March 13, 1989

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Docket No. 50-305

Mr. Clark R. Steinhardt
Manager - Nuclear Power
Wisconsin Public Service Corporation
Post Office Box 19002
Green Bay, Wisconsin 54307-9002

Dear Mr. Steinhardt:

SUBJECT: AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NO. DPR-43 (TAC NO. 71419)

The Commission has issued the enclosed Amendment No. 81 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant. This amendment revises the Technical Specifications in response to your application dated November 29, 1988, supplemented November 30, 1988.

The amendment reflects personnel changes, corrects typographical errors, and makes minor word changes to clarify the intent of Technical Specifications (TS).

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

Sincerely,

/s/

Joseph G. Giitter, Project Manager
Project Directorate III-3
Division of Reactor Projects - III, IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 81 to License No. DPR-43
2. Safety Evaluation

cc w/enclosures:
See next page

Office:	LA/PDIII-3	PM/PDIII-3	LFMB	PD/PDIII-3	OGC-WF1
Surname:	PKreutzer	JGiitter/tg	AGody	TQ for JHannon	CPW
Date:	2/14/89	2/23/89	2/24/89	3/1/89	3/6/89

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Mr. Clark R. Steinhardt
Wisconsin Public Service Corporation

Kewaunee Nuclear Power Plant

cc: David Baker, Esquire
Foley and Lardner
P. O. Box 2193
Orlando, Florida 32082

Glen Kunesh, Chairman
Town of Carlton
Route 1
Kewaunee, Wisconsin 54216

Mr. Harold Reckelberg, Chairman
Kewaunee County Board
Kewaunee County Courthouse
Kewaunee, Wisconsin 54216

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

Attorney General
114 East, State Capitol
Madison, Wisconsin 53702

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
Route #1, Box 999
Kewaunee, Wisconsin 54216

Regional Administrator - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. Robert S. Cullen
Chief Engineer
Wisconsin Public Service Commission
P.O. Box 7854
Madison, Wisconsin 53707

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. 81
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 licensees) dated November 29, 1988 supplemented November 30, 1988 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 Appendix A, as revised through Amendment No. 81 , are hereby incorporated in the license. The licensees 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

Timothy M. Colburn for
John N. Hannon, Director
Project Directorate III-3
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 13, 1989

ATTACHMENT TO LICENSE AMENDMENT NO.81

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
TS i	TS i
TS iii	TS iii
TS iv	TS iv
TS 3.10-1	TS 3.10-1
TS 3.10-2	TS 3.10-2
TS 3.10-4a	TS 3.10-4a
TS 3.10-6	TS 3.10-6
TS 3.10-10	TS 3.10-10
TS 3.10-12	TS 3.10-12
TS 3.10-16	TS 3.10-16
Table TS 4.1-2 (page 1 of 2)	Table TS 4.1-2 (page 1 of 2)
TS 5.3-1	TS 5.3-1
TS 6-1	TS 6-1
TS 6-2	TS 6-2
TS 6-2a	TS 6-2a
TS 6-3	TS 6-3
TS 6-5	TS 6-5
TS 6-6	TS 6-6
TS 6-8	TS 6-8
TS 6-11	TS 6-11
TS 6-11a	TS 6-11a

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TECHNICAL SPECIFICATIONS
APPENDIX A

Applicability

Applies to the limits on core fission power distributions and to the limits on control rod operations.

Objective

To ensure 1) core subcriticality after reactor trip, 2) acceptable core power distribution during power operation in order to maintain fuel integrity in normal operation transients associated with faults of moderate frequency, supplemented by automatic protection and by administrative procedures, and to maintain the design basis initial conditions for limiting faults, and 3) limited potential reactivity insertions caused by hypothetical control rod ejection.

