DISTRIBUTION
Docket Gray
NRC PDR
L PDR
NSIC
ORB#1 Rdg
DEisenhut
CParrish
MGrotenhuis
OELD
LJHarmon-2
TBarnhart-4
LSchneider
DBrinkman
ACRS-10
OPA
RDiggs
ASLAB

DEC 16 1982

Docket No. 50-305

Mr. C. W. Giesler
Vice President - Nuclear Power
Wisconsin Public Service Corporation
Post Office Box 1200
Green Bay, Wisconsin 54305

Dear Mr. Giesler:

On November 29, 1982 we issued Amendment No. 47 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. Several pages were reissued as corrected pages from Amendment Nos. 17, 39, 41, 42, 44 and 45. These amendments were inadvertently issued as if originated with Amendment No. 47. We have discussed this with your staff and concluded that we should reissue those pages with the appropriate amendment numbers on each page. We regret any inconvenience this may have caused your.

Sincerely,
ORIGINAL SIGNED

Marshall Grotenhuis, Project Manager
Operating Reactors Branch #1
Division of Licensing

Enclosures:
Correct Technical Specification
Pages

cc w/enclosures:
See next page

OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL				
SURNAME	CParrish	MGrotenhuis	SVarga				
DATE	12/15/82	12/15/82:dm	12/17/82				

Mr. C. W. Giesler
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cc: Steven E. Keane, Esquire
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Stanley LaCrosse, Chairman
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U. S. Nuclear Regulatory Commission
Resident Inspectors Office
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Kewaunee, Wisconsin 54216

James G. Keppler
Regional Administrator - Region III
U. S. Nuclear Regulatory Commission
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Glen Ellyn, Illinois 60137

REVISED TECHNICAL SPECIFICATION PAGES

WISCONSIN PUBLIC SERVICE CORPORATION

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Correct Appendix A as follows:

Remove Pages	Insert Pages
3.1-2a	3.1-2a
------	3.1-8
3.5-6	3.5-6
3.10-2	3.10-2
3.10-6	3.10-6
3.10-8	3.10-8
Table 3.15-1	Table 3.15-1
Table 3.15-2	Table 3.15-2
4.15-2	4.15-2
Table 4.10-1 (p. 1 of 6)	Table 4.10-1 (p. 1 of 6)
Table 4.10-1 (P. 5 of 6)	Table 4.10-1 (p. 5 of 6)

5. Pressurizer Power Operated Relief Valves (PORV) and PORV Block Valves.

   a. Two PORV's and their associated block valves shall be operable during hot standby and operating modes.

      1. If a pressurizer PORV is inoperable, the PORV shall be restored to an operable condition within one hour or the associated block valve shall be closed and maintained closed by administrative procedures to prevent inadvertent opening.
      2. If a PORV block valve is inoperable, the block valve shall be restored to an operable condition within one hour or the block valve shall be closed with power removed from the valve; otherwise the unit shall be placed in the hot shutdown condition using normal operating procedures.

6. Pressurizer Heaters

   A. At least one group of pressurizer heaters shall have an emergency power supply available when the average RCS temperature is greater than 350°F.

DELETED

Each relay in the undervoltage protection channels will fail safe and is alarmed to alert the operator to the failure.

A blackout signal which occurs during the sequence loading following a safety injection signal will result in a reinitiation of the sequence loading logic at time step 0 as long as the Safety Injection signal has not been re-set. The Kewaunee Emergency Procedures warn the operators that a Blackout Signal occurring after reset of Safety Injection will not actuate the sequence loading and instructs to re-initiate Safety Injection if needed.

Instrument Operating Conditions

During plant operations, the complete protective instrumentation systems will normally be in service. Reactor safety is provided by the Reactor Protection Systems, which automatically initiates appropriate action to prevent exceeding established limits. Safety is not compromised, however, by continuing operation with certain instrumentation channels out of service since provisions were made for this in the plant design. This specification outlines limiting conditions for operation necessary to preserve the effectiveness of the Reactor Control and Protection System when any one or more of the channels is out of service.

