January 30, 2004 10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Duane Arnold Energy Center Docket 50-331 License No. DPR-49	Monticello Nuclear Generating Plant Docket 50-263 License No. DPR-22
Kewaunee Nuclear Power Plant Docket 50-305 License No. DPR-43	Point Beach Nuclear Plant Units 1 and 2 Dockets 50-266 and 50-301 License Nos. DPR-24 and DPR-27
Palisades Nuclear Plant Docket 50-255 License No. DPR-20	Prairie Island Nuclear Generating Plant Units 1 and 2 Dockets 50-282 and 50-306 License Nos. DPR-42 and DPR-60

Subject: Application for Technical Specification Improvement to Eliminate Requirements for Hydrogen Recombiners and Hydrogen/Oxygen Monitors 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 will delete the TS requirements related to hydrogen recombiners, and hydrogen/oxygen[1] monitors. The proposed TS changes support implementation of the revisions to 10 CFR 50.44, "Standards for Combustible Gas Control System in Light-Water-Cooled-Power Reactors," that became effective on October 16, 2003. The changes are consistent with Revision 1 of NRC-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-447, "Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors." The availability of this TS improvement was announced in the *Federal Register* on September 25, 2003, as part of the consolidated line item improvement process (CLIIP).

[1] References to Oxygen Monitors apply only to Duane Arnold Energy Center and Monticello Nuclear Generating Plant.

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Enclosure 1 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications and commitments. Enclosure 2 provides site-specific clarifications to the TSTF-447 in conjunction with specifying the location of various changes to each facility's Technical Specifications. Enclosure 3 provides the existing TS pages marked-up to show the proposed change. Enclosure 4 provides revised, clean TS pages. Implementation of TSTF-447 also involves various changes to the TS Bases. The TS Bases changes will be implemented in accordance with each licensee's Technical Specifications (TS) Bases Control Program. In addition, as part of implementation of this change, each site will evaluate previous regulatory commitments, in accordance with approved guidance (SECY-00-0045, "Acceptance of NEI 99-04, Guidelines for Managing NRC Commitments"). The Staff will be notified of any such changes under separate cover, as necessary.

NMC requests approval of the proposed License Amendment by June 2004, with the amendment being implemented within 120 days after issuance of the amendment.

The TS pages submitted with this letter may be impacted by TS page changes in other license amendment requests. The marked up TS pages attached to this submittal do not contain incorporation of other proposed changes but reflect TS pages in their current approved state.

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

Summary of Commitments

This letter makes the following new commitments:

1) NMC has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at each facility and is making a regulatory commitment to maintain that capability. The hydrogen monitors will be included in the specified document or program identified in Enclosure 1, Table 1. This regulatory commitment will be implemented by the implementation date.

2) NMC has verified that an oxygen monitoring system capable of verifying the status of the inerted containment is installed at Duane Arnold Energy Center and Monticello Nuclear Generating Plant and is making a regulatory commitment to maintain that capability. The oxygen monitors will be included in the specified document or program identified in Enclosure 1, Table 1. This regulatory commitment will be implemented by the implementation date.

If you should have any questions regarding this submittal, please contact John Fields, Senior Regulatory Affairs Engineer (763-295-1663).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 30, 2004

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

Enclosures (14)

cc: Regional Administrator, USNRC, Region III
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 1

Description and Assessment

1.0 INTRODUCTION

The proposed License amendment deletes Technical Specification (TS) requirements for Hydrogen Recombiners and references to the hydrogen and oxygen[1] monitors in TS. These changes are numbered according to each facility's TS as identified in Table 1. The proposed TS changes support implementation of the revisions to 10 CFR 50.44, "Standards for Combustible Gas Control System in Light-Water-Cooled Power Reactors," that became effective on October 16, 2003. The revision of the requirements for the hydrogen recombiner and hydrogen/oxygen monitors resulted in numbering and formatting changes to other TS, which were otherwise unaffected by this proposed amendment.

The changes are consistent with Revision 1 of NRC-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-447, "Elimination of Hydrogen Recombiners and Change to Hydrogen and Oxygen Monitors." The availability of this TS improvement was announced in the *Federal Register* on September 25, 2003, as part of the consolidated line item improvement process (CLIIP).

2.0 DESCRIPTION OF PROPOSED AMENDMENT

Consistent with the NRC-approved Revision 1 of TSTF-447, the proposed TS changes include:[2]

Inoperable Hydrogen Monitors	Deleted
Containment Hydrogen Concentration Drywell H_2 & O_2 Analyzer Containment H_2 & O_2 Analyzer	Deleted
Hydrogen Recombiners	Deleted

Other TS changes included in this application are limited to renumbering and formatting changes that resulted directly from the deletion of the above requirements related to hydrogen recombiners and hydrogen and oxygen monitors.

As described in NRC-approved Revision 1 of TSTF-447, the changes to TS requirements and associated renumbering of other TSs results in changes to various TS Bases sections. The TS Bases changes will be implemented in accordance with each facility's TS Bases Control Program.

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[1] References to Oxygen Monitors apply only to Duane Arnold Energy Center and Monticello Nuclear Generating Plant.

[2] Each facility's unique TS Section Identification number is provided in Table 1 and in the applicable Enclosure 3(X).

3.0 BACKGROUND

The background for this application is adequately addressed by the NRC Notice of Availability published on September 25, 2003 (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

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 September 25, 2003 (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

5.0 TECHNICAL ANALYSIS

Nuclear Management Company, LLC (NMC) has reviewed the safety evaluation (SE) published on September 25, 2003 (68 FR 55416) as part of the CLIIP Notice of Availability. This verification included a review of the NRC staff's SE, as well as the supporting information provided to support TSTF-447. 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 September 25, 2003 (68 FR 55416), TSTF-447, the documentation associated with the 10 CFR 50.44 rulemaking, and other related documents.

6.1 Verification and Commitments

As discussed in the model SE published in the *Federal Register* on September 25, 2003 (68 FR 55416) for this TS improvement, NMC is making the following verifications and regulatory commitments:

1. NMC has verified that a hydrogen monitoring system capable of diagnosing beyond design-basis accidents is installed at each facility and is making a regulatory commitment to maintain that capability. The hydrogen monitors will be included in the specified document or program identified in Table 1. This regulatory commitment will be implemented by the implementation date.

2. Kewaunee Nuclear Power Plant, Palisades Nuclear Plant, Point Beach Nuclear Plant Units 1 and 2, and Prairie Island Nuclear Generating Plant Units 1 and 2 do not have an inerted containment.

Duane Arnold Energy Center and Monticello Nuclear Generating Plant have an inerted containment. NMC has verified that an oxygen monitoring system capable of verifying the status of the inerted containment is installed at Duane Arnold Energy Center and Monticello Nuclear Generating Plant and is making a regulatory commitment to maintain that capability. The oxygen monitors will be included in the specified document or program identified in Table 1.

This regulatory commitment will be implemented by the implementation date.

