



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-266

POINT BEACH NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 71  
License No. DPR-24

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Wisconsin Electric Power Company, (the licensee) dated July 2, 1981 amended by letter dated March 9, 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.

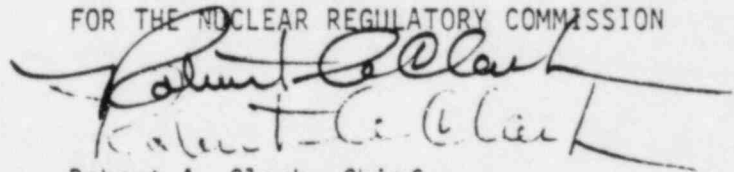
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-24 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 71, 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 handwritten signature in cursive script, appearing to read "Robert A. Clark", written in dark ink over a light background.

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 4, 1983



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

WISCONSIN ELECTRIC POWER COMPANY

DOCKET NO. 50-301

POINT BEACH NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 76  
License No. DPR-27

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Wisconsin Electric Power Company, (the licensee) dated July 2, 1981 amended by letter dated March 9, 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.

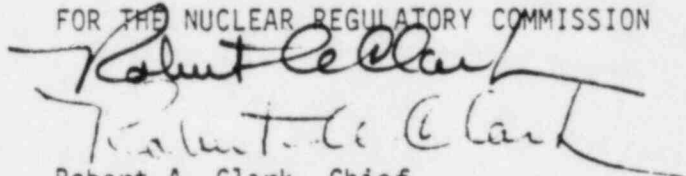
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-27 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 76, 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



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 4, 1983

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 71 TO FACILITY OPERATING LICENSE NO. DPR-24

AMENDMENT NO. 76 TO FACILITY OPERATING LICENSE NO. DPR-27

DOCKET NOS. 50-266 AND 50-301

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
15.3.1-9	15.1-6
15.3.1-10	15.3.1-9
	15.3.1-10
	15.3.1-10a
Table 15.4.1-2(pg. 1 of 2)	Figure 15.3.1-5
(pg. 2 of 2)	Table 15.4.1-2 (pg 1 of 3)
	(pg 2 of 3)
	(pg 3 of 3)
15.4.2-1c	15.4.2-1c
Table 15.4.2-1	Table 15.4.2-1
15.6.9-10	15.6.9-10

p. Dose Equivalent I-131

Dose Equivalent I-131 shall be that concentration of I-131 (microcurie/gram) which alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, "Calculation of Distance Factors for Power and Test Reactor Sites".

q.  $\bar{E}$  - Average Disintegration Energy

$\bar{E}$  shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

C. MAXIMUM COOLANT ACTIVITY

Specification:

The specific activity of the reactor coolant shall be limited to:

1. Less than or equal to 1.0 microcurie per gram Dose Equivalent I-131.
  - a. If the specific activity of the reactor coolant is greater than 1.0 microcuries per gram Dose Equivalent I-131 but within the allowable limit (below and to the left of the line) shown on Figure 15.3.1-5, operation may continue for up to 48 hours provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12-month period. Reactor Coolant Sampling shall be in accordance with Table 15.4.1-2. A Special Report shall be prepared in accordance with specification 15.6.9.3.F if cumulative operating time above exceeds 500 hours in any consecutive 6-month period.
  - b. If the specific activity of the reactor coolant is greater than 1.0 microcuries per gram Dose Equivalent I-131 for more than 48 hours during one continuous time interval or exceeds the allowable limit (above and to the right of the line) shown on Figure 15.3.1-5, the reactor will be shut down and the average reactor coolant temperature will be less than 500°F within 6 hours.
2. Less than or equal to  $100/\bar{E}$  microcuries per gram.
  - a. If the specific activity of the reactor coolant is greater than  $100/\bar{E}$  microcuries per gram, the reactor will be shut down and the average reactor coolant temperature will be less than 500°F within 6 hours.  
Reactor Coolant Sampling shall be in accordance with Table 15.4.1-2.
3. Reportable Occurrences required by specification 15.6.9.2.3.2 for the above conditions shall contain the results of the specific activity analyses together with the following information:



- a. Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded,
- b. Fuel burnup by core region,
- c. Clean-up flow history starting 48 hours prior to the first sample in which the limit was exceeded,
- d. History of de-gassing operations, if any, starting 48 hours prior to the first sample in which the limit was exceeded, and
- e. The time duration when the specific activity of the primary coolant exceeded 1.0 microcuries per gram DOSE EQUIVALENT I-131.