Specification

a. Shutdown Reactivity

When the reactor is subcritical prior to reactor startup, the hot shutdown margin shall be at least that shown in Figure TS 3.10-1. Shutdown margin as used here is defined as the amount by which the reactor core would be subcritical at hot shutdown conditions if all control rods were tripped, assuming that the highest worth control rod remained fully withdrawn, and assuming no changes in xenon or boron.

b. Power Distribution Limits

1. At all times, except during low power physics tests, the hot channel factors defined in the basis must meet the following limits:

A. $F_Q^N(Z)$ Limits:

(i) Westinghouse Electric Corporation Fuel

$F_Q^N(Z) \times 1.03 \times 1.05 \leq (2.14)/P \times K(Z)$ for $P > .5$

$F_Q^N(Z) \times 1.03 \times 1.05 \leq (4.28) \times K(Z)$ for $P \leq .5$

(ii) Advanced Nuclear Fuels Company

$F_Q^N(Z) \times 1.03 \times 1.05 \leq (2.28)/P \times K(Z)$ for $P > .5$

$F_Q^N(Z) \times 1.03 \times 1.05 \leq (4.56) \times K(Z)$ for $P \leq .5$

where:

P is the fraction of full power at which the core is operating

K(Z) is the function given in Figure TS 3.10-2

Z_T is the core height location for the FQ of interest

B. $F^N_{\Delta H}$ Limits

(i) For Advanced Nuclear Fuels Company and Westinghouse Electric Corporation fuel with burnup less than 24,000 MWD/MTU

$F^N_{\Delta H} \times 1.04 \leq 1.55\ (1 + 0.2(1 - P))$

(ii) For Westinghouse Electric Corporation fuel with burnup exceeding 24,000 MWD/MTU.

$F^N_{\Delta H} \times 1.04 \leq 1.52\ (1 + 0.2(1 - P))$

where:

P is the fraction of full power at which the core is operating

2. If, for any measured hot channel factor, the relationships specified in 3.10.b.1 are not true, reactor power shall be reduced by a fractional amount of the design power to a value for which the relationships are true, and the high neutron flux trip set point shall be reduced by the same fractional amount. If subsequent incore mapping cannot, within a 24 hour period, demonstrate that the hot channel factors are met, the overpower ΔT and overtemperature ΔT trip setpoints shall be similarly reduced.
3. Following initial loading and at regular effective full power monthly intervals thereafter, power distribution maps using the movable detection system shall be made to confirm that the hot channel factor limits of specification 3.10.b.1 are satisfied.

4. The measured F_Q^{EQ} (Z) hot channel factors under equilibrium conditions shall satisfy the following relationship for the central axial 80% of the core:

A. Westinghouse Electric Corporation Fuel

$F_Q^{EQ}(Z) \times 1.03 \times 1.05 \times V(Z) \leq (2.14)/P \times K(Z)$

B. Advanced Nuclear Fuels Company

$F_Q^{EQ}(Z) \times 1.03 \times 1.05 \times V(Z) \leq (2.28)/P \times K(Z)$

above 50%. If the cumulative time exceeds one hour, then the reactor power shall be reduced to less than or equal to 50% of rated thermal power within 30 minutes and the high neutron flux setpoint reduced to less than or equal to 55% of rated power.

If the indicated axial flux difference exceeds the outer envelope defined above, then the reactor power shall be reduced to less than or equal to 50% of rated thermal power within 30 minutes and the high neutron flux setpoint reduced to less than or equal to 55% of rated power.

B. A power increase to a level greater than 90% of rated power is contingent upon the indicated axial flux difference being within its target band.

12. At a power level no greater than 50% of rated power:

A. The indicated axial flux difference may deviate from its target band.

B. A power increase to a level greater than 50% of rated power is contingent upon the indicated axial flux difference not being outside its target band for more than two hours (cumulative) of the preceding 24-hour period.

One half of the time the indicated axial flux difference is out of its target band up to 50% of rated power is to be counted as contributing to the one hour cumulative maximum the flux difference may deviate from its target band at a power level less than or equal to 90% of rated power.

13. Alarms shall normally be used to indicate non-conformance with the flux difference requirement of 3.10.b.10 or the flux difference time requirement of 3.10.b.11.A. If the alarms are temporarily out of service, the axial flux difference shall be logged, and conformance with the limits assessed, every hour for the first 24 hours, and half-hourly thereafter.

to measure control rod worth and shutdown margin. For this test, the reactor may be critical with all but one high worth rod inserted.

e. Rod Misalignment Limitations

This specification defines allowable limits for misaligned rod cluster control assemblies. In specifications 3.10.e.1 and 3.10.e.2, the magnitude, in steps, of an indicated rod misalignment may be determined by comparison of the respective bank demand step counter to the analog individual rod position indicator, the rod position as noted on the plant process computer, or through the conditioning module output voltage via a correlation of rod position vs. voltage. Rod misalignment limitations do not apply during physics testing.

