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SUBJECT: Application to amend License DPR-43, revising Tech Specs re limiting conditions for operation, surveillance requirements & administrative controls.

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WISCONSIN PUBLIC SERVICE CORPORATION


P.O. Box 1200, Green Bay, Wisconsin 54305

December 20, 1982

Dr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Proposed Amendment No. 51 to the KNPP Technical Specifications

Enclosed you will find 40 copies of Proposed Amendment No. 51 to the Kewaunee Plant Technical Specifications. This proposed amendment revises items in the areas of Limiting Conditions for Operation, Surveillance Requirements, and Administrative Controls.

The following are the affected pages:

TS 3.1-11	TS 3.15-2	TS 4.5-3
TS 3.1-12	Table TS 3.5-1 (1 of 2)	TS 4.6-2
TS 3.1-13	Table TS 3.5-4 (2 of 2)	TS 4.7-1
TS 3.2-2	TS 4.1-3	TS 4.8-1
TS 3.4-1	TS 4.2-5	TS 4.15-3
TS 3.4-2	TS 4.2-6	TS 6-14
TS 3.9-3	TS 4.5-1	TS 6-17
TS 3.10-4	TS 4.5-2	TS 6-27

Section 3, Limiting Conditions for Operation, has been revised with respect to
(a) the RCS leakage rate
(b) a CVCS Boric Acid Transfer Pump exemption

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- (c) the required amount of liquid to be stored in the Condensate Storage Tank
- (d) the definition of the maximum allowable activity in a Liquid Radwaste Tank
- (e) Power Distribution Limits, and
- (f) the minimum CO₂ Storage Tank pressure

Section 4, Surveillance Requirements, has been revised to

- (a) clarify that test frequencies should be "once per operating cycle or once every 18 months, whichever occurs first" rather than during "refueling,"
- (b) correct the steam generator inspection interval,
- (c) clarify the required pump test frequency for the Safety Injection, Residual Heat Removal, Containment Spray, and Auxiliary Feedwater Systems,
- (d) raise the fire hose hydrostatic test pressure in accordance with 10 CFR 50, Appendix R, section III, part E,

Section 6, Administrative Controls, has been amended in the following areas:

- (a) Annual Reporting Requirements, adding requirements regarding pressurizer power operated relief valves and safety valves,
- (b) reporting requirements for an unplanned reactivity insertion while subcritical, and
- (c) containment purging while in the operating mode.

The following identify the specific changes requested:

Page TS 3.1-11, Specification 3.1.d.3

The total allowable Reactor Coolant System leakage rate, excluding RCS to steam generator leakage, has been reduced from 25 gpm to 10 gpm. This is in response to the letter from S. A. Varga (USNRC) to C. W. Giesler (WPSC) dated October 21, 1982.

Page TS 3.1-12, Specification 3.1.d.4

This specification has been revised to reflect the current title of the Plant Manager (rather than Plant Superintendent).

Page TS 3.1-13, Specification 3.1.d.4

Same as Specification 3.1.d.3. RCS leakage rate reduced from 25 gpm to 10 gpm.

Page TS 3.2-2, Specification 3.2.c.4

This one-time exemption which allowed two boric acid transfer pumps to be out of service has been deleted; it is no longer applicable.

Page TS 3.4-1, Specification 3.4.a.4

The volume of water required to be stored in the Condensate Storage

Tanks (CST's) has been reduced from 75,000 gallons to 10,000 gallons. This limit is more appropriate as a limiting condition for operation in light of the following:

- 1) A 10,000 gallon limit provides the plant operators with sufficient time to transfer AFW pump suction from the CST's to the back-up water supply system. (Normally, with all three AFW pumps operating at design capacity of 240 gpm, the operators would have approximately 14 minutes to transfer AFW pump suction. In fact, the operators should have two to three times as much time to transfer suction, since one AFW pump is capable of adequately removing heat from the steam generators.)
- 2) The back-up water supply is the Service Water System (SWS) which draws its source of water from Lake Michigan, providing an unlimited supply of water.
- 3) The SWS is a Class I system while the CST's and supply piping are Class II (Reference FSAR Section 6.6.3).

In discussions held between WPSC management and the NRC staff, the staff indicated its acceptability of this change to the technical specifications. This reduction in the required amount of water to be stored in the CST's does not pose a safety concern, as evidenced by the above points and the realization that AFW pump suction can be remotely transferred from the control room. This pump suction transfer is effected by the opening of a single valve for each AFW pump desired, a total of three valves. Since only one AFW pump is needed to remove decay heat, this provides a level of redundancy.

This proposed revision to this specification supersedes the request contained in Proposed Amendment No. 45 to change specification 3.4.a.4 which was submitted to the NRC February 20, 1981.

Page TS 3.4-2, Basis for Specification 3.4

The paragraph four (4) referring to the water supply in the Condensate Storage Tanks has been revised to correspond with Specification 3.4.a.4 above. As stated above, the CST's are the preferred source of water, but are backed up by the safety grade SWS.

Page TS 3.9-3, Specification 3.9.a.7

The 10 curie per liquid radwaste tank limit has been revised to provide consistency with other specifications regarding liquid effluents. Our current wording has been changed so that the specification will agree with Radiological Effluent Technical Specifications (RETS), Section 3/4, page 11-7.

Our current wording severely restricts our ability to reprocess RCS letdown water. Because of the extended runs over the past two years, the tritium level in the RCS is such that we are limited to half capacity on the CVCS Monitor Tanks. We are limited to this tank volume

to avoid exceeding the 10 curie limit and will be forced to further reduce the tank level unless this specification is changed.

NRC inspectors have questioned us about the conservative wording of our current specification and have suggested that we revise the wording to be consistent with RETS. This will have the additional benefit of reducing the frequency of LER's generated at Kewaunee which now results from the current conservative wording.

We have added the clause "excluding tritium and dissolved or entrained noble gases" to our current specification to make it consistent with RETS. It is our understanding that this change does not involve a hazards consideration since the NRC has approved the RETS which this proposed amendment agrees with. As pointed out in RETS:

Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of the tank's contents, the resulting concentrations would be less than the limits of 10CFR Part 20, Appendix B, Table II, Column 2, at the nearest potable water supply and the nearest surface water supply in an unrestricted area.

Page TS 3.10-4, Specification 3.10.b.6.B

This specification has been revised to allow for a return to power, provided that a power distribution map verifies there is adequate margin. This change is needed to avoid the potential ambiguity which could occur if the requirements of specification 3.10.b.4 need to be implemented. Currently there is no allowance for a return to power if the conditions of 3.10.b.4 are invoked. This change is needed to clarify that a return to power is acceptable if the relationships of 3.10.b.4 are satisfied with at least 1% margin for each percent of power level to be increased.

Page TS 3.15-2, Specification 3.15.d

The minimum pressure limit of the CO₂ storage tanks has been reduced from 295 psig to 275 psig. As noted in our letter of March 15, 1982, C. W. Giesler (WPSC) to J. G. Keppler (USNRC, Region III), the 295 psig limit appears to have been a typographical error.

The nominal system pressure is 295 psig; however, it is not the lowest pressure at which the system will operate. The lowest system operating pressure is 275 psig and thus satisfies the intent of this specification as a limiting condition for operation.

Table TS 3.5-1 (Page 1 of 2), Item 8

The Setting Limit description has had a typographical error corrected. The word None (3) should read Note (3).

Table TS 3.5-4 (Page 2 of 2), Item 3a

This item has been changed to indicate that these High Containment Radiation channels are not required for containment ventilation isolation

when the isolation valves are maintained closed. A note has been added that the detectors are required for RCS leak detection per TS 3.1.d.5.

The following pages and specifications have been revised to allow tests to be performed at times other than during refueling. In no case will an interval between tests exceed 18 months. We have revised these specifications to read "outage" rather than "refueling," or "once per operating cycle or once every 18 months, whichever occurs first." This change provides us with additional flexibility while still maintaining an acceptable surveillance frequency.

<u>PAGE</u>	<u>SPECIFICATION</u>
TS 4.1-3	4.1 (Seismic & Guard Pipes)
TS 4.2-6	4.2.b.3.d
TS 4.5-1	4.5.a.1.A
TS 4.5-2	4.5.a.2.A, 4.5.a.3
TS 4.5-3	4.5.b.2.F and Basis
TS 4.6-2	4.6.a.5, 4.6.a.6
TS 4.7-1	4.7 (Specification)

Page TS 4.2-5, Specification 4.2.b.3.b

The interval for steam generator inspections which previously read 90 months appears to be erroneous. This has been revised to read 40 months between inspections to be consistent with TS 4.2.b.3.a.

Page TS 4.5-2, Specification 4.5.b.1.A

The wording has been changed to clarify the intent of this specification and to provide consistency with our surveillance procedures and ASME Section XI, IWP 3400, item (a). Previously, this specification could be misinterpreted to mean that the pumps would have to be tested every 30 days, even if the plant was shut down at the time. The proposed wording is needed to avoid this potential misunderstanding.

Page TS 4.8-1, Specification 4.8.a

This specification has been changed to be consistent with the revised specification 4.5.b.1.A and the ASME code, Section XI, IWP 3400, item (a). The revised wording is needed to avoid the potential misunderstanding that pumps require testing monthly, even if the plant was shut down at the time.

Page TS 4.15-3, Specification 4.15.e.3.b

The fire hose hydrostatic test has been upgraded to 250 psig from 200 psig. This revision is consistent with 10CFR50, Appendix R, Section III, Part E. Since our maximum fire main operating pressure is under 200 psig (nominally 180 psig), this test pressure is conservative.

Page TS 6-14, Specification 6.9.1.b.3

An annual reporting requirement has been added to this section.

Dr. Harold R. Denton
Page 6
December 20, 1982

Challenges to and failures of the pressurizer power operated relief valves and safety valves shall be reported annually. This change is in accordance with a commitment we made in a letter from E. R. Mathews (WPSC) to S. A. Varga (USNRC) dated January 5, 1981, in response to NUREG-0737, Item II.K.3.3.

Page TS 6-17, Specification 6.9.2.a.4

The allowable unplanned reactivity insertion while the reactor is sub-critical has been changed from 50¢ to 0.5% Δ K/K. Although less conservative than the existing specification, this change is justified because:

- (a) KNPP's FSAR (Vol. 5, Sec. 14.1.1) contains an analysis for an unplanned reactivity insertion while subcritical of 0.78% Δ K/K. It was concluded that the maximum average clad temperature attained was less than the nominal full power value.
- (b) The value accepted in the Standard Technical Specifications is 0.5% Δ K/K.

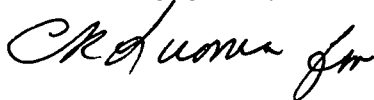
An unplanned reactivity insertion of 0.5% Δ K/K is more conservative than analyzed for in the FSAR [(a) above] which has been approved by the Commission; therefore, this revision to KNPP's Technical Specifications provides an adequate safety margin.

Page TS 6-27, Specification 6.15.1

This specification has been added to limit containment purging to 90 hours per cycle while in the operating mode. If this limit is exceeded, the NRC will be notified in writing within 30 days. This item responds to a NRC request contained in a letter from S. A. Varga (USNRC) to C. W. Giesler (WPSC) dated September 30, 1982.

We have determined these changes are Class III since they are deemed not to involve a significant hazards consideration. A check in the amount of \$4,000 is enclosed in accordance with 10CFR 170.22 requirements.

Very truly yours,



C. W. Giesler
Vice President - Nuclear Power

fw

Enc.

cc - Mr. Robert Nelson, USNRC

Subscribed and Sworn to
Before Me This 20th Day
of December 1982
Susan M. Fok
Notary Public, State of Wisconsin

My Commission Expires:
March 24, 1985