

NMC

Committed to Nuclear Excellence

Nuclear Management Company, LLC

October 5, 2004

L-HU-04-033
10 CFR 50.90U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555Duane Arnold Energy Center
Docket 50-331
License No. DPR-49Monticello Nuclear Generating Plant
Docket 50-263
License No. DPR-22Kewaunee Nuclear Power Plant
Docket 50-305
License No. DPR-43Point Beach Nuclear Plant Units 1 and 2
Dockets 50-266 and 50-301
License Nos. DPR-24 and DPR-27Palisades Nuclear Plant
Docket 50-255
License No. DPR-20Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 And 50-306
License Nos. DPR-42 and DPR-60

Application for Technical Specification Improvement to Eliminate Requirements to Provide Monthly Operating Reports and Occupational Radiation Exposure Reports Using the Consolidated Line Item Improvement Process

Pursuant to 10 CFR 50.90, Nuclear Management Company, LLC (NMC), hereby requests an amendment to the Technical Specifications (TS) for the above identified facilities.

The proposed amendment would delete the TS requirements to submit monthly operating reports and occupational radiation exposure reports. The changes are consistent with NRC approved Revision 1 to Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report." The availability of this technical specification improvement was noticed in the *Federal Register* on June 23, 2004 as part of the consolidated line item improvement process (CLIP).

Enclosure I provides a description and assessment of the proposed change.
Enclosure II provides the existing TS pages marked-up to show the proposed change.
Enclosure III provides revised, clean TS pages.

NMC requests approval of the proposed license amendment by March 2005, with the amendment being implemented within 90 days.

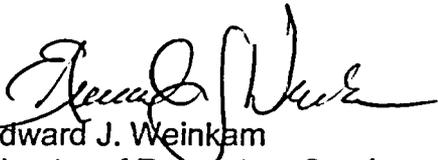
A001

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to each facility's designated State Official.

This letter makes one new commitment as described in Enclosure I, Section 6.0.

If you should have any questions regarding this submittal, please contact Laura Swenzinski, Senior Regulatory Affairs Engineer (319-851-7724).

I declare under penalty of perjury that the foregoing is true and correct.
Executed on October 5, 2004.



Edward J. Weinkam
Director of Regulatory Services
Nuclear Management Company, LLC

Enclosures (3)

cc: Regional Administrator, Region III, USNRC
Project Managers, Office of Nuclear Reactor Regulation (Duane Arnold Energy Center, Kewaunee Nuclear Power Plant, Monticello Nuclear Generating Plant, Palisades Nuclear Plant, Point Beach Nuclear Plant, Prairie Island Nuclear Generating Plant)
NRC Resident Inspectors (Duane Arnold Energy Center, Kewaunee Nuclear Power Plant, Monticello Nuclear Generating Plant, Palisades Nuclear Plant, Point Beach Nuclear Plant, Prairie Island Nuclear Generating Plant)
State Consultation (Minnesota Department of Commerce, Lou Brandon - Chief - NFU/HWRPS/WHMD, Ms. Ave M. Bie - Public Service Commission of WI, State of Iowa – D. McGhee)

ENCLOSURE I

DESCRIPTION AND ASSESSMENT

1.0 INTRODUCTION

The proposed amendment deletes Technical Specification requirements for an annual occupational radiation exposure report and for a monthly operating report of operating statistics and shutdown experience.

The changes are consistent with Revision 1 of NRC-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report." The availability of this Technical Specification improvement was announced in the *Federal Register* on June 23, 2004, as part of the consolidated line item improvement process (CLIP).

2.0 DESCRIPTION OF PROPOSED AMENDMENT

The proposed changes are consistent with the NRC approved Revision 1 of TSTF-369. The requirement to submit a Monthly Operating Report (MOR) is deleted based on a commitment to report the same operating data using an industry database. The requirement to submit an Occupational Radiation Exposure Report (ORER) is deleted.

As addressed in the safety evaluation published in the Notice of Availability for TSTF-369, NMC is proposing to adopt a part of NRC approved Revision 4 to TSTF-258, "Changes to Section 5.0, Administrative Controls" for the Kewaunee Nuclear Power Plant (DPR-43) and the Monticello Nuclear Generating Plant (DPR-22). Specifically, the Kewaunee Nuclear Power Plant Technical Specifications (TS) include a requirement to report challenges to and failures of the pressurizer power operated relief valves and safety relief valves; the Monticello Nuclear Generating Plant TS include a requirement to report safety/relief valve failures and challenges. The NRC model safety evaluation addressed the removal of requirements to submit monthly operating reports in those cases where the TS include a requirement to address challenges to relief and safety valves (i.e., if a licensee had not yet adopted the associated part of TSTF-258). The proposed changes to the Kewaunee Nuclear Power Plant TS and the Monticello Nuclear Generating Plant TS are consistent with the documentation for both TSTF-369 and the limited portion of TSTF-258 included in this application.

