NOV 09 2005

L-PI-05-081
10 CFR 50.90

U S Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

License Amendment Request (LAR) to Clarify Technical Specification (TS) Requirements For Surveillance Requirements (SRs) For Installed Spare Components and Miscellaneous Corrections

Pursuant to 10 CFR 50.90, the Nuclear Management Company, LLC (NMC) hereby requests an amendment to the TS for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2 to clarify which TS Surveillance Requirements (SRs) shall be met for TS systems which include more components (installed spare components) than are required to satisfy the TS Limiting Conditions for Operation (LCO). TS revisions are proposed for TS 3.3.3, "Event Monitoring (EM) Instrumentation", TS 3.3.5, "Containment Ventilation Isolation Instrumentation", TS 3.7.8, "Cooling Water (CL) System", TS 3.8.1, "AC Sources-Operating", and TS 3.9.3, "Nuclear Instrumentation." Minor error corrections are also proposed for some of these TSs. NMC has evaluated the proposed changes in accordance with 10 CFR 50.92 and concluded that they involve no significant hazards consideration.

Exhibit A contains the licensee's evaluation of this LAR. Exhibit B provides a markup of TS and TS Bases pages. Exhibit C provides retyped TS pages.

NMC requests approval of this LAR within one calendar year of the submittal date. Upon NRC approval, NMC requests 90 days to implement the associated changes. In accordance with 10 CFR 50.91, NMC is notifying the State of Minnesota of this LAR by transmitting a copy of this letter and attachments to the designated State Official.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

A001

I declare under penalty of perjury that the foregoing is true and correct.
Executed on NOV 09 2005

Thomas J. Palmisano
Site Vice President, Prairie Island Nuclear Generating Plant Units 1 and 2
Nuclear Management Company, LLC

cc: Administrator, Region III, USNRC
Project Manager, Prairie Island, USNRC
Resident Inspector, Prairie Island, USNRC
State of Minnesota

Exhibits:
A. Licensee's Evaluation
B. Proposed Technical Specification and Bases Changes (markup)
C. Proposed Technical Specification Changes (retyped)

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Exhibit A

LICENSEE'S EVALUATION

License Amendment Request (LAR) to Clarify Technical Specification (TS) Requirements for Surveillance Requirements (SRs) For Installed Spare Components and Miscellaneous Corrections

1.0 DESCRIPTION

This LAR is a request to amend Operating Licenses DPR-42 and DPR-60 for Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2.

The Nuclear Management Company, LLC (NMC) requests Nuclear Regulatory Commission (NRC) review and approval of revised TS requirements that clarify TS system components, which are not required for the TS Limiting Conditions for Operation (LCO) to be met (installed spare components), are not required to meet the Surveillance Requirements (SRs). These changes clarify TS 3.3.3, "Event Monitoring (EM) Instrumentation," TS 3.3.5, "Containment Ventilation Isolation Instrumentation," TS 3.7.8, "Cooling Water (CL) System," TS 3.8.1, "AC Sources-Operating," and TS 3.9.3, "Nuclear Instrumentation." Minor error corrections are also proposed for some of these TS.

2.0 PROPOSED CHANGE

A brief description of the associated proposed TS and TS Bases changes is provided below along with a discussion of the justification for each change. The specific wording changes to the TS and Bases are provided in Exhibits B and C.

TS 3.3.3, "Event Monitoring (EM) Instrumentation", SR 3.3.3.2 and associated Bases:

An additional clause "for each required channel" is included in SR 3.3.3.2. The LCO for the core exit temperature function in TS Table 3.3.3-1, Function 15,

specifies four core exit temperature channels per core quadrant shall be operable. (A core exit temperature channel consists of one core exit thermocouple (CET).) Since there are more than four installed channels per quadrant, some channels may be inoperable while the LCO is met. The addition of this clause in SR 3.3.3.2 clarifies that the channels not required for the LCO to be met are not required to meet the SR. Only the channels required to meet the LCO are required to meet the SR for the core exit temperature Function to be operable.

Changes are also proposed to the Actions Table on page 3.3.3-4 to correct the font size in the header.

TS 3.3.5, "Containment Ventilation Isolation Instrumentation", SR 3.3.5.1, SR 3.3.5.3 and SR 3.3.5.6, and associated Bases:

An additional clause "of required channels" is included in SR 3.3.5.1, SR 3.3.5.3 and SR 3.3.5.6. The LCO for radiation monitors in TS Table 3.3.5-1, Function 3 specifies two channels, one per train, shall be operable and requires SR 3.3.5.1, SR 3.3.5.3 and SR 3.3.5.6 to be met. These SRs all apply only to the radiation monitoring function. One train of containment ventilation isolation instrumentation includes two radiation monitors, either of which is capable of providing the required monitoring function. One of these monitors may be inoperable while the LCO is met. The addition of the proposed clause to these SRs clarifies that the channel not required for the LCO to be met is not required to meet the SRs. Only channels required to meet the LCO are required to meet the SRs for the radiation monitoring function to be operable.

On page 3.3.5-4, footnote (c) is changed to (b) since currently a footnote (b) does not exist.