Almost all reactor protection channels are supplied with sufficient redundancy to provide the capability for channel calibration and test at power. Exceptions are backup channels such as reactor coolant pump breakers. The removal of one trip channel on process control equipment is accomplished by placing that channel bistable in a tripped mode; e.g., a two-out-of-three circuit becomes a one-out-of-two circuit. The source and intermediate range nuclear instrumentation system channels are not intentionally placed in a tripped mode since these are one-out-of-two trips, and the trips are therefore bypassed during testing. Testing does not trip the system unless a trip condition exists in another channel.

The operability of the instrumentation noted in Table 3.5-5 assures that sufficient information is available on these selected plant parameters to aid the operator in identification of an accident and assessment of plant conditions during and following a plant accident. In the event the instrumentation noted in Table 3.5-5 is not operable, the operator is given instructions on compensatory actions.

References:

(1) FSAR Section 7.5
(2) FSAR Section 14.3
(3) FSAR Section 14.2.5

Amendment No. 42

where:

P is the fraction of full power at which the core is operating

K(Z) is the function given in Figure TS 3.10-2

Z is the core height location for the FQ of interest

F_Q^T (Ej) is the function given in Figure TS 3.10-6

Ej is exposure of the fuel rod for the F_Q of interest

B. $F_{\Delta H}^N$ Limits For All Fuel

$F_{\Delta H}^N \times 1.04 \leq 1.55\ (1 + 0.2(1 - P))$ For 0 to 24,000 MWD/MTU burnup fuel

$F_{\Delta H}^N \times 1.04 \leq 1.52\ (1 + 0.2(1 - P))$ For greater than 24,000 MWD/MTU burnup fuel

where:

P is the fraction of full power at which the core is operating

2. If, for any measured hot channel factor, the relationships specified in 3.10.b.1 are not true, reactor power shall be reduced by a fractional amount of the design power to a value for which the relationships are true, and the high neutron flux trip setpoint shall be reduced by the same fractional amount. If subsequent incore mapping cannot, within a 24 hour period, demonstrate that the hot channel factors are met, the overpower ΔT and overtemperature ΔT trip setpoints shall be similarly reduced.

3. Following initial loading and at regular effective full power monthly intervals thereafter, power distribution maps using the movable detection system shall be made to confirm that the hot channel factor limits of specification 3.10.b.1 are satisfied.

4. The measured F_Q^{EQ} (Z) hot channel factors under equilibrium conditions shall satisfy the following relationship for the central axial 80% of the core:

A. Westinghouse Electric Corporation Fuel

$F_Q^{EQ}(Z) \times 1.03 \times 1.05 \times V(Z) \leq (2.22/P) \times K(Z)$

B. Exxon Nuclear Company Fuel

$F_Q^{EQ}(Z) \times 1.03 \times 1.05 \times V(Z) \leq F_Q^T(Ej)/P \times K(Z)$

to measure control rod worth and shutdown margin. For this test, the reactor may be critical with all but one high worth rod inserted and the part length rods fully withdrawn.

e. Rod Misalignment Limitations

This specification defines allowable limits for misaligned rod cluster control assemblies. In specifications 3.10.e.1 and 3.10.e.2, the magnitude, in steps, of an indicated rod misalignment may be determined by comparison of the respective bank demand step counter to the analog individual rod position indicator, the rod position as noted on the plant process computer, or through the conditioning module output voltage via a correlation of rod position vs. voltage.

1. When reactor power is greater than or equal to 85% of rating the rod cluster control assembly shall be maintained within $\pm$ 12 steps from their respective banks. If a rod cluster control assembly is misaligned from its bank by more than $\pm$ 12 steps when reactor power is greater than or equal to 85%, the rod will be realigned or the core power peaking factors shall be determined within 4 hours, and specification 3.10.b applied. If peaking factors are not determined within 4 hours, the reactor power shall be reduced to less than 85% of rating.
2. When reactor power is less than 85% of rating, the rod cluster control assemblies shall be maintained within $\pm$ 24 steps from their respective banks. If a rod cluster control assembly is misaligned from its bank by more than $\pm$ 24 steps when reactor power is less than 85%, the rod will be realigned or the core power peaking factors shall be determined within 4 hours, and specification 3-10.b applied.
3. And, in addition to 3.10.e.1 and 3.10.e.2 above, if the misaligned rod cluster control assembly is not realigned within 8 hours, the rod shall be declared inoperable.

