases from the spent fuel storage pool after expansion? If not, why not?

14. If your answer to the above interrogatory is yes, please state whether you plan to increase or change your present groundwater monitoring system in any way, describing the changes contemplated. If you do not contemplate changing your present groundwater monitoring system, state the reasons for this decision.

Contention 8

15. How many fuel assemblies are presently stored at the NFS plant in West Valley, New York? What precautions are planned in order to insure that any fuel assemblies returned from NFS arrive safe and intact? What procedures are planned should a number of the fuel assemblies returned arrive in deteriorated condition?

Contention 11

16. What is the expected increase in occupational exposure due to the daily operation of the expanded spent fuel disposal pool? Please state the assumptions relied upon in making this calculation.

17. What is the expected increase in radiation exposure to the public due to operation of the expanded spent fuel storage pool? Please state the assumptions relied upon in

making this calculation.

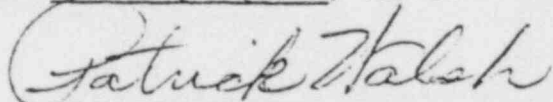
Contention 16

18. State the technical basis upon which you believe that the spent fuel stored in the pool will retain its integrity for the entire period of licensing.

19. Please state the average, median and maximum burn-up of the spent fuel which will be stored in the fuel pool. How does the burn-up of the fuel affect your estimate of long-term fuel integrity? Please be specific. Please state the names of all technical studies and/or experiments with which you are familiar, whether completed or ongoing, which assess the integrity over a forty-year period of spent fuel having a burn-up as high as that of the spent fuel with the maximum burn-up expected to be placed within the Point Beach spent fuel pool.

20. How will the integrity of the fuel rods in the spent fuel pool be monitored?

Dated this 2nd day of October, 1978.



PATRICK WALSH  
Assistant Attorney General

114 East, State Capitol  
Madison, Wisconsin 53702

(608) 266-7344

AFFIDAVIT OF MAILING

STATE OF WISCONSIN )  
 ) ss. Re: Docket Nos. 50-266  
 COUNTY OF DANE ) 50-301

Barbara M. Livick, being first duly sworn on oath, deposes and says: that she is not a party to the within entitled action; that she is employed in the office of the Department of Justice of the State of Wisconsin in the capacity of legal secretary;

That on the 2nd day of October, 1978, she served a copy of the within Interrogatories Propounded to the Nuclear Regulatory Commission Staff by the State of Wisconsin and Interrogatories Propounded to the Applicant by the State of Wisconsin upon:

Marshall E. Miller, Esq., Chairman  
 Atomic Safety and Licensing Board  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555

Dr. Emmeth A. Luebke  
 Atomic Safety and Licensing Board  
 U.S. Nuclear Regulatory Commission  
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Dr. Paul W. Purdom  
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 Washington, D.C. 20555

Mary Lou Jacobi  
 Vice Chairperson  
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 932 N. 5th Street  
 Manitowoc, Wisconsin  
 54220

Atomic Safety and Licensing  
 Board Panel  
 U.S. Nuclear Regulatory  
 Commission  
 Washington, D.C. 20555

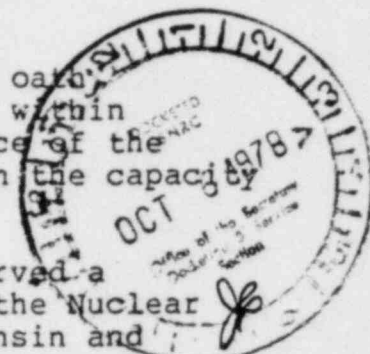
Atomic Safety and Licensing  
 Appeal Board  
 U.S. Nuclear Regulatory  
 Commission  
 Washington, D.C. 20555

Docketing and Service  
 Section  
 Office of the Secretary  
 U.S. Nuclear Regulatory  
 Commission  
 Washington, D.C. 20555

by mail in the following manner:

That she properly enclosed in a postpaid wrapper the aforesaid copies, addressed as stated at their proper post office address, but without any request to the postal officers for the return thereof in case of nondelivery to the persons addressed, and deposited the same at the post office in the City of Madison, Wisconsin.

*Barbara M. Livick*  
 Barbara M. Livick



Subscribed and sworn to before me  
this 2nd day of October, 1978.

Robert A. Munnell  
Notary Public

My Commission is Permanent.