1. When reactor power is greater than or equal to 85% of rating the rod cluster control assembly shall be maintained within ±12 steps from their respective banks. If a rod cluster control assembly is misaligned from its bank by more than ±12 steps when reactor power is greater than or equal to 85%, the rod will be realigned or the core power peaking factors shall be determined within 4 hours, and specification 3.10.b applied. If peaking factors are not determined within 4 hours, the reactor power shall be reduced to less than 85% of rating.
2. When reactor power is less than 85% but greater than or equal to 50% of rating, the rod cluster control assemblies shall be maintained within ± 24 steps from their respective banks. If a rod cluster control assembly is misaligned from its bank by more than ±24 steps when reactor power is less than 85% but greater than or equal to 50%, the rod will be realigned or the core power peaking factors shall be determined within 4 hours, and specification 3-10.b applied. If the peaking factors are not determined within 4 hours, the reactor power shall be reduced to less than 50% of rating.
3. And, in addition to 3.10.e.1 and 3.10.e.2 above, if the misaligned rod cluster control assembly is not realigned within 8 hours, the rod shall be declared inoperable.

An upper bound envelope for F^N_Q defined by specification 3.10.b.1 has been determined from extensive analyses considering all operating maveuvers consistent with the technical specifications on power distribution control as given in Section 3.10. The results of the loss of coolant accident analyses based on this upper bound envelope indicate the peak clad temperatures remain below the 2200°F limit.

The $F^N_Q(Z)$ limits of specification 3.10.b.1.A include consideration of enhanced fission gas release at high burnup, off-gassing (release of absorbed gases), and other effects in fuel supplied by Advanced Nuclear Fuels Company. The result of these analyses show that no additional burnup dependent penalty need be applied for Advanced Nuclear Fuels Company fuel (7).

When a F^N_Q measurement is taken, both experimental error and manufacturing tolerance must be allowed for. Five percent is the appropriate allowance for a full core map taken with the movable incore detector flux mapping system and three percent is the appropriate allowance for manufacturing tolerance.

In specification 3.10.b.1 and 3.10.b.4 F^N_Q is arbitrarily limited for $P \leq 0.5$ (except for low power physics tests).

$\underline{F^N_{\Delta H}}$ Nuclear Enthalpy Rise Hot Channel Factor

$F^N_{\Delta H}$, Nuclear Enthalpy Rise Hot Channel Factor, is defined as the ratio of the integral of linear power along the rod on which minimum DNBR occurs to the average rod power.

Rod Bow Effects

No penalty for rod bow effects need be included in specification 3.10.b.1 for Advanced Nuclear Fuels Company fuel rod burnups to 49,000 MWD/MTU (8). Westinghouse Electric Company fuel requires a burnup dependent penalty be incorporated through a decrease in the $F^N_{\Delta H}$ limit of 2% for 0-15,000 MWD/MTU fuel burnup, 4% for 15000-24000 MWD/MTU fuel burnup, and 6% for greater than 24000 MWD/MTU fuel burnup. These penalties are counter-balanced by credits for increased Reactor Coolant flow and lower Core inlet temperature. The Reactor Coolant System flow has been determined to exceed design flow by greater than 8%. Since the flow channel protective trips are set on a percentage of full flow, significant margin to DNB is provided. One half of the additional flow is taken as a DNB credit to offset 2% of the $F^N_{\Delta H}$ penalty. The existence of 4% additional reactor coolant flow will be verified after each refueling at power prior to exceeding 95% power. If the reactor coolant flow measured per loop averages less than 92560 gpm, the $F^N_{\Delta H}$ limit shall be reduced at the rate of 1% for every 1.8% of reactor coolant design flow (89000 gpm design flow rate) for fuel with greater than 15000 MWD/MTU burnup. Uncertainties in reactor coolant flow have already been accounted for in flow channel protective trips for design flow. The assumed T_{inlet} for DNB analysis was 540°F while the normal T_{inlet} at 100% power is approximately 532°F. The reduction of maximum allowed T_{inlet} at 100% power to 536°F as addressed in specification 3.10.k provides an additional 2% credit to offset the rod bow penalty. The combination of the penalties and offsets results in a required 2% reduction of allowed $F^N_{\Delta H}$ for high burnup fuel, (assembly burnups >24000 MWD/MTU). The permitted relaxation in $F^N_{\Delta H}$ allows radial power shape changes with rod insertion to the insertion limits.

