Docket No. 50-305

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Mr. C. W. Giesler, Vice President
Nuclear Power
Wisconsin Public Service Corporation
P. O. Box 1200
Green Bay, Wisconsin 54305

February 9, 1984

Dear Mr. Giesler:

The Commission has issued the enclosed Amendment No. 52 to Facility Operating License No. DPR-43 for Kewaunee Nuclear Power Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated December 20, 1982, as supplemented January 13, 1983.

The amendment consists of Technical Specification changes to 24 pages. These changes are mostly administrative in nature, that is, they consist of word changes or clarifications which are made without technical or safety implication. Four of the page changes do involve some technical detail; the radwaste tank limit, Specification 3.9.a.7 page 3.9-3, is considered part of the Radiological Environmental Technical Specifications and will be reviewed as part of that issue. The fire hose hydrostatic test is changed from 200 psig to 250 psig to conform to 10 CFR 50 Appendix R, the allowable reactivity insertion is changed in a non-conservative direction but within the limits of the FSAR analysis, and the containment purge limit has been subsequently negated by a commitment by the licensee to close the valve dated March 7, 1983. The five pages related to the reactor coolant system leakage limit, and the condenstate storage tank water level have been completed in Amendment 49 issued on April 29, 1983 (pages 3.1-11, 3.1-13, 3.4-1, 3.4-2, and 4.8-1).

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next regular monthly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY

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

Enclosures:
1. Amendment No. 52 to DPR-43
2. Safety Evaluation

cc w/enclosures: See next page

ORB#1:DL	ORB#1:DL	ORB#1:DL-C	OELD	AD:OR:DL
CParrish	MGrotenhuis:ps	SVarga	B. Bordenick	GLainas
1/4/84	~~12/ /83~~ 1/4/84 1/31/84	1/16/83	~~12/ /83~~ 1/23/84	2/7/84

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

February 9, 1984

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Mr. C. W. Giesler
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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 PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 52
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 December 20, 1982, as supplemented January 13, 1983, 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.

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 Operating 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. 52, 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

Steven A. Varga

Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical Specifications

Date of Issuance: February 9, 1984

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 52 TO FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.1-12	3.1-12
3.2-2	3.2-2
3.10-4	3.10-4
3.15-2	3.15-2
Table 3.5-1 (1 of 2)	Table 3.5-1
Table 3.5-4 (2 of 2)	Table 3.5-4
4.1-3	4.1-3
4.2-5	4.2-5
4.2-6	4.2-6
4.5-1	4.5-1
4.5-2	4.5-2
4.5-3	4.5-3
4.6-2	4.6-2
4.7-1	4.7-1
4.15-3	4.15-3
6-14	6-14
6-17	6-17
6-26	6-26
6-27	
6-27	

System, the Waste Disposal System and the Component Cooling System. Assuming the existence of the maximum allowable activity in the reactor coolant, the rate of 1 gpm unidentified leakage would not exceed the limits of 10CFR20. This is shown as follows:

If the reactor coolant activity is $91/\bar{E}\,\mu Ci/cc$ ($\bar{E}$ = average beta plus gamma energy per disintegration in Mev) and 1 gpm of leakage is assumed to be discharged through the air ejector, or through the Component Cooling System vent line, the yearly whole body dose resulting from this activity at the site boundary, using an annual average $X/Q = 2.0 \times 10^{-6}$ sec/m^3, is 0.09 rem/yr, compared with the 10CFR20 limits of 0.5 rem/yr.

With the limiting reactor coolant activity and assuming initiation of a 1 gpm leak from the Reactor Coolant System to the Component Cooling System, the radiation monitor in the component cooling pump inlet header would annunciate in the control room and initiate closure of the vent line from the surge tank in the Component Cooling System, within less than one minute. In the case of failure of the closure of the vent line and resulting continuous discharge to the atmosphere via the component cooling surge tank vent, the resultant dose rate at the site boundary would be 0.09 rem/yr as given above.

Leakage directly into the containment indicates the possibility of a breach in the coolant envelope. The limitation of 1 gpm for an unidentified source of leakage is sufficiently above the minimum detectable leak rate to provide a reliable indication of leakage, and is well below the capacity of one charging pump (60 gpm).