The proposed changes for each of the NMC sites included in this license amendment are described in the following Table:

Licensee	Affected Section	Change	Basis for Removal
DAEC	5.6.1	Delete requirement to submit an ORER	TSTF-369
	5.6.4	Delete requirement to submit a MOR	TSTF-369
Kewaunee	6.9.a.2.B	Delete requirement to submit an ORER	TSTF-369
	6.9.a.2.C	Delete requirement to report challenges to and failures of pressurizer power operated relief valves and safety valves	TSTF-258
	6.9.a.3	Delete requirement to submit a MOR	TSTF-369
Monticello	6.7.A.2	Delete requirement to submit an ORER	TSTF-369
	6.7.A.3	Delete requirement to submit a MOR	TSTF-369
	6.7.A.6	Delete requirement to report challenges to and failures of safety/relief valves	TSTF-258
Palisades	5.6.1	Delete requirement to submit an ORER	TSTF-369
	5.6.4	Delete requirement to submit a MOR	TSTF-369
Point Beach	5.6.1	Delete requirement to submit an ORER	TSTF-369
	5.6.3	Delete requirement to submit a MOR	TSTF-369
Prairie Island	5.6.1	Delete requirement to submit an Occupational Exposure Report	TSTF-369
	5.6.4	Delete requirement to submit a MOR	TSTF-369

3.0 BACKGROUND

The background for this application is adequately addressed by the NRC Notice of Availability published on June 23, 2004 (69 FR 35067) and TSTF-369.

4.0 REGULATORY REQUIREMENTS AND GUIDANCE

The applicable regulatory requirements and guidance associated with this application are adequately addressed by the NRC Notice of Availability published on June 23, 2004 (69 FR 35067) and TSTF-369.

5.0 TECHNICAL ANALYSIS

NMC has reviewed the safety evaluation (SE) published on June 23, 2004 (69 FR 35067) as part of the CLIIP Notice of Availability. This verification included a review of the NRC staff's SE, and the supporting information provided to support TSTF-369. NMC has concluded that the justifications presented in the TSTF proposal and the SE prepared by the NRC staff are applicable to each of the

facilities identified in this amendment request and justify this amendment for the incorporation of the changes to each facility's TS.

6.0 REGULATORY ANALYSIS

A description of this proposed change and its relationship to applicable regulatory requirements and guidance was provided in the NRC Notice of Availability published on June 23, 2004 (69 FR 35067) and TSTF-369.

Verification and Commitments

As discussed in the model SE published in the *Federal Register* on June 23, 2004 (69 FR 35067) for this TS improvement, NMC is making the following regulatory commitment:

- NMC is making a regulatory commitment that each facility provide to the NRC, using an industry database the operating data (for each calendar month) that is described in Generic Letter 97-02, "Revised Contents of the Monthly Operating Report," by the last day of the month following the end of each calendar quarter. The regulatory commitment will be based on use of an industry database (e.g., the industry's Consolidated Data Entry (CDE) program, currently being developed and maintained by the Institute of Nuclear Power Operations). This regulatory commitment will be implemented to prevent any gaps in the monthly operating statistics and shutdown experience provided to the NRC (i.e., data for all months will be provided using one or both systems (monthly operating reports and CDE)).

No NMC facility described in this license amendment has different reactor types and no facility has both operating and shutdown reactors.

7.0 NO SIGNIFICANT HAZARDS CONSIDERATION

NMC has reviewed the proposed no significant hazards consideration determination published in the *Federal Register* on June 23, 2004 (69 FR 35067) as part of the CLIP. NMC has concluded that the proposed determination presented in the *Federal Register* notice is applicable to each of the facilities identified in this amendment request and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

8.0 ENVIRONMENTAL EVALUATION

NMC has reviewed the environmental evaluation included in the model SE published on June 23, 2004 (69 FR 35067) as part of the CLIP. NMC has concluded that the NRC staff's findings presented in that evaluation are applicable to each of the facilities identified in this amendment request and the evaluation is hereby incorporated by reference for this application.

9.0 PRECEDENT

This application is being made in accordance with the CLIP. NMC is not proposing variations or deviations from the TS changes described in TSTF-369 and the limited portion of TSTF-258 or the NRC staff's model SE published on June 23, 2004 (69 FR 35067).

10.0 REFERENCES

1. Federal Register Notice: Notice of Availability of Model Application Concerning Technical Specification Improvement to Eliminate Requirements to Provide Monthly Operating Reports and Occupational Radiation Exposure Reports Using the Consolidated Line Item Improvement Process, published June 23, 2004 (69 FR 35067).
2. Federal Register Notice: Notice of Opportunity to Comment on Model Safety Evaluation on Technical Specification Improvement to Eliminate Requirements to Provide Monthly Operating Reports and Occupational Radiation Exposure Reports Using the Consolidated Line Item Improvement Process, published April 29, 2004 (69 FR 23542).
3. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-369, "Removal of Monthly Operating Report and Occupational Radiation Exposure Report," Revision 1, December 2003.
4. Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-258, "Changes to Section 5.0, Administrative Controls," Revision 4.

