

DAIRYLAND POWER COOPERATIVE

La Crosse, Wisconsin

54601

October 26, 1978

In reply, please
refer to LAC-5520

DOCKET NO. 50-409

Director of Nuclear Reactor Regulation
ATTN: Mr. Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
SYSTEMATIC EVALUATION PROGRAM (SEP) -
ENVIRONMENTAL QUALIFICATION OF SAFETY-RELATED
EQUIPMENT

Reference: 1) NRC Letter, Ziemann to Madgett,
dated September 6, 1978.

Gentlemen:

Your letter (Reference 1) requested additional information regarding environmental qualification of safety related electrical equipment (SEP Topic III-12).

We have completed as much of the data table as possible, identified appropriate references and confirmed the accuracy and completeness of the table.

If there are any questions regarding this submittal, please contact us.

Very truly yours,

DAIRYLAND POWER COOPERATIVE

John P. Madgett, General Manager

JPM:JDP:af

cc: J. Keppler, Reg. Dir., NRC-DRO III

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Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference
				Parameter	Spec.	Qual.		
55-25-014	1 - 4/15	0	20 Min.	Temp.	--	--	--	
Manual Operation				Pr. (PSIA)	--	--	--	
				RH	--	--	--	
				Chem.	--	Yes	V. Info*	Light Oil
				Rad.	--	10 ^B	V. Info	See 2-2/7
				Sub.	--	No	None	Note 15
								River Water OK Note 4 (LAC-5181)
62-25-006	2 - 2/7	I	3 Sec.	Temp.	--	--	--	
Fails to Open				Pr. (PSIA)	--	--	--	
Valve (Safe)				RH	--	--	--	
				Chem.	--	Yes	V. Info	Note 6
				Rad.	--	10 ^B	V. Info	Note 4
				Sub.	--	No	None	Above Flood level (720')
62-25-009	2 - 2/8	I	3 Sec.	Temp.	--	--	--	
Fails to Open				Pr. (PSIA)	--	--	--	
Valve (Safe)				RH	--	--	--	
				Chem.	--	Yes	V. Info	Note 6
				Rad.	--	10 ^B	V. Info	Note 4
				Sub.	--	No	None	Above Flood Level (720')
67-25-002	2 - 2/9	I	<1 Sec.	Temp.	--	--	--	
Fails to Open				Pr. (PSIA)	--	--	--	
Valve (Safe)				RH	--	--	--	
				Chem.	--	Yes	V. Info	Note 7
				Rad.	--	10 ^B	V. Info	Note 4
				Sub.	--	No	None	Note 7
								Light Oil OK (LAC-5181)
75-25-003/004	2 - 2/10	I	<1 Sec.	Temp.	--	--	--	
Fails to Open				Pr. (PSIA)	--	--	--	
Valve (Safe)				RH	--	--	--	
				Chem.	--	Yes	V. Info	Note 7
				Rad.	--	10 ^B	V. Info	Note 4
				Sub.	--	No	None	Note 7
								Light Oil OK (LAC-5181)

Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference	
				Parameter	Spec.	Qual.			
53-25-005	2 - 1/2	I	2 Sec.	Temp.	--	--	--		
Not Required to Operate			↗	Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	100%	V. Info	Note 4	(LAC-5181)
				Chem.	--	Yes	V. Info	Note 4	NEMA 7C, D, 9E, F, G
				Rad.	--	--	--		
				Sub.	--	--	--		
53-25-006	2 - 1/3	I	>2.5 hr.	Temp.	--	--	--		
Long Term Cooling Required			↗	Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	100%	V. Info	Note 4	(LAC-5181)
				Chem.	--	Yes	V. Info	Note 4	NEMA 7C, D, 9E, F, G
				Rad.	--	--	--		
				Sub.	--	--	--		
59-25-002	2 - 1/4	I	>2.5 hr.	Temp.	--	--	--		
Long Term Cooling Required			↗	Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	100%	V. Info	Note 4	(LAC-5181)
				Chem.	--	Yes	V. Info	Note 4	NEMA 7C, D, 9E, F, G
				Rad.	--	--	--		
				Sub.	--	--	--		
62-25-015	2 - 1/5	I	20 Min.	Temp.	--	--	--		
Fail Open (Safe) Manual Operation			↗	Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	100%	V. Info	Note 4	(LAC-5181)
				Chem.	--	Yes	V. Info	Note 4	NEMA 7C, D, 9E, F, G
				Rad.	--	--	--		
				Sub.	--	--	--		
62-25-016	2 - 1/6	I	20 Min.	Temp.	--	--	--		
Fail Open (Safe) Manual Operation			↗	Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	100%	V. Info	Note 4	(LAC-5181)
				Chem.	--	Yes	V. Info	Note 4	NEMA 7C, D, 9E, F, G
				Rad.	--	--	--		
				Sub.	--	--	--		

Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference
				Parameter	Spec.	Qual.		
VB5182 38-30-001 Manual Override ~ 20 min.	1-2/6	0	11 Sec.	Temp.	Ambient	--	--	Limitorque Project #600461 Report #B-0003, 1/23/75
				Pr. (PSIA)	"	25	V. Info	
				RH	"	100%	V. Info	
				Chem.	"	--	--	
				Rad.	4.2	2x10 ⁷	V. Info	
NOTE: This equipment is required only in the event of a LOCA.				Sub.	--	--	--	"
VB5181 38-30-002 Manual Override ~ 20 Min.	1-4/14	0	11 Sec.	Temp.	Ambient	--	--	Limitorque Project #600461 Report #B-0003 1/23/75
				Pr. (PSIA)	"	25	V. Info	
				RH	"	100%	V. Info	
				Chem.	"	--	--	
				Rad.	4.2	2x10 ⁷	V. Info	
NOTE: This equipment is required only in the event of a LOCA.				Sub.	--	--	--	"
HPSW Not required for DBE	1-3/9	0	NR	Temp.	Ambient	--	--	SAR Info
				Pr. (PSIA)	--	--	--	
				RH	--	--	--	
				Chem.	--	--	--	
				Rad.	4.2	**	--	
				Sub.	--	--	--	
HPCS Short Term Cooling	2-1/1	I	9 Sec.	Temp.	--	--	--	Similarity See 1-3/9 Light Oil OK Note 3 V. Info Note 4 Above (LAC-5181) Sealed Motor Windings Class "H" Installation Good for 10 ⁸ R (Valcor Data Sheet)
				Pr. (PSIA)	--	77	--	
				RH	--	--	--	
				Chem.	--	Yes	--	
				Rad.	10 ⁶	10 ⁸	--	
				Sub.	--	--	--	
Demin H ₂ O Pump This equipment is not required to function in either DBE and therefore is not safeguards equip. It is capable of use again. Add'l long-term cooling system in which core its environment is ambient.	1-2/8	0	>2.5 hr.	Temp.	Ambient	--	--	Similarity See 1-3/9 SAR Info Above, NES-81A0013
				Pr. (PSIA)	--	77	--	
				RH	Ambient	**	--	
				Chem.	--	--	--	
				Rad.	4.2	**	--	
				Sub.	--	--	--	