TS 3.7.8, "Cooling Water (CL) System", SR 3.7.8.2, SR 3.7.8.4 and SR 3.7.8.6, and associated Bases:

The adjective "required" is included in the designator of each CL pump in SR 3.7.8.2, SR 3.7.8.4 and SR 3.7.8.6. LCO 3.7.8 for the CL system specifies two CL trains shall be operable. The Bases 3.7.8 defines a train operable when, "The safeguards CL pump, aligned to the train, is OPERABLE." Since the system includes three safeguards CL pumps, one safeguards CL pump may be inoperable while the LCO is met. The addition of "required" to these SRs clarifies that the safeguards CL pump not required for the LCO to be met is not required to meet the applicable SRs. Only pumps required to meet the LCO are required to meet the SRs for the CL trains to be operable.

TS 3.8.1, "AC Sources-Operating", SR 3.8.1.1 and associated Bases:

The adjective "required" is included as a modifier of "path" in SR 3.8.1.1. LCO 3.8.1 for the AC sources specifies two paths shall be operable between the offsite transmission grid and the onsite 4 kV Safeguards Distribution System. The Bases 3.8.1 describe four paths which satisfy the LCO, two for each 4 kV safeguards train. Therefore the LCO may be met while two paths are inoperable. The addition of "required" to this SR clarifies that the paths not required for the LCO to be met are not required to meet the applicable SR. Only paths required to meet the LCO are required to meet the SR for the AC Sources to be operable.

On page 3.8.1-7, the spelling of "recommendations" and the table header spacing are corrected.

TS 3.9.3, "Nuclear Instrumentation", SR 3.9.3.1 and SR 3.9.3.2, and associated Bases:

An additional clause "of required channels" is included in SR 3.9.3.1 and SR 3.9.3.2. LCO 3.9.3 requires two core subcritical neutron flux monitors to be operable and one core subcritical neutron flux monitor with an audible count rate operable. As discussed in the Bases, there are four channels of core subcritical neutron flux monitors, two of which are capable of providing an audible count rate. Therefore the LCO may be met while some monitors are inoperable. The addition of the proposed clause to these SRs clarifies that the monitors not required for the LCO to be met are not required to meet the SRs. Only monitors required to meet the LCO are required to meet the SRs for the core subcriticality monitoring function to be operable.

The Bases will also be revised to support these changes. Although the Bases changes are not a part of this LAR, marked up Bases pages are included for information.

These changes are acceptable since system LCOs are met with the installed spare components inoperable and the SRs not met for these components. With these proposed changes the systems' safety functions will be met.

3.0 BACKGROUND

In February 2005, NMC personnel determined that one of two fan coil units (FCUs) in each containment cooling train was inoperable and isolated the two FCUs. Since normally two FCUs are required for each containment cooling train to perform its safety function, the Prairie Island Nuclear Generating Plant (PINGP) entered the LCO 3.0.3 shutdown tracks due to two trains of containment cooling inoperable. Subsequently, engineering evaluations demonstrated that, for the plant conditions existing at that time, one of the operable FCUs was capable of performing the containment cooling safety

function. One train of containment cooling was declared operable and LCO 3.0.3 was exited.

On April 28, 2005, the NRC issued Inspection Report (IR) 05000306/2005003 which identified a non-cited violation for failure to comply with the required actions of TS LCO 3.0.3. The NRC concluded that the wording of the SRs for the FCUs required both FCUs of a train to be operable for the train to be operable. The NRC cited TS SR 3.0.1 which states,

> SRs shall be met during the MODES or other specified conditions in the Applicability for individual LCOs, unless otherwise stated in the SR. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the LCO.

The SRs applicable to FCUs are SR 3.6.5.2 and SR 3.6.5.3 which require NMC to, "Operate each containment cooling train fan coil unit on low motor speed for $\geq$ 15 minutes," and, "Verify each containment cooling train cooling water flow rate to each fan coil unit is $\geq$ 900 gpm," respectively. Since the inoperable FCUs were isolated they did not meet the SRs. The wording of these SRs does not appear to allow a containment cooling train to be operable when FCUs do not meet the SRs even though the safety function continues to be met. Thus the NRC issued the non-cited violation for exiting LCO 3.0.3 with both containment cooling trains inoperable.

Under the NMC corrective action program, NMC evaluated the PINGP TS to identify other TSs which have components not required to be operable for the LCO to be met (installed spare components) and SR statements which could be interpreted to require all installed components to be operable for the LCO to be met. This LAR proposes revisions to the identified TS. Thus, NMC requests NRC review and approval of the proposed TS changes that clarify TS system installed spare components, which are not required for the LCO to be met, are not required to meet the SRs.

Although this LAR originated from issues with SR 3.6.5.2 and SR 3.6.5.3 in TS 3.6.5, "Containment Spray and Cooling Systems", this LAR does not propose any changes to TS 3.6.5 or these SRs. The post accident performance of the FCUs is currently being reanalyzed. Following completion of FCU re-analyses, NMC will submit TS changes as appropriate.