±5% band for as long a period as one hour, then xenon distributions may be significantly changed and operation at 50% is required to protect against potentially more severe consequences of some accidents unless incore monitoring is initiated.

As discussed above, the essence of the procedure is to maintain the xenon distribution in the core as close to the equilibrium full power condition as possible. This is accomplished by using the boron system to position the full length control rods to produce the required indicated flux difference.

For Condition II events the core is protected from overpower and a minimum DNBR of 1.30 by an automatic protection system. Compliance with the specification is assumed as a precondition for Condition II transients, however, operator error and equipment malfunctions are separately assumed to lead to the cause of the transients considered.

QUADRANT POWER TILT LIMITS

The radial power distribution within the core must satisfy the design values assumed for calculation of power capability. Radial power distributions are measured as part of the startup physics testing and are periodically measured at a monthly or greater frequency. These measurements are taken to assure that the radial power distribution with any quarter core radial power asymmetry conditions are consistent with the assumptions used in power capability analyses.

The quadrant tilt power deviation alarm is used to indicate a sudden or unexpected change from the radial power distribution mentioned above. The two percent tilt

TABLE TS 4.1-2

MINIMUM FREQUENCIES FOR SAMPLING TESTS

Sampling Tests	Test	Frequency	Maximum Time Between Tests (Days)
1. Reactor Coolant Samples	Gross Beta-Gamma activity (excluding tritium)	5/week	3
	Tritium activity	Monthly	37
	*Chemistry (Cl, F, O_2)	3/week	4
2. Reactor Coolant Boron(1)	*Boron concentration	2/week	5
3. Refueling Water Storage(2) Tank Water Sample	Boron concentration	Monthly***	37
4. Boric Acid Tanks	Boron concentration	Weekly	8
5. Accumulator	Boron concentration	Monthly	37
6. Spent Fuel Pool	Boron concentration	Monthly**	37
7. Secondary Coolant			
	Gross Beta or Gamma activity	Weekly	8
	Iodine concentration	Weekly when gross Beta or Gamma activity $\geq$1.0 µCi/cc	8

Notes

* See Spec 4.1.D

** Sample will be taken monthly when fuel is in the pool.

*** And after adjusting tank contents.

5.3 REACTOR

Applicability

Applies to the reactor core and the Reactor Coolant System.

Objective

To define those design features which are essential in providing for safe system operations.

Specifications

a. Reactor Core

1. The reactor core contains approximately 48 metric tons of uranium in the form of slightly enriched uranium dioxide pellets. The pellets are encapsulated in Zircaloy-4 tubing to form fuel rods. The reactor core is made up of 121 fuel assemblies. Each fuel assembly contains 179 fuel rods. (1)

2. The average enrichment of the initial core is a nominal 2.90 weight per cent of U-235. Three fuel enrichments are used in the initial core. The highest enrichment is a nominal 3.40 weight per cent of U-235. (2)

3. Reload fuel will be similar in design to the initial core.

4. Burnable poison rods are incorporated in the initial core. There are 704 poison rods in the form of 8, 12 and 16 rod clusters, which are located in vacant rod cluster control tubes. The burnable poison rods consist of borosilicate glass clad with stainless steel.

5. There are 29 full-length Rod Cluster Control (RCC) assemblies in the reactor core. The full-length RCC assemblies contain a 142-inch length of silver-indium-cadmium alloy clad with stainless steel.

6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Plant Manager has overall on-site responsibility for plant operation. In the absence of the Plant Manager, the succession to this responsibility shall be in the following order:

a. Assistant Manager-Plant Operations
b. Assistant Manager-Plant Maintenance
c. Superintendent-Plant Operations
d. Assistant Manager-Plant Services
e. Shift Supervisor

6.2 ORGANIZATION

6.2.1 The offsite organization for plant management and technical support shall be as described in the Operational Quality Assurance Program Description.