ENCLOSURE II

The following Proposed Technical Specification Changes (Markups) are contained within Enclosure II:

Enclosure IIA – Duane Arnold Energy Center

Enclosure IIB – Kewaunee Nuclear Power Plant

Enclosure IIC – Monticello Nuclear Generating Plant

Enclosure IID – Palisades Nuclear Plant

Enclosure IIE – Point Beach Nuclear Plant Units 1 and 2

Enclosure IIF – Prairie Island Nuclear Generating Plant Units 1 and 2

ENCLOSURE IIA

**Proposed Technical Specification Changes (Markups)
Duane Arnold Energy Center**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 Occupational Radiation Exposure Report

DELETED

A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors), for whom monitoring was performed, receiving an annual deep dose equivalent > 100 mrem and the associated collective deep dose equivalent (reported in person-rem) according to work and job functions (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance [describe maintenance], waste processing, and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, thermoluminescence dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totaling < 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.

5.6.2 Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODAM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

(continued)

5.6 Reporting Requirements (continued)

5.6.3 Radioactive Material Release Report

The Radioactive Material Release Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODAM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

5.6.4

Monthly Operating Reports

DELETED

~~Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.~~

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 1. The Average Planar Linear Heat Generation Rate (APLHGR) for Specification 3.2.1;
 2. The Minimum Critical Power Ratio (MCPR) for Specification 3.2.2; and
 3. Exclusion Region in the Power/Flow Map for Specification 3.4.1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Standard Application for Reactor Fuel, NEDE-24011-P-A, (GESTAR II). The revision number is the one approved at the time the reload fuel analyses are performed.

(continued)

ENCLOSURE IIB

**Proposed Technical Specification Changes (Markups)
Kewaunee Nuclear Power Plant**

2 pages follow

- B. ~~As per applicable, portions of Regulatory Guide 1.16, a tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures > 100 mrem/yr and their associated person rem exposure according to work and job functions;⁽¹⁾ e.g., reactor operations and surveillance, in-service 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). Small exposures totaling < 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. Deleted.~~
- C. ~~Challenges to and failures of the pressurizer power operated relief valves and safety valves.⁽²⁾ Deleted.~~
- D. This report shall document the results of specific activity analysis in which the reactor coolant exceeded the limits of TS 3.1.c.1.A during the past year. The following information shall be included:
- (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded.
 - (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations.
 - (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded.
 - (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level.
 - (5) The time duration when the specific activity of the reactor coolant exceeded the radioiodine limit.

⁽¹⁾ ~~This tabulation supplements the requirements of Section 20.2206(b) of 10 CFR Part 20. Deleted~~

⁽²⁾ ~~Letter from E. R. Mathews (WPSC) to D. G. Eisenhut (U.S. NRC) dated January 5, 1981. Deleted.~~

3. Monthly OPERATING Report

~~Routine reports of OPERATING statistics and shutdown experience shall be submitted on a monthly basis to the Document Control Desk, U.S. Nuclear Regulatory Commission, Washington, D.C., 20555, with a copy to the appropriate Regional Office, to be submitted by the fifteenth of each month following the calendar month covered by the report. Deleted.~~

4. Core Operating Limits Report (COLR)

A. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- | | | |
|------|-----------------|---|
| (1) | TS 2.1 | Reactor Core Safety Limit |
| (2) | TS 2.3.a.3.A | Overtemperature ΔT Setpoint |
| (3) | TS 2.3.a.3.B | Overpower ΔT Setpoint |
| (4) | TS 3.1.f.3 | Moderator Temperature Coefficient (MTC) |
| (5) | TS 3.8.a.5 | Refueling Boron Concentration |
| (6) | TS 3.10.a | Shutdown Margin |
| (7) | TS 3.10.b.1.A | $F_{\alpha}^N(Z)$ Limits |
| (8) | TS 3.10.b.1.B | $F_{\Delta H}^N$ Limits |
| (9) | TS 3.10.b.4 | $F_{\alpha}^{EQ}(Z)$ Limits |
| (10) | TS 3.10.b.5.C.i | $F_{\alpha}^{EQ}(Z)$ penalty |
| (11) | TS 3.10.b.9 | Axial Flux Difference Target Band |
| (12) | TS 3.10.b.11.A | Axial Flux Difference Envelope |
| (13) | TS 3.10.d.1 | Shutdown Bank Insertion Limits |
| (14) | TS 3.10.d.2 | Control Bank Insertion Limits |
| (15) | TS 3.10.k | Core Average Temperature |
| (16) | TS 3.10.l | Reactor Coolant System Pressure |
| (17) | TS 3.10.m.1 | Reactor Coolant Flow |

B. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC. When an initial assumed power level of 102% of the original rated power is specified in a previously approved method, 100.6% of uprated power may be used only when the main feedwater flow measurement (used as the input for reactor thermal output) is provided by the Crossflow ultrasonic flow measurement system (Crossflow system) as described in report (15) listed below. When main feedwater flow measurements from the Crossflow System are unavailable, a power measurement uncertainty consistent with the instrumentation used shall be applied.

Future revisions of approved analytical methods listed in this Technical Specification that currently reference the original Appendix K uncertainty of 102% of the original rated power should include the condition given above allowing use of 100.6% of uprated power in the safety analysis methodology when the Crossflow system is used for main feedwater flow measurement.

ENCLOSURE IIC

**Proposed Technical Specification Changes (Markups)
Monticello Nuclear Generating Plant**

1 page follows

11-2-01

2. Occupational Radiation Exposure Report

A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) for whom monitoring was performed, receiving an annual deep dose equivalent > 100 mrem and the associated collective deep dose equivalent (reported in person - rem) according to work and job functions (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance, waste processing, and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, thermoluminescence dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totaling < 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.