Basis:

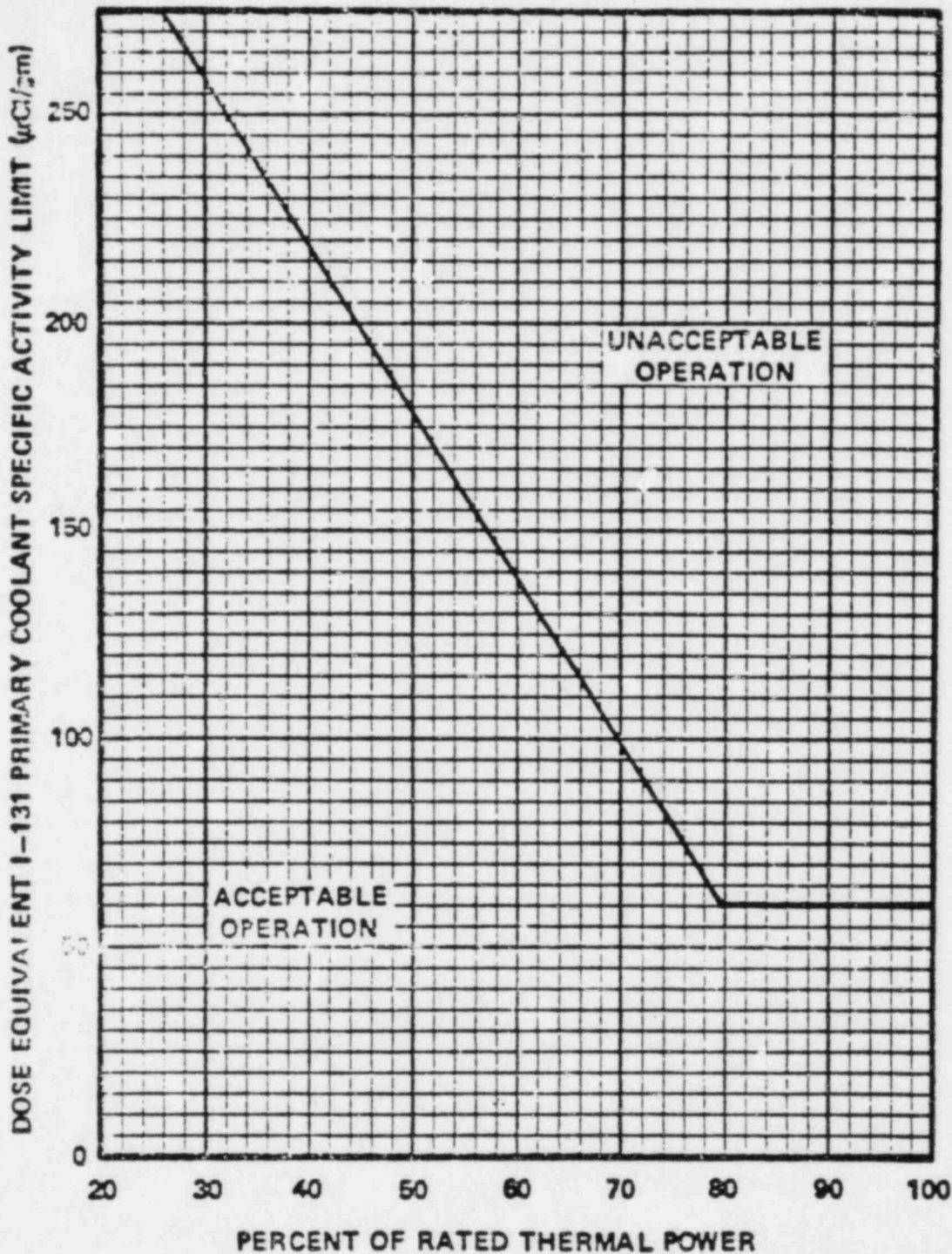
The limitations on the specific activity of the reactor coolant ensure that the resulting 2-hour doses at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 GPM. The values for the limits on specific activity represent limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative for Point Beach Nuclear Plant.

Continued power operation for limited time periods with the reactor coolant's specific activity greater than 1.0 microcurie/gram Dose Equivalent I-131, but within the allowable limit shown on Figure 15.3.1-5, accommodates possible iodine spiking phenomenon which may occur following changes in thermal power. Operation with specific activity levels exceeding 1.0 microcurie/gram Dose Equivalent I-131 but within the limits shown on Figure 15.3.1-5 increase the 2-hour thyroid dose at the site boundary by a factor of up to 20 following a postulated steam generator tube rupture.