FACILITY STAFF

6.2.2 The plant organization shall be as described in the Operational Quality Assurance Program Description.

a. Each on-duty shift complement shall consist of at least:
   (1) One Shift Supervisor (SRO)
   (2) Two licensed Reactor Operators
   (3) One Auxiliary Operator
   (4) One Equipment Operator
   (5) One Radiation Technologist

b. While above cold shutdown, the on-duty shift complement shall consist of the personnel required by 6.2.2a. above and an additional SRO.

c. In the event that one of the shift members becomes incapacitated due to illness or injury or the Radiation Technologist has to accompany an injured person to the hospital, reactor operations may continue with the reduced complement until a replacement arrives. In all but severe weather conditions, a replacement is required within two hours.

d. At least one licensed operator shall be in the control room when fuel is in the reactor.

e. Two licensed operators, one of which shall be an SRO, shall be present in the control room when the unit is in an operational mode other than cold shutdown or refueling.

f. Refueling operations shall be directed by a licensed Senior Reactor Operator assigned to the refueling operation who has no other concurrent responsibilities during the refueling operation.

g. A five man fire response team, consisting of 3 Fire Brigade members and 2 Assistant Fire Brigade personnel, shall be maintained. If a member of the fire response team becomes incapacitated due to illness or injury this requirement is deemed satisfied if a replacement arrives within two hours in all but the severest weather.

h. When the reactor is above the cold shutdown condition, a qualified Shift Technical Advisor shall be within 10 minutes of the control room.

<u>ORGANIZATIONAL CHANGES</u>

6.2.3 Changes not affecting safety may be made to the offsite and facility staff organizations. Such changes shall be reported to the Commission in the form of an application for license amendment within 60 days of the implementation of the change.

6.3 PLANT STAFF QUALIFICATIONS

6.3.1 Qualification of each member of the Plant Staff shall meet or exceed the minimum acceptable levels of ANSI N18.1-1971 for comparable positions, except for the Superintendent-Plant Radiation Protection who shall meet or exceed the recommendation of Regulatory Guide 1.8, Revision 1-R, September 1975, or their equivalent as further clarified in Attachment 1 to the Safety Evaluation Report enclosed with Amendment No. 46 to Facility Operating License DPR-43.

6.3.2 The Shift Technical Advisor shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in the design of the Kewaunee Plant and plant transient and accident analysis.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the Plant Staff shall be maintained under the direction of the Training Supervisor and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI-N18.1-1971 and Appendix A of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Nuclear Fire Protection Coordinator and shall meet or exceed the requirements of Section 27 of the NFPA Code-1975, except that training sessions shall be held quarterly.

6.5 REVIEW AND AUDIT

6.5.1 PLANT OPERATIONS REVIEW COMMITTEE (PORC)

FUNCTION

6.5.1.1 The PORC shall function to advise the Plant Manager on matters related to nuclear safety.

COMPOSITION

6.5.1.2 The PORC shall be composed of, but not necessarily limited to:

Chairman:	Plant Manager
Required Members:	Assistant Manager-Plant Maintenance Assistant Manager-Plant Operations Assistant Manager-Plant Services Superintendent-Plant Operations Plant Reactor Supervisor Superintendent-Plant Quality Control Superintendent-Plant Technical

ALTERNATES

6.5.1.3 Alternate members shall be appointed in writing by the PORC Chairman to serve on a temporary basis; however, no more than two alternates shall participate in PORC meetings at any one time.

MEETING FREQUENCY

6.5.1.4 The PORC shall meet at least once per calendar month and as convened by the Chairman.

QUORUM

6.5.1.5 A quorum of the PORC shall consist of a majority of the members. One of the members shall be either the chairman or his designated alternate.

i. Review of all Reportable Events
j. Review of changes to the Process Control Program, the Offsite Dose Calculation Manual, and the Radiological Environmental Monitoring Manual.

AUTHORITY

6.5.1.7 The PORC shall:

a. Recommend to the Plant Manager approval or disapproval of items considered under 6.5.1.6a through e above.
b. Make determinations with regard to whether or not each item considered under 6.5.1.6 above constitutes an unreviewed safety question.
c. Provide immediate notification in the form of draft meeting minutes to the Vice President - Power Production and the Chairman-Nuclear Safety Review and Audit Committee of disagreement between the PORC and the Plant Manager. The Plant Manager shall have responsibility for resolution of such disagreements.

RECORDS

6.5.1.8 Minutes shall be kept of all meetings of the PORC and copies shall be sent to the Vice President - Power Production and the Chairman - Nuclear Safety Review and Audit Committee.

6.5.2 CORPORATE SUPPORT STAFF (CSS)

FUNCTION

6.5.2.1 The CSS shall function to provide engineering, technical and quality assurance activities in support of the Kewaunee Plant Staff.

