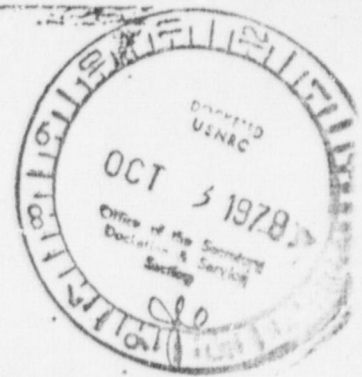


NUCLEAR PUBLIC DOCUMENT ROOM

RELATED CORRESPONDENCE

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION



BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
DAIRYLAND POWER COOPERATIVE ) Docket No. 50-409  
(LaCrosse Boiling Water Reactor) ) Amendment to Provisional  
Operating License  
(Spent Fuel Pool)

THIS DOCUMENT CONTAINS  
POOR QUALITY PAGES

INTERVENOR COULEE REGION ENERGY COALITION'S INTERROGATORIES  
(SEE NO. 2) TO THE APPLICANT AND REQUESTS FOR  
(317) PRODUCTION OF DOCUMENTS

Pursuant to 10 C.F.R. §2.740(b) and in accordance with the schedule established during the Prehearing Conference of August 17, 1978, Intervenor Coulee Region Energy Coalition (CREC) requests that the Applicant answer separately and fully in writing under oath, each of the following interrogatories. The CREC further requests pursuant to 10 C.F.R. §2.741 that the Applicant provide specific documents as requested herein.

The CREC requests that the person or persons answering each interrogatory be identified by: (1) name, (2) address, (3) current occupation, (4) education, including degrees and principle disciplines studied, schools attended, title of master's and doctoral dissertation and (5) title, reference, and summarized content of his or her published scientific articles and books. In addition CREC requests that the source of information be disclosed where an answer is based in whole or in part on information other than the personal knowledge of the person or of the

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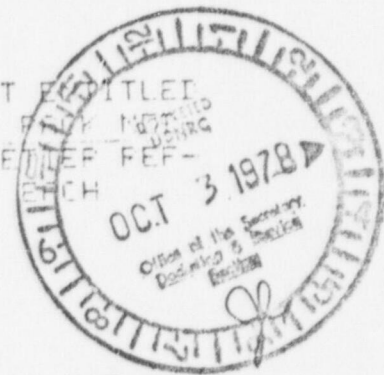
persons answering. These interrogatories are hereby expressly made continuing, requiring supplemental answers thereto as information is acquired through the time of the evidentiary hearing. Where the date of an event is requested, the response should set forth the exact date, if possible; however, when no record or memory of an exact date exists, the response should set forth the most precise approximation possible. This set of interrogatories is addressed to those contentions of the CREC which are listed in the Prehearing Conference Orders dated September 5, 1978.

(3)

RELATED CORRESPONDENCE

Set #3 page #3

ALL OF THE FOLLOWING QUESTIONS REFER TO THE REPORT ENTITLED  
ENVIRONMENTAL IMPACT EVALUATION OF SPENT FUEL POOL  
IDENTIFICATION BY R. J. PRINCE AND ENCLOSED WITH DFC LETTER REF-  
ERENCE LAC-5241. THE SPECIFIC PARAGRAPH TO WHICH EACH  
QUESTION REFERS WILL BE IDENTIFIED.



QUESTIONS 1 THROUGH 6 REFER TO PARAGRAPH 2.2.

- 1.) WHAT EFFECT ON THE FILTER CHANGING SCHEDULE DID THE GROSS FUEL FAILURES HAVE?
- 2.) DID THE GROSS FAILURES REPRESENT A SIGNIFICANT INCREASE WITH REGARD TO THE DEMINERALIZER AND FESW SYSTEM CAPABILITIES?
- 3.) ARE THE AVERAGE MAN-REM FIGURES OF 0.06 (RESIN SLUICING) AND 0.7 (FILTER CHANGING) GREATLY INCREASED DUE TO GROSS FUEL POOL FAILURE?
- 4.) WHAT IS THE CRITERIA FOR FREQUENCY OF RESIN SLUICING AND FILTER CHANGING?
- 5.) WHAT IS THE BASIS FOR THIS CRITERIA?
- 6.) SHOW ANY CALCULATIONS, REFERENCES OR DATA THAT FORMS THE BASIS FOR THE ESTIMATED THREE MONTH INTERVAL FOR ROUTINE CHANGES.

QUESTIONS 7 THROUGH 11 REFER TO PARAGRAPH 2.3.

