

DAIRYLAND Power

COOPERATIVE • P.O. BOX 817 • 2615 EAST AV. SOUTH • LA CROSSE WISCONSIN 54601

October 21, 1985

(608) 788-4000

In reply, please
refer to LAC-11197

DOCKET NO. 50-409

Mr. James G. Keppler, Regional Administrator
U. S. Nuclear Regulatory Commission
Directorate of Regulatory Operations
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR
PROVISIONAL OPERATING LICENSE NO. DPR-45
SPECIAL REPORT 85-02

PRIORITY ROUTING

Mr. Keppler	Mr. Taylor
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]
Mr. [unclear]	Mr. [unclear]

FILE *for*

Reference: (1) LACBWR Technical Specifications
Section 4.2.2.22, Action g.

Dear Mr. Keppler:

In accordance with the provisions of Reference (1), a Special Report is submitted covering results of sampling and analysis actions together with additional operational information for three separate occasions when reactor thermal power changed by more than 15% of Rated Thermal Power within one hour while in Operational Condition 1 and 2.

The separate occasions are discussed in sections 1, 2 and 3 as follows:

SECTION 1-----July 25, 1985
SECTION 2-----September 9, 1985
SECTION 3-----September 14, 1985

Each section provides a summary of operating data and radiological data for the time period prior to the thermal power change along with the results of the additional sampling required.

If there are any questions concerning this report, please contact us.

Sincerely,

DAIRYLAND POWER COOPERATIVE

James W. Taylor
James W. Taylor
General Manager

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JWT:PDB:sks
Attachments

OCT 25 1985

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Mr. James G. Keppler, Regional Administrator
U. S. Nuclear Regulatory Commission

October 21, 1985
LAC-11197

cc: Director, Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Resident Inspector

INTRODUCTION

SPECIAL REPORT 85-03

LACBWR Technical Specifications, Section 4.2.2.22, Action g, requires sampling and analysis for Iodine-131, -133, and -135, as well as gross beta and gamma activity between 2 and 6 hours following a thermal power change of greater than 15% of rated thermal power within one hour. This special report is required to contain the information determined by the analysis plus additional information regarding reactor power history, fuel burnup, cleanup flow history, offgas activity levels and gross alpha activity levels.

SECTION 1

At 1115 on July 25, 1985, the reactor scrammed from 96.5% power due to a ground in the gas pressure scram circuit on the Control Rod Drive No. 8.

GROSS β - γ ACTIVITY AND IODINE ANALYSIS

Time of Sample: 1322, 07/25/85

Sample Results: Gross β - γ ----- .0791 $\mu\text{Ci/ml}$
I-131----- 1.04×10^{-3} $\mu\text{Ci/ml}$
I-133----- 2.69×10^{-3} $\mu\text{Ci/ml}$
I-135----- 1.09×10^{-3} $\mu\text{Ci/ml}$

ADDITIONAL INFORMATION

- (1) Reactor Thermal Power Level starting 48 hours prior to thermal power change:

1115, 07/23/85 - 1115, 07/25/85----- ~ 96%.

- (2) The approximate fuel burnup of assemblies in a symmetrical core region is shown in Figure 1.

- (3) Cleanup Flow History starting 48 hours prior to thermal power change:

Primary Purification Flow Rate

1115, 07/23/85 - 1115, 07/25/85 -----42 gpm.

Primary Purification Decontamination Factors (β - γ)

0152, 07/25/85 ----- 1126:1
0205, 07/29/85 ----- 737:1

(4) Offgas Activity Levels Starting 48 Hours Prior to Thermal Power Change:

0800-1600	07/23/85	-----	152 Ci/day
1600-2400,	07/23/85	-----	148 Ci/day
0000-0800,	07/24/85	-----	157 Ci/day
0800-1600,	07/24/85	-----	146 Ci/day
1600-2400,	07/24/85	-----	146 Ci/day
0000-0800,	07/25/85	-----	146 Ci/day

(5) Gross Alpha Activity Level Starting With Sample Prior to Thermal Power Change:

0154,	07/25/85	-----	$< 4.86 \times 10^{-8} \text{ } \mu\text{Ci/ml}$
1115,	07/25/85	-----	Rated Thermal Power Change
0205,	07/29/85	-----	$1.09 \times 10^{-7} \text{ } \mu\text{Ci/ml}$

SECTION 2

At 0210 on September 9, 1985 the 1A FCP Discharge Valve closed due to an erroneous Forced Circulation Loop Δ Temperature signal. The reactor power dropped from 96% to 68%.