4.0 TECHNICAL ANALYSIS

PINGP is a two unit plant located on the right bank of the Mississippi River approximately six miles northwest of the city of Red Wing, Minnesota. The facility is owned by the Northern States Power Company (NSP) and operated by NMC. Each unit at PINGP employs a two-loop pressurized water reactor designed and supplied by Westinghouse Electric Corporation. The initial PINGP application for a Construction

Permit and Operating License was submitted to the Atomic Energy Commission (AEC) in April 1967. The Final Safety Analysis Report (FSAR) was submitted for application of an Operating License in January 1971. Prairie Island Unit 1 began commercial operation in December 1973 and Unit 2 began commercial operation in December 1974.

The PINGP was designed and constructed to comply with NSP's understanding of the intent of the AEC General Design Criteria (GDC) for Nuclear Power Plant Construction Permits, as proposed on July 10, 1967. PINGP was not licensed to NUREG-0800, "Standard Review Plan (SRP)."

Event Monitoring (EM) Instrumentation - Core Exit Temperature

The primary purpose of the EM instrumentation is to display unit variables that provide information required by the control room operators during accident situations. The operability of the accident monitoring instrumentation ensures that there is sufficient information available on selected unit parameters to monitor and to assess unit status and behavior following an accident.

Core exit temperature is provided for verification and long term surveillance of core cooling. The reactor core is provided with 39 CETs. An evaluation was made of the minimum number of valid CETs necessary for measuring core cooling. The evaluation determined the reduced complement of CETs necessary to detect initial core recovery and trend the ensuing core heatup. Adequate core cooling monitoring is ensured with four valid CETs per quadrant as demonstrated in NRC approved LAR 121 dated November 9, 1995. Core exit temperature is used to determine RCS subcooling margin. RCS subcooling margin will allow termination of safety injection (SI), if still in progress, or reinitiation of SI if it has been stopped. RCS subcooling margin is also used for unit stabilization and cooldown control.

Due to the size of the reactor core, four thermocouples operable in the center region of the core and at least one thermocouple in each quadrant of the outside core region are needed to provide radial temperature gradient monitoring. The center core region is defined in the Bases for LCO 3.3.3. The required thermocouples ensure a single failure will not disable the ability to determine the radial temperature gradient.

Containment Ventilation Isolation Instrumentation - High Radiation in Exhaust Air

Containment ventilation isolation (CVI) instrumentation closes the containment isolation valves in the Containment Purge (high flow) and Inservice (low flow) Purge System. This action isolates the containment atmosphere from the environment to minimize releases of radioactivity in the event of an accident. The Containment Inservice (low flow) Purge System may be in use during reactor operation and with the reactor shutdown except during handling of recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 50 hours). The Containment Purge

(high flow) System may be in use with the reactor shutdown, except during handling of recently irradiated fuel.

Containment ventilation isolation initiates on an SI signal, by manual actuation of containment isolation , or by manual actuation of containment spray. The Bases for LCO 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," discuss these modes of initiation.

Three radiation monitoring channels are also provided as input to CVI. One channel measures gaseous radiation in containment exhaust air. This channel provides an input to one train of CVI actuation relay logic. The other two channels measure either gaseous or particulate containment exhaust air radiation. These two channels provide inputs to the other train of CVI actuation relay logic where either channel will actuate the train. These three detectors will respond to most events that release radiation to containment. Since the monitors constitute a sampling system, various components such as sample line valves and sample pumps are required to support monitor operability.

Each of the purge systems has inner and outer containment isolation valves in its supply and exhaust ducts. A high radiation signal from any one of the three channels initiates one train of CVI logic, which closes one supply and one exhaust containment isolation valve in the Containment Purge (high flow) System and Inservice (low flow) Purge System.

The LCO specifies two required channels of radiation monitors, one per train, to ensure that the radiation monitoring instrumentation necessary to initiate CVI remains operable.

CL System

The CL System is a shared system common to both units. The CL System provides a heat sink for the removal of process and operating heat from safety related components during a Design Basis Accident (DBA) or transient. During normal operation, and a normal shutdown, the CL System also provides this function for various safety related and nonsafety related components. The safety related function is covered by the LCO.

The CL System consists of a common CL pump discharge header for the five CL (two non-safeguards, two safeguards, one that can be designated as safeguards or non-safeguards) pumps that directs flow into two separate, 100% capacity, CL headers. Each header then supplies loops in the turbine and auxiliary buildings and containments for the two units.

Each safeguards CL train consists of one 100% capacity vertical safeguards pump (12 or 121 for Train A; 22 or 121 for Train B). The vertical motor driven pump (121) may be directed to supply either CL header when aligned in its safeguards mode of operation.

In this case, the vertical motor driven pump (121) may replace a vertical diesel driven pump.

Two CL trains are required to be operable to provide the required redundancy to ensure that the system functions to remove post accident heat loads, assuming that the worst case single active failure occurs coincident with the loss of offsite power. A CL train is considered operable when the safeguards CL pump, aligned to the train, is operable. Additional design and operability information for the CL system is provided in the Bases for LCO 3.7.8 and Updated Safety Analysis Report (USAR) Section 10.4.