- 7.) WHAT IS THE BASIS FOR THE APPLICANT'S CONCLUSION THAT WHEN THE WATER LEVEL IN THE POOL IS PERMANENTLY RAISED TO THE 698 FOOT LEVEL THAT THE SEAL ON THE FUEL TRANSFER GATE WILL BE ABLE TO MAINTAIN ITS INTEGRITY INDEFINITELY?
- 8.) WHAT ARE THE VARIOUS REASONS REFERRED TO IN PARAGRAPH 2?
- 9.) WHAT ADDITIONAL RISKS ARE ASSOCIATED WITH RAISING THE WATER LEVEL IN THE POOL AN ADDITIONAL 18 FEET?
- 10.) IN PARAGRAPH 4 WHAT ARE THE "CONDITIONS" WHICH WOULD DICTATE OTHERWISE WITH RESPECT TO "HOT" AND "COLD" FUEL STORAGE?
- 11.) PROVIDE APPLICANTS ANALYSIS OF HOW AND WHY THE COOLANT SYSTEM WILL OPERATE PROPERLY WITH THE WATER LEVEL RAISED TO THE 698 FOOT LEVEL CONSIDERING THAT THE COOLANT IS IRRAWN OUT OF THE POOL AT THE 679 FOOT LEVEL?

QUESTIONS 12 THROUGH 17 REFER TO PARAGRAPH 2.4.

- 12.) WHAT ARE THE COMPONENTS OF THE RADIOACTIVITY ON THE OLD150" RACKS?
- 13.) DOES THE MAJORITY SOURCE CONSIST OF SHORT HALF-LIFE RADIOISOTOPES?
- 14.) HOW MUCH OF THE RADIOACTIVITY IS DUE TO ACTIVATION OF THE RACKS?
- 15.) DID ANY OF THE REFERENCE UTILITIES HAVE GROSSLY FAILED FUEL POOLS IN THEIR POOL?
- 16.) WHAT IS THE BASIS FOR APPLICANT'S CONCLUSION THAT THE DATA WOULD BE APPLICABLE TO LAC100?
- 17.) HAS THE QUANTITY OF RADIOACTIVITY THAT WILL BECOME AIRBORNE DUE TO LEAKING OF THE RACKS BEEN ESTIMATED?



QUESTIONS 19 THROUGH 24 REFER TO PARAGRAPH 3.1.

Set # 3

(cont.)

Page 7

19.) WAS THE POOL SAMPLED FOR GROSS BETA AND GAMMA ACTIVITY PRIOR TO DECEMBER 1976?

20.) IF SO, PROVIDE ALL DATA OBTAINED BY MONTH THROUGH SEPTEMBER 1978.

21.) INCLUDE AN EXPLANATION OF HOW THE AVERAGE OF  $1 \times 10^5$  EXP (-3) MICRO CURIES PER ML WAS CALCULATED.

22.) WHAT IS THE GROSS ALPHA ACTIVITY OF THE WATER IN THE POOL?

23.) GIVE ALL RESULTS OF GROSS ALPHA ACTIVITY OF THE SAMPLING.

24.) IF ALPHA ACTIVITY IS NOT SAMPLED STATE REASONS WHY IT IS NOT.

QUESTIONS 25 THROUGH 30 REFER TO PARAGRAPH 3.2.

25.) PROVIDE BREAKDOWN OF SPENT FUEL RADIONUCLIDES BY WEIGHT IN THE POOL AS OF SEPTEMBER 1978, AS OF 1988, AS OF 1991.

26.) WHAT IS THE COMPOSITION OF THE "CRUD"?

27.) WHAT IS THE ACTIVITY AND QUANTITY OF CRUD?

28.) WHAT BECOMES OF THE CRUD THAT BUILDS UP ON THE FUEL RODS?

29.) WHAT IS THE THICKNESS OF THE CRUD ON THE FUEL RODS AS A FUNCTION OF TIME?

30.) HOW MUCH IS THE CRUD INCREASED DUE TO THE PRESENCE OF GROSSLY FAILED FUEL RODS?

QUESTION 31 REFERS TO PARAGRAPH 3.3.

31.) PROVIDE THE ANALYSIS OF WHAT GASES ARE PRODUCED IN THE POOL AND EXPLAIN HOW THESE GASES ARE DISPOSED OF.

QUESTIONS 32 THROUGH 33 REFER TO PARAGRAPH 4.1.

32.) HOW WILL LONG THE OLD RACKS BE STORED ON THE PREMISES?

33.) WHAT IS THE CALCULATED ADDITIONAL DOSE TO PERSONNEL FROM SUCH STORAGE?

QUESTIONS 34 THROUGH 39 REFER TO PARAGRAPH 5.0.

34.) HOW MUCH ARE THE MINIMAL AMOUNTS REFERED TO IN THIS SECTION?