7.0 NO SIGNIFICANT HAZARDS CONSIDERATION

NMC has reviewed the proposed no significant hazards consideration determination published on September 25, 2003 (68 FR 55416) as part of the CLIIP. NMC has concluded that the proposed determination presented in the 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 September 25, 2003 (68 FR 55416) as part of the CLIIP. NMC has concluded that the 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 CLIIP. NMC is not proposing variations or deviations from the TS changes described in TSTF-447 or the NRC staff's model SE published on September 25, 2003 (68 FR 55416). However, the unique characteristics of each facility's TS in relationship to TSTF-447 are identified and clarified in Enclosure 2. The differences between each facility's TS and TSTF-447 do not affect the no significant hazards consideration determination and environmental evaluation included in the model SE published on September 25, 2003 (68 FR 55416) as part of the CLIIP.

10.0 REFERENCES

Federal Register Notice: Notice of Availability of Model Application Concerning Technical Specification Improvement To Eliminate Hydrogen Recombiner Requirement, and Relax the Hydrogen and Oxygen Monitor Requirements for Light Water Reactors Using the Consolidated Line Item Improvement Process, published September 25, 2003 (68 FR 55416).

Table 1 – Site Specific Information

Facility *	Revised TS Section Identification numbers	Specified document or program for relocation of Hydrogen Monitors	Specified document or program for relocation of Oxygen Monitors
Duane Arnold Energy Center	3.3.3.1	Technical Requirements Manual	Technical Requirements Manual [(a)]
Kewaunee Nuclear Power Plant	Table 3.5-6 Table 4.1-1	Technical Requirements Manual	N/A
Monticello Nuclear Generating Plant	3.7.E/4.7.E Table 3.14.1/4.14.1	Commitment Tracking Program	Commitment Tracking Program [(a)]
Palisades Nuclear Plant	3.3.7 Table 3.3.7-1 3.6.7	Commitment Management Program	N/A
Point Beach Nuclear Plant	3.3.3 Table 3.3.3-1 5.6.6	Technical Requirements Manual	N/A
Prairie Island Nuclear Generating Plant	3.3.3 Table 3.3.3-1 3.6.7 5.6.8	Technical Requirements Manual	N/A

* Site-specific clarifications from TSTF-447, Rev. 1 are included and explained in Enclosure 2.

[(a)] Only the post-accident monitoring function will meet Regulatory Guide 1.97 (RG 1.97) and will be included in the Technical Requirements Manual or Commitment Tracking Program. Other, non-RG 1.97 instruments may be used to verify an inerted containment during normal power operations.

ENCLOSURE 2

SITE SPECIFIC CLARIFICATIONS FROM TSTF-447

The purpose of this enclosure is to provide site-specific clarifications to the TSTF-447 in conjunction with specifying the location of various changes to each facility's Technical Specifications. This enclosure augments discussions contained in Enclosure 1, Section 9.0 and Table 1.

Duane Arnold Energy Center

Duane Arnold Energy Center (DAEC) is not proposing any variations or deviations from the model Technical Specification (TS) changes for TSTF-447 Revision 1. However, due to minor differences between DAEC TS and the model TS in NUREG-1433, "Standard Technical Specifications, General Electric Plants BWR/4," Revision 2 in several cases small variances from the TSTF mark-up changes are necessary. These clarifications are discussed below and do not affect the adoption or application of TSTF-447, Revision 1.

1. In the TSTF mark-ups, STS 3.3.3.1, PAM Instrumentation, is modified by deleting a Note to Condition C, eliminating Condition D and re-numbering the following Conditions. DAEC TS do not have the Note in Condition C and do not include Condition D in the STS. Thus, these changes are not needed to adopt the TSTF.

2. In the TSTF mark-ups, STS Table 3.3.3.1-1, Post Accident Monitoring Instrumentation, deletes line items 10 and 11 for the Drywell and Containment H_2 and O_2 Analyzers, respectively. In DAEC Table 3.3.3.1-1, the equivalent line items are Items 7a and b and the same change is being made.

3. In the TSTF mark-ups, STS 3.6.3.1, Primary Containment Hydrogen Recombiners is deleted and the subsequent LCOs are re-numbered accordingly. DAEC TS do not have an equivalent section, so these changes are not needed in the DAEC TS to adopt the TSTF.

4. In the TSTF mark-ups, STS 5.6.7, Post Accident Monitoring Report, is modified based upon the changes described in Item 1 above. Because the DAEC TS do not require the Conditions in LCO 3.3.3.1 to be re-numbered, the DAEC TS do not require this change.

Kewaunee Nuclear Power Plant

Kewaunee Nuclear Power Plant (KNPP) Technical Specifications (TS) have not been modified to the Improved Standard Technical Specifications included in NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2. Therefore, the following clarifications were made to accommodate the TSTF-447, Revision 1. These clarifications are discussed below and do not affect the adoption or application of TSTF-447, Revision 1.

1. In the TSTF mark-ups, STS Table 3.3.3.1-1, Post Accident Monitoring Instrumentation, deletes line item 11 for Hydrogen Monitors. KNPP TS refer to Hydrogen Monitors in TS Table 3.5-6, Item 7 as "Containment Hydrogen Monitor." This line item is being deleted as an equivalent change to the TSTF.

2. TS Table 3.5-6, Item 7, Containment Hydrogen Monitor, has an associated note (3), which states,

   "With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours."

   Since this note is only applicable to TS Table 3.5-6, Item 7, which is being deleted from the KNPP TS, the note is no longer required and may also be deleted. The proposed deletion is consistent with TSTF-447.

3. KNPP Table TS 4.1-1 "MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS," Item 38 is proposed for deletion.

   Since the requirements for hydrogen monitors are being deleted from the KNPP TS, the supporting checks, calibrations, and tests for the hydrogen monitors is no longer required and may also be deleted. The proposed deletion is consistent with TSTF-447.

4. In the TSTF mark-ups, STS 3.6.8, "Hydrogen Recombiners", is deleted. Because the KNPP TS do not contain similar requirements, the KNPP TS do not require this change. Based on the revisions to 10 CFR 50.44 that became effective on October 16, 2003, KNPP will no longer require dedicated penetrations into containment for combustible gas control nor require the hydrogen recombiners to be available.

Monticello Nuclear Generating Plant

Monticello Nuclear Generating Plant (MNGP) Technical Specifications (TS) have not been modified to the Improved Standard Technical Specifications included in NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4," Revision 2. Therefore, the following clarifications were made to accommodate the TSTF-447, Revision 1. These clarifications are discussed below and do not affect the adoption or application of TSTF-447, Revision 1.

1. MNGP TS Table of Contents indicate that "Combustible Gas Control System" is identified as subsection 3.7.E/4.7.E. This Table of Contents entry will be deleted.The TSTF does not include changes to the Table of Contents, but these changes are administrative in nature and are in keeping with the intent of TSTF-447, Revision 1.

2. In the TSTF mark-ups, STS 3.6.3.1, Primary Containment Hydrogen Recombiners is deleted and the subsequent LCOs are re-numbered accordingly. MNGP TS refer to the identical equipment as "Combustible Gas Control System." Therefore, the equivalent changes remove MNGP TS section 3.7.E/4.7.E.

3. In the TSTF mark-ups, STS Table 3.3.3.1-1, Post Accident Monitoring Instrumentation, deletes line items 10 and 11 for the Drywell and Containment H_2 and O_2 Analyzers, respectively. MNGP TS refer to the identical equipment in TS Table 3.14.1/4.14.1 as "Drywell and Suppression Pool Hydrogen and Oxygen Monitor." This line item is being deleted as an equivalent change to the TSTF.

4. In the TSTF mark-ups, STS 5.6.7, Post Accident Monitoring Report, is modified based upon the changes described in Item 3 above. Because the MNGP TS do not contain similar requirements, the MNGP TS do not require this change.

Palisades Nuclear Plant

NMC is not proposing any variations or deviations from the model TS changes for TSTF-447, Revision 1. However, due to minor differences between Palisades TS and the model TS in NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants," Revision 2, in several cases small variances from the TSTF mark-up changes are necessary. These clarifications are discussed below and do not affect the adoption or application of TSTF-447, Revision 1.

1. In the TSTF mark-ups, STS 3.3.11, PAM Instrumentation, is modified by eliminating Condition D and renumbers the remaining Conditions. In Palisades TS 3.1.7, Condition D has been marked "not used" and the remaining Conditions have not been renumbered. This change is equivalent to the TSTF mark-up and will avoid unnecessary renumbering in supporting plant documents.

2. In the TSTF mark-ups, STS Table 3.3.11-1, Post Accident Monitoring Instrumentation, deletes line item 10 for the Containment Hydrogen Monitors and renumbers the remaining items. In Palisades Table 3.3.7-1, the equivalent line item, Item 7, has been marked as "deleted" and the remaining items have not been renumbered. This change is equivalent to the TSTF mark-up and will avoid unnecessary renumbering in supporting plant documents.

3. In the TSTF mark-ups, STS 3.6.13, Shield Building Exhaust Air Cleanup System (SEBEACS)(Dual), is renumbered as STS 3.6.8. Palisades TS do not have an equivalent section, so these changes are not needed in the Palisades TS to adopt the TSTF.

4. In the TSTF mark-ups, STS 5.6.7, Post Accident Monitoring Report, is modified to reflect changes made in the TSTF to the PAM Instrumentation Conditions. Palisades TS 5.6.6 does not have wording concerning specific PAM Instrumentation Condition numbers, so these changes are not needed in the Palisades TS to adopt the TSTF.

Point Beach Nuclear Plant

Point Beach Nuclear Plant (PBNP)-specific clarifications are being proposed so as to eliminate differences between the existing PBNP TS and the Standard TS (NUREG-1431, Revision 2) on which TSTF-447 is based. This variation will align PBNP TS 3.3.3 with the Standard TS in accordance with TSTF-447.

Surveillance Requirement (SR) 3.3.3.2, and an associated note, are not separately listed in the Standard TS (nor in TSTF-447). This requirement and the associated note are being proposed for deletion. SR 3.3.3.2 states, "Calibrate gas portion of Hydrogen Monitor." The associated note, which precedes it, states, "SR 3.3.3.2 applies to Function 14 only." This SR and its associated note were supplementary requirements that were carried over from the former PBNP Custom TS, during the conversion to Improved TS, as a surveillance necessary to ensure the operability of the hydrogen monitors.

Since the requirements for hydrogen monitors are being deleted from the PBNP TS, the supporting SR for hydrogen monitors is no longer required and may also be deleted. The proposed deletion is consistent with TSTF-447.

TS Table 3.3.3-1, Item 14, Hydrogen Monitors, has an associated note (c), which states,

(c) Each monitor shall be powered from an independent power supply.

This note is not separately listed in the Standard TS (nor in TSTF-447). The note is being proposed for deletion. This note was a requirement that was carried over from the former PBNP Custom TS, during the conversion to Improved TS, as a plant-specific clarification of the requirements for the hydrogen monitors.

Since this note is only applicable to TS Table 3.3.3-1, Item 14, which is being deleted from the PBNP TS, the note is no longer required and may also be deleted. The proposed deletion is consistent with TSTF-447.

Other TS changes associated with this variation are limited to renumbering and formatting changes that resulted directly from the deletion of the above requirements related to hydrogen monitors. As a result of these plant-specific variations, the proposed changes to Point Beach TS 3.3.3 will make this specification consistent with TSTF-447.

Prairie Island Nuclear Generating Plant

Prairie Island Nuclear Generating Plant (PINGP) is not proposing any variations or deviations from the model TS changes for TSTF-447 Revision 1. However, due to differences between PINGP TS and the model STS in NUREG-1431, "Standard Technical Specifications, Westinghouse Plant," Revision 2 in several cases variances from the TSTF mark-up changes are necessary. These clarifications are discussed below and do not affect the adoption or application of TSTF-447, Revision 1.

LCO 3.3.3

PINGP LCO 3.3.3, [Event Monitoring] EM Instrumentation, Actions Table is formatted differently than NUREG-1431 and TSTF-447. In the PINGP TS mark-ups, LCO 3.3.3 is modified by revising the Note to Condition D, eliminating Condition E and re-lettering the following Conditions. These changes are necessary to remove the hydrogen monitors from the TS.

PINGP Surveillance Requirement (SR) includes SR 3.3.3.2 which the SR Table Note clarifies is only applicable to Function 11 (Hydrogen Monitors). This SR is being proposed for deletion and the SR Table Note is proposed to be conformed to the guidance of NUREG-1431. SR 3.3.3.3 is proposed to be re-numbered as SR 3.3.3.2. Neither the Standard TS nor TSTF-447 identifies a separate SR for the Hydrogen Monitors. This SR, and the SR Table Note clarification, were supplementary requirements that were carried over from the former PINGP custom TS, during the conversion to Improved TS, as a surveillance necessary to ensure the operability of the hydrogen monitors. Since the requirements for Hydrogen Monitors are being removed from the PINGP TS, the supporting SR for Hydrogen Monitors is no longer required and may also be deleted. The proposed deletion is consistent with TSTF-447.

Table 3.3.3-1 mark-up differs from TSTF-447 in that, Item 11 is shown as "Not used" and the subsequent Item numbers remain unchanged.

LCO 3.6.7

The PINGP TS are numbered differently than NUREG-1431 for Westinghouse plants. The TSTF-447 changes in LCO 3.6.8, "Hydrogen Recombiners" apply to PINGP TS LCO 3.6.7.

TS 5.6.8

The PINGP TS are numbered differently than NUREG-1431 for Westinghouse plants. The TSTF-447 changes in TS 5.6.7, "EM Report" apply to PINGP TS 5.6.8. The specific reference to LCO 3.3.3 differs from TSTF-447 due to the different format of LCO 3.3.3 discussed above.

ENCLOSURE 3

The following Proposed Technical Specification Changes (Markups) are contained within Enclosure 3:

Enclosure 3A - Duane Arnold Energy Center

Enclosure 3B - Kewaunee Nuclear Power Plant

Enclosure 3C - Monticello Nuclear Generating Plant

Enclosure 3D - Palisades Nuclear Plant

Enclosure 3E - Point Beach Nuclear Plant Units 1 and 2

Enclosure 3F - Prairie Island Nuclear Generating Plant Units 1 and 2

ENCLOSURE 3A

Proposed Technical Specification Changes (Markup)

Duane Arnold Energy Center

Table 3.3.3.1-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1. Reactor Steam Dome Pressure	2	E
2. Reactor Vessel Water Level		
a. Wide Range	2	E
b. Fuel Zone	2	E
3. Suppression Pool Water Level	2	E
4. Drywell Pressure		
a. Narrow Range	2	E
b. Wide Range	2	E
5. Primary Containment Area Radiation		
a. Drywell	2	F
b. Suppression Chamber	2	F
6. PCIV Position	2 per penetration flow path [a][b]	E
~~7. Drywell and Suppression Chamber H_2 and O_2 Analyzers~~		
~~a. H_2 Analyzer~~	~~2~~	~~E~~
~~b. O_2 Analyzer~~	~~2~~	~~E~~

(a) Not required for isolation valves whose associated penetration flow path is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

ENCLOSURE 3B

Proposed Technical Specification Changes (Markup)

Kewaunee Nuclear Power Plant

TABLE TS 3.5-6

ACCIDENT MONITORING INSTRUMENTATION OPERATING CONDITIONS FOR INDICATION

		1	2
NO.	FUNCTIONAL UNIT	REQUIRED TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE[1]
1	Auxiliary Feedwater Flow to Steam Generators (Narrow Range Level Indication Already Required OPERABLE by Table TS 3.5-2, Item 12)	1/steam generator[2]	
2	Reactor Coolant System Subcooling Margin	2[2]	1
3	Pressurizer Power Operated Relief Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve)	2/valve[2]	1/valve
4	Pressurizer Power Operated Relief Block Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve)	2/valve[2]	1/valve
5	Pressurizer Safety Valve Position (One Channel Temperature, and One Acoustic Sensor per Valve)	2/valve[2]	1/valve
6	Containment Water Level (Wide Range)	2[2]	1
~~7~~	~~Containment Hydrogen Monitor~~ Deleted	~~2~~[3]	~~1~~
8	Containment Pressure Monitor (Wide Range)	2[2]	1
9	Reactor Vessel Level Indication	2[4]	1
10	Core Exit Thermocouples[5]	4 thermocouple/core quadrant[4]	2 thermocouple/core quadrant[6]
11	Steam Generator Level (Wide Range)	2/steam generator[4]	1/steam generator

[1] With the number of OPERABLE accident monitoring instrumentation channels less than the minimum channels OPERABLE requirements, either restore the minimum number of channels to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

[2] With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 14 days, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

TABLE TS 3.5-6

ACCIDENT MONITORING INSTRUMENTATION OPERATING CONDITIONS FOR INDICATION

~~(3) With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.~~ Deleted

(4) With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

(5) Refer also to TS 3.11.c and TS 3.11.d

(6) For the purposes of accident monitoring instrumentation, thermocouples on the axis may be included in either adjacent quadrant.

TABLE TS 4.1-1

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
34. Safety Valve Position Indicator (Acoustic)	Monthly	Each refueling cycle	Not applicable	
a. Back-up (Temperature)	Monthly	Each REFUELING cycle	Not applicable	
35. FW Pump Trip (AFW Initiation)	Not applicable	Not applicable	Each refueling cycle	
36. Reactor Coolant System Subcooling Monitor	Monthly	Each refueling cycle	Each refueling cycle	
37. Containment Pressure (Wide Range)	Daily	Each refueling cycle	Not applicable	
~~38. Containment Hydrogen Monitors~~ Deleted	~~Daily~~	~~Each refueling cycle~~	~~Monthly~~	
39. Containment Water Level (Wide Range)	Not applicable	Not applicable	Each refueling cycle	
40. Reactor Vessel Level Indication	Monthly	Each refueling cycle	Not applicable	
41. Core Exit Thermocouples	Monthly	Each refueling cycle	Not applicable	
42. Steam Generator Level (Wide Range)	Monthly	Each refueling cycle	Not applicable	

ENCLOSURE 3C

Proposed Technical Specification Changes (Markup)

Monticello Nuclear Generating Plant

TABLE OF CONTENTS (Cont'd)

3.0 LIMITING GAS CONTROL SYSTEM	4.0 SURVEILLANCE REQUIREMENTS
E. Combustible Gas Control System	E. Combustible Gas Control System
1. Two separate and independent Combustible Gas Control System trains shall be operable at all times whenever the reactor is in the run mode except as specified in Section 3.7.E.2 and 3.7.E.3 below.	1. At least once an operating cycle, perform the following:
2. After one of the Combustible Gas Control System train(s) is made or found to be inoperable for any reason, restore the inoperable train to operable status within 30 days or submit a special report to the Commission within the next 30 days which includes the following information:	a. Calibrate the following instrumentation and control circuits:
1) Identification of the inoperable equipment or subsystems and the reason for inoperability,	1. Inlet flow indicator
2) Action(s) to be taken to restore equipment to operable status, and	2. Total Flow indicator
3) Summary description of action(s) taken to prevent recurrence.	3. Return gas high temperature
3. With both of the Combustible Gas Control System trains inoperable for any reason, restore at least one train to operable status within 30 days or initiate an orderly shutdown of the reactor and be in the cold shutdown condition within 24 hours.	4. High reaction chamber temperature
	b. Perform a resistance to ground test on all heater electrical circuits.
	c. Verify through a visual examination that there is no evidence of abnormal conditions.
	2. At least once every six months verify the recombiner reaction chamber operability by verifying that the outlet temperature exceeds 600°F within one hour and that heater current is within 5% of rated current when the power setting is increased to maximum.
	3. The leak tightness of the recombiners and associated piping shall be verified during each shutdown when a Type A overall integrated containment leakage test is required by either:
	a. Venting the recombiner trains to the containment during the Type A test, or
	b. Performing a separate leakage test of both recombiner trains and adding the results to the Type A test leakage.

Table 3.14.1

Instrumentation for Accident Monitoring

Function	Total No. of Instrument Channels	Minimum No. of Operable Channels	Required Conditions*
Reactor Vessel Fuel Zone Water Level	2	1	A, B
Safety/Relief Valve Position (One Channel Pressure Switch and One Channel Thermocouple Position Indication per Valve)	2	1	A, C
Drywell Wide Range Pressure	2	1	A, B
Suppression Pool Wide Range Level	2	1	A, B
Suppression Pool Temperature	2	1	A, D
Drywell High Range Radiation	2	1	A, D
~~Drywell and Suppression Pool Hydrogen and Oxygen Monitor~~	~~2~~	~~1~~	~~A, B~~
Offgas Stack Wide Range Radiation	2	1	A, D
Reactor Bldg Vent Wide Range Radiation	2	1	A, D

* Required Conditions

A. When the number of channels made or found to be inoperable is such that the number of operable channels is less than the total number of channels, either restore the inoperable channels to operable status within seven days, or prepare and submit a special report to the Commission pursuant to Technical Specification 6.7.D within the next 30 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.

Table 4.14.1

Minimum Test and Calibration Frequency for
Accident Monitoring Instrumentation

Instrument Channel	Test (Note 1)	Calibration (Note 1)	Sensor Check (Note 1)
Reactor Vessel Fuel Zone Water Level Monitor	-	Once/Operating Cycle	Once/month (Note 3)
Safety/Relief Valve Position (Pressure Switches)	-	Once/Operating Cycle	Once/month (Notes 2 & 4)
Safety/Relief Valve Position (Thermocouples)	-	Once/Operating Cycle	Once/month (Note 4)
Drywell Wide Range Pressure Monitors	-	Once/Operating Cycle	Once/month
Suppression Pool Wide Range Level Monitors	-	Once/Operating Cycle	Once/month
Suppression Pool Temperature	-	Once/Operating Cycle	Once/month
Drywell High Range Radiation Monitors	-	Once/Operating Cycle	Once/month
~~Drywell and Suppression Pool Hydrogen and Oxygen Monitors~~	~~—~~	~~Once/Operating Cycle~~	~~Once/month~~
Offgas Stack Wide Range Radiation Monitors	-	Once/Operating Cycle	Once/month
Reactor Bldg Wide Range Radiation Monitors	-	Once/Operating Cycle	Once/month

Notes:

(1) Functional tests, calibrations, and sensor checks are not required when the instruments are not required to be operable. If tests are missed, they shall be performed prior to returning the instruments to an operable status.

(2) Once/month sensor check will consist of verifying that the pressure switches are not tripped.

(3) Once/month sensor check will consist of verifying that the fuel zone level indicates off scale high.

(4) Following every Safety/Relief Valve actuation it will be verified that recorder traces or computer logs indicate sensor responses.

ENCLOSURE 3D

Proposed Technical Specification Changes (Markup)

Palisades Nuclear Plant

3.3 INSTRUMENTATION

3.3.7 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.7 The PAM instrumentation for each Function in Table 3.3.7-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately
C. ~~NOTE Not applicable to hydrogen monitor channels.~~ One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. ~~[Not Used] Two hydrogen monitor channels inoperable.~~	~~D.1 Restore one hydrogen monitor channel to OPERABLE status.~~	~~72 hours~~
E. Required Action and associated Completion Time of Condition C ~~or D~~ not met.	E.1 Enter the Condition referenced in Table 3.3.7-1 for the channel.	Immediately
F. As required by Required Action E.1 and referenced in Table 3.3.7-1.	F.1 Be in MODE 3. AND F.2 Be in MODE 4.	6 hours 30 hours
G. As required by Required Action E.1 and referenced in Table 3.3.7-1.	G.1 Initiate action in accordance with Specification 5.6.6.	Immediately

Table 3.3.7-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION E.1
1.	Primary Coolant System Hot Leg Temperature (wide range)	2	F
2.	Primary Coolant System Cold Leg Temperature (wide range)	2	F
3.	Wide Range Neutron Flux	2	F
4.	Containment Floor Water Level (wide range)	2	F
5.	Subcooled Margin Monitor	2	F
6.	Pressurizer Level (wide range)	2	F
7.	[De]leted]~~Containment Hydrogen Monitors~~	~~2~~	~~F~~
8.	Condensate Storage Tank Level	2	F
9.	Primary Coolant System Pressure (wide range)	2	F
10.	Containment Pressure (wide range)	2	F
11.	Steam Generator A Water Level (wide range)	2	F
12.	Steam Generator B Water Level (wide range)	2	F
13.	Steam Generator A Pressure	2	F
14.	Steam Generator B Pressure	2	F
15.	Containment Isolation Valve Position	1 per valve[(a)]	F
16.	Core Exit Temperature - Quadrant 1	4	F
17.	Core Exit Temperature - Quadrant 2	4	F
18.	Core Exit Temperature - Quadrant 3	4	F
19.	Core Exit Temperature - Quadrant 4	4	F
20.	Reactor Vessel Water Level	2	G
21.	Containment Area Radiation (high range)	2	G

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

3.6 CONTAINMENT SYSTEMS

3.6.7 Hydrogen Recombiners

LCO 3.6.7 Two hydrogen recombiners shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One hydrogen recombiner inoperable.	NOTE LCO 3.0.4 is not applicable. A.1 Restore hydrogen recombiner to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.7.1	Perform a system functional test for each hydrogen recombiner.	18 months
SR 3.6.7.2	Visually examine each hydrogen recombiner enclosure and verify there is no evidence of abnormal conditions.	18 months
SR 3.6.7.3	Perform continuity and a resistance to ground test for each heater phase.	18 months

ENCLOSURE 3E

Proposed Technical Specification Changes (Markup)

Point Beach Nuclear Plant Units 1 and 2

3.3 INSTRUMENTATION

3.3.3 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.3 The PAM instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTES----------
1. LCO 3.0.4 is not applicable.

2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately
C. ~~NOTE Not applicable to hydrogen monitor channels.~~ One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~D. Two hydrogen monitor channels inoperable.~~	~~D.1 Restore one hydrogen monitor channel to OPERABLE status.~~	~~72 hours~~
~~E~~D. Required Action and associated Completion Time of Condition C ~~or D~~ not met.	~~E~~D.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately
~~F~~E. As required by Required Action ~~E~~D.1 and referenced in Table 3.3.3-1.	~~F~~E.1 Be in MODE 3. AND ~~F~~E.2 Be in MODE 4.	6 hours 12 hours
~~G~~E. As required by Required Action ~~E~~D.1 and referenced in Table 3.3.3-1.	~~G~~E.1 Initiate action in accordance with Specification 5.6.6.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
SR 3.3.3.1 applies to each PAM instrumentation Function in Table 3.3.3-1. ~~SR 3.3.3.2 applies to Function 14 only.~~ SR 3.3.3.~~3~~2 applies to each PAM instrumentation Function in Table 3.3.3-1, except Function 12. SR 3.3.3.4~~3~~ applies to Function 12 only.

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
~~SR 3.3.3.2~~	~~Calibrate gas portion of the Hydrogen Monitors.~~	~~92 days~~
SR 3.3.3.~~3~~2	----------NOTE---------- CHANNEL CALIBRATION of Containment Area Radiation (High Range) detectors shall consist of verification of a response to a source. --- Perform CHANNEL CALIBRATION.	18 months
SR 3.3.3.4~~3~~	Perform TADOT.	18 months

Table 3.3.3-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION ~~E~~D.1
1.	Reactor Coolant System (RCS) Subcooling Monitor	2	~~F~~E
2.	RCS Hot Leg Temperature (Wide Range)	2 per loop	~~F~~E
3.	RCS Cold Leg Temperature (Wide Range)	2 per loop	~~F~~E
4.	RCS Pressure (Wide Range)	2	~~F~~E
5.	RCS Pressure (Narrow Range)	2	~~F~~E
6.	Reactor Vessel Water Level (Wide Range)	2	~~F~~E
7.	Reactor Vessel Water Level (Narrow Range)	2	~~F~~E
8.	Containment Sump B Water Level	2	~~F~~E
9.	Containment Pressure (Wide Range)	2	~~F~~E
10.	Containment Pressure (Intermediate Range)	2	~~F~~E
11.	Containment Pressure (Low Range)	2	~~F~~E
12.	Containment Isolation Valve Position	2 per penetration flow path (a)(b)	~~F~~E
13.	Containment Area Radiation (High Range)	2	~~G~~E
~~14.~~	~~Hydrogen Monitors~~	~~2(c)~~	~~F~~
15~~4~~.	Pressurizer Level	2	~~F~~E
16~~5~~.	Steam Generator Water Level (Wide Range)	2 per steam generator	~~F~~E
17~~6~~.	Steam Generator Water Level (Narrow Range)	2 per steam generator	~~F~~E
18~~7~~.	Steam Generator Pressure	2 per steam generator	~~F~~E
19~~8~~.	Condensate Storage Tank Level	2 per tank	~~F~~E
~~20~~19.	Core Exit Temperature — Quadrant 1	2	~~F~~E
21~~0~~.	Core Exit Temperature — Quadrant 2	2	~~F~~E
22~~1~~.	Core Exit Temperature — Quadrant 3	2	~~F~~E
23~~2~~.	Core Exit Temperature — Quadrant 4	2	~~F~~E
24~~3~~.	Auxiliary Feedwater Flow	2	~~F~~E
25~~4~~.	Refueling Water Storage Tank Level	2	~~F~~E

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

~~(c) Each monitor shall be powered from an independent power supply.~~

5.6 Reporting Requirements

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

a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, hydrostatic testing, LTOP enabling, and PORV lift settings as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

(1) LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits"
(2) LCO 3.4.6, "RCS Loops-MODE 4"
(3) LCO 3.4.7, "RCS Loops-MODE 5, Loops Filled"
(4) LCO 3.4.10, "Pressurizer Safety Valves"
(5) LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP)"

b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the NRC Letters dated October 6, 2000 and July 23, 2001.

c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

5.6.6 PAM Report

When a report is required by Condition B or ~~G~~E of LCO 3.3.3, "Post Accident Monitoring (PAM) 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.

5.6.7 Tendon Surveillance Report

Abnormal conditions observed during testing will be evaluated to determine the effect of such conditions on containment structural integrity. This evaluation should be completed within 30 days of the identification of the condition. Any condition which is determined in this evaluation to have a significant adverse effect on containment structural integrity will be considered an abnormal degradation of the containment structure.

ENCLOSURE 3F

Proposed Technical Specification Changes (Markup)

Prairie Island Nuclear Generating Plant Units 1 and 2

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more required Core Exit Thermocouple (CET) channel(s) inoperable. AND At least 4 CET channels OPERABLE in the center region of the core. AND At least one CET channel OPERABLE in each quadrant of the outside core region.	B.1 Restore required CET channel(s) to OPERABLE status.	30 days
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Initiate action in accordance with Specification 5.6.8.	Immediately
D. ----------NOTE---------- Not applicable to ~~hydrogen monitor or~~ CET channels. ---------- One or more Functions with two required channels inoperable.	D.1 Restore one channel to OPERABLE status.	7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~E. Two hydrogen monitor channels inoperable.~~	~~E.1 Restore one hydrogen monitor channel to OPERABLE status.~~	~~72 hours~~
EF. Three or more required CET channels inoperable in one or more quadrants. AND Less than four CETs OPERABLE in the center region of the core.	EF.1 Restore required channels to OPERABLE status.	7 days
FG. Three or more required CET channels inoperable in one or more quadrants. AND Less than one CET OPERABLE in each quadrant of the outside core region.	FG.1 Restore required channels to OPERABLE status.	7 days
GH. Required Action and associated Completion Time of Condition D, E, F or FG not met.	GH.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
~~H~~I. As required by Required Action ~~G~~H.1 and referenced in Table 3.3.3-1.	~~H~~I.1 Be in MODE 3.	6 hours
~~I~~J. As required by Required Action ~~G~~H.1 and referenced in Table 3.3.3-1.	~~I~~J.1 Initiate action in accordance with Specification 5.6.8.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
SR 3.3.3.1 and SR 3.3.3.~~2~~3 apply to each EM instrumentation Function in Table 3.3.3-1 ~~except Function 11. SR 3.3.3.1 and SR 3.3.3.2 apply to Function 11.~~

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
~~SR 3.3.3.2~~	~~Perform CHANNEL CALIBRATION.~~	~~92 days~~
SR 3.3.3.~~2~~3	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. --- Perform CHANNEL CALIBRATION.	24 months

Table 3.3.3-1 (page 1 of 1)
Event Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION G.1
1.	Power Range Neutron Flux (Logarithmic Scale)	2	[redacted]
2.	Source Range Neutron Flux (Logarithmic Scale)	2	[redacted]
3.	Reactor Coolant System (RCS) Hot Leg Temperature	2	[redacted]
4.	RCS Cold Leg Temperature	2	[redacted]
5.	RCS Pressure (Wide Range)	2	[redacted]
6.	Reactor Vessel Water Level	2	[redacted]
7.	Containment Sump Water Level (Wide Range)	2	[redacted]
8.	Containment Pressure (Wide Range)	2	[redacted]
9.	Penetration Flow Path Automatic Containment Isolation Valve Position	2 per penetration flow path(a)(b)	[redacted]
10.	Containment Area Radiation (High Range)	2	[redacted]
11.	[redacted] ~~Hydrogen Monitors~~	~~2~~	~~I~~
12.	Pressurizer Level	2	[redacted]
13.	Steam Generator Water Level (Wide Range)	2 per steam generator	[redacted]
14.	Condensate Storage Tank Level	2	[redacted]
15.	Core Exit Temperature	4 per quadrant(c)	[redacted]
16.	Refueling Water Storage Tank Level	2	[redacted]

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.
(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.
(c) A channel consists of one core exit thermocouple (CET).

3.6 CONTAINMENT SYSTEMS

3.6.7 Not Used ~~Hydrogen Recombiners~~

~~LCO 3.6.7 Two hydrogen recombiners shall be OPERABLE.~~

~~APPLICABILITY: MODES 1 and 2.~~

~~ACTIONS~~

~~CONDITION~~	~~REQUIRED ACTION~~	~~COMPLETION TIME~~
~~A. One hydrogen recombiner inoperable.~~	~~A.1 NOTE~~ ~~-~~ ~~LCO 3.0.4 is not applicable.~~ ~~-~~ ~~Restore hydrogen recombiner to OPERABLE status.~~	~~30 days~~
~~B. Required Action and associated Completion Time not met.~~	~~B.1 Be in MODE 3.~~	~~6 hours~~

~~SURVEILLANCE REQUIREMENTS~~

~~SURVEILLANCE~~		~~FREQUENCY~~
~~SR 3.6.7.1~~	~~Perform a system functional test for each hydrogen recombiner.~~	~~24 months~~
~~SR 3.6.7.2~~	~~Visually examine each hydrogen recombiner enclosure and verify there is no evidence of abnormal conditions.~~	~~24 months~~
~~SR 3.6.7.3~~	~~Perform a resistance to ground test for each heater phase.~~	~~24 months~~

ENCLOSURE 4

The following Final Technical Specification Pages are contained within Enclosure 4:

Enclosure 4A - Duane Arnold Energy Center

Enclosure 4B - Kewaunee Nuclear Power Plant

Enclosure 4C - Monticello Nuclear Generating Plant

Enclosure 4D - Palisades Nuclear Plant

Enclosure 4E - Point Beach Nuclear Plant Units 1 and 2

Enclosure 4F - Prairie Island Nuclear Generating Plant Units 1 and 2

ENCLOSURE 4A

Proposed Technical Specification Pages

Duane Arnold Energy Center

Table 3.3.3.1-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION D.1
1. Reactor Steam Dome Pressure	2	E
2. Reactor Vessel Water Level		
a. Wide Range	2	E
b. Fuel Zone	2	E
3. Suppression Pool Water Level	2	E
4. Drywell Pressure		
a. Narrow Range	2	E
b. Wide Range	2	E
5. Primary Containment Area Radiation		
a. Drywell	2	F
b. Suppression Chamber	2	F
6. PCIV Position	2 per penetration flow path [a][b]	E

(a) Not required for isolation valves whose associated penetration flow path is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

ENCLOSURE 4B

Proposed Technical Specification Pages

Kewaunee Nuclear Power Plant

TABLE TS 3.5-6

ACCIDENT MONITORING INSTRUMENTATION OPERATING CONDITIONS FOR INDICATION

		1	2
NO.	FUNCTIONAL UNIT	REQUIRED TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE[1]
1	Auxiliary Feedwater Flow to Steam Generators (Narrow Range Level Indication Already Required OPERABLE by Table TS 3.5-2, Item 12)	1/steam generator[2]	
2	Reactor Coolant System Subcooling Margin	2[2]	1
3	Pressurizer Power Operated Relief Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve)	2/valve[2]	1/valve
4	Pressurizer Power Operated Relief Block Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve)	2/valve[2]	1/valve
5	Pressurizer Safety Valve Position (One Channel Temperature, and One Acoustic Sensor per Valve)	2/valve[2]	1/valve
6	Containment Water Level (Wide Range)	2[2]	1
7	Deleted		
8	Containment Pressure Monitor (Wide Range)	2[2]	1
9	Reactor Vessel Level Indication	2[4]	1
10	Core Exit Thermocouples[5]	4 thermocouple/core quadrant[4]	2 thermocouple/core quadrant[6]
11	Steam Generator Level (Wide Range)	2/steam generator[4]	1/steam generator

[1] With the number of OPERABLE accident monitoring instrumentation channels less than the minimum channels OPERABLE requirements, either restore the minimum number of channels to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

[2] With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 14 days, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

TABLE TS 3.5-6

ACCIDENT MONITORING INSTRUMENTATION OPERATING CONDITIONS FOR INDICATION

(3) Deleted

(4) With the number of OPERABLE accident monitoring instrumentation channels less than the required total number of channels shown, either restore the inoperable channels to OPERABLE status within 7 days, or be in at least HOT STANDBY within the next 6 hours and HOT SHUTDOWN within the following 6 hours.

(5) Refer also to TS 3.11.c and TS 3.11.d

(6) For the purposes of accident monitoring instrumentation, thermocouples on the axis may be included in either adjacent quadrant.

TABLE TS 4.1-1

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

CHANNEL DESCRIPTION	CHECK	CALIBRATE	TEST	REMARKS
34. Safety Valve Position Indicator (Acoustic)	Monthly	Each refueling cycle	Not applicable	
a. Back-up (Temperature)	Monthly	Each REFUELING cycle	Not applicable	
35. FW Pump Trip (AFW Initiation)	Not applicable	Not applicable	Each refueling cycle	
36. Reactor Coolant System Subcooling Monitor	Monthly	Each refueling cycle	Each refueling cycle	
37. Containment Pressure (Wide Range)	Daily	Each refueling cycle	Not applicable	
38. Deleted				
39. Containment Water Level (Wide Range)	Not applicable	Not applicable	Each refueling cycle	
40. Reactor Vessel Level Indication	Monthly	Each refueling cycle	Not applicable	
41. Core Exit Thermocouples	Monthly	Each refueling cycle	Not applicable	
42. Steam Generator Level (Wide Range)	Monthly	Each refueling cycle	Not applicable	

ENCLOSURE 4C

Proposed Technical Specification Pages

Monticello Nuclear Generating Plant

TABLE OF CONTENTS (Cont'd)

3.0 LIMITING GAS CONTROL SYSTEM	4.0 SURVEILLANCE REQUIREMENTS
E. (Deleted)	E. (Deleted)

Table 3.14.1

Instrumentation for Accident Monitoring

Function	Total No. of Instrument Channels	Minimum No. of Operable Channels	Required Conditions*
Reactor Vessel Fuel Zone Water Level	2	1	A, B
Safety/Relief Valve Position (One Channel Pressure Switch and One Channel Thermocouple Position Indication per Valve)	2	1	A, C
Drywell Wide Range Pressure	2	1	A, B
Suppression Pool Wide Range Level	2	1	A, B
Suppression Pool Temperature	2	1	A, D
Drywell High Range Radiation	2	1	A, D
Offgas Stack Wide Range Radiation	2	1	A, D
Reactor Bldg Vent Wide Range Radiation	2	1	A, D

* Required Conditions

A. When the number of channels made or found to be inoperable is such that the number of operable channels is less than the total number of channels, either restore the inoperable channels to operable status within seven days, or prepare and submit a special report to the Commission pursuant to Technical Specification 6.7.D within the next 30 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.

Table 4.14.1

Minimum Test and Calibration Frequency for
Accident Monitoring Instrumentation

Instrument Channel	Test (Note 1)	Calibration (Note 1)	Sensor Check (Note 1)
Reactor Vessel Fuel Zone Water Level Monitor	-	Once/Operating Cycle	Once/month (Note 3)
Safety/Relief Valve Position (Pressure Switches)	-	Once/Operating Cycle	Once/month (Notes 2 & 4)
Safety/Relief Valve Position (Thermocouples)	-	Once/Operating Cycle	Once/month (Note 4)
Drywell Wide Range Pressure Monitors	-	Once/Operating Cycle	Once/month
Suppression Pool Wide Range Level Monitors	-	Once/Operating Cycle	Once/month
Suppression Pool Temperature	-	Once/Operating Cycle	Once/month
Drywell High Range Radiation Monitors	-	Once/Operating Cycle	Once/month
Offgas Stack Wide Range Radiation Monitors	-	Once/Operating Cycle	Once/month
Reactor Bldg Wide Range Radiation Monitors	-	Once/Operating Cycle	Once/month

Notes:

(1) Functional tests, calibrations, and sensor checks are not required when the instruments are not required to be operable. If tests are missed, they shall be performed prior to returning the instruments to an operable status.

(2) Once/month sensor check will consist of verifying that the pressure switches are not tripped.

(3) Once/month sensor check will consist of verifying that the fuel zone level indicates off scale high.

(4) Following every Safety/Relief Valve actuation it will be verified that recorder traces or computer logs indicate sensor responses.

ENCLOSURE 4D

Proposed Technical Specification Pages

Palisades Nuclear Plant

3.3 INSTRUMENTATION

3.3.7 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.7 The PAM instrumentation for each Function in Table 3.3.7-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.

2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately
C. One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. (Not used)			
E. Required Action and associated Completion Time of Condition C not met.	E.1	Enter the Condition referenced in Table 3.3.7-1 for the channel.	Immediately
F. As required by Required Action E.1 and referenced in Table 3.3.7-1.	F.1 AND	Be in MODE 3.	6 hours
	F.2	Be in MODE 4.	30 hours
G. As required by Required Action E.1 and referenced in Table 3.3.7-1.	G.1	Initiate action in accordance with Specification 5.6.6.	Immediately

Table 3.3.7-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION E.1
1.	Primary Coolant System Hot Leg Temperature (wide range)	2	F
2.	Primary Coolant System Cold Leg Temperature (wide range)	2	F
3.	Wide Range Neutron Flux	2	F
4.	Containment Floor Water Level (wide range)	2	F
5.	Subcooled Margin Monitor	2	F
6.	Pressurizer Level (wide range)	2	F
7.	(Deleted)		
8.	Condensate Storage Tank Level	2	F
9.	Primary Coolant System Pressure (wide range)	2	F
10.	Containment Pressure (wide range)	2	F
11.	Steam Generator A Water Level (wide range)	2	F
12.	Steam Generator B Water Level (wide range)	2	F
13.	Steam Generator A Pressure	2	F
14.	Steam Generator B Pressure	2	F
15.	Containment Isolation Valve Position	1 per valve[(a)]	F
16.	Core Exit Temperature - Quadrant 1	4	F
17.	Core Exit Temperature - Quadrant 2	4	F
18.	Core Exit Temperature - Quadrant 3	4	F
19.	Core Exit Temperature - Quadrant 4	4	F
20.	Reactor Vessel Water Level	2	G
21.	Containment Area Radiation (high range)	2	G

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

ENCLOSURE 4E

Proposed Technical Specification Pages

Point Beach Nuclear Plant Units 1 and 2

3.3 INSTRUMENTATION

3.3.3 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.3 The PAM instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTES----------

1. LCO 3.0.4 is not applicable.
2. Separate Condition entry is allowed for each Function.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.6.	Immediately
C. One or more Functions with two required channels inoperable.	C.1 Restore one channel to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. Required Action and associated Completion Time of Condition C not met.	D.1	Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.3-1.	E.1	Be in MODE 3.	6 hours
	AND		
	E.2	Be in MODE 4.	12 hours
F. As required by Required Action D.1 and referenced in Table 3.3.3-1.	F.1	Initiate action in accordance with Specification 5.6.6.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
SR 3.3.3.1 applies to each PAM instrumentation Function in Table 3.3.3-1. SR 3.3.3.2 applies to each PAM instrumentation Function in Table 3.3.3-1, except Function 12. SR 3.3.3.3 applies to Function 12 only.

	SURVEILLANCE	FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.3.2	----------NOTE---------- CHANNEL CALIBRATION of Containment Area Radiation (High Range) detectors shall consist of verification of a response to a source. --- Perform CHANNEL CALIBRATION.	18 months
SR 3.3.3.3	Perform TADOT.	18 months

Table 3.3.3-1 (page 1 of 1)
Post Accident Monitoring Instrumentation

FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1
1. Reactor Coolant System (RCS) Subcooling Monitor	2	E
2. RCS Hot Leg Temperature (Wide Range)	2 per loop	E
3. RCS Cold Leg Temperature (Wide Range)	2 per loop	E
4. RCS Pressure (Wide Range)	2	E
5. RCS Pressure (Narrow Range)	2	E
6. Reactor Vessel Water Level (Wide Range)	2	E
7. Reactor Vessel Water Level (Narrow Range)	2	E
8. Containment Sump B Water Level	2	E
9. Containment Pressure (Wide Range)	2	E
10. Containment Pressure (Intermediate Range)	2	E
11. Containment Pressure (Low Range)	2	E
12. Containment Isolation Valve Position	2 per penetration flow path (a)(b)	E
13. Containment Area Radiation (High Range)	2	F
14. Pressurizer Level	2	E
15. Steam Generator Water Level (Wide Range)	2 per steam generator	E
16. Steam Generator Water Level (Narrow Range)	2 per steam generator	E
17. Steam Generator Pressure	2 per steam generator	E
18. Condensate Storage Tank Level	2 per tank	E
19. Core Exit Temperature — Quadrant 1	2	E
20. Core Exit Temperature — Quadrant 2	2	E
21. Core Exit Temperature — Quadrant 3	2	E
22. Core Exit Temperature — Quadrant 4	2	E
23. Auxiliary Feedwater Flow	2	E
24. Refueling Water Storage Tank Level	2	E

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

5.6 Reporting Requirements

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

a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, hydrostatic testing, LTOP enabling, and PORV lift settings as well as heatup and cooldown rates shall be established and documented in the PTLR for the following:

(1) LCO 3.4.3, "RCS Pressure and Temperature (P/T) Limits"
(2) LCO 3.4.6, "RCS Loops-MODE 4"
(3) LCO 3.4.7, "RCS Loops-MODE 5, Loops Filled"
(4) LCO 3.4.10, "Pressurizer Safety Valves"
(5) LCO 3.4.12, "Low Temperature Overpressure Protection (LTOP)"

b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the NRC Letters dated October 6, 2000 and July 23, 2001.

c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

5.6.6 PAM Report

When a report is required by Condition B or F of LCO 3.3.3, "Post Accident Monitoring (PAM) 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.

5.6.7 Tendon Surveillance Report

Abnormal conditions observed during testing will be evaluated to determine the effect of such conditions on containment structural integrity. This evaluation should be completed within 30 days of the identification of the condition. Any condition which is determined in this evaluation to have a significant adverse effect on containment structural integrity will be considered an abnormal degradation of the containment structure.

ENCLOSURE 4F

Proposed Technical Specification Pages

Prairie Island Nuclear Generating Plant Units 1 and 2

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One or more required Core Exit Thermocouple (CET) channel(s) inoperable. AND At least 4 CET channels OPERABLE in the center region of the core. AND At least one CET channel OPERABLE in each quadrant of the outside core region.	B.1 Restore required CET channel(s) to OPERABLE status.	30 days
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Initiate action in accordance with Specification 5.6.8.	Immediately
D. ----------NOTE---------- Not applicable to CET channels. ---------- One or more Functions with two required channels inoperable.	D.1 Restore one channel to OPERABLE status.	7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Three or more required CET channels inoperable in one or more quadrants. AND Less than four CETs OPERABLE in the center region of the core.	E.1 Restore required channels to OPERABLE status.	7 days
F. Three or more required CET channels inoperable in one or more quadrants. AND Less than one CET OPERABLE in each quadrant of the outside core region.	F.1 Restore required channels to OPERABLE status.	7 days
G. Required Action and associated Completion Time of Condition D, E, or F not met.	G.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
H. As required by Required Action G.1 and referenced in Table 3.3.3-1.	H.1 Be in MODE 3.	6 hours
I. As required by Required Action G.1 and referenced in Table 3.3.3-1.	I.1 Initiate action in accordance with Specification 5.6.8.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
SR 3.3.3.1 and SR 3.3.3.2 apply to each EM instrumentation Function in Table 3.3.3-1.

	SURVEILLANCE	FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.3.2	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. --- Perform CHANNEL CALIBRATION.	24 months

Table 3.3.3-1 (page 1 of 1)
Event Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION G.1
1.	Power Range Neutron Flux (Logarithmic Scale)	2	H
2.	Source Range Neutron Flux (Logarithmic Scale)	2	H
3.	Reactor Coolant System (RCS) Hot Leg Temperature	2	H
4.	RCS Cold Leg Temperature	2	H
5.	RCS Pressure (Wide Range)	2	H
6.	Reactor Vessel Water Level	2	I
7.	Containment Sump Water Level (Wide Range)	2	H
8.	Containment Pressure (Wide Range)	2	H
9.	Penetration Flow Path Automatic Containment Isolation Valve Position	2 per penetration flow path[(a)(b)]	H
10.	Containment Area Radiation (High Range)	2	I
11.	Pressurizer Level	2	H
12.	Steam Generator Water Level (Wide Range)	2 per steam generator	H
13.	Condensate Storage Tank Level	2	H
14.	Core Exit Temperature	4 per quadrant[(c)]	H
15.	Refueling Water Storage Tank Level	2	H

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and deactivated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.
(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.
(c) A channel consists of one core exit thermocouple (CET).

3.6 CONTAINMENT SYSTEMS

3.6.7 Not Used