

April 27, 1979

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Docket No. 50-305

Mr. E. W. James
 Senior Vice President
 Wisconsin Public Service Corporation
 Post Office Box 1200
 Green Bay, Wisconsin 54305

Dear Mr. James:

The Commission has issued the enclosed Amendment No. 29 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. This amendment consists of changes to the Technical Specifications in response to your request dated April 20, 1979.

The amendment revises the Technical Specifications to require actuation of safety injection based on 2 out of 3 channels of low pressurizer pressure. Until this change has been accomplished, it is understood that the low pressurizer level trips in the existing safety injection logic will remain tripped as provided for in IE Bulletin 79-06A and 79-06A, Revision 1.

As discussed with you and representatives of the Office of Inspection and Enforcement, it is further understood and acceptable for the pressurizer level bistables to be returned to their normal position while this modification is underway. Further, it is understood that the changes will be made one train at a time, which each train tested before being placed into service.

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

/s/

A. Schwencer, Chief
 Operating Reactors Branch #1
 Division of Operating Reactors

Enclosures:

1. Amendment No. 29 to License No. DPR-43
2. Safety Evaluation
3. Notice of Issuance

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cc w/encl:
 See next page

OFFICE →	DOR:ORB#1	DOR:PSB	DOR:PSB	DOR:ORB#1	OELD
SURNAME →	LOlshan:lb	GLainas	PCheck	ASchwencer	
DATE →	4/27/79	4/ /79	4/27/79	4/27/79	4/ /79

Docket No. 50-305

Mr. E. W. James
Senior Vice President
Wisconsin Public Service Corporation
Post Office Box 1200
Green Bay, Wisconsin 54305

DISTRIBUTION

Docket	BJones(4)
NRC PDR	BScharf(10)
LOCAL PDR	DBirkmar:
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NRR READING	XXXX
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DGEisenhut	BHarless
BKGrimes	ACRS(16)
RHVollmer	CMiles, OPA
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Sincerely,

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

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*2/12 except for
HPP's*

*concern as to form
of notice
only*



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

April 27, 1979

Docket No. 50-305

Mr. E. W. James
Senior Vice President
Wisconsin Public Service Corporation
Post Office Box 1200
Green Bay, Wisconsin 54305

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Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:

1. Amendment No. 29 to License No. DPR-43
2. Safety Evaluation
3. Notice of Issuance

cc w/encl:
See next page

April 27, 1979

cc: Steven E. Keane, Esquire
Foley and Lardner
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202

Kewaunee Public Library
314 Milwaukee Street
Kewaunee, Wisconsin 54216

Stanley LaCrosse, Chairman
Town of Carlton
Route 1
Kewaunee, Wisconsin 54216

Mr. Donald L. Quistroff, Chairman
Kewaunee County Board
Kewaunee County Courthouse
Kewaunee, Wisconsin 54216

Chairman,
Public Service Commission of Wisconsin
Hill Farms State Office Building
Madison, Wisconsin 53702

Mr. Patrick Walsh
Assistant Attorney General
114 East, State Capitol
Madison, Wisconsin 53702

Ms. Sandra Bast
1112 North 11th Street
Manitowoc, Wisconsin 54220

Director, Technical Assessment Division
Office of Radiation Programs (AW-459)
U. S. Environmental Protection Agency
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 South Dearborn Street
Chicago, Illinois 60604



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

WISCONSIN PUBLIC SERVICE CORPORATION

WISCONSIN POWER AND LIGHT COMPANY

MADISON GAS AND ELECTRIC COMPANY

DOCKET NO. 50-305

KEWAUNEE NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 29
License No. DPR-43

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Wisconsin Public Service Corporation, Wisconsin Power and Light Company and Madison Gas and Electric Company (the licensee) dated April 20, 1979, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility License No. DPR-43 is hereby amended to read as follows:

"(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 29, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications."

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 27, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 29

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Remove the following pages and replace with identically numbered pages:

T.S. 3.5-4

Table T.S. 3.5-1

Table T.S. 3.5-3

TABLE TS 3.5-3
EMERGENCY COOLING

<u>NO.</u>	<u>FUNCTIONAL UNIT</u>	<u>1</u> <u>NO. OF</u> <u>CHANNELS</u>	<u>2</u> <u>NO. OF</u> <u>CHANNELS</u> <u>TO TRIP</u>	<u>3</u> <u>MINIMUM</u> <u>OPERABLE</u> <u>CHANNELS</u>	<u>4</u> <u>MINIMUM</u> <u>DEGREE OF</u> <u>REDUNDANCY</u>	<u>5</u> <u>PERMISSIBLE</u> <u>BYPASS</u> <u>CONDITIONS</u>	<u>6</u> <u>OPERATOR ACTION</u> <u>IF CONDITIONS OF</u> <u>COLUMN 3 OR 4</u> <u>CANNOT BE MET</u>
1	SAFETY INJECTION						
	a. Manual	2	1	1	-		Hot Shutdown***
	b. High Containment Pressure	3	2	2	-		Hot Shutdown***
	c. Low Steam Pressure/Line	3	2	2	-		Hot Shutdown***
	d. Pressurizer Low Pressure	3	2	2	-	Primary pressure < 2000 psig	Hot Shutdown***
2	CONTAINMENT SPRAY						
	a. Manual	2	2	2	**		Hot Shutdown***
	b. Hi-Hi Containment Pressure (Containment Spray)	3 sets of 2	1 of 2 in each set	1 per set	1/set		Hot Shutdown***

**Must actuate 2 switches.

***If minimum conditions are not met within 24 hours, steps shall be taken to place the plant in cold shutdown condition.