AC Sources-Operating

The 4 kV Safeguards Distribution System AC sources for a unit consist of the offsite power sources and the onsite standby power sources (Train A and Train B diesel generators (DGs)). The onsite Safeguards AC Distribution System is divided into redundant trains so that the loss of any one train does not prevent the minimum safety functions from being performed. Each train has two connections to the offsite power sources, and one to an onsite DG.

Offsite power is supplied to the unit switchyard(s) from the transmission network by five transmission lines. From the switchyard(s), electrically and physically separated paths provide AC power, through step down station auxiliary transformers, to the 4 kV safeguards buses. A detailed description of the offsite power network and the paths to the safeguards buses is found in the USAR Section 8.

A path consists of all breakers, transformers, switches, cabling, and controls required to transmit power from the offsite transmission network to the safeguards bus(es). Each path must be capable of maintaining rated frequency and voltage, and accepting required loads during an accident, while connected to the safeguards buses.

Two paths between the offsite transmission grid and the onsite 4 kV Safeguards Distribution System and separate and independent DGs for each train ensure availability of the required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational occurrence or a postulated DBA.

The paths are described in the USAR and are part of the licensing basis for the unit. There are four separate external power sources which provide multiple offsite network connections:

a. A reserve transformer (1R) from the 161 kV portion of the plant substation;

b. A second reserve transformer (2RS/2RY) from the 345 kV portion of the plant substation;

c. A cooling tower transformer (CT1/CT11) supplied from the 345 kV portion of the plant substation; and

d. A cooling tower transformer (CT12) supplied from a tertiary winding on the substation auto transformer.

Nuclear Instrumentation

Core subcritical neutron flux monitors are used during refueling operations to monitor the core reactivity condition. The LCO requires that two core subcritical neutron flux monitors, capable of monitoring subcritical neutron flux, be OPERABLE to ensure that redundant monitoring capability is available to detect changes in core reactivity. Neutron detectors N-31, N-32, N-51 and N-52 may be used to satisfy this LCO requirement.

This LCO also requires that one audible count rate circuit, associated with either N-31 or N-32, be OPERABLE to ensure that audible indication is available to alert the operator in containment in the event of a dilution accident or improperly loaded fuel assembly.

Current TS Basis and Limitations

The systems and the associated TS discussed above all have the commonality that they have components included in the TS which are not required to be operable for the LCO to be met (installed spare TS components) and the SRs for these components do not clearly specify that only components which are required for the LCO to be met are required to meet the SRs. That is, the SRs could be interpreted to require all of the specified components, including the installed spare TS components, to be operable even though the spare TS components are not required for the LCO to be met. This interpretation of the SRs could result in a system or train declared inoperable because the SRs are not met for all components or require unnecessary component testing.

There are 39 CETs in the core of which TS 3.3.3 requires four per quadrant to be operable for the LCO to be met. As currently written, SR 3.3.3.2 could be interpreted to require all 39 CETs to meet this SR for the core exit temperature function to be met.

One train of CVI instrumentation includes two radiation monitors either of which satisfy the LCO 3.3.5 requirement for one instrument in each train monitoring high radiation in the system exhaust air. As currently written, SR 3.3.5.1, SR 3.3.5.3 and SR 3.3.5.6 could be interpreted to require both radiation monitors to meet these SRs for the CVI high radiation in exhaust air function to be met.

The CL system design includes three safeguards CL pumps of which any two are capable of satisfying the LCO 3.7.8 requirement for two operable trains; each with an operable safeguards CL pump. As currently written, SR 3.7.8.2, SR 3.7.8.4 and SR 3.7.8.6 could be interpreted to require all three CL pumps to meet their respective SRs for the CL system LCO to be met.

There are four paths from the offsite AC sources to the plant safeguards 4 kV busses of which any two are capable of satisfying the LCO 3.8.1 requirement for two operable paths. As currently written, SR 3.8.1.1 could be interpreted to require all four paths to meet this SR for the offsite function of the AC electrical sources LCO to be met.

There are four core subcritical neutron flux monitors of which any two are capable of satisfying the LCO 3.9.3 requirement for two operable core subcritical neutron flux monitors. There are two audible core neutron flux count rate monitors either of which is capable of satisfying the LCO 3.9.3 requirement for one operable audible core subcritical neutron flux count rate monitor. As currently written, SR 3.9.3.1 and SR 3.9.3.2 could be interpreted to require all core subcritical neutron flux monitors and both audible core subcritical neutron flux count rate monitors to meet these SRs for the core subcritical neutron flux monitoring and the core subcritical neutron flux monitor audible count rate functions to be met.

The TS SRs described above are not clear and could be interpreted to require installed spare TS components to be tested when they do not support the LCO or the system may be declared inoperable when the SRs are not met for the installed spare TS components.