GROSS β - γ ACTIVITY AND IODINE ANALYSIS

Time of Sample: 0557, 09/09/85

Sample Results: Gross β - γ ----- .204 μ Ci/ml
I-131----- 9.20×10^{-4} μ Ci/ml
I-133----- 1.15×10^{-2} μ Ci/ml
I-135----- 2.47×10^{-2} μ Ci/ml

ADDITIONAL INFORMATION

- (1) Reactor Thermal Power Level starting 48 hours prior to thermal power change:

0210, 09/07/85 - 0210, 09/09/85 ----- \sim 96%.

- (2) The approximate fuel burnup of assemblies in a symmetrical core region is shown in Figure 2.

- (3) Cleanup Flow History starting 48 hours prior to thermal power change:

Primary Purification Flow Rate

0210, 09/07/85 - 0210, 09/09/85 ----- 42 gpm.

Primary Purification Decontamination Factors (β - γ)

0207, 09/09/85 ----- 828:1

0118, 09/12/85 ----- 740:1

- (4) Offgas Activity Levels Starting 48 Hours Prior to Thermal Power Change:

0000-0800, 09/07/85 ----- 147 Ci/day

0800-1600, 09/07/85 ----- 149 Ci/day

1600-2400, 09/07/85 ----- 145 Ci/day

0000-0800, 09/08/85 ----- 145 Ci/day

0800-1600, 09/08/85 ----- 145 Ci/day

1600-2400, 09/08/85 ----- 150 Ci/day

- (5) Gross Alpha Activity Level Starting With Sample Prior to Thermal Power Change:

0208, 09/09/85 ----- $< 4.66 \times 10^{-8}$ μ Ci/ml

0210, 09/09/85 ----- Rated Thermal Power Change

0122, 09/12/85 ----- 1.29×10^{-7} μ Ci/ml

SECTION 3

At 1555 on September 14, 1985 the reactor scrammed from 96% power due to High Reactor Water Level when power was lost to an Instrument Bus in the Control Room.

GROSS β - γ ACTIVITY AND IODINE ANALYSIS

Time of Sample: 1850, 09/14/85

Sample Results: Gross β - γ ----- .116 $\mu\text{Ci/ml}$
I-131----- 1.14×10^{-3} $\mu\text{Ci/ml}$
I-133----- 9.53×10^{-3} $\mu\text{Ci/ml}$
I-135----- 1.21×10^{-2} $\mu\text{Ci/ml}$

ADDITIONAL INFORMATION

- (1) Reactor Thermal Power Level starting 48 hours prior to thermal power change:

1555, 09/07/85 - 1555, 09/09/85----- ~ 96%.

- (2) The approximate fuel burnup of assemblies in a symmetrical core region is shown in Figure 2.

- (3) Cleanup Flow History starting 48 hours prior to thermal power change:

Primary Purification Flow Rate

1555, 09/07/85 - 1555, 09/09/85 ----- 42 gpm.

Primary Purification Decontamination Factors (β - γ)

0118, 09/12/85 ----- 740:1

0111, 09/16/85 ----- 689:1

- (4) Offgas Activity Levels Starting 48 Hours Prior to Thermal Power Change:

0800-1600, 09/12/85 ----- 144 Ci/day

1600-2400, 09/12/85 ----- 145 Ci/day

0000-0800, 09/13/85 ----- 148 Ci/day

0800-1600, 09/13/85 ----- 137 Ci/day

1600-2400, 09/13/85 ----- 149 Ci/day

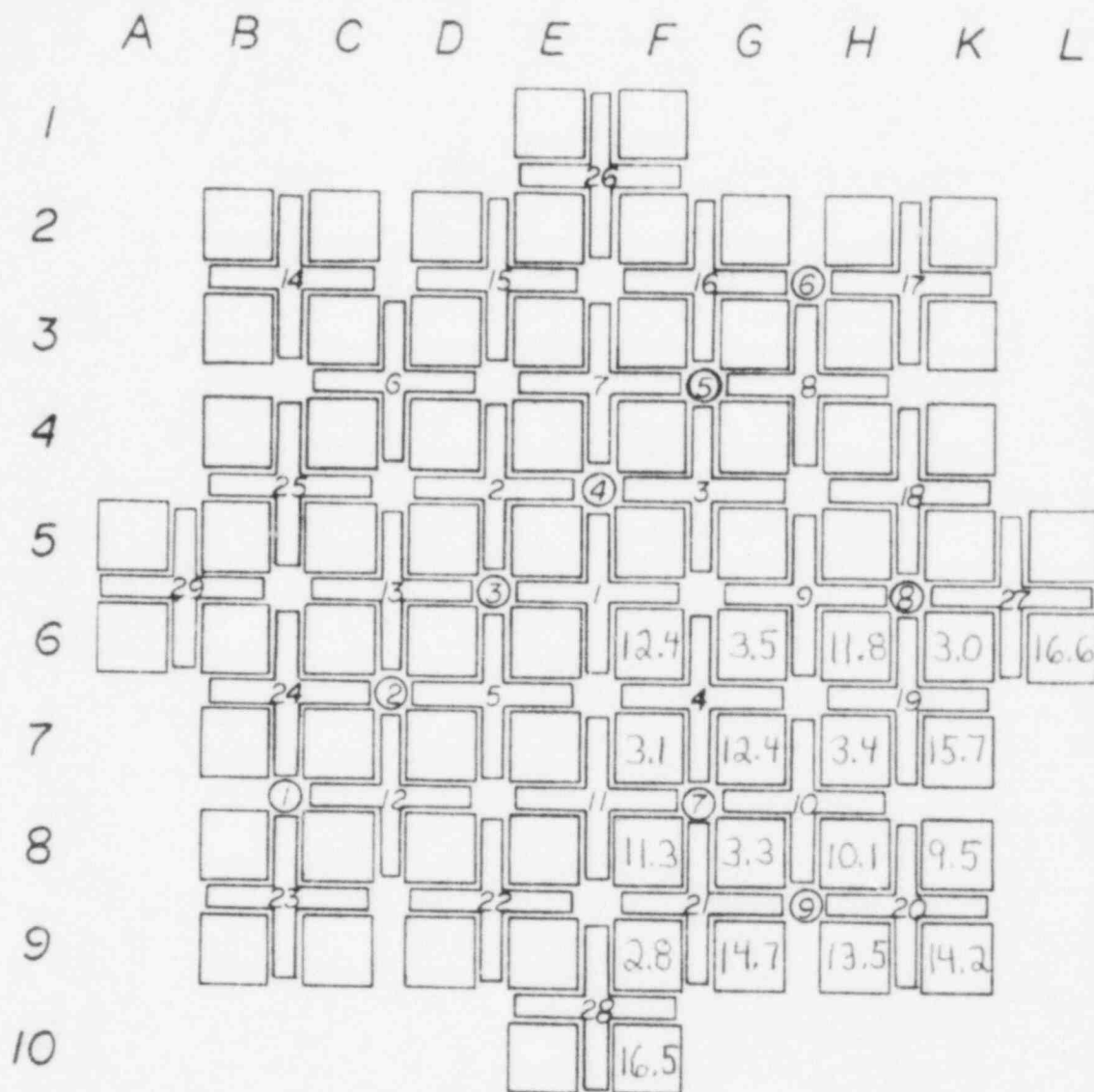
0000-0800, 09/14/85 ----- 149 Ci/day

- (5) Gross Alpha Activity Level Starting With Sample Prior to Thermal Power Change:

0122, 09/12/85 ----- 1.29×10^{-7} $\mu\text{Ci/ml}$

1555, 09/14/85 ----- Rated Thermal Power Change

0114, 09/16/85 ----- 1.00×10^{-7} $\mu\text{Ci/ml}$



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PLANT
NORTH

IN CORE FLUX MONITORS ○

Quarter Core Fuel Exposure Distribution (GWD/MTU)
as of September 9, 1985. The Core Average Exposure
is 9.921 GWD/MTU.

FIGURE 2