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ENCLOSURES:
Amdt #11/change #13 to OL: Consisting of change to tech specs with regard to operability requirements of piping systems hydraulic shock suppressors or SNUBBERS.....

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WISCONSIN PUBLIC SERVICE CORPORATION

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

August 15, 1975

Mr. Benard C. Rusche, ~~Director~~
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Rusche:

Subject: Proposed Amendment No. 11, Change No. 13 to the Technical Specification and Operating License - Kewaunee Nuclear Power Plant

Ref: Docket No. 50-305
Operating License DPR-43
Letter from Mr. R. A. Purple to Wisconsin Public Service Corporation dated 7/30/75

In response to the referenced letter, we submit herewith thirty-seven (37) copies of Proposed Amendment No. 11, Change No. 13 to Appendix A of Operating License DPR-43.

This submittal consists of a proposed addition to the Technical Specifications, Section 3.14, concerning operability requirements of piping systems' hydraulic shock suppressors or snuhbers. In addition, this submittal includes a correction to Table TS 3.5-1, Item 4.

We have included, as a technical specification limiting condition for reactor operation, the requirement that all hydraulic snubbers associated with safety related systems and components be operable. In keeping with the principles and format of the Kewaunee Technical Specifications, we have also included permissible conditions of hydraulic snubber inoperability together with what we believe to be justifiable alternative actions in the face of conditions of snubber inoperability.

The Kewaunee Technical Specifications presently contain in Section 4.2 provisions for surveillance of hydraulic snubbers. As indicated in paragraph 4.2.3, these requirements are based upon the provisions of Section XI of the ASME Code for In-Service Inspection of Nuclear Reactor Coolant Systems dated July 1, 1971, and Summer 1971 Addenda. The specific surveillance requirements are included in Table TS 4.2-1, IS-261, Item No. 4.6.

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The "model technical specifications" included with the referenced letter contain an extensive surveillance program for hydraulic snubbers which far exceeds the requirements of even the most recent (1974) edition of Section XI of the ASME Code. A review of both PWR and BWR operating experience with hydraulic snubbers indicates a preponderance of the significant failures have been associated with the Bergan-Patterson units, while the ITT Grinnell equipment has accumulated a record of high reliability. All snubber units utilized at the Kewaunee Plant on safety related piping are the ITT Grinnell type, and have so far paralleled the industry record of high reliability. To date, there have been no instances of hydraulic fluid leakage due to seal failures on any Kewaunee Plant hydraulic snubbers.

Therefore, while an extensive surveillance program may be warranted in the case of the Bergan-Patterson units, we believe that the operating experience with ITT Grinnell snubbers justifies our continued reliance on the guidelines of Section XI of the ASME Code regarding in-service inspection of hydraulic snubbers. Consequently, no additional hydraulic snubber surveillance requirements are included with this submittal.

Table TS 3.5-1 includes a typographical error in Item "No. 4", "Low Steam Line Pressure." The setting limit should be $\geq$ 500 psig to fulfill the intended safety function.

Also, please find enclosed three copies of our tabulation of Technical Specification Amendment requests for your staff's use.

Very truly yours,

E. W. James
Senior Vice President
Power Supply & Engineering

EWJ:sna
Enc.
Subscribed and Sworn to
Before Me This 15TH Day
of August 1975

Jerome O Tews
Notary Public, State of Wisconsin

My Commission Expires
February 14, 1979

3.14 HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS)

Applicability

Applies to the hydraulic snubbers installed on all Quality Assurance Type I piping systems.

Objective

To ensure that the piping of safety related systems or components is protected from damage due to unrestrained motion under dynamic loads.

Specification

a. The reactor shall not be made critical unless all hydraulic snubbers serving Quality Assurance Type I systems are operable.

b. During power operation or recovery from inadvertent trip, if any hydraulic snubber is found to be inoperable, one of the following actions shall be taken within 72 hours:

   1. The inoperable hydraulic snubber(s) shall be restored to an operable condition.

   2. The pipe line(s) containing the inoperable hydraulic snubber(s) shall, if feasible, be isolated from the reactor coolant system, and thereafter operation may continue subject to any limitations consequent to this action.

   3. Actions shall be initiated to place the reactor in the hot shutdown condition.

Basis

Snubbers are designed to prevent unrestrained pipe motion under dynamic loads (as might occur during seismic activity or severe plant transients)

while allowing normal thermal motion during startup or shutdown. The consequence of an inoperable snubber is an increase in the probability of structural damage to piping as a result of a seismic or other event initiating dynamic loads. It is therefore required that all hydraulic snubbers designed to protect the reactor coolant and other safety related systems or components be operable during reactor operation. The intent of this specification is to prohibit startup or continued operation with knowingly defective safety related hydraulic snubbers.

Because the protection afforded by hydraulic snubbers is required only during relatively low probability events, Specification 3.14.b allows a period of 72 hours for repairs or feasible alternative action before reactor shutdown is required. Specification 3.14.a prohibits reactor startup with identified inoperable snubbers.

TABLE TS 3.5-1

ENGINEERED SAFETY FEATURES INITIATION INSTRUMENT SETTING LIMITS

NO.	FUNCTIONAL UNIT	CHANNEL	SETTING LIMIT
1	High Containment Pressure (Hi)	Safety Injection*	$\leq$ 4 psig
2	High Containment Pressure (Hi-Hi)	a. Containment Spray	$\leq$ 23 psig
		b. Steam Line Isolation of Both Lines	$\leq$ 17 psig
3	Pressurizer Low Pressure and Low Level	Safety Injection*	$\geq$ 1815 psig
			$\geq$ 5% (of distance) between the instrument taps
4	Low Steam Line Pressure	Safety Injection*	$\geq$ 500 psig
		Lead Time Constant	$\geq$ 12 seconds
		Lag Time Constant	$\leq$ 2 seconds
5	High Steam Flow in a Steam Line Coincident with Safety Injection and Low T_{avg}	Steam Line Isolation of Affected Line**	d/p corresponding to < 0.745 x 10^6 lb/hr at 1005 psig
			$\geq$ 540°F
6	High-High Steam Flow in a Steam Line Coincident with Safety Injection	Steam Line Isolation of Affected Line**	$\leq$ d/p corresponding to 4.5 x 10^6 lb/hr at 735 psig
7	Forebay Level	Trip Circ. Water Pumps	

* Initiates containment isolation, feedwater line isolation, shield building ventilation, auxiliary building special vent, and starting of all containment fans. In addition, the signal overrides any bypass on the accumulator valves.

**Confirm main steam isolation valves closure within 5 seconds when tested. d/p = differential pressure

Table TS 3.5-1

Proposed Amend. No. 11
Change No. 13

TECHNICAL SPECIFICATION REVISION CONTROL

WPS Change No.	WPS Amend. No.	Date	Pages	NRC Change No.	NRC Amend. No.	Date	FSAR Amend.
1	---	3-15-74	TS 3.3-2, TS 3.3-3, TS 3.3-8	1	---	4-3-74	
2	---	4-5-74	TS 6.1-2	2	---	4-19-74	
3	1	4-9-74	Table 4.10-1 (pg. 1, 2,4,6)	3	1	5-21-74	
			TS 6.1-2	4	2	7-26-74	
5	3	9-4-74	TSii, TSv, TS 3.10-1 thru TS 3.10-8 Fig. TS 3.10-1 - 3.10-6 Table TS 4.1-1 (Pg. 1 of 3, 3 of 3)				35
6	4	9-30-74	TS 4.2-3 thru 4.2-7 Table TS 4.2-1 (pg. 9 of 14)				
7	5	10-4-74	ES 2.2-3 thru 2.2-6	5	3	3-20-75	
8	6	11-5-74	ES 4.1-5 & 4.1-6	8	6	3-20-75	
9	7	1-15-75	TS 6-1 thru 6-24				
(See WPS Letter		12-20-74)	Table TS 4.1-3 (Item 10)	6	4	1-20-75	
10	8	2-14-75	New Sec. 3.12 & 4.12				
11	9	8-1-75	ES 2.1-1, 2.1-2, 2.1-3, 2.2-1, 2.2-3, 2.2-5, 2.2-6, 4.1-1, 4.1-3, 4.1-4, 4.1-5, 5.1-1, 5.2-1, 5.3-1, 5.4-1, 5.4-2, 5.5-1				
12	10	7-10-75	TS 4.13-1, 4.13-2				37

TECHNICAL SPECIFICATION REVISION CONTROL

WPS Change No.	WPS Amend No.	Date	Pages	NRC Change No.	NRC Amend No.	Date	FSAR Amend.
13	11	8-14-75	TS 3.13 New Section Table TS 3.5-1				