HOW MUCH OF THE APPROXIMATELY FOUR GALLONS PER HOUR WATER LOSS IN THE FUEL POOL IS DUE TO EVAPORATION AND HOW MUCH IS DUE TO LEAKAGE?

35.) HOW MUCH WILL THE LEAKAGE INCREASE DUE TO INCREASED HEAD?

36.) HOW MUCH WILL THE EVAPORATION RATE INCREASE DUE TO THE HYDROSTATIC CONDITIONS AT THE TOP OF THE POOL (CAUSED BY THE OUTLET PIPE LOCATION APPROXIMATELY 19 FEET BELOW THE WATER SURFACE).

37.) PROVIDE A DIAGRAM OF THE COMPONENT COOLING SYSTEM REFERED TO IN DIAGRAM 41-300-079.

38.) SHOW THE WATER SOURCE AND WHERE IT IS DISCHARGED.

39.) GIVE THE PHYSICAL LOCATION OF THE COMPONENT COOLING SYSTEM WITH RESPECT TO THE CONTAINMENT VESSEL.

QUESTION 40 REFERS TO PARAGRAPH 6.0.

40.) PROVIDE A LIST OF ALL OBJECTS THAT ARE MOVED ABOVE THE

(5)

## Set #4

- 1.) CAN IPC GUARANTEE THAT THE STORAGE POOL WILL NOT HAVE TO BE EXPANDED AGAIN?
- 2.) IF THE ANSWER TO QUESTION 1 IS "NO" PROVIDE ANALYSIS OF FURTHER EXPANSION PLANS.
- 3.) HOW LONG WILL THE SPENT FUEL RODS BE STORED IN THE POOL?
- 4.) WHAT WILL BE DONE WITH THE SPENT FUEL RODS WHEN THE REACTOR HAS TO BE DECOMMISSIONED?
- 5.) WHAT WILL THE ULTIMATE DISPOSAL COST OF THE SPENT FUEL BE?
- 6.) HOW WILL THE WATER IN THE SPENT FUEL POOL BE DISPOSED OF?
- 7.) WHAT FIRMS ARE UNDER CONTRACT FOR OR HAVE BEEN CONTACTED REGARDING DISPOSAL OF THE SPENT FUEL POOL WATER?
- 8.) HOW LONG CAN SPENT FUEL RODS BE SAFELY STORED IN THE POOL?
- 9.) WHAT TRAINING BOTH PROCEDURAL AND RADIOLOGICAL SAFETY IS PROVIDED FOR TECHNICIANS WHO PERFORM MAINTENANCE ON THE POOL?
- 10.) WHAT INFORMATION IS GIVEN TO MAINTENANCE TECHNICIANS TO ENABLE THEM TO DEAL WITH ANY ACCIDENTS OR PROBLEMS WHICH MIGHT DEVELOP?
- 11.) WHAT ARE THE POTENTIAL HAZARDS OF STORAGE IN THE SPENT FUEL POOL?
- 12.) WHAT SOURCES OF EXTERNAL CONTAMINATION TO THE SPENT FUEL EXIST?
- 13.) IS DISTILLED WATER USED IN THE SPENT FUEL POOL AND IF NOT WHY NOT?
- 14.) IS THE WATER IN THE SPENT FUEL POOL SUBJECTED TO CHEMICAL ANALYSIS AND IF SO GIVE ALL RESULTS OF SUCH ANALYSIS?

FOR SETS THREE AND FOUR  
RESPECTFULLY SUBMITTED

*Arnold E. Van Art*

ARNOLD E. VAN ART

DATED

*September 28, 1978*

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF	>	DOCKET NO. 50-409
	>	AMENDMENT TO
DAIRYLAND POWER COOPERATIVE	>	PROVISIONAL OPERATING
	>	LICENSE NO. DFP-45
(LA CROSSE BOILING WATER REACTOR)	>	SPENT FUEL POOL

CERTIFICATE OF SERVICE

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ATOMIC SAFETY AND LICENSING BOARD PANEL  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

RELATED CORRESPONDENCE

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WASHINGTON, D.C. 20555

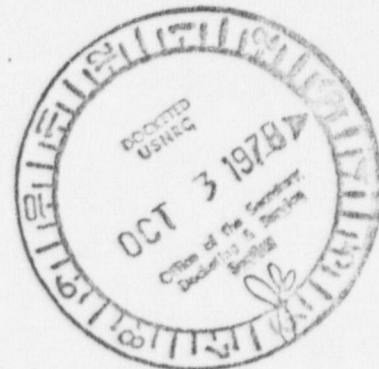
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SIGNED: Mark Baumaster  
DATED: Sept 28 1978