Reducing  $T_{avg}$  to less than 500°F normally prevents the release of activity should a steam generator tube rupture since the saturation pressure of the reactor coolant is below the lift pressure of the atmospheric steam relief valves. The surveillance requirements provide adequate assurance that excessive specific activity levels in the primary coolant will be detected in sufficient time to take corrective action. A reduction in frequency of isotopic analyses following power changes may be permissible if justified by the data obtained.

FIGURE 15.3.1-5



**DOSE EQUIVALENT I-131 Primary Coolant Specific Activity Limit Versus Percent of RATED THERMAL POWER with the Primary Coolant Specific Activity  $> 1.0 \mu\text{Ci}/\text{gram}$  Dose Equivalent I-131**

Unit 1 - Amendment No. 71

Unit 2 - Amendment No. 76

TABLE 15.4.1-2

MINIMUM FREQUENCIES FOR EQUIPMENT AND SAMPLING TESTS

	<u>Test</u>	<u>Frequency</u>
1. Reactor Coolant Samples	Gross Beta-gamma activity (excluding tritium)	5/week <sup>(7)</sup>
	Tritium activity	Monthly
	Radiochemical $\bar{E}$ Determination	Semiannually <sup>(2)</sup> <sup>(11)</sup>
	Isotopic Analysis for Dose Equivalent I-131 Concentration	Every two weeks <sup>(1)</sup>
	Isotopic Analysis for Iodine including I-131, I-133, and I-135	a) Once per 4 hours whenever the specific activity exceeds 1.0 $\mu\text{Ci}/\text{gram}$ Dose Equivalent I-131 or 100/ $\bar{E}$ $\mu\text{Ci}/\text{gram}$ . <sup>(6)</sup> b) One sample between 2 and 6 hours following a thermal power change exceeding 15% of rated power in a one-hour period.
	Chloride Concentration	5/week <sup>(8)</sup>
	Diss. Oxygen Conc.	5/week <sup>(6)</sup>
2. Reactor Coolant Boron	Fluoride Conc.	Weekly
	Boron Concentration	Twice/week
3. Refueling Water Storage Tank Water Sample	Boron Concentration	Weekly <sup>(6)</sup>
4. Boric Acid Tanks	Boron Concentration	Twice/week
5. Spray Additive Tank	NaOH Concentration	Monthly
6. Accumulator	Boron Concentration	Monthly
7. Spent Fuel Pit	Boron Concentration	Monthly
8. Secondary Coolant	Gross Beta-gamma activity or gamma isotopic analysis	Weekly <sup>(6)</sup>
	Iodine Concentration	Weekly when gross Beta-gamma activity equals or exceeds 1.2 $\mu\text{Ci}/\text{cc}$ <sup>(6)</sup>

TABLE 15.4.1-2 (Continued)

	<u>Test</u>	<u>Frequency</u>
9. Control Rods	Rod drop times of all full length rods (3)	Each refueling or after maintenance that could affect proper functioning (4)
10. Control Rod	Partial movement of all rods	Every 2 weeks (6)
11. Pressurizer Safety Valves	Set point	Each refueling shutdown
12. Main Steam Safety Valves	Set point	Each refueling shutdown
13. Containment Isolation Trip	Functioning	Each refueling shutdown
14. Refueling System Interlocks	Functioning	Each refueling shutdown
15. Service Water System	Functioning	Each refueling shutdown
16. Primary System Leakage	Evaluate	Monthly (6)
17. Diesel Fuel Supply	Fuel inventory	Daily
18. Turbine Stop and Governor Valves	Functioning	Monthly (6)(10)
19. Low Pressure Turbine Rotor Inspection (5)	Visual and magnetic particle or liquid penetrant	Every five years
20. Boric Acid System	Storage Tank temperature	Daily
21. Boric Acid System	Visual observation of piping temperatures (all $\geq 145^{\circ}\text{F}$ )	Daily
22. Boric Acid Piping Heat Tracing	Electrical circuit operability	Monthly
23. PORV Block Valves	Complete Valve Cycle	Quarterly (6)
24. Integrity of Post Accident Recovery Systems Outside Containment	Evaluate	Yearly
25. Containment Purge Supply and Exhaust Isolation Valves	Verify valves are locked closed	Monthly (9)

(1) Required only during periods of power operation.