**Data not available from Mfg. this date.

Systematic Evaluation Program

Reactor: La Crosse

Equipment Type	SEP Submittal Reference	IOC	Time Needed	Environment			Qual. Method	Reference
				Parameter	Spec.	Qual.		
LPSM Not Req'd for Long-Term Cooling	1-2/10	0	NR	Temp.	Amb.	--	--	Not In Generator Plant Not In Generator Plant
				Pr. (PSIA)	Amb.	**	--	
				RH	Amb.	**	--	
				Chem.	--	--	--	
				Rad.	< 115	**	SAR Info	
				Sub.	--	--	Max. Op. Temp. Cont. = 482°F.	
CABLE MI Through Entire Cooling Period	2-1/11	1	Cont.	Temp.	--	320 F	V. Info P20	Gen. Cable Report E23145 " " " ECC Support Document by NRC ECC Support Document by NRC
				Pr. (PSIA)	--	5000	V. Info P11	
				RH	--	100%	V. Info P14	
				Chem.	--	Yes	V. Info P17	
				Rad.	--	4x10 ⁹	V. Info --	
				Sub.	--	Yes	V. Info P14	
50-42-302	2-2/11	1	< 1 Sec.	Temp.	--	--	--	Air Tight Housing Air Tight Housing Air Tight Housing
				Pr. (PSIA)	--	--	--	
				RH	--	100%	Test	
				Chem.	--	Yes	Test	
				Rad.	--	**	Test	
				Sub.	--	Yes	Test	
50-42-303	2-2/11	1	< 1 Sec.	Temp.	--	--	--	Air Tight Housing Air Tight Housing Air Tight Housing
				Pr. (PSIA)	--	--	--	
				RH	--	100%	Test	
				Chem.	--	Yes	Test	
				Rad.	--	**	Test	
				Sub.	--	Yes	Test	
50-42-306	2-2/11	1	< 1 Sec.	Temp.	--	--	--	Air Tight Housing Air Tight Housing Air Tight Housing
				Pr. (PSIA)	--	--	--	
				RH	--	100%	Test	
				Chem.	--	Yes	Test	
				Rad.	--	**	Test	
				Sub.	--	Yes	Test	

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Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference
				Parameter	Spec.	Qual.		
37-35-301	1-3/12	0	11 Sec.	Temp.	Amb.	--	--	
This equipment is only required to function during LOCA. In that case essentially ambient conditions exist in the area of the equipment.				Pr. (PSIA)	6.62	--	--	GU Report SS-1089
				RH	Amb.	**		
				Chem.	--	--	--	
				Rad.	22,000	**		SAR Info
				Sub.	--	--	--	
37-35-302	1-3/12	0	11 Sec.	Temp.	Amb.	--	--	
(Same as above)				Pr. (PSIA)	6.62	--	--	GU Report SS-1089
				RH	Amb.	**		
				Chem.	--	--	--	
				Rad.	22,000	**		SAR Info
				Sub.	--	--	--	
37-42-310	1-4/13	0	20 Min.	Temp.	Amb.	--	--	
Time allows backup				Pr. (PSIA)	6.62	--	--	GU Report SS-1089
Unit to be Connected				RH	Amb.	**		
				Chem.	--	--	--	
(Same as 37-35-301 above)				Rad.	22,000	**		SAR Info
				Sub.	--	--	--	
37-42-302	1-4/13	0	20 Min.	Temp.	Amb.	--	--	
Time allows backup				Pr. (PSIA)	6.62	--	--	GU Report SS-1089
Unit to be Connected				RH	Amb.	**		
				Chem.	--	--	--	
(Same as 37-35-301 above)				Rad.	22,000	**		SAR Info
				Sub.	--	--	--	
Diesel Gen. 1A	1-1/3	0	<10 Sec.	Temp.	Amb.			
At Loss of Power				Pr. (PSIA)	Amb.			NES Report 81A0013
				RH	Amb.			
				Chem.	--	--	--	
(Same as 37-35-301 above)				Rad.	22,000	**		SAR Info
				Sub.	--	--	--	