3. Monthly Operating Report. A monthly report of operating statistics and shutdown experience covering the previous month shall be submitted by the 15th of the following month.

4. Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the unit during the previous year shall be submitted prior to May 15 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

5. (Deleted)

6. Report of Safety/Relief Valve Failures and Challenges. An annual report of safety/relief valve failures and challenges shall be submitted prior to March 1st of each year.

ENCLOSURE IID

**Proposed Technical Specification Changes (Markups)
Palisades Nuclear Plant**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 ~~(Deleted) Occupational Radiation Exposure Report~~

~~This report shall include a tabulation on an annual basis of the number of station, utility, and other personnel (including contractors), for whom monitoring was performed, receiving an annual deep dose equivalent greater than 100 mrem and the associated collective deep dose equivalent (reported in person-rem) according to work and job functions (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance [describe maintenance], waste processing and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, electronic dosimeter, thermoluminescence 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 deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.~~

5.6.2 Radiological Environmental Operating Report

The Radiological Environmental Operating Report covering the operation of the plant during the previous calendar year shall be submitted before May 15 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering operation of the plant in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and Process Control Program, and shall be in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6 Reporting Requirements

5.6.4 ~~(Deleted) Monthly Operating Report~~

~~Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the NRC no later than the fifteenth of each month following the calendar month covered by the report.~~

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- 3.1.1 Shutdown Margin
- 3.1.6 Regulating Rod Group Position Limits
- 3.2.1 Linear Heat Rate Limits
- 3.2.2 Radial Peaking Factor Limits
- 3.2.4 ASI Limits
- 3.4.1 DNB Limits

b. The analytical methods used to determine the core operating limits shall be those approved by the NRC, specifically those described in the latest approved revision of the following documents:

1. EMF-96-029(P)(A) Volumes 1 and 2, "Reactor Analysis System for PWRs," Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
2. ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels Corporation. (Bases report not approved) (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
3. XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company. (LCOs 3.2.1, 3.2.2, & 3.2.4)
4. EMF-84-093(P)(A), "Steam Line Break Methodology for PWRs," Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
5. XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company. (Bases document not approved) (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

ENCLOSURE IIE

**Proposed Technical Specification Changes (Markups)
Point Beach Nuclear Plant Units 1 and 2**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 Occupational Radiation Exposure Report Deleted

NOTE

~~A single submittal may be made that combines sections common to Units 1 and 2.~~

~~A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors), for whom monitoring was performed, receiving an annual deep dose equivalent > 100 mrems and the associated collective deep dose equivalent (reported in person-rem) according to work and job functions (e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling). This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, thermoluminescence dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totaling < 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.~~

5.6.2 Annual Monitoring Report

-----NOTE-----

A single submittal may be made that combines sections common to Units 1 and 2.

The Annual Monitoring Report covering the operation of the units during the previous calendar year shall be submitted by April 30 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

5.6 Reporting Requirements

5.6.2 Annual Monitoring Report (continued)

The Annual Monitoring Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

The Annual Monitoring Report shall also include The Radioactive Effluent Release Report covering the operation of the units in the previous year and submitted in accordance with 10 CFR 50.36a.

The submittal shall combine sections common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the units. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6.3 Monthly Operating Reports Deleted

~~Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis by the 15th of each month following the calendar month covered by the report.~~

5.6.4 CORE OPERATING LIMITS REPORT (COLR)

a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- (1) LCO 2.1.1, "Safety Limits (SLs)"
- (2) LCO 3.1.1, "Shutdown Margin (SDM)"
- (3) LCO 3.1.3, "Moderator Temperature Coefficient (MTC)"
- (4) LCO 3.1.5, "Shutdown Bank Insertion Limits"
- (5) LCO 3.1.6, "Control Bank Insertion Limits"
- (6) LCO 3.2.1, "Heat Flux Hot Channel Factor ($F_Q(Z)$)"
- (7) LCO 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ($F_{\Delta H}^N$)"

ENCLOSURE IIF

**Proposed Technical Specification Changes (Markups)
Prairie Island Nuclear Generating Plant Units 1 and 2**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 ~~Not Used~~ Occupational Exposure Report

NOTE

~~A single submittal may be made for the plant. The submittal should combine sections common to both units.~~

~~A tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) for whom monitoring was performed; receiving an annual deep dose equivalent > 100 mrem and the associated collective deep dose equivalent (reported in person-rem) according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. This tabulation supplements the requirements of 10 CFR 20.2206. The dose assignments to various duty functions may be estimated based on pocket ionization chamber, thermoluminescent dosimeter (TLD), electronic dosimeter, or film badge measurements. Small exposures totaling $< 20\%$ of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total deep dose equivalent received from external sources should be assigned to specific major work functions. The report covering the previous calendar year shall be submitted by April 30 of each year.~~

5.6 Reporting Requirements (continued)

5.6.3 Radioactive Effluent Report

-----NOTE-----
A single submittal may be made for the plant. The submittal shall combine sections common to both units.