Twelve hours of operation before placing the reactor in the hot shutdown condition are required to provide adequate time for determining whether the leak is into the containment or into one of the closed systems and to identify the leakage source.

When the source of leakage has been identified, the situation can be evaluated to determine if operation can safely continue. This evaluation will be performed by the plant operating staff and will be documented in writing and approved by either the Plant Manager or his designated alternate. Under these conditions, an

c. Any one of the following conditions of inoperability may exist during the time intervals specified. The reactor shall be placed in the hot shutdown condition if operability is not restored within the time specified, and it shall be placed in the cold shutdown condition if operability is not restored within an additional 48 hours.

1. ONE of the operable charging pumps may be removed from service provided two pumps are again operable within 24 hours.

2. ONE boric acid transfer pump may be out of service provided both pumps are again operable within 24 hours.

3. ONE channel of heat tracing may be out of service provided it is restored to operable status within 48 hours.

Basis

The Chemical and Volume Control System provides control of the Reactor Coolant System boron inventory. This is normally accomplished by using any one of the three charging pumps in series with any one of the two boric acid transfer pumps. An alternate method of boration will be use of the charging pumps directly from the Refueling Water Storage Tank. A third method will be to use the safety injection pumps. There are two sources of borated water available for injection through 3 different paths.

(1) The boric acid transfer pumps can deliver the boric acid tank contents to the suction of the charging pumps.

(2) The charging pumps can take suction directly from the Refueling Water Storage Tank containing a concentration of 1950 ppm boron solution. Reference is made to Specification 3.3.a.

A. Take corrective actions to improve the power distribution and upon achieving equilibrium conditions measure the target flux difference and verify that the relationships specified in 3.10.b.4 are satisfied, OR

B. Reduce reactor power and the high neutron flux trip setpoint by 1% for each percent that the left hand sides of the relationships specified in 3.10.b.4 exceed the limits specified in the right hand sides. Reactor power may subsequently be increased provided that a power distribution map verifies that the relationships of 3.10.b.4 are satisfied with at least 1% of margin for each percent of power level to be increased.

7. The reference equilibrium indicated axial flux difference as a function of power level (called the target flux difference) shall be measured at least once per full power month.

8. The indicated axial flux difference shall be considered outside of the limits of sections 3.10.b.9 through 3.10.b.12 when more than one of the operable excore channels are indicating the axial flux difference to be outside a limit.

9. Except during physics tests, during excore detector calibration and except as modified by 3.10.b.10 through 3.10.b.12 below, the indicated axial flux difference shall be maintained within a $\pm$ 5% band about the target flux difference.

10. At a power level greater than 90 percent of rated power if the indicated axial flux difference deviates from its target band, the flux difference shall be returned to the target band immediately or reactor power shall be reduced to a level no greater than 90 percent of rated power.

11. At power levels greater than 50 percent and less than or equal to 90 percent of rated power:

A. The indicated axial flux difference may deviate from its $\pm$ 5% target band for a maximum of one hour (cumulative) in any 24 hour period provided the flux difference does not exceed an envelope bounded by

Specification 6.9.2 within the next 30 days.

4. With no fire water systems operable:

   A. Establish a backup fire water system within 24 hours.

   B. Submit a report in accordance with Specification 6.9.2;

      a) By telephone within 24 hours, and

      b) In writing no later than the first working day following the event, and

      c) In writing within 14 days following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

c. Spray And/Or Sprinkler Systems

Whenever equipment in spray and/or sprinkler protection areas is required the following spray and/or sprinkler systems shall be OPERABLE:

1. Special Ventilation Room AX-23
2. Cable Tray Sprinkler System (AX-32)
3. Screenhouse Sprinkler System

With one or more of the above required spray and/or sprinkler systems inoperable, establish backup fire suppression equipment for the unprotected area(s) within one hour; restore the system to OPERABLE status within 14 days or submit a report to the Commission pursuant to Specification 6.9.2 within the next 30 days.

d. Low Pressure CO_2 Systems

Whenever equipment in the low pressure CO_2 protected areas is required to be OPERABLE, the following low pressure CO_2 systems shall be OPERABLE with a minimum of 60% indicated level and a minimum pressure of 275 psig in the associated storage tank(s).