BASIS

SHUTDOWN REACTIVITY

Trip shutdown reactivity is provided consistent with plant safety analysis assumptions. To maintain the required trip reactivity, the rod insertion limits of Figure TS 3.10-3 must be observed. In addition, for hot shutdown conditions, the shutdown margin of Figure TS 3.10-1 must be provided for protection against the steamline break accident which requires more shutdown reactivity at end of core life (due to a more negative moderator temperature coefficient at end-of-life boron concentrations).

Rod insertion limits are used to assure adequate trip reactivity, to assure meeting power distribution limits, and to limit the consequences of a hypothetical rod ejection accident. The available control rod reactivity or excess beyond needs, decreases with decreasing boron concentration, because the negative reactivity required to reduce the core power level from full power to zero power is largest when the boron concentration is low.

The exception to the rod insertion limits in Specification 3.10.d.3 is to allow the measurement of the worth of all rods less the worth of the worst case of an assumed stuck rod; that is, the most reactive rod. The measurement would be anticipated as part ot the initial startup program and infrequently over the life of the plant, to be associated primarily with determinations of special interest, such as end-of-life cooldown or startup of fuel cycles which deviate from normal equilibrium conditions in terms of fuel loading patterns and anticipated control bank worths. These measurements will augment the normal fuel cycle design calculations and place the knowledge of shutdown capability on a firm experimental as well as analytical basis.

TABLE TS 3.15-1

FIRE DETECTION INSTRUMENTATION

Fire Area		Detectors	Minimum # Required	Required Actions
AX-21	4160 Switchgear Room	3	2	Establish an hourly fire watch inspection
AX-23	Special Vent Filter Housings	9	9	If filter housing is in operation with charcoal filters in service establish an hourly fire watch inspection. If not in service establish a 4-hour inspection frequency.
AX-23	Auxiliary Building	4	2	Establish an hourly fire watch inspection
AX-24	Fuel Handling Area	3	3	Establish an hourly fire watch inspection
AX-30	Relay Room	19	6	Establish an hourly fire watch inspection
AX-32	Cable run area	11	8	Establish an hourly fire watch inspection
AX-35	Control Room	13	0	Control room is continuously manned
AX-37	CRD Room	7	4	Establish an hourly fire watch inspection
SB-65	Shield Building	6	2	Establish a four hour fire watch inspection
SC-70	Screenhouse	4	2	Establish an hourly fire watch inspection
TU-90/91	D/G 1A and day tank room	7	5	Establish an hourly fire watch inspection
TU-92/93	D/G 1B and day tank room	7	5	Establish an hourly fire watch inspection
TU 94	Cardox Room	1	1	Establish an hourly fire watch inspection
TU 95	Air Compressor & Pump Room	5	4	Establish an hourly fire watch inspection
TU 97	Battery Room 1A	1	1	Establish an hourly fire watch inspection
TU 98	Battery Room 1B	1	1	Establish an hourly fire watch inspection

Table TS 3.15-1

Amendment No. 39

TABLE TS 3.15-2

FIRE HOSE STATIONS

	Location
1.	Adjacent to S/G Blowdown Tank and 4160 V Switchgear Rooms
2.	Adjacent to Main Shop, Tank and Pump Room near Door 78
3.	Adjacent to Control Room and A/C Equipment Room, 606 elevation near stairs
4.	Screenhouse, north stairway leading to lower level
5.	Adjacent to D/G 1A and D/G 1A day tank rooms
6.	Adjacent to D/G 1B and D/G 1B day tank rooms
7.	Air Compressor and Pump Room near Auxiliary Feedwater Area Panel
8.	Adjacent to Oil Storage Room "B" and SWPT Pressure Filter Assembly
9.	Adjacent to Battery Rooms 1A and 1B
10.	Aux. Building Basement North of Freight elevator (A)
11.	Aux. Building Basement North of Laundry Pumps on south wall of valve gallery.
12.	Aux Building Basement solid radwaste handling area, west of MCC 1-45G
13.	Aux Building Mezz. Southwest of BA Transfer Pumps
14.	Aux Building Mezz. South of S/G Blowdown Tank
15.	Aux Building Operating Floor West of entrance to BA Tank Room
16.	Aux Building Operating Floor East Side of RWST
17.	Stair well at 616 elevation next to "G" wall

c) Verifying that each high pressure pump auto-start setpoint is ≥100 psig.