6.5.2.2 The CSS consists of the following groups:

a. Nuclear Licensing and Systems
b. Nuclear Services
c. Nuclear Training
d. Nuclear Design Change
e. Nuclear Technical Review and Projects
f. Power Plant Design and Construction
g. Fuel Services
h. Administrative Staff
i. Quality Assurance
j. System Operating
k. Substation and Transmission
l. Power Systems Engineering
m. Safety System Engineering

ACTIVITIES

6.5.2.3 1. Review and report all violations of the Technical Specifications, codes, regulations, and statutes.

2. Review all activities associated with nuclear safety for technical adequacy and compliance with internal procedures or instructions.

3. Review and report significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.

4. Review and report all events which are required by regulations or Technical Specifications to be reported to the NRC (Plant personnel will provide the initial reporting to the NRC of those events requiring 24 hour notification).

5. Investigate any indication of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems or components.

a. At least three technically qualified persons who are not members of the plant staff.

b. One member from the supervisory staff of the plant.

c. At least two qualified non-company affiliated technical consultants.

d. Plus in-house staff management advisors as required.

The Committee membership and its Chairman and Vice Chairman shall be appointed by the Executive Vice President - Power or such person as he shall designate. Each member of the NSRAC shall have an academic degree in an engineering or physical science field; and in addition, shall have a minimum of five years technical experience, of which a minimum shall be in one or more areas given in 6.5.3.1.

ALTERNATES

6.5.3.3 Alternate members shall be appointed by the NSRAC Chairman, upon approval by the Executive Vice President - Power, to serve on a temporary basis; however, no more than two alternates shall participate in NSRAC activities at any one time.

CONSULTANTS

6.5.3.4 Consultants may be utilized as determined by the Chairman - NSRAC to provide expert advice to the NSRAC.

MEETING FREQUENCY

6.5.3.5 The NSRAC shall meet at least once every six months.

g. Any other area of plant operation considered appropriate by the NSRAC or the Executive Vice President - Power.

h. The radiological environmental monitoring program and the results thereof at least annually.

i. The Offsite Dose Calculation Manual and implementing procedures at least once every two years.

j. The Process Control Program and implementing procedures for processing and packaging of radioactive wastes at least once every two years.

AUTHORITY

6.5.3.9 The NSRAC shall report to and advise the Executive Vice President - Power on those areas of responsibility specified in Section 6.5.3.7 and 6.5.3.8.

RECORDS

6.5.3.10 Records of NSRAC activities shall be prepared, approved and distributed as follows:

a. Minutes of each NSRAC meeting forwarded to the Executive Vice President - Power within 14 days following each meeting.

b. Reports of reviews required by Section 6.5.3.7e, f, g and h above, forwarded to the Executive Vice President - Power within 14 days following completion of the review.

c. Reports of audits performed by NSRAC shall be forwarded to the Executive Vice President - Power and to the management positions responsible for the areas audited within 30 days after completion of the audit.

6.6 REPORTABLE EVENTS

Actions

6.6.1 The following actions shall be taken for Reportable Events:

a. The Commission shall be notified and a report submitted pursuant to the requirements of 10CFR50.73,and

b. Each Reportable Event shall be reviewed by PORC, and the results of this review shall be submitted to NSRAC and the Executive Vice President - Power.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATING TO AMENDMENT NO. 81 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

1.0 INTRODUCTION

By letter dated November 29, 1988, as supplemented November 30, 1988, the Wisconsin Public Service Corporation (WPSC), the licensee, submitted a proposed amendment to Facility Operating License No. DPR-43, for the Kewaunee Nuclear Power Plant. The amendment would reflect personnel changes, correct typographical errors, and make minor word changes to clarify the intent of the Technical Specifications (TS). The submittal on November 30, 1988 transmitted four pages of TS that were inadvertently omitted from the November 29, 1988 submittal.

2.0 DISCUSSION

The proposed amendment changes 21 pages of the TS. The changes are either administrative or editorial. Examples of editorial changes are: 1) modifying the table of contents to reflect changes that failed to get incorporated in previous amendments, 2) deleting obsolete information; for example, deleting reference to the part-length control rods which were removed from the Kewaunee Plant in 1979, and 3) correcting typographical errors. Examples of administrative changes are: 1) a change in the title of a licensee support organization, 2) a change in the title of the fuel vendor that occurred as the result of a merger with another company, and 3) changes in the titles of various plant personnel. None of the changes involves a decrease in management support or involvement at the Kewaunee Plant. Furthermore, engineering and technical support supplied by the plant and corporate staff is not diminished by these changes. These changes are discussed and evaluated in greater detail in the following section.

3.0 EVALUATION

Proposed Change No. 1 modifies the table of contents on page i of the TS. The first change is to add Item 1.0.p (standard shutdown sequence), which was incorporated into the TS in Amendment 75, but never reflected in the Table of Contents. The second change is to correct page numbers in the Table of Contents to reflect pages changed in amendment 71. This change is purely editorial and, therefore, acceptable.

Proposed Change No. 2 modifies the Table of Contents on page iii of the TS to reflect changes to TS section 4.4 which were made by Amendment 69. This purely editorial change is acceptable.

Proposed Change No. 3 modifies the Table of Contents on page iv of the TS. Pages changed by Amendment 20 were not reflected in the Table of Contents. This proposed change would correct the Table of Contents. Page iv would also be corrected by changing the title, "Corporate Nuclear Engineering Staff (CNES)" to "Corporate Support Staff (CSS)". CNES has been retitled CSS to reflect the fact that not all departments listed in TS section 6.5.2 are a part of WPSC's nuclear organization--although, all departments are available and capable of supplying support to Kewaunee. Proposed Change No.3 does not involve any change in the amount of support available for Kewaunee. The change involves only editorial and minor administrative changes and is, therefore, acceptable. (Also discussed under Proposed Change No. 13.)

Proposed Change No. 4 removes from TS the reference to part-length control rods, which were removed in 1979. This change affects four pages of TS. Pages affected are 3.10-1, 3.10-6, 3.10-16, and 5.3-1. The TS did not take credit for the part-length control rods for preventing or mitigating the consequences of an accident. This purely editorial change is acceptable.

Proposed Change No. 5 changes the name of Exxon Nuclear Company to Advanced Nuclear Fuels (ANF) Company. The Exxon Nuclear Company was renamed after it was purchased by Kraftwerk Union of West Germany. This primarily editorial change is acceptable since the licensee has stated that the acquisition will not affect the manner in which the Kewaunee fuel is fabricated.

Proposed Change No. 6 corrects a typographical error on page 3.10.b.13 and is acceptable.

Proposed Change No. 7 would have corrected a typographical error (on page 3.10-13), changing the phrase "...not channel factors" to "...hot channel factors". This change is not required because the typographical error doesn't exist in the NRC authority file copy of TS.

Proposed Change No. 8 corrects a typographical error in Table TS 4.1-2 and is acceptable.

Proposed Change No. 9 involves a personnel title change. In item d of paragraph 6.1.1, the title of Assistant Manager-Plant Technical and Services is changed to Assistant Manager-Plant Services. This change reflects the division of the Plant Technical and Services department into the departments of Plant Technical and Plant Services. The Assistant Manager-Plant Services and the Superintendent-Plant Technical both report to the Plant Manager. Engineering and technical support supplied by the Plant Technical and Plant Services department is not decreased by this change. Therefore, this change is acceptable.

Proposed Change No. 10 reflects a change (on page 6-2) in the title of Radiation Protection Supervisor to Superintendent-Plant Radiation Protection. This change was made because the previous Radiation Protection Supervisor was promoted into the newly created position of Superintendent-Plant Radiation Protection. The current Radiation Protection Supervisor reports to the Superintendent-Plant Radiation Protection who reports to the Assistant Manager-Plant Services. This change does not reduce the qualifications required of the radiation protection manager as discussed in Regulatory Guide 1.8, Revision 1-R, September 1975 and clarified in the Kewaunee Safety Evaluation related to Amendment No. 46. This change is acceptable.

Proposed Change 10 also corrects a typographical error, changing "...Regulatory Guide 1-8,..." to "Regulatory Guide 1.8,..." in TS 6.3.1. The proposed change is acceptable.

Proposed Change No. 11 involves a correction of a typographical error and two title changes, all on page 6.2 of TS. The phrase "...section 5.5 or ANSI-N18.1-1974" is changed to "...section 5.5 of ANSI-N18.1-1974" in paragraph 6.4.1. In TS 6.4.2 the title of Fire Marshal has been changed to Nuclear Fire Protection Coordinator. This change is simply a change in title and does not involve a decrease in management support for fire protection. Proposed Change No. 11 also changes the title of Assistant Manager-Plant Technical and Services in paragraph 6.5.1.2 to Assistant Manager-Plant Services and Superintendent-Plant Technical (See Proposed Change No. 9). This change effectively adds an additional member to the Plant Operations Review Committee (PORC). Including the Chairman, this would bring the number of required PORC members to eight. As discussed under Proposed Change No. 12, the definition of a PORC quorum is being changed to require a majority of the members (Chairman plus required members) to form a quorum. Thus, five of the eight members would be required for a quorum. This change is acceptable.

Proposed Change No. 12 changes the definition of a PORC quorum as stated in TS 6.5.1.5. The current definition states that " A quorum of the PORC shall consist of the Chairman or his designated successor plus three members of which not more than two shall be alternates." The proposed definition of a PORC quorum is as follows: "A quorum of the PORC shall consist of a majority of the members. One of the members shall be either the chairman or his designated alternate." Note that the proposed definition of a quorum still requires a majority of the PORC members and the chairman or his designate to be present at the meeting. However, the new description is more general (i.e., doesn't specify the exact number of members) so that any future changes in PORC membership will not require changes to the definition of a quorum. The new definition does not state the allowable number of alternates; however, this is unnecessary because TS 6.5.1.3 allows only two alternates to participate in any PORC meeting. This purely administrative proposed change does not reduce the effectiveness of the PORC and is therefore acceptable.

Proposed Change No. 13 (pages 6-5 and 6-6) reflects WPSC organizational changes. The title of Vice President-Nuclear Power has been changed to Vice President-Power Production. This change is in response to the promotion of the former Vice President-Nuclear Power to the position of Vice President-Power Production. The Vice President-Power Production is responsible for all operations associated with power production including Fossil, Nuclear, and Quality Assurance. The position of Vice President-Nuclear Power no longer exists. The Manager Nuclear Power (a newly created position) essentially assumes the responsibility of the former Vice President-Nuclear Power. This change, and the concurrent effect of promoting nuclear organization management into senior management positions of broader responsibility, assures continued management support and involvement in the Kewaunee Plant.

As discussed previously for Proposed Change No. 3, the Corporate Nuclear Engineering Staff (CNES) has been renamed the Corporate Support Staff (CSS) to reflect the fact that not all of the departments which provide engineering, technical and quality support to Kewaunee are departments reporting to WPSC's nuclear organization. This change is a clarifying title change only.

The Environmental Services department has been removed from the CSS organization because of a redistribution of responsibilities. The Environmental Services department was previously responsible for providing environmental services for fossil units (e.g., sulfur dioxide and nitrous oxide emission monitoring and control) as well as for Kewaunee's radiological environmental monitoring program. However, most of the radiological environmental monitoring work was conducted by the Plant Services department to support the Environmental Service department. This proposed change will place the overall responsibility for the Kewaunee radiological environmental monitoring program with the department that implements the program - the Plant Services department. Essentially, the same personnel will be involved. This is a purely administrative change that does not decrease the effectiveness of the Kewaunee radiological environmental monitoring program.

System Planning and Engineering has been removed from the CSS organization and replaced with the following departments: System Operating, Substation and Transmission, and Power Systems Engineering. System Planning and Engineering was divided into these three departments and therefore, no longer exists. This is a purely administrative change.

The Fuel and Fossil Operations department has been changed to Fuel Service to reflect an organizational change. The Nuclear Technical Review and Projects, the Quality Assurance, and the Safety System Engineering departments have been added to the CSS. These purely administrative changes help assure that engineering, technical and quality support will be available to the Kewaunee plant. Based on the above, Proposed Change No. 13 is acceptable.

Proposed Change No. 14 (Pages 6-8, 6-11, and 6-11a) changes the description of the Nuclear Safety Review and Audit Committee (NSRAC). The Executive Vice President-Power has assumed the NSRAC-related duties of the Vice President-Power Production and the Vice President-Nuclear Power. The result of this change is that the decisions regarding NSRAC that were previously made by the

Vice President-Power Production and the Vice President-Nuclear (e.g., the selection of NSRAC members) will be made at a higher management level. This change is rational because most of the NSRAC members are not members of the Kewaunee Plant staff and the Executive Vice President-Power has authority beyond the WPSC nuclear organization. These changes do not decrease the effectiveness of the NSRAC and are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed previously, 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.

Principal Contributor: J. G. Giitter

Dated: March 13, 1989