Proposed TS Changes

TSTF-GG-05-01, "Writer's Guide for Plant-Specific Improved Technical Specifications", (previously known as NUMARC 93-03 and NEI 01-03, "Writer's Guide for the Improved Standard Technical Specifications") Section 4.1.3, Chapter 3 General Content, paragraph b states:

> "Required" is specifically used in Conditions, Required Actions and Surveillances to denote reference to equipment which is "required" by the LCO for the specific existing Applicability. Typically (for operating MODES) any component referred to is "required." In this case no clarification is needed and "required" is not specifically stated in the Conditions, Required Actions, and Surveillances. In cases where the LCO only requires some of all possible components be used to satisfy the LCO requirement, then the clarification of "required" is used in the Conditions, Required Actions, and Surveillances. Typically, it is inappropriate to state "required" in the LCO, as the LCO is the statement of what is required.

Likewise, TSTF-GG-05-01 Section 4.1.6, Chapter 3 Actions Content, paragraph e states:

> Occasionally an LCO requires OPERABILITY of only some of the components of a particular function which could be used to satisfy the requirement (i.e., two offsite circuits when three are installed and available). In this event, the Conditions, Required Actions and Surveillances which refer to the item(s) required by the LCO are preceded by "required." "Required" would not be used in the LCO.

PINGP LCO 3.3.3, LCO 3.3.5, LCO 3.7.8, LCO 3.8.1 and LCO 3.9.3 only require some of all possible components be used to satisfy the LCO requirements. The clarification of "required" is used in the Conditions and Required Actions for these TSs. However, the clarification of "required" is not provided in the Surveillances.

This LAR proposes to add clarification of "required" in the applicable SRs. The format of the proposed clarification varies depending on the specific use and requirements of the particular SR.

The applicable SRs in TS 3.3.5 and TS 3.9.3 were modified by adding "of required channels" to the SR statements. A similar clause, "for each required channel", is included in SR 3.3.3.2. These changes follow the guidance of NUREG-1431 TS 3.4.15, "RCS Leakage Detection Instrumentation" SRs, except that the instrumentation function to be tested is not specified in the proposed SRs because each of these SRs applies to instrumentation which is tested at the same frequency. That is, in NUREG-1431 TS 3.4.15, the same test applies to different instruments at different Frequencies and therefore, the instrumentation is specifically named.

The applicable SRs in TS 3.7.8 and TS 3.8.1 are adequately clarified by adding "required" as a descriptor of which equipment shall meet the SR. These changes follow the guidance of multiple NUREG-1431 equipment TSs including TS 3.4.5, "RCS Loops – MODE 3," SRs and TS 3.8.1, "AC Sources – Operating," SR 3.8.1.1. The SRs in TS 3.4.5 include "required" as a descriptor since more than one RCS loop may fulfill the LCO requirements. In NUREG-1431, SR 3.8.1.1 "required" is bracketed which means that it should be included when there are more offsite circuits than are necessary to satisfy the LCO.

Bases changes which support these proposed TS changes will also be implemented and are provided with this LAR for information.

This LAR also proposes minor format changes and typographical corrections to TSs which this LAR affects as follows: correct the font in the Actions table header on page 3.3.3-4; correct the footnote lettering on page 3.3.5-4; and correct the table header spacing and spelling of "recommendations" on page 3.8.1-7. These are minor changes which do not affect plant operations.

The changes proposed in this LAR are consistent with the guidance of TSTF-GG-05-01, Writer's Guide for Improved Technical Specifications, and the examples provided from similar NUREG-1431 TS. The changes proposed provide additional plant operating flexibility and may prevent an unnecessary plant shutdown when installed spare TS equipment is inoperable and does not meet the applicable SRs.

Conclusions

The systems which are the subject of Technical Specifications 3.3.3, 3.3.5, 3.7.8, 3.8.1 and 3.9.3 include more components than are required to satisfy the LCO, but the wording of the applicable SRs could be interpreted to mean that the SRs must be met for all installed components for the LCO to be met. Such an interpretation could unnecessarily restrict plant operations or result in an unnecessary plant shutdown. This LAR proposes changes, consistent with industry guidance, to the applicable SRs in these TS which will clarify that only the components required to meet the LCOs must meet the SRs. Minor format and error corrections are also proposed.

These changes will allow increased plant operating flexibility and may prevent unnecessary plant shutdowns. Since the safety functions of the affected systems will continue to be provided, operation of the Prairie Island Nuclear Generating Plant with these revised Technical Specifications will continue to protect the health and safety of the public.

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

The Nuclear Management Company has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. **Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?**

   Response: No

   This license amendment proposes to revise Technical Specification Surveillance Requirements for event monitoring instrumentation, containment ventilation isolation instrumentation, cooling water system, AC sources during plant operations and nuclear instrumentation during refueling. The affected Surveillance Requirements may require all possible components in their associated Technical Specifications to meet the Surveillance Requirements even though the Technical Specifications Limiting Conditions for Operation only require some of the possible components to be operable to satisfy the Limiting Conditions for Operation. Consistent with industry guidance, the affected Surveillance Requirements were revised to include some form of "required" as a descriptor of the components which shall meet the Surveillance Requirements. Minor format and error corrections are also proposed for some of these Technical Specifications.