5. Deleted

c. Spray/Sprinkler Systems

Each of the spray and/or sprinkler systems in Specification 3.15.c shall be demonstrated OPERABLE:

1. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

2. At least once per 18 months:

a) By performing a system functional test which includes simulated automatic actuation of the system, and:

1. Verifying that the automatic valves in the flow path actuate to their correct positions, and

2. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

b) By visual inspection of the spray headers to verify their integrity, and

c) By visual inspection of each nozzle to verify no blockage.

3. At least once per three years by performing an air flow test through each open head spray/sprinkler header and verifying each open head spray/sprinkler nozzle is unobstructed.

d. Low Pressure CO_2 Systems

Each of the low pressure CO_2 systems in Specification 3.15.d shall be demonstrated OPERABLE:

1. At least once per 7 days by verifying CO_2 storage tank level and pressure, and

2. At least once per 18 months by verifying:

a) The system valves and associated ventilation dampers actuate manually and automatically, upon receipt of a simulated actuation signal, and

TABLE TS 4.10-1 (Page 1 of 6)

Operational Environmental Radiological Surveillance Program

Type of Sample	Location	Sampling Frequency	Type of Analysis	Frequency of Analysis	Reporting Units	Approximate Minimum Detectable Level	Comments
A. Airborne Particulates	K-1f K-2 K-7 K-8 K-15 K-16	Weekly	Gross alpha Gross beta Gamma Scan	Weekly Weekly Quarterly	pCi/m^3 pCi/m^3 pCi/m^3	4×10^{-4} pCi/m^3 1×10^{-3} pCi/m^3	On all samples On all samples Quarterly composite for each station
B. Airborne Iodine	Same as A	Bi-weekly	I-131	Bi-weekly	pCi/m^3	1×10^{-2} pCi/m^3	On all samples
C. Ambient Beta-Gamma	K-1f K-2 K-3 K-4 K-5 K-6 K-7 K-8 K-15 K-16						
TLD (5 chips in each packet)		Quarterly Annually	Beta-Gamma Beta-Gamma	Quarterly Annually	mrems/Q mrems/A	10 mrem	On all samples On all samples

TABLE TS 4.10-1 (Page 5 of 6)

Operational Environmental Radiological Surveillance Program

Type of Sample	Location	Sampling Frequency	Type of Analysis	Frequency of Analysis	Reporting Units	Approximate Minimum Detectable Level	Comments
M. Bottom Sediments	500' North of discharge (on the beach) K-1d 500' South of discharge (on the beach) K-9 K-14	4 times per year	Gross alpha	4/year	pCi/g	Same as Soil	May, July, Sept., Nov.
			Gross beta	4/year	pCi/g		April or May, June August, and October
			Sr-89	4/year	pCi/g		April or May, June, August, and October
			Sr-90	4/year	pCi/g		April or May, June August, and October
N. Deleted							
O. Periphyton (Slime) and Aquatic Plants	K-1a K-1b K-1d K-1e K-9 K-14	Semi-annually	Gross alpha	Semi-annually	pCi/g	0.11 pCi/g wet wt.	2nd and 3rd quarters if available in sufficient quantity
			Gross beta	Semi-annually	pCi/g	0.1 pCi/g wet wt.	2nd and 3rd quarters if available in sufficient quantity
			Sr-89	Semi-annually	pCi/g	0.01 pCi/g wet wt.	2nd and 3rd quarters if available in sufficient quantity
			Sr-90	Semi-annually	pCi/g	0.007 pCi/g wet wt.	2nd and 3rd quarters if available in sufficient quantity

Amendment No. 44