1. Diesel Generator 1A, TU-90 and day tank room, TU-91

2. Diesel Generator 1B, TU-92 and day tank room, TU-93

TABLE TS 3.5-1 (Page 1 of 2)

ENGINEERED SAFETY FEATURES INITIATION INSTRUMENT SETTING LIMITS

NO.	FUNCTIONAL UNIT	CHANNEL	SETTING LIMIT
1	High Containment Pressure (Hi)	Safety Injection[1]	$\leq$ 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	Safety Injection[1]	$\geq$ 1815 psig
4	Low Steam Line Pressure	Safety Injection[1]	$\geq$ 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 Affected Line[2]	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[2]	$\leq$ d/p corresponding to 4.5 x 10^6 lb/hr at 735 psig
7	Forebay Level	Trip circ. water pumps	
8	Containment Purge and Vent System Radiation Particulate Detector Radioactive Gas Detector	Containment Ventilation Isolation	$\leq$ value of Radiation Levels in exhaust duct as defined in Note[3]

TABLE TS 3.5-4 (Page 2 of 2)

INSTRUMENT OPERATING CONDITIONS FOR ISOLATION FUNCTIONS

NO.	FUNCTIONAL UNIT	NO. OF CHANNELS	NO. OF CHANNELS TO TRIP	MINIMUM OPERABLE CHANNELS	MINIMUM DEGREE OF REDUNDANCY	PERMISSIBLE BYPASS CONDITIONS	OPERATOR ACTION IF CONDITIONS OF COLUMN 3 OR 4 CANNOT BE MET
3	CONTAINMENT VENTILATION ISOLATION						
	a. High Containment Radiation	2	1	1	-	-	These channels are not required to activate containment ventilation isolation when the containment purge and ventilation system isolation valves are maintained closed.*
	b. Safety Injection	(Refer to Item 1 of Table TS 3.5-3)					
	c. Containment Spray	(Refer to Item 2 of Table TS 3.5-3)					

* The detectors are required for reactor coolant system leak detection as referenced in Technical Specifications 3.1.d.5

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

Fuel Inspection

Two fuel assemblies per region will be selected as reference assemblies on which base line data will be taken prior to initial fuel loading. During each refueling visual inspections will be made on a representative sample of assemblies and in addition on any suspect assembly. Any observed unexplained anomalies in the suspected assembly will determine the necessity to recheck the reference assemblies against the original base line data.

Seismic

The seismic instrumentation will be checked for proper operation once per operating cycle or once every 18 months, whichever occurs first. In the event of a seismic disturbance, written administrative procedures will be put into effect covering operation of the plant. Inspection of crucial areas and components will be made immediately and reported to the Directorate of Licensing with a copy to Director of Regulatory Operations, Region III. In the absence of any unusual observations the plant will continue to be operated.

Guard Pipes

Visual inspections will be made of the accessible portions of the hot process pipeline guard pipes once during each operating cycle or once every 18 months, whichever occurs first.

Category	Inspection Results
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

NOTE: In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

3. Inspection Frequencies - The above required in-service inspections of steam generator tubes shall be performed at the following frequencies:

   a. Inservice inspections shall be performed at refueling intervals not more than 24 calendar months after the previous inspection. If two consecutive inspections following service under AVT conditions, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.

   b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.2-2 fall in Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until a subsequent inspection meets the conditions specified in 4.2.b.3.a and the interval can be extended to a 40 month period.

   c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.2-2 during the shutdown subsequent to any of the following conditions:

1. Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.1.d and 3.4.a.5,

2. A seismic occurrence greater than the Operating Basis Earthquake,

3. A loss-of-coolant accident requiring actuation of the engineered safeguards, where the cooldown rate of the reactor coolant system exceeded $100^{o}F/hr$, or

4. A main steam line or feedwater line break, where the cooldown rate of the reactor coolant system exceeded $100^{o}F/hr$.

d. If the type of steam generator chemistry treatment is changed significantly, the steam generators shall be inspected at the next outage of sufficient duration following three (3) months of power operation since the change.

4. Any tube which exhibits one or more of the following conditions shall be plugged prior to returning the steam generator to service:

a. Tube leak.

b. Tube wall degradation of 50% of more. If significant general tube thinning occurs this criteria will be reduced to 40% wall penetration.

4.5 EMERGENCY CORE COOLING SYSTEM AND CONTAINMENT AIR COOLING SYSTEM TESTS

Applicability

Applies to testing of the Emergency Core Cooling System and the Containment Air Cooling System.

Objective

To verify that the subject systems will respond promptly and perform their design functions, if required.

Specification

a. System Tests

1. Safety Injection System

A. System tests shall be performed once per operating cycle or once every 18 months, whichever occurs first. With the Reactor Coolant System pressure less than or equal to 350 psig and temperature less than or equal to 350°F, a test safety injection signal will be applied to initiate operation of the system. The safety injection and residual heat removal pumps are not operated during this test.

B. The test will be considered satisfactory if control board indication or visual observations indicate that all components have received the safety injection signal in the proper sequence and timing. That is, the appropriate pump motor breakers shall have opened and closed, and all valves shall have completed their travel.

2. Containment Vessel Internal Spray System

A. System tests shall be performed once every operating cycle or once every 18 months, whichever occurs first. The test shall be performed with the isolation valves in the supply lines at the containment blocked closed. Operation of the system is initiated by tripping the normal actuation instrumentation.

B. The spray nozzles shall be checked for proper functioning at least every five years using either air with telltales or smoke tests to determine that all nozzles are clear.

C. The test will be considered satisfactory if control board indications or visual observations indicate all components have operated satisfactorily.

3. Containment Fan-Coil Units

Each fan-coil unit shall be tested once every operating cycle or once every 18 months, whichever occurs first, to verify proper operation of the motor-operated service water outlet valves.

b. Component Tests

1. Pumps

A. The safety injection pumps, residual heat removal pumps, and containment spray pumps shall be started and operated on recirculation flow monthly during power operation and within one week after the plant is returned to power operation, if the test was not performed during plant shutdown.

B. Acceptable levels of performance shall be that the pumps start, reach their required developed head at miniflow, and operate for at least fifteen minutes on the miniflow line.

2. Valves

A. The Refueling Water Storage Tank and containment sump outlet valves shall be tested in performing the pump tests.

B. The accumulator check valves shall be checked for operability during each major refueling outage. The accumulator block valves shall be checked to assure "valve open" requirements during each major refueling outage.

C. The boric acid tank isolation valves to the safety injection pumps shall be tested at intervals not to exceed once every month during power operation.

D. Spray additive tank valves shall be tested during each major refueling outage.

E. Closing of the boric acid tank isolation valves and concurrent opening of refueling water storage tank valves upon receipt of simulated Lo Lo boric acid tank level signal shall be tested at intervals not to exceed once every month during power operation.

F. Residual Heat Removal System valve interlocks shall be tested once per operating cycle (not to exceed 18 months).

Basis

The Safety Injection System and the Containment Vessel Internal Spray System are principal plant safety systems that are normally inoperative during reactor operation. Complete systems tests cannot be performed when the reactor is operating because a safety injection signal causes containment isolation and a Containment Vessel Internal Spray System test requires the system to be temporarily disabled. The method of assuring operability of these systems is therefore to combine system tests to be performed during periodic shutdowns with more frequent component tests, which can be performed during reactor operation.

5. Safeguar ›us Undervoltage and Safeguard ıs Second Level Undervoltage relays shall be calibrated at least once per operating cycle (not to exceed 18 months).
6. During each operating cycle (not to exceed 18 months), a checkout of emergency lighting will be performed.

b. Station Batteries

1. The voltage of each cell shall be measured to the nearest hundredth volt each month. An equalizing charge shall be applied if the lowest cell in the battery falls below 2.13 volts. The temperature and specific gravity of a pilot cell in each battery shall be measured.
2. The following additional measurements shall be made every three months: the specific gravity and height of electrolyte in every cell and the temperature of every fifth cell.
3. All measurements shall be recorded and compared with previous data to detect signs of deterioration.
4. The batteries shall be subjected to a load test during the first refueling and once every five years thereafter. Battery voltage shall be monitored as a function of time to establish that the battery performs as expected during heavy discharge and that all electrical connections are tight.