The Radioactive Effluent Report covering the operation of the plant during the previous calendar year shall be submitted by May 15 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant. The material provided shall be consistent with the objectives outlined in the ODCM and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6.4 Not Used Monthly Operating Reports

~~Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis no later than the 15th of each month following the calendar month covered by the report.~~

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

TS 2.1.1, "Reactor Core SLs";
LCO 3.1.1, "SHUTDOWN MARGIN (SDM)";
LCO 3.1.3, "Isothermal Temperature Coefficient (ITC)";
LCO 3.1.5, "Shutdown Bank Insertion Limits";
LCO 3.1.6, "Control Bank Insertion Limits";
LCO 3.1.8, "PHYSICS TESTS Exceptions - MODE 2";

ENCLOSURE III

The following Final Technical Specification Pages are contained within Enclosure III:

Enclosure IIIA – Duane Arnold Energy Center

Enclosure IIIB – Kewaunee Nuclear Power Plant

Enclosure IIIC – Monticello Nuclear Generating Plant

Enclosure IIID – Palisades Nuclear Plant

Enclosure IIIE – Point Beach Nuclear Plant Units 1 and 2

Enclosure IIIF – Prairie Island Nuclear Generating Plant Units 1 and 2

ENCLOSURE IIIA

**Proposed Technical Specification Pages
Duane Arnold Energy Center**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 DELETED

5.6.2 Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODA M, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

(continued)

5.6 Reporting Requirements (continued)

5.6.3 Radioactive Material Release Report

The Radioactive Material Release Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODAM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

5.6.4 DELETED

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
 1. The Average Planar Linear Heat Generation Rate (APLHGR) for Specification 3.2.1;
 2. The Minimum Critical Power Ratio (MCPR) for Specification 3.2.2; and
 3. Exclusion Region in the Power/Flow Map for Specification 3.4.1.
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Standard Application for Reactor Fuel, NEDE-24011-P-A, (GESTAR II). The revision number is the one approved at the time the reload fuel analyses are performed.

(continued)

ENCLOSURE IIIB

**Proposed Technical Specification Pages
Kewaunee Nuclear Power Plant**

2 pages follow

- B. Deleted.
- C. Deleted.
- D. This report shall document the results of specific activity analysis in which the reactor coolant exceeded the limits of TS 3.1.c.1.A during the past year. The following information shall be included:
 - (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded.
 - (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations.
 - (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded.
 - (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level.
 - (5) The time duration when the specific activity of the reactor coolant exceeded the radioiodine limit.

⁽¹⁾ Deleted
⁽²⁾ Deleted.

3. Deleted.

4. Core Operating Limits Report (COLR)

A. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- | | | |
|------|-----------------|---|
| (1) | TS 2.1 | Reactor Core Safety Limit |
| (2) | TS 2.3.a.3.A | Overtemperature ΔT Setpoint |
| (3) | TS 2.3.a.3.B | Overpower ΔT Setpoint |
| (4) | TS 3.1.f.3 | Moderator Temperature Coefficient (MTC) |
| (5) | TS 3.8.a.5 | Refueling Boron Concentration |
| (6) | TS 3.10.a | Shutdown Margin |
| (7) | TS 3.10.b.1.A | $F_{\alpha}^N(Z)$ Limits |
| (8) | TS 3.10.b.1.B | $F_{\Delta H}^N$ Limits |
| (9) | TS 3.10.b.4 | $F_{\alpha}^{EO}(Z)$ Limits |
| (10) | TS 3.10.b.5.C.i | $F_{\alpha}^{EO}(Z)$ penalty |
| (11) | TS 3.10.b.9 | Axial Flux Difference Target Band |
| (12) | TS 3.10.b.11.A | Axial Flux Difference Envelope |
| (13) | TS 3.10.d.1 | Shutdown Bank Insertion Limits |
| (14) | TS 3.10.d.2 | Control Bank Insertion Limits |
| (15) | TS 3.10.k | Core Average Temperature |
| (16) | TS 3.10.l | Reactor Coolant System Pressure |
| (17) | TS 3.10.m.1 | Reactor Coolant Flow |

B. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC. When an initial assumed power level of 102% of the original rated power is specified in a previously approved method, 100.6% of uprated power may be used only when the main feedwater flow measurement (used as the input for reactor thermal output) is provided by the Crossflow ultrasonic flow measurement system (Crossflow system) as described in report (15) listed below. When main feedwater flow measurements from the Crossflow System are unavailable, a power measurement uncertainty consistent with the instrumentation used shall be applied.

Future revisions of approved analytical methods listed in this Technical Specification that currently reference the original Appendix K uncertainty of 102% of the original rated power should include the condition given above allowing use of 100.6% of uprated power in the safety analysis methodology when the Crossflow system is used for main feedwater flow measurement.

ENCLOSURE IIIC

**Proposed Technical Specification Pages
Monticello Nuclear Generating Plant**

1 page follows

17-501

2. (Deleted)

3. (Deleted)

4. Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the unit during the previous year shall be submitted prior to May 15 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

5. (Deleted)

6. (Deleted)

ENCLOSURE IIID

**Proposed Technical Specification Pages
Palisades Nuclear Plant**

2 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 (Deleted)

5.6.2 Radiological Environmental Operating Report

The Radiological Environmental Operating Report covering the operation of the plant during the previous calendar year shall be submitted before May 15 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering operation of the plant in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and Process Control Program, and shall be in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6 Reporting Requirements

5.6.4 (Deleted)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

- 3.1.1 Shutdown Margin
- 3.1.6 Regulating Rod Group Position Limits
- 3.2.1 Linear Heat Rate Limits
- 3.2.2 Radial Peaking Factor Limits
- 3.2.4 ASI Limits
- 3.4.1 DNB Limits

b. The analytical methods used to determine the core operating limits shall be those approved by the NRC, specifically those described in the latest approved revision of the following documents:

1. EMF-96-029(P)(A) Volumes 1 and 2, "Reactor Analysis System for PWRs," Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
2. ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels Corporation. (Bases report not approved) (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
3. XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company. (LCOs 3.2.1, 3.2.2, & 3.2.4)
4. EMF-84-093(P)(A), "Steam Line Break Methodology for PWRs," Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)
5. XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company. (Bases document not approved) (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

ENCLOSURE III E

**Proposed Technical Specification Pages
Point Beach Nuclear Plant Units 1 and 2**

4 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 Deleted

5.6.2 Annual Monitoring Report

-----NOTE-----
A single submittal may be made that combines sections common to Units 1 and 2.

The Annual Monitoring Report covering the operation of the units during the previous calendar year shall be submitted by April 30 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Monitoring Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODCM, as well as summarized and tabulated results of these analyses and measurements. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

The Annual Monitoring Report shall also include The Radioactive Effluent Release Report covering the operation of the units in the previous year and submitted in accordance with 10 CFR 50.36a.

The submittal shall combine sections common to all units at the station; however, for units with separate radwaste systems, the submittal shall specify the releases of radioactive material from each unit. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the units. The material provided shall be consistent with the objectives outlined in the ODCM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6 Reporting Requirements

5.6.3 Deleted

5.6.4 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
- (1) LCO 2.1.1, "Safety Limits (SLs)"
 - (2) LCO 3.1.1, "Shutdown Margin (SDM)"
 - (3) LCO 3.1.3, "Moderator Temperature Coefficient (MTC)"
 - (4) LCO 3.1.5, "Shutdown Bank Insertion Limits"
 - (5) LCO 3.1.6, "Control Bank Insertion Limits"
 - (6) LCO 3.2.1, "Heat Flux Hot Channel Factor ($F_Q(Z)$)"
 - (7) LCO 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ($F^{N_{\Delta H}}$)"
 - (8) LCO 3.2.3, "Axial Flux Difference (AFD)"
 - (9) LCO 3.3.1, "Reactor Protection System (RPS) Instrumentation - Overtemperature ΔT "
 - (10) LCO 3.3.1, "Reactor Protection System (RPS) Instrumentation - Overpower ΔT "
 - (11) LCO 3.4.1, "RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits"
 - (12) LCO 3.9.1, "Boron Concentration"
- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC. When an initial assumed power level of 102 percent of the original rated thermal power is specified in a previously approved method, 100.6 percent of uprated rated thermal power may be used only when the main feedwater flow measurement (used as the input for reactor thermal output) is provided by the Caldon leading edge flowmeter (LEFM) as described in reports 11 and 12 listed below. When main feedwater flow measurements from the LEFM are unavailable, a power measurement uncertainty consistent with the instruments used shall be applied.

Future revisions of approved analytical methods listed in this Technical Specification that currently reference the original Appendix K uncertainty of 102 percent of the original rated thermal power should include the condition given above allowing use of 100.6 percent of uprated rated thermal power in the safety analysis methodology when the LEFM is used for main feedwater flow measurement.

5.6 Reporting Requirements

5.6.4 CORE OPERATING LIMITS REPORT (COLR) (continued)

The approved analytical methods are described in the following documents:

- (1) WCAP-14449-P-A, "Application of Best Estimate Large Break LOCA Methodology to Westinghouse PWR's with Upper Plenum Injection," Revision 1, October 1999. (cores containing 422V+ fuel)
- (2) WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology," July 1985.
- (3) WCAP-11397-P-A, "Revised Thermal Design Procedure," April 1989.
- (4) WCAP-14787-P, Rev. 2, "Revised Thermal Design Procedure Instrument Uncertainty Methodology for Wisconsin Electric Power Company Point Beach Units 1 & 2 (Fuel Upgrade & Uprate to 1656 MWt-NSSS Power with Feedwater Venturis, or 1679 MWt-NSSS Power with LEFM on Feedwater Header), October, 2002 (approved by NRC Safety Evaluation, November 29, 2002).
- (5) WCAP-10054-P-A, "Westinghouse Small Break ECCS Evaluation Model Using The NOTRUMP Code," August 1985.
- (6) WCAP-10054-P-A, "Addendum to the Westinghouse Small Break ECCS Evaluation Model Using the NOTRUMP Code: Safety Injection into the Broken Loop and COSI Condensation Model," Addendum 2, Revision 1, July 1997.
- (7) WCAP-8745-P-A, "Design Bases for the Thermal Overpower ΔT and Thermal Overtemperature ΔT Trip Functions," September 1986.
- (8) WCAP-10216-P-A, "Relaxation of Constant Axial Offset Control," Revision 1A, February 1994.
- (9) WCAP-10924-P-A, "Large Break LOCA Best Estimate Methodology, Volume 2: Application to Two-Loop PWRs Equipped with Upper Plenum Injection," and Addenda, December 1988. (cores not containing 422 V+ fuel)
- (10) WCAP-10924-P-A, "LBLOCA Best Estimate Methodology: Model Description and Validation: Model Revisions," Volume 1, Addendum 4, August 1990. (cores not containing 422 V+ fuel)
- (11) Caldon, Inc., Engineering Report-80P, "TOPICAL REPORT: Improving Thermal Power Accuracy and Plant Safety While Increasing Operating Power Level Using the LEFM[✓]™ System," Revision 0, March 1997.
- (12) Caldon, Inc., Engineering Report-160P, "Supplement to Topical Report ER-80P: Basis for a Power Uprate With the LEFM[✓]™ System," Revision 0, May 2000.

5.6 Reporting Requirements

5.6.4 CORE OPERATING LIMITS REPORT (COLR) (continued)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

ENCLOSURE III F

**Proposed Technical Specification Pages
Prairie Island Nuclear Generating Plant Units 1 and 2**

9 pages follow

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 Not Used.

5.6.2 Annual Radiological Environmental Monitoring Report

-----NOTE-----

A single submittal may be made for the plant. The submittal should combine sections common to both units.

The Annual Radiological Environmental Monitoring Report covering the operation of the plant during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual (ODCM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Monitoring Report shall include summarized and tabulated results, in the format of Regulatory Guide 4.8, December 1975, of all radiological environmental samples taken during the report period. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

The report shall also include the following: a summary description of the radiological environmental monitoring program; a map of sampling locations keyed to a table giving distances and directions from the reactor site; and the results of licensees participation in the Interlaboratory Comparison Program defined in the ODCM.

5.6 Reporting Requirements (continued)

5.6.3 Radioactive Effluent Report

-----NOTE-----

A single submittal may be made for the plant. The submittal shall combine sections common to both units.

The Radioactive Effluent Report covering the operation of the plant during the previous calendar year shall be submitted by May 15 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant. The material provided shall be consistent with the objectives outlined in the ODCM and in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6.4 Not Used.

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

- a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

TS 2.1.1, "Reactor Core SLs";
 LCO 3.1.1, "SHUTDOWN MARGIN (SDM)";
 LCO 3.1.3, "Isothermal Temperature Coefficient (ITC)";
 LCO 3.1.5, "Shutdown Bank Insertion Limits";
 LCO 3.1.6, "Control Bank Insertion Limits";
 LCO 3.1.8, "PHYSICS TESTS Exceptions - MODE 2";

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

LCO 3.2.1, "Heat Flux Hot Channel Factor ($F_Q(Z)$)";

LCO 3.2.2, "Nuclear Enthalpy Rise Hot Channel Factor ($F_{\Delta H}^N$)";

LCO 3.2.3, "AXIAL FLUX DIFFERENCE (AFD)";

LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation"

Overtemperature ΔT and Overpower ΔT Parameter Values for
Table 3.3.1-1;

LCO 3.4.1, "RCS Pressure, Temperature, and Flow - Departure from
Nucleate Boiling (DNB) Limits"; and

LCO 3.9.1, "Boron Concentration".

- b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC, specifically those described in the following documents:
1. NSPNAD-8101-PA, "Qualification of Reactor Physics Methods for Application to PI Units" (latest approved version);
 2. NSPNAD-8102-PA, "Prairie Island Nuclear Power Plant Reload Safety Evaluation Methods for Application to PI Units" (latest approved version);
 3. NSPNAD-97002-PA, "Northern States Power Company's "Steam Line Break Methodology", (latest approved version);
 4. WCAP-9272-P-A, "Westinghouse Reload Safety Evaluation Methodology";
 5. WCAP-10054-P-A, "Westinghouse Small Break ECCS Evaluation Model using the NOTRUMP Code";
 6. Deleted;
 7. WCAP-10924-P-A, "Westinghouse Large Break LOCA Best Estimate Methodology";

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

8. XN-NF-77-57 (A), XN-NF-77-57, Supplement 1 (A), "Exxon Nuclear Power Distribution Control for Pressurized Water Reactors Phase II";
9. WCAP-13677, "10 CFR 50.46 Evaluation Model Report: W-COBRA/TRAC 2-Loop Upper Plenum Injection Model Update to Support ZIRLO™ Cladding Options";
10. NSPNAD-93003-A, "Transient Power Distribution Methodology", (latest approved version);
11. NAD-PI-003, "Prairie Island Nuclear Power Plant Required Shutdown Margin During Physics Tests";
12. NAD-PI-004, "Prairie Island Nuclear Power Plant $F_Q^w(Z)$ Penalty With Increasing $[F_Q^c(Z)/K(Z)]$ Trend";
13. WCAP-10216-P-A, Revision 1A, "Relaxation of Constant Axial Offset Control/ F_Q Surveillance Technical Specification";
14. WCAP-8745-P-A, "Design Bases for the Thermal Overpower ΔT and Thermal Overtemperature ΔT Trip Functions";
15. WCAP-11397-P-A, "Revised Thermal Design Procedure";
16. WCAP-14483-A, "Generic Methodology for Expanded Core Operating Limits Report";
17. WCAP-7588 Rev. 1-A, "An Evaluation of the Rod Ejection Accident in Westinghouse Pressurized Water Reactors Using Spatial Kinetics Methods";

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

18. WCAP-7908-A, “FACTRAN – A FORTRAN IV Code for Thermal Transients in a UO₂ Fuel Rod”;
19. WCAP-7907-P-A, “LOFTRAN Code Description”;
20. WCAP-7979-P-A, “TWINKLE – A Multidimensional Neutron Kinetics Computer Code”;
21. WCAP-10965-P-A, “ANC: A Westinghouse Advanced Nodal Computer Code”;
22. WCAP-11394-P-A, “Methodology for the Analysis of the Dropped Rod Event”;
23. WCAP-11596-P-A, “Qualification of the PHOENIX-P/ANC Nuclear Design System for Pressurized Water Reactor Cores”;
24. WCAP-12910 Rev. 1-A, “Pressurizer Safety Valve Set Pressure Shift”;
25. WCAP-14565-P-A, “VIPRE-01 Modeling and Qualification for pressurized Water Reactor Non-LOCA Thermal-Hydraulic Safety Analysis”; and
26. WCAP-14882-P-A, “RETRAN-02 Modeling and Qualification for Westinghouse Pressurized Water Reactor Non-LOCA Safety Analyses”.

5.6 Reporting Requirements

5.6.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

5.6.6 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

- a. RCS pressure and temperature limits for heat-up, cooldown, low temperature operation, criticality, and hydrostatic testing, OPPS arming, PORV lift settings and Safety Injection Pump Disable Temperature as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits";

LCO 3.4.6, "RCS Loops - MODE 4";

LCO 3.4.7, "RCS Loops - MODE 5, Loops Filled";

LCO 3.4.10, "Pressurizer Safety Valves";

LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP) – Reactor Coolant System Cold Leg Temperature (RCSCLT) > Safety Injection (SI) Pump Disable Temperature";

LCO 3.4.13, "Low Temperature Overpressure Protection (LTOP) – Reactor Coolant System Cold Leg Temperature (RCSCLT) ≤ Safety Injection (SI) Pump Disable Temperature"; and

LCO 3.5.3, "ECCS - Shutdown".

5.6 Reporting Requirements

5.6.6 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR) (continued)

- b. The analytical methods used to determine the RCS pressure and temperature limits and Cold Overpressure Mitigation System setpoints shall be those previously reviewed and approved by the NRC, specifically those described in the following document:

WCAP-14040-NP-A, Revision 2, "Methodology Used to Develop Cold Overpressure Mitigating System Setpoints and RCS Heatup and Cooldown Limit Curves" (includes any exemption granted by NRC to ASME Code Case N-514).

- c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto. Changes to the curves, setpoints, or parameters in the PTLR resulting from new or additional analysis of beltline material properties shall be submitted to the NRC prior to issuance of an updated PTLR.

5.6.7 Steam Generator Tube Inspection Report

1. Following each in-service inspection of steam generator tubes, if there are any tubes requiring plugging or sleeving, the number of tubes plugged or sleeved in each steam generator shall be reported to the Commission within 15 days.
2. The results of steam generator tube in-service inspections shall be included with the summary reports of ASME Code Section XI inspections submitted within 90 days of the end of each refueling outage. Results of steam generator tube in-service inspections not associated with a refueling outage shall be submitted within 90 days of the completion of the inspection. These reports shall include: (1) number and extent of tubes inspected, (2) location and percent of wall-thickness penetration for each indication of an imperfection, and (3) identification of tubes plugged or sleeved.

5.6 Reporting Requirements

5.6.7 Steam Generator Tube Inspection Report (continued)

3. Results of steam generator tube inspections which fall into Category C-3 require notification to the Commission prior to resumption of plant operation, and reporting as a special report to the Commission within 30 days. This special report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.
4. The results of inspections performed under Specification 5.5.8.b for all tubes that have defects below the F* or EF* distance, and were not plugged, shall be reported to the Commission within 15 days following the inspection. The report shall include:
 - a. Identification of F* and EF* tubes, and
 - b. Location and extent of degradation.
5. For implementation of the voltage-based repair criteria to tube support plate intersections, notify the NRC staff prior to returning the steam generators to service should any of the following conditions arise:
 - a. If estimated leakage based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds the leak limit (determined from the licensing basis dose calculation for the postulated main steamline break) for the next operating cycle.
 - b. If circumferential crack-like indications are detected at the tube support plate intersections.
 - c. If indications are identified that extend beyond the confines of the tube support plate.
 - d. If indications are identified at the tube support plate elevations that are attributable to primary water stress corrosion cracking.

5.6 Reporting Requirements

5.6.7 Steam Generator Tube Inspection Report (continued)

- e. If the calculated conditional burst probability based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds $1E-02$, notify the NRC and provide an assessment of the safety significance of the occurrence.

5.6.8 EM Report

When a report is required by Condition C or I of LCO 3.3.3, "Event Monitoring (EM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.