(2) E determination will be started when the gross activity analysis of a filtered sample indicates  $\geq 10$   $\mu\text{c}/\text{cc}$  and will be redetermined if the primary coolant gross radioactivity of a filtered sample increases by more than 10  $\mu\text{c}/\text{cc}$ .

Table 15.4.1-2 (Continued)

- (3) Drop tests shall be conducted at rated reactor coolant flow. Rods shall be dropped under both cold and hot conditions, but cold drop tests need not be timed.
- (4) Drop tests will be conducted in the hot condition for rods on which maintenance was performed.
- (5) As accessible without disassembly of rotor.
- (6) Not required during periods of refueling shutdown.
- (7) At least once per week during periods of refueling shutdown.
- (8) At least three times per week (with maximum time of 72 hours between samples) during periods of refueling shutdown.
- (9) Not required during periods of cold or refueling shutdown.
- (10) During end of cycle period of operation when boron concentration is less than 100 ppm, this test may be waived due to operational limitations.
- (11) Sample to be taken after a minimum of 2 EFPD and 20 days power operation since the reactor was last subcritical for 48 hours or longer.

Defect is an imperfection of such severity that it exceeds the minimum acceptable tube wall thickness of 50%. A tube containing a defect is defective.

Plugging Limit is the imperfection depth beyond which the tube must be removed from service or repaired, because the tube may become defective prior to the next scheduled inspection. The plugging limit is 40% of the nominal tube wall thickness.

6. Corrective Measures

All tubes that leak or have degradation exceeding the plugging limit shall be plugged or repaired by a process such as sleeving\* prior to return to power from a refueling or inservice inspection condition. Sleeved tubes having sleeve degradation exceeding 40% of the nominal sleeve wall thickness shall be plugged.

7. Reports

- (a) After each inservice examination, the number of tubes plugged or repaired in each steam generator shall be reported to the Commission as soon as practicable.
- (b) The complete results of the steam generator tube inservice inspection shall be included in the Annual Results and Data Report for the period in which the inspection was completed. In addition, all results in Category C-3 of Table 15.4.2-1 shall be reported to the Commission prior to resumption of plant operation.
- (c) Reports shall include:
  - 1. Number and extent of tubes inspected.
  - 2. Location and percent of all thickness penetration for each indication.
  - 3. Identification of tubes plugged or repaired.
- (d) Reports required by Table 15.4.2-1 - Steam Generator Tube Inspection shall provide the information required by Specification 15.4.2.A.7(b) and a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

B. In-Service Inspection of Safety Class Components Other than Steam Generator Tubes

- 1. Inservice inspection of ASME Code Class 1, Class 2 and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g) modified by Section 50.55a(b), except where specific written relief is granted by the NRC, pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

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\*Brazed joints shall not be employed. Tubes previously subject to explosive plugging shall not be sleeved.

Unit 1 - Amendment No. ~~36~~, ~~63~~, 71

Unit 2 - Amendment No. ~~12~~, ~~68~~, 76

15.4.2-1c



TABLE 15.4.2-1

STEAM GENERATOR TUBE INSPECTION PER UNIT  
POINT BEACH UNITS 1 & 2

1ST SAMPLE EXAMINATION			2ND SAMPLE EXAMINATION		3RD SAMPLE EXAMINATION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of S tubes per Steam Generator (S.G.)  $S=3(N/n)\%$  where:  N is the number of steam generators in the plant = 2  n is the number of steam generators inspected during an examination	C-1	Acceptable for continued service	N/A	N/A	N/A	N/A
	C-2	Plug or repair tubes exceeding the plugging limit and proceed with 2nd sample examination of 2S tubes in same steam generator	C-1	Acceptable for continued service	N/A	N/A
			C-2	Plug or repair tubes exceeding the plugging limit and proceed with 3rd sample examination of 4S tubes in same steam generator	C-1	Acceptable for continued service
					C-2	Plug or repair tubes exceeding plugging limit. Acceptable for continued service
			C-3	Perform action required under C-3 of 1st sample examination		
	C-3	Perform action required under C-3 of 1st sample examination	N/A	N/A		
	C-3	Inspect essentially all tubes in this S.G., plug or repair tubes exceeding the plugging limit and proceed with 2nd sample examination of 2S tubes in the other steam generator. Report results to NRC within 24 hours in accordance with TS 15.6.5.2.A.3	C-1 in other S.G.	Acceptable for continued service	N/A	N/A
			C-2 in other S.G.	Perform action required under C-2 of 2nd sample examination above	N/A	N/A
			C-3 in other S.G.	Inspect essentially all tubes in S.G. & plug or repair tubes exceeding the plugging limit. Report to NRC within 24 hours in accordance with TS 15.6.5.2.A.3.	N/A	N/A

 Unit 1 - Amendment No.  
 Unit 2 - Amendment No.