Basis

The monthly tests specified for the diesel generators will demonstrate their continue capability to start and carry rated load. The fuel supplies and starting circuits and controls are continuously monitored, and abnormal conditions in these systems would be indicated by an alarm without need for test startup.

4.7 MAIN STEAM ISOLATION VALVES

Applicability

Applies to periodic testing of the main steam isolation valves.

Objective

To verify the ability of the main steam isolation valves to close upon signal.

Specification

The main steam isolation valves shall be tested once per operating cycle (not to exceed 18 months), at major outages with the reactor at cold shutdown. A closure time of five seconds or less shall be verified.

Basis

The main steam isolation valves serve to limit the cooldown rate of the Reactor Coolant System and the reactivity insertion that could result from a main steam break incident. Their ability to close upon signal should be verified at each major refueling outage. A closure time of five seconds is selected as being consistent with expected response time for instrumentation as detailed in the steam line break incident analysis.

Reference:

(1) FSAR Section 14.2.5

b) Flow from each nozzle during a "Puff Test."

e. Fire Hose Stations

Each of the fire hose stations shown in Table TS 3.15-2 shall be demonstrated OPERABLE:

1. Monthly:

   a) Visual inspection of the station to assure all required equipment is at the station, and

2. At least once per 18 months by:

   a) Removing the hose for inspection and reracking, and

   b) Replacement of all degraded gaskets in couplings.

3. At least once per three years by:

   a) Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.

   b) Conducting a hose hydrostatic test at a pressure of at least 250 psig.

f. Penetration Fire Barriers

Each of the required penetration fire barriers shall be verified to be intact by a visual inspection:

1. At least once per 18 months, and

2. Prior to declaring a penetration fire barrier functional following repairs or maintenance.

BASES

Fire Detection Instrumentation

Failure of a fire detection instrument results in an alarm to the control room Control Panel and local panels and, thus, an annual functional test is adequate to detect otherwise failed detector.

Fire Water System

Both pumps in the system shall be individually tested monthly. The fire water system consists of a 12" (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

b. <u>Annual Reporting Requirements</u>

Routine operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to March 1 of each year. Items reported in this category include:

(1) Report of facility changes, tests or experiments required pursuant to 10 CFR 50.59(b).

(2) A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposure according to work and job functions,[1] e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

(3) Challenges to and failures of the pressurizer power operated relief valves and safety valves.[2]

(1) This tabulation supplements the requirements of Section 20.407 of 10 CFR Part 20.

(2) Letter from E. R. Mathews (WPSC) to D. G. Eisenhut (USNRC) dated January 5, 1981.

steady state conditions greater than or equal to 1% $\Delta K/K$; a calculated reactivity balance indicating a shutdown margin less conservative than specified in the technical specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if subcritical, an unplanned reactivity insertion of more than 0.5% K/K; or occurrence of any unplanned criticality.

(5) Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the SAR.

(6) Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the SAR.

Note: For items 6.9.2.a(5) and 6.9.2.a(6) reduced redundancy that does not result in a loss of system function need not be reported under this section but may be reportable under items 6.9.2.b(2) and 6.9.2.b(3) below.

(7) Conditions arising from natural or man-made events that, as a direct result of the event require plant shutdown, operation of safety systems, or other protective measures required by technical specifications.

(8) Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications

6.14 ENVIRONMENTAL QUALIFICATION

6.14.1 By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of License No. DPR-43 dated October 24, 1980.

6.14.2 By no later than December 1, 1980, complete and auditible records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6.15 Secondary Water Chemistry

The licensee shall implement a secondary water chemistry monitoring program. The intent of this program will be to control corrosion thereby inhibiting steam generator tube degradation. The secondary water chemistry program shall act as a guide for the chemistry group in their routine as well as non-routine activities.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. TO FACILITY OPERATING 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

On December 20, 1982, as supplemented on January 13, 1983, the Wisconsin Public Service Corporation (the licensee) submitted proposed Technical Specifications for the Kewaunee Nuclear Power Plant (the facility).

The proposed amendment consists of Technical Specification changes to 24 pages. These changes are mostly administrative in nature, that is, they consists of word changes or clarifications which are made without technical or safety implication. Four of the page changes do involve some technical detail; the radwaste tank limit Specification 3.9.a.7 page 3.9-3, is considered part of the radiological environmental Technical Specifications and will be reviewed as part of that issue. The fire hose hydrostatic test is changed from 200 psig to 250 psig to conform to 10 CFR 50 Appendix R, the allowable reactivity insertion is changed in non-conservative direction but within the limits of the FSAR analysis, and the containment purge limit on page 6-27 which has been superceded by the licensees letter dated March 7, 1983 which stated that the purge valves would be closed above hot shutdown. The five pages related to the reactor coolant system leakage limit, and the condenstate storage tank water level have been completed in Amendment 49 issued on April 29, 1983 (pages 3.1-11, 3.1-13, 3.4-1, 3.4-2, and 4.8-1).

Evaluation

Among the following proposed changes, many are administrative or clerical changes to correct previous inadvertent omissions and typographical errors. These will be designated "administrative" and will be reviewed no further.

The changes proposed are as follows:

1. Specification 3.1.d.4 (page 3.1-12) has been revised to reflect the current title of the Plant Manager (rather than Plant Superintendent).

2. Specification 3.2.c.4 (page 3.2-2) is a one-time exemption which allowed two boric acid transfer pumps to be out of service. It is no longer applicable and should be deleted.

   Changes 1 and 2 are administrative and are, therefore, acceptable.

3. Specification 3.10.b.6.B (page 3.10-4) 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.

   This change clarifies that a return to power is acceptable if the relationships of Specification 3.10.b.4 are satisfied with at least 1% margin for each percent of power level to be increased. Since this change does not alter any requirements of the Specification, but only clarifies a potential ambuiguity, it has no effect on the safety of the plant, and is therefore acceptable.

4. Specification 3.15.d (page 3.15-2). The minimum pressure limit of the CO_2 storage tanks has been reduced from 295 psig to 275 psig. As noted in the 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 nomical 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 and is, therefore, acceptable.

5. Specification Table 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.

6. Specification Table 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.

7. Specification 4.2.b.3.b (page 4.2-5). 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.

8. Specification 4.5.b.1.a (page 4.5-2). 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.

   Changes 4 through 8 are administrative and, therefore, acceptable.

9. Specification 4.15.e.3.b (page 4.15-3). The fire hose hydrostatic test has been upgraded to 250 psig from 200 psig. This revision is consistent with 10 CFR 50, 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.

   We have reviewed change 9 and find that it is a necessary change for the facility to be in compliance with Appendix R to 10 CFR 50. The change is, therefore, acceptable.

10. Specification 6.9.1.b.3 (page 6-14). An annual reporting requirement has been added to this section. 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.

    We have reviewed change no. 10 and find that this change is necessary for the licensee to be in compliance with NUREG-0737 item II.K.3.3. The change is, therefore, acceptable.

11. Specification 6.9.2.a.4 (page 6-17). The allowable unplanned reactivity insertion while the reactor is subcritical has been changed from 50c to 0.5% K/K. Although less conservative than the existing specification, this change is justified because:

    (a) The facility's FSAR (Vol. 5, Sec. 14.1.1) contains an analysis for an unplanned reactivity insertion while subcritical of 0.78% 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% K/K.

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

We have reviewed change no. 11 which modifies the reporting requirement of an unplanned reactivity insertion from 50 c to 0.5% K/K. This change is acceptable for the following reasons: (1) it does not change the safety of the power plant, just one of the reporting requirements, (2) the approved facility FSAR (Vol. 5, Sec. 14.1.1) contains an analysis of an unplanned reactivity insertion while subcritical of 0.78% K/K, with acceptable results, (3) the value accepted in the Standard Technical Specifications is 0.5% K/K.

12. The following proposed revisions to specifications are to allow tests to be performed at times other than during refueling. In no case will an interval between tests exceed 18 months. These proposed specifications 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.

Page	Specification
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 4.6-2	4.6.a.5, 4.6.a.6
TS 4.7-1	4.7 (Specification)

We have reviewed these proposed changes and find that they are consistent with the Standard Technical Specifications and with Generic Letter No. 83-27 dated July 6, 1983, and are, therefore, 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 considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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.

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