TABLE TS 3.5-1

ENGINEERED SAFETY FEATURES INITIATION INSTRUMENT SETTING LIMITS

<u>NO.</u>	<u>FUNCTIONAL UNIT</u>	<u>CHANNEL</u>	<u>SETTING LIMIT</u>
1	High Containment Pressure (Hi)	Safety Injection*	≤ 4 psig
2	High Containment Pressure (Hi-Hi)	a. Containment Spray	≤ 23 psig
		b. Steam Line Isolation of Both Lines	≤ 17 psig
3	Pressurizer Low Pressure	Safety Injection*	≥ 1815 psig
4	Low Steam Line Pressure	Safety Injection*	≥ 500 psig
		Lead Time Constant	≥ 12 seconds
		Lag Time Constant	≤ 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 $< 0.745 \times 10^6$ lb/hr at 1005 psig $\geq 540^{\circ}F$
6	High-High Steam Flow in a Steam Line Coincident with Safety Injection	Steam Line Isolation of Affected Line **	$< d/p$ corresponding to 4.5×10^6 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

Setting Limits

1. The high containment pressure limit is set at about 10% of the maximum internal pressure. Initiation of Safety Injection protects against loss-of-coolant⁽²⁾ or steam line break⁽³⁾ accidents as discussed in the safety analysis.
2. The Hi-Hi containment pressure limit is set at about 50% of the maximum internal containment pressure for initiation of containment spray and at about 30% for initiation of steam line isolation. Initiation of containment spray and steam line isolation protects against large loss-of-coolant or steam line break accidents as discussed in the safety analysis.
3. The pressurizer low-pressure limit is set substantially below system operating pressure limits. However, it is sufficiently high to protect against a loss-of-coolant accident as shown in the safety analysis.
4. The steam line low-pressure signal is lead/lag compensated and its setpoint is set well above the pressure expected in the event of a large steam line break accident as shown in the safety analysis.
5. The high steam line flow limit is set at approximately 20% of nominal full-load flow at the no-load pressure and the high-high steam line flow limit is set at approximately 120% of nominal full load flow at the full load pressure in order to protect against large steam break accidents. The coincident low T_{avg} setting limit for steam line isolation initiation is set below its hot shutdown value. The safety analysis shows that these settings provide protection in the event of a large steam break.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 29 TO FACILITY LICENSE NO. DPR-43

WISCONSIN PUBLIC SERVICE CORPORATION

WISCONSIN POWER AND LIGHT COMPANY

MADISON GAS AND ELECTRIC COMPANY

KEWAUNEE NUCLEAR POWER PLANT

DOCKET NO. 50-305

Introduction

As a result of our ongoing review of the events associated with the March 28 accident at Three Mile Island Unit 2, the NRC Office of Inspection and Enforcement issued a number of IE Bulletins describing actions to be taken by licensees. IE Bulletin 79-06 (April 11, 1979) called for licensees with Westinghouse PWR's to instruct operators to manually initiate safety injection when the pressure indication reaches the actuation setpoint whether or not the level indication has dropped to the actuation setpoint. IE Bulletin 79-06A (April 14, 1979) further called for these licensees to trip the low pressurizer level bistables such that, when the pressurizer pressure reaches the low setpoint safety injection would be initiated regardless of the pressurizer level. IE Bulletin 79-06A, Revision 1 (April 18, 1979) modified the action called for in 79-06A by allowing pressurizer level bistables to be returned to their normal (untripped) operating positions during the pressurizer pressure channel functional surveillance tests.

The effect of tripping the pressurizer low level bistables which are normally coincident with the pressurizer low pressure bistables, has the effect of reducing this safety injection actuation logic to a 1 out of 3 logic. A single instrument failure of 1 of the 3 low pressure bistable channels could therefore result in an unwanted safety injection. To prevent this, the licensee proposed in an April 20, 1979 letter, a design modification which would align the existing pressurizer low pressure bistables in a 2 out of 3 logic.

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Evaluation

We have reviewed the instrumentation and controls aspect of the proposed change in accordance with IEEE-279 and other applicable standards and Reg. Guides. The modification eliminates pressurizer level as a required initiating signal to actuate ECCS. The licensee proposes to use a 2-out-of-3 logic on low pressurizer pressure alone. Separation of trains will be maintained, testability will be maintained, and verification of proper actuation of the first train can be performed prior to modification of the second train.

We conclude that the proposed change will be in accordance with the above standards and guide. We conclude, also, that none of the transient and accident analyses are adversely affected by the change. The only effect may be a sooner SI actuation. Therefore, we find the proposed change to be acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the consideration discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: April 27, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-305WISCONSIN PUBLIC SERVICE CORPORATIONWISCONSIN POWER AND LIGHT COMPANYMADISON GAS AND ELECTRIC COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No.29 to Facility Operating License No. DPR-43 issued to Wisconsin Public Service Corporation, Wisconsin Power and Light Company, and Madison Gas and Electric Company (the licensee) which revised Technical Specifications for operation of the Kewaunee Nuclear Power Plant located in Kewaunee, Wisconsin. The amendment is effective as of the date of issuance.

The amendment revises the Technical Specifications to require safety injection actuation based on low pressurizer pressure, 2 out of 3 channels.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

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The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated April 20, 1979, (2) Amendment No. 29 to Facility Operating License No. DPR-43, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. 20555, and at the Kewaunee Public Library, 822 Juneau Street, Kewaunee, Wisconsin 54216. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 27th day of April 1979.

FOR THE NUCLEAR REGULATORY COMMISSION



A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors