

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSIONBEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

WISCONSIN PUBLIC SERVICE CORPORATION
WISCONSIN POWER AND LIGHT COMPANY
AND
MADISON GAS AND ELECTRIC COMPANY
(Kewaunee Nuclear Power Plant)Docket No. 50-305
Amendment to License
No. DPR-43
(Increase Spent Fuel
Storage Capacity)

NRC STAFF INTERROGATORIES TO,
AND REQUEST FOR THE PRODUCTION OF
DOCUMENTS FROM, INTERVENORS
LAKESHORE CITIZENS FOR SAFE ENERGY/
SAFE HAVEN LTD.

The Nuclear Regulatory Commission (NRC) Staff hereby requests that the Intervenors, pursuant to 10 CFR §2.740, §2.740b and §2.741, answer separately and fully in writing, under oath or affirmation, the following interrogatories within 14 days from the date of mailing (service) of this document.

For each response to the interrogatories listed below, identify the person or persons who prepared, or substantially contributed to the preparation of the response.

If additional information becomes available with respect to one or more of the answers after the Intervenors have answered these interrogatories,

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the Staff requests that the answers be amended in a timely manner to provide such additional information.

The NRC Staff further requests that the Intervenors, pursuant to 10 CFR §2.741, provide copies of, or make available for Staff inspection and copying, the documents designated by the Intervenors in response to the Staff's interrogatories.

A. Interrogatories of General Applicability. ^{1/}

1. State whether or not you intend to present any witnesses in this proceeding on the subject of any of the admitted contentions or Board questions. Provide the names, addresses, complete educational background, and all related professional experience or qualifications of those witnesses you intend to present.

2. Provide summaries of the views, positions, and proposed testimony that you intend to present in written or oral form in this proceeding with respect to each admitted contention or Board question.

3. Identify by author, title, date of publication, publisher, and section or page number all books, documents, and papers that you intend to employ or rely upon in presenting your direct case on admitted contentions or Board questions. Please provide copies of, or make available for Staff inspection and copying, these items.

^{1/} Interrogatories in this section should be answered separately with respect to each contention or Board question.

4. If the representations made in admitted contentions are based in whole or in part on any documents prepared by the Licensee or NRC Staff which you contend are deficient, specify which documents and the particular portions thereof which you regard as deficient, and explain why they are deficient.

5. Identify by author, title, date of publication, publisher and section or page, all books, documents or papers that you intend to employ or rely upon in conducting your cross-examination of witnesses who may testify in connection with admitted contentions or Board questions.

6. Identify all experts whom you expect to aid you in the conduct of cross-examination of Staff, State, or Licensee witnesses with respect to any admitted contention or Board question. Provide the same information with respect to these experts as is requested in A.1. above.

B. Interrogatories Relating to Admitted Contentions.

1. Contention 2.

- a. Specify the "allowable levels" that you claim will be exceeded.
- b. Do you contend that the cumulative radioactive emissions to the atmosphere resulting from the spent fuel pool expansion at Kewaunee and Point Beach may, under certain atmospheric conditions, exceed allowable levels?
- c. Specify which atmospheric conditions will cause the Licensees to exceed allowable levels. Explain how such condition will cause the Licensees to exceed such levels.

- d. Do you contend that there will be an increase in airborne radioactive emissions resulting from spent-fuel pool storage capacity expansion? To what extent? What is the basis for your response?
- e. Identify the kind of radioactive emissions to the atmosphere that are referred to in the contention.
2. Contention 8.
- a. Identify each and every problem associated with defective or deteriorating neutron absorber plates which are referenced in Contention 8.
 - b. Specify the factual basis, including references to technical literature upon which you rely, for each problem identified in your response to interrogatory B.2.a. above.
 - c. Do you contend that it is desirable or necessary to monitor for a loss of neutron absorber material, bulging and swelling in the KNPP spent fuel pool?
 - d. If your response to Interrogatory B.2.c. above is other than an unqualified no, suggest any and all monitoring programs which you consider reasonable and provide the basis for your suggestions.
 - e. Have you reviewed the letters from E.W. James- Senior Vice-President of Wisconsin Public Service Corporation to Victor Stello of the NRC, dated July 10, 1978 and September 5, 1978? State the problems which you contend

may or will occur with respect to the boron plates described in the above letters.

3. Contention 12.

- a. Identify the kind or type of low-level radioactive waste which you contend will increase due to expanded storage of spent fuel at Kewaunee.
- b. State the amount of incremental waste which you estimate will result from increased storage and whether you consider this amount to be significant. Provide the basis for your response, including an explanation as to why you consider the amount to be significant.

4. Contention 13a.

- a. In Contention 13a, you refer to "other components in contact with the storage pool borated water." Identify each and every "other component" not otherwise specifically identified in Contention 13a for which you allege corrosive effects must be evaluated.
- b. State specifically for spent fuel, spent fuel cladding, support frames, storage racks, neutron absorber plates, and each and every component identified in your response to Interrogatory 4.a above: (a) the types and amount of corrosion formation due to contact with borated water expected with the present SFP configuration; (b) the types and amounts of corrosion formation due to contact with

borated water expected if the SFP is modified as proposed.

Identify any documents, studies, or analyses which estimate these types and amounts.

- c. Do you contend that problems with spent fuel storage rack swelling, which you state in Contention 13a are similar to those experienced at the Connecticut Yankee facility, will occur at Keweenaw as a result of the proposed modification? If your response is other than an unqualified no, explain fully your factual basis for the contention.
- d. Do you claim that the Johnson report on the Behavior of Spent Nuclear Fuel identified in Contention 13a. states that there have been problems with zirconium clad fuel elements stored in boric acid fuel pools? If your response is other than an unqualified no, identify the page number in the report upon which you rely.
- e. Do you contend that the Johnson report offers direct support for a belief that there will be significant deterioration in the spent-fuel pool, its components, or the components of fuel elements stored therein? If your answer is in the affirmative, provide the pertinent references in the report.

5. Contention 13b.

- a. State separately for accelerated corrosion, micro-structural changes, alterations in mechanical properties, stress corrosion, cracking, intergranular corrosion, hydrogen absorption and precipitation by zirconium alloys:

- (1) Each and every SFP component in the present SFP configuration which you expect to be affected by that particular type of corrosion or process and how safety would be affected;
- (2) The amount of corrosion formation for each component identified in your response to (1) above (with the present SFP configuration) due to that particular type of corrosion or process;
- (3) Each and every SFP component in the proposed modification (including existing components and proposed additions, if appropriate) you expect to be affected by that particular type of corrosion or process and how safety would be affected;
- (4) The amount of corrosion formation for each component identified in (3) above due to that particular type of corrosion or process in the proposed modification.

Identify any document, study, or analysis which estimates these levels.

6. Contention 13c.

- a. Identify each and every pipe referred to in Contention 13c.
- b. State specifically for the pool liner, storage racks, storage rack bases, as well as each pipe identified above:
 - (1) The level of electrolytic corrosion expected with the present SFP configuration;

(2) The level of electrolytic corrosion expected . . . e
SFP is modified as proposed.

Identify any documents, study, or analysis which estimates these levels.

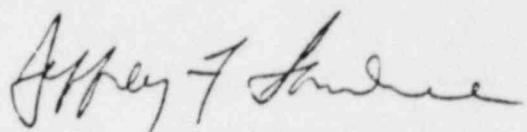
7. Contention 13f.

- a. State specifically for spent fuel and spent fuel cladding the anticipated thickness of crud layers you contend n be (a) expected for the present SFP configuration and (b) expected if the SFP is modified as proposed. Identify any documents, study, or analysis which estimate this thickness.
- b. State specifically whether you believe crud will influence the corrosion of spent fuel and spent fuel cladding. Please state your technical basis for such belief, including any documents, reports or studies and the section therein upon which you rely.
- c. If the response to Interrogatory 7.b is other than an unqualified no, explain fully why and under what circumstances crud will influence the corrosion of spent fuel and its cladding as a result of the proposed modification, and state your basis.

C. Interrogatories Relating to Board Questions.

1. With respect to Board question No. 1, do you contend that remedial action could not be taken or that time would not be available to institute such action should total loss of cooling capability occur?
2. With respect to Board question No. 2, do you claim that the licensee's evaluation inadequately addresses the occupational dose associated with the installation or operation of the pool as modified? If your response is other than an unqualified no, provide your basis including references relied upon.

Respectfully submitted,



Jeffrey F. Lawrence
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 9th day of November, 1978