- (1) The number and types of samples taken and the measurements made on the samples; e.g., gross beta gamma scan, etc.
- (2) Any changes made in sample types or locations during the reporting period, and criteria for these changes.

b. A summary of survey results during the reporting period.

4. Leak Testing of Source

Results of required leak tests performed on seal sources if the tests reveal the presence of 0.005 microcuries or more of removable contamination.

D. Poison Assembly Removal From Spent Fuel Storage Racks

Plans for removal of any poison assemblies from the spent fuel storage racks shall be reported and described at least 14 days prior to the planned activity. Such report shall describe neutron attenuation testing for any replacement poison assemblies, if applicable, to confirm the presence of boron material.

E. Overpressure Mitigating System Operation

In the event the overpressure mitigating system is operated to relieve a pressure transient which, by licensee's evaluation, could have resulted in an overpressurization incident had the system not been operable, a special report shall be prepared and submitted to the Commission within 30 days. The report shall describe the circumstances initiating the transient, the effect of the system on the transient and any corrective action necessary to prevent recurrence.

F. Dose Equivalent I-131

With total cumulative operating time at a primary coolant specific activity greater than 1.0 microcurie per gram Dose Equivalent I-131 exceeding 500 hours in any consecutive 6-month period, submit a report within 30 days indicating the number of hours above this limit.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-266 AND 50-301WISCONSIN ELECTRIC POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

The U. S. Nuclear Regulatory Commission (the Commission) has, pursuant to the Initial Decision of its Atomic Safety and Licensing Board (ASLB) dated February 4, 1983, (ASLBP No. 81-464-05 LA) issued Amendment Nos. 71 and 76 to Facility Operating License Nos. DPR-24, and DPR-27 issued to Wisconsin Electric Power Company (the licensee), which revised Technical Specifications (TS) for operation of Point Beach Nuclear Plant Unit Nos. 1 and 2 (the facilities) located in the Town of Two Creeks, Manitowoc County, Wisconsin. The amendments are effective as of the date of issuance.

The amendments to the TS allow repair of degraded steam generator tubes by sleeving which would otherwise be required to be plugged and removed from service; establish limits for primary coolant iodine concentration and surveillance frequency; and establish a plugging limit for sleeved tubes of 40% nominal sleeve wall thickness.

The Initial Decision is subject to review by an Atomic Safety and Licensing Appeal Board prior to its becoming final. Any decision or action taken by an Atomic Safety and Licensing Appeal Board in connection with the Initial Decision may be reviewed by the Commission.

The amendments comply 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 amendments.

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- 2 -

Notice of Proposed Issuance of Amendment to Facility Operating License in connection with this action was published in the Federal Register on August 7, 1981 (46FR 40359) . A Petition to Intervene was filed on July 20, 1981 as amended by letter dated August 31, 1981 by Wisconsin's Environmental Decade. Hearings were held in Milwaukee, Wisconsin on November 17 and 18, 1982 with limited appearances held in the town of Two Rivers, Wisconsin on the evening of November 17, 1982. The Board issued its Initial Decision on February 4, 1983 and ruled that the NRC staff was authorized to issue the amendments.

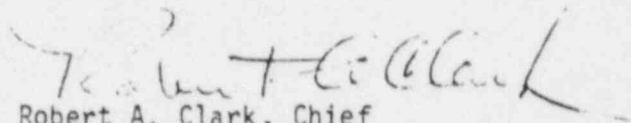
The Commission has determined that the issuance of the amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance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

For further details with respect to this action, see (1) the application for amendments dated July 2, 1981 as amended March 9, 1983, (2) the Initial Decision of the Atomic Safety and Licensing Board dated February 4, 1983, (3) Amendment Nos. 71 and 76 to Facility Operating Licenses No. DPR-24 and DPR-27, and (4) the Commission's letter to the licensee dated April 4, 1983 . All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555, and at the Joseph Mann Library, 1516 16th Street Two Rivers, Wisconsin 54241. A copy of items (2) (3) and (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission,

Washington, D. C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 4th day of April, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read "Robert A. Clark". The signature is written in a cursive style with a large, sweeping initial "R".

Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing