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UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

February 19, 1974

Docket No. 50-305

NOTE TO FILES

TEMPORARY EXEMPTION TO TECHNICAL SPECIFICATIONS FOR THE KEWAUNEE NUCLEAR POWER PLANT

On February 7, 1974, I received a telephone call from Mr. Carl Giesler, Wisconsin Public Service Corporation requesting a temporary exemption to the requirements of Technical Specification 3.1.e for the Kewaunee plant. This specification establishes limits on allowable concentration of contaminants in the primary coolant system as follows:

	Normal Steady-State Operation (ppm)	Transient Limits (ppm)
Oxygen	0.10	1.00
Chloride	0.15	1.50
Fluoride	0.15	1.50

The specification provides that if the concentration of contaminants cannot be held within the transient limits or returned to the normal steady-state limits within a 24 hour period, the reactor shall be brought to a cold shutdown condition and the problem corrected.

The circumstances leading to the request for exemption were as follows:

a. On February 6, 1974, an analysis of the primary coolant revealed the chloride concentration was at 0.21 ppm. The reactor, at the time, was at temperature and pressure on pump heat, going through the start-up program. The reactor has not yet gone critical.

b. The cause of the out-of-spec chloride was due to a break down of the resin in the let-down demineralizer as a result of a high let-down water temperature.

c. At the time of the telephone call, cooldown of the system had been initiated in accordance with the Technical Specifications, since the 24-hour period had passed and the chloride still was not within the 0.15 ppm limit. However, work was underway to change the resin and Mr. Giesler estimated that with the new resin installed, a period of perhaps 12 hours would be required to clean up the system. Since approximately the same time would be required to achieve cooldown and since he felt the system was in better shape at temperature with a slightly high chloride and essentially zero oxygen than it would be at a lower temperature with the chloride and saturated oxygen, he requested temporary exemption to the cooldown requirement such that they could clean up the system while staying at temperature.

memo
LB

I discussed the situation with Karl Kniel and then with John Weeks, Materials Engineering Branch. John agreed that with the chloride only slightly out of spec (0.21 ppm vs. 0.15 ppm) we would be better to stay at temperature while cleaning up rather than to cool down and add oxygen to the system too.

On this basis, I called Mr. Giesler at 12.10 p.m. on February 7, 1974, and told him we would grant an exemption to stay at temperature for an additional 24-hour period while attempting the clean up, but that if they were not back within limits at the end of the extension period they should start cooling down. I also told Mr. Giesler that we required a telecopied request and justification for the exemption. That request is attached as enclosure 1.

Follow-Up

On the morning of February 8, 1974, I was advised by Mr. Giesler that due to problems with the replacement resin, they still had been unable to achieve the 0.15 ppm limit within the additional 24 hour period and that they had initiated system cooldown. At the time of the call, the chloride concentration was about 0.18 ppm and they were again changing out the resin.

I later was advised that with second resin change, they achieved a much higher DF on the demineralizer and that as of 12:00 noon local time the chloride concentration was back within limits and they were proceeding with the test program.

L. P. Crocker
Licensing Project Manager
Light Water Reactors
Project Branch 2-2
Directorate of Licensing

Enclosure:
As stated

Karl Kniel, Chief
Light Water Reactors Branch 2-2
Directorate of Licensing

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Plant
P. O. Box 130
Kewaunee, Wisconsin 54216

February 7, 1974

Mr. Karl Kniel, Chief
Pressurized Water Reactors Branch No. 2
Directorate of Licensing
Office of Regulation
U.S. Atomic Energy Commission
Washington, D.C. 20545

Docket No. 50-305

Dear Mr. Kniel:

At 6:20 AM Feb. 6, 1974 the Chloride content of our Main Coolant was analyzed and and found to 0.21 ppm. Opening of a Charging Pump Relief Valve had caused reduced flow through the Regenerative Heat Exchanger and consequently caused an increase in Let-Down Water Temperature. The Let-Down Demineralizer By-Pass Valve operated but apparently not until the temperature of the resins got high enough to cause resin break down. We have sluiced out the resin and we are installing new material preparatory to removal of the Main Coolant Chloride.

After the 24 hour period allowed in our Tech. Specs. we initiated cool down and requested by phone call to Mr. Larry Crocker, AEC, exemption from going to cold shut down. This is the written followup to that request to stay at hot shut down.

It is believed that with the Oxygen of the system at zero and the fluorides at 0.005 ppm we are in a better condition then going to cold shut down and possibly reaching Oxygen saturation. In that we are at 0.21 ppm which is not too far from our 0.15 ppm specification greater problems would be injected by the transition to cold shut down. Our transition chloride limit is 1.5 ppm.

Sincerely,

Carl W. Giesler for E. W. James
Supt. Nuclear Power

CWG:ca

cc: James G. Keppler
Regional Director
Region III
Directorate of Regulatory Operations
799 Roosevelt Road
Glen Ellyn, Illinois 60137