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Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference	
				Parameter	Spec.	Qual.			
Reactor MCCIA	2-2/12	I	NR	Temp.	--	--	--		
No ECCS Req'd Equip. Supplied from this Bus				Pr. (PSIA)	--	52	Test	Cont. Bldg.	Leak Rate Test
				RH	--	**			
				Chem.	--	Yes	Test Similar Unit		Light Oil Water Spray to Housing OK
				Rad.	--	**			
				Sub.	--	No	None	Note 9	Not Submersible
Control Room	1-1/11	0	Cont.	Temp.	Amb.	122 ⁰ F	Test	V. Info	GE Data EA-5
Needed until area must be evacuated				Pr. (PSIA)	Amb.	10***	***		NES Report 81A0013
				RH	Amb.	95%	Test	V. Info	GE Data EA-5
				Chem.	--	--	--		
This bldg. not exposed to either DBE.				Rad.	15.5	**		SAR Info	
				Sub.	--	--	--		
Elect. Equip. Rm.	1-1/2	0	Cont.	Temp.	Amb.	140 ⁰ F	V. Info		A.D.C. Literature
				Pr. (PSIA)	Amb.	10***	***		NES Report 81A0013
This Room not exposed to either DBE.				RH	Amb.	100%	V. Info		A.D.C. Literature
				Chem.	--	--	--		
				Rad.	15.5	**		SAR Info	
				Sub.	--	--	--		
Diesel Gen. IB	1-1/4	0	<10 Sec.	Temp.	Amb.	140 ⁰ F	V. Info		Not in Generator Plant
If loss of power				Pr. (PSIA)	Amb.	**			Not in Generator Plant
				RH	Amb.	100%	V. Info		
				Chem.	--	--	--		
This bldg. is not exposed to either DBE				Rad.	<15.5			SAR Info	
				Sub.	--	--	--		
Penetration Rm.	1-2/5	0	Cont.	Temp.	Amb.				
				Pr. (PSIA)	Amb.	10***	***		NES Report 81A0013
This bldg. is not exposed to either DBE.				RH	Amb.	**			
				Chem.	--	--	--		
				Rad.	172,500	**		SAR Info	
				Sub.	--	--	--		

**Data not available from Mfg. this date.

***Similar equipment operates within the Containment Bldg. at higher pressures during the building leak rate test.

Reactor: La Crosse

Systematic Evaluation Program

Equipment Type	SEP Submittal Reference	LOC	Time Needed	Environment			Qual. Method	Reference	
				Parameter	Spec.	Qual.			
C-H Starter This equipment only required to function during a LOCA. In that case ambient conditions would prevail in area equipment is located.	1-2/7	0	11 Sec.	Temp.	Amb.	--	--	SAR Info	Similar units operate during Cont. Leak Rate Test NES-81A0013
				Pr. (PSIA)	Amb.	52	-----		
				RH	Amb.	**			
				Chem.	--	--	--		
				Rad.	7700	**			
Sub.	--	---	--						
MA15B 2400V SWGR Operates LPSW Pumps Not req'd for Long-Term Cooling	1-3/11	0	NR	Temp.	Amb.	--	--	SAR Info	NES-81A0013
				Pr. (PSIA)	3.39	**			
				RH	Amb.	**			
				Chem.	--	--	--		
				Rad.	7700	**			
Sub.	--	--	--						
E/P Converter Control valve is a backup to containment isolation. Event requiring containment isolation would not effect equipment environment.	1-4/16	0	2 Sec.	Temp.		--	--	SAR Info	NES-81A0013
				Pr. (PSIA)	3.39	--	--		
				RH		**			
				Chem.	--	--	--		
				Rad.	4.2	**			
Sub.	--	--	--						
				Temp.					
				Pr. (PSIA)					
				RH					
				Chem.					
				Rad.					
				Sub.					
				Temp.					
				Pr. (PSIA)					
				RH					
				Chem.					
				Rad.					
				Sub.					

**Data not available from Mfg. this date.

NRC QUESTION:

SEP Response 1 and 2 did not address directly the penetration connectors, terminal blocks, splices or junction boxes.

DPC RESPONSE:

No exposed terminal blocks, splices or open junction boxes exist in the containment building for safety related equipment.