The instrumentation and systems which are the subject of the affected Technical Specifications mitigate accidents or monitor plant conditions. The instrumentation and systems are not accident initiators, thus the proposed changes do not involve a significant increase in the probability of a previously evaluated accident. With the proposed changes, the Technical Specification Limiting Conditions for Operation will continue to be met, thus the proposed changes do not involve a significant increase in the consequences of a previously evaluated accident. Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

This license amendment proposes to revise Technical Specification Surveillance Requirements for event monitoring instrumentation, containment ventilation isolation instrumentation, cooling water system, AC sources during plant operations and nuclear instrumentation during refueling. The affected Surveillance Requirements may require all possible components in their associated Technical Specifications to meet the Surveillance Requirements even though the Technical Specifications Limiting Conditions for Operation only require some of the possible components to be operable to satisfy the Limiting Conditions for Operation. Consistent with industry guidance, the affected Surveillance Requirements were revised to include some form of "required" as a descriptor of the components which shall meet the Surveillance Requirements. Minor format and error corrections are also proposed for some of these Technical Specifications.

The proposed Technical Specification changes do not involve a change in the instrumentation or systems' operation, or the use of the instrumentation or systems. The Limiting Conditions for Operation will continue to be met and the instrumentation and systems will continue to provide their same monitoring or mitigation function. There are no new failure modes or mechanisms created through the clarifications of which components must meet the Surveillance Requirements. There are no new accident precursors generated by clarifying which components must meet the Surveillance Requirements. The minor format and error corrections do not create new failure modes or mechanisms and do not generate new accident precursors.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

Response: No

This license amendment proposes to revise Technical Specification Surveillance Requirements for event monitoring instrumentation, containment ventilation isolation instrumentation, cooling water system, AC sources during plant operations and nuclear instrumentation during refueling. The affected Surveillance Requirements may require all possible components in their associated Technical Specifications to meet the Surveillance Requirements even though the Technical Specifications Limiting Conditions for Operation only require some of the possible components to be operable to satisfy the Limiting Conditions for Operation. Consistent with industry guidance, the affected Surveillance Requirements were revised to include some form of "required" as a descriptor of the components which shall meet the Surveillance Requirements. Minor format and error corrections are also proposed for some of these Technical Specifications.

The Technical Specification changes proposed in this License Amendment Request are administrative, that is, they do not involve any substantive changes in plant systems, structures or components and they do not involve any changes in plant operations. Currently the affected Technical Specification Limiting Conditions for Operation do not require all possible components addressed by the Technical Specifications to be operable. This License Amendment Request clarifies that the components not required to be operable are not required to meet the Surveillance Requirements. The Limiting Conditions for Operation will continue to be met as required by the Technical Specifications. Minor format and error corrections are also proposed. Since these changes are administrative, they do not involve a significant reduction in a margin of safety.

Therefore, based on the considerations given above, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above, the Nuclear Management Company concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c) and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

General Design Criteria

The construction of the Prairie Island Nuclear Generating Plant was significantly complete prior to issuance of 10 CFR 50, Appendix A, General Design Criteria. The

Prairie Island Nuclear Generating Plant was designed and constructed to comply with the Atomic Energy Commission General Design Criteria as proposed on July 10, 1967 (AEC GDC) as described in the plant Updated Safety Analysis Report. This license amendment request proposes changes to Technical Specification 3.3.3, "Event Monitoring (EM) Instrumentation," Technical Specification 3.3.5, "Containment Ventilation Isolation Instrumentation" (CVI), Technical Specification 3.7.8, "Cooling Water (CL) System," Technical Specification 3.8.1, "AC Sources-Operating" (AC), and Technical Specification 3.9.3, "Nuclear Instrumentation" (NI). Table 1 below identifies the AEC GDC, which may apply to or provide guidance for the instrumentation or systems in these Technical Specifications and may be impacted by the changes proposed in this license amendment request, and provides the results of their review.

Table 1, AEC GDC Impact

AEC GDC	GDC Title	Applicability	Impacted
13	Fission Process Monitors and Controls	NI	No
15	Engineered Safety Features Protection Systems	CVI	No
19	Protection System Reliability	NI	No
37	Engineered Safety Features Basis for Design	CVI, CL	No
39	Emergency Power for Engineered Safety Features	AC	No
41	Engineered Safety Features Performance Capability	CL, CVI	No
53	Containment Isolation Valves	CVI	No

The AEC GDC were reviewed for possible impact from the changes proposed in the applicable Technical Specifications. The proposed changes do not change the requirements for components to meet the Technical Specification Limiting Conditions for Operation and therefore, the AEC GDC continue to be met with the proposed Technical Specification changes.

Regulatory Guide 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants To Assess Plant and Environs Conditions During and Following an Accident" and NUREG-0737, "Clarification of TMI Action Plan Requirements"

The event monitoring instrumentation, including the core exit temperature function, provides information required by the control room operators during accident situations. Regulatory Guide 1.97 provides recommendations for essential instruments as required by Supplement 1 to NUREG-0737. The instrument channels required to be operable by Limiting Condition for Operation 3.3.3 include parameters identified during unit specific

implementation of Regulatory Guide 1.97. The Limiting Condition for Operation defines the number of required Core Exit Thermocouples to provide the core exit temperature monitoring function and satisfy Regulatory Guide 1.97. Since the changes proposed in this license amendment request do not change the number of Core Exit Thermocouples, the function will continue to be met and Regulatory Guide 1.97 will continue to be satisfied for the core exit temperature function.

NUREG-1431, "Standard Technical Specifications, Westinghouse Plants"

NUREG-1431 provides many examples of the use of "required" in Condition Statements, Required Actions and Surveillance Requirements where the Limiting Condition for Operation only requires some of all possible components to be used to satisfy the Limiting Condition for Operation requirement. Since this license amendment request proposes to revise instrumentation specifications and mechanical component specifications, examples of these specification types provide applicable regulatory guidance.

NUREG-1431 Technical Specification 3.4.15, "RCS Leakage Detection Instrumentation" provides guidance for instrumentation Surveillance Requirements for systems which include more instruments than are necessary to satisfy the Limiting Conditions for Operation. Each of the Surveillance Requirements for this Specification include the clause "of the required" to define the applicability of the Surveillance Requirements. This guidance was applied to the changes proposed in instrumentation Surveillance Requirements in Prairie Island Generating Plant Technical Specifications 3.3.3, 3.3.5 and 3.9.3.

NUREG-1431 Technical Specification 3.4.5, "RCS Loops – MODE 3," provides guidance for mechanical equipment Surveillance Requirements for systems which include more mechanical equipment than is necessary to satisfy the Limiting Conditions for Operation. Each of the Surveillance Requirements for this Specification includes the descriptor "required" to define the applicability of the Surveillance Requirements. Also, NUREG-1431 Technical Specification 3.8.1, "AC Sources – Operating," Surveillance Requirement 3.8.1.1 includes "required" in brackets which means that it should be included when there are more offsite circuits than are necessary to satisfy the Limiting Condition for Operation. The guidance of these Specifications was applied to the changes proposed to the mechanical equipment Surveillance Requirements in Prairie Island Generating Plant Technical Specifications 3.7.8 and 3.8.1.

Thus, NUREG-1431 provides precedence for the type of Technical Specification requirements proposed by this license amendment request.

Regulatory Requirements/Criteria Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the

Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Exhibit B

PROPOSED TECHNICAL SPECIFICATION AND BASES CHANGES (markup)

Technical Specification Pages

3.3.3-4	3.7.8-5
3.3.3-5	3.8.1-6
3.3.5-3	3.8.1-7
3.3.5-4	3.9.3-3
3.7.8-4	

Bases pages
(for information only)

B 3.3.3-19	B 3.7.8-16
B 3.3.5-6	B 3.8.1-15
B 3.3.5-8	B 3.9.3-4
B 3.7.8-13	B 3.9.3-5
B 3.7.8-14	

18 pages follow

ACTIONS (continued)

CONDITION~~CONDITION~~	REQUIRED ACTION	COMPLETION TIME~~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 **for each required channel**.	24 months

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.5-1 to determine which SRs apply for each Containment Ventilation Isolation Function.

	SURVEILLANCE	FREQUENCY
SR 3.3.5.1	Perform CHANNEL CHECK of required channels.	12 hours
SR 3.3.5.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.5.3	Perform COT of required channels.	31 days
SR 3.3.5.4	Perform SLAVE RELAY TEST.	24 months
SR 3.3.5.5	----------NOTE---------- Verification of setpoint is not required. ---------- Perform TADOT.	24 months
SR 3.3.5.6	Perform CHANNEL CALIBRATION of required channels.	24 months

Table 3.3.5-1 (page 1 of 1)
Containment Ventilation Isolation Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1.	Manual Initiation	1[a], 2[a], 3[a], 4[a]	2	SR 3.3.5.5	NA
2.	Automatic Actuation Relay Logic	1[a], 2[a], 3[a], 4[a]	2 trains	SR 3.3.5.2 SR 3.3.5.4	NA
3.	High Radiation in Exhaust Air	1[a], 2[a], 3[a], 4[a]	2 (1 per train)	SR 3.3.5.1 SR 3.3.5.3 SR 3.3.5.6	(be)
4.	Manual Containment Isolation	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for initiation functions and requirements.			
5.	Safety Injection	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for initiation functions and requirements.			
6.	Manual Containment Spray	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 2.a., for initiation functions and requirements.			

(a) When the Containment Inservice Purge System is not isolated.
(be) ≤ count rate corresponding to 500 mrem/year whole body and 3000 mrem/year skin due to noble gases at the site boundary.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Diesel driven CL pumps stored fuel oil supply < 17,000 gal. OR Required Action and associated Completion Time of Condition D not met.	E.1 Declare diesel driven CL pumps inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.8.1	----------NOTE---------- Isolation of CL flow to individual components does not render the CL System inoperable. ---------- Verify each CL System manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.8.2	Verify each required diesel driven CL pump starts and assumes load within one minute.	31 days

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.8.3	Verify stored diesel driven CL pumps fuel oil supply ≥ 19,500 gal.	31 days
SR 3.7.8.4	Verify OPERABILITY of required vertical motor driven CL pump.	92 days
SR 3.7.8.5	Verify each CL System automatic valve required to mitigate accidents that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.7.8.6	Verify the required diesel driven and required vertical motor driven CL pumps start automatically on an actual or simulated actuation signal.	24 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each required path.	7 days
SR 3.8.1.2	----------NOTES---------- 1. Performance of SR 3.8.1.6 satisfies this SR. 2. All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. 3. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR in consideration of manufacturer's recommendations. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.6 must be met. ---------- Verify each DG starts from standby conditions and achieves steady state voltage $\geq$ 3740 V and $\leq$ 4580 V, and frequency $\geq$ 58.8 Hz and $\leq$ 61.2 Hz.	31 days

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.3	----------NOTES---------- 1. DG loadings may include gradual loading in consideration of manufacturer's recommendations. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2 or SR 3.8.1.6. ---------- Verify each DG is synchronized and loaded and operates for $\geq$ 60 minutes at a load: a. Unit 1; $\geq$ 1650 kW; and b. Unit 2; $\geq$ 5100 kW and $\leq$ 5300 kW.	31 days
SR 3.8.1.4	Verify fuel oil level above lower limit switch in each day tank.	31 days
SR 3.8.1.5	Verify the fuel oil transfer system operates to transfer fuel oil from storage tank to the day tank.	31 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.3.1	Perform CHANNEL CHECK **of required channels**.	12 hours
SR 3.9.3.2	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. ----------	
	Perform CHANNEL CALIBRATION **of required channels**.	24 months

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.3.1 (continued)

The Frequency of 31 days is based on operating experience that demonstrates that channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.3.2

A CHANNEL CALIBRATION is performed **for each required channel** every 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to the measured parameter with the necessary range and accuracy. This SR is modified by a Note that excludes neutron detectors.

The Frequency is based on operating experience and consistency with the typical PI refueling cycle.

REFERENCES

1. USAR Section 7.10.
2. Regulatory Guide 1.97,- Revision 2.
3. NRC approved LAR 121 dated November 9, 1995.

BASES

ACTIONS (continued)

met for each valve made inoperable by failure of isolation instrumentation.

A Note is added stating that Condition B is only applicable in MODE 1, 2, 3, or 4 when the Containment Inservice Purge System is not isolated.

SURVEILLANCE REQUIREMENTS

A Note has been added to the SR Table to clarify that Table 3.3.5-1 determines which SRs apply to which CVI Functions.

SR 3.3.5.1

Performance of the CHANNEL CHECK once every 12 hours **on each required channel** ensures that a gross failure of instrumentation has not occurred. A CHANNEL CHECK is normally a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and readability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.3.5.5

SR 3.3.5.5 is the performance of a TADOT. This test is a check of the Manual Initiation Function and is performed every 24 months. The SR is modified by a Note that excludes verification of setpoints during the TADOT. The Functions tested have no setpoints associated with them.

The Frequency is based on the known reliability of the Function and the redundancy available, and has been shown to be acceptable through operating experience.

SR 3.3.5.6

A CHANNEL CALIBRATION is performed **on each required channel** every 24 months, or approximately at every refueling. CHANNEL CALIBRATION is a complete check of the instrument loop, including the sensor. The test verifies that the channel responds to a measured parameter within the necessary range and accuracy.

The Frequency is consistent with the typical industry refueling cycle.

REFERENCES

1. 10 CFR 100.11.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.8.1 (continued)

This SR verifies the correct alignment for manual, power operated, and automatic valves in the CL System flow path to assure that the proper flow paths exist for CL System operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position, since they are verified to be in the correct position prior to being locked, sealed, or secured. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. Control room indication may be used to fulfill this SR. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The 31 day Frequency is based on engineering judgment, is consistent with the procedural controls governing valve operation, and ensures correct valve positions.

SR 3.7.8.2

This SR verifies each required diesel driven CL pump can be started and be up to operating speed and assumes load within one minute to provide assurance that equipment would perform as expected in the safety analysis.

Diesel CL pump start will normally be initiated by the manual start switch. Once per calendar year, start should be initiated by use of the low pressure header pressure switch.

The 31 day Frequency is based on the experience that the CL pump usually passes the Surveillance when performed at this Frequency.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.8.3

This SR provides verification that there is an adequate inventory of fuel oil in the storage tanks to support the operation of one diesel driven CL pump for 14 days. The 14 day period is sufficient time to place the unit in a safe shutdown condition and to bring in replenishment fuel from an offsite location.

The specified fuel oil inventory for the diesel cooling water pumps is in addition to the fuel oil inventory specified for the Unit 1 diesel generators (DGs) (LCO 3.8.3) that must be available in the Unit 1 diesel fuel oil storage system. There are four Design Class I fuel oil storage tanks for the Unit 1 DGs and two Design Class I fuel oil storage tanks for the diesel driven cooling water pumps. These six Design Class I tanks are interconnected such that any tank can be manually aligned to supply any Unit 1 DG or diesel driven cooling water pump day tank. Any combination of inventory in these six tanks may be used to satisfy the inventory requirements for the diesel driven cooling water pumps and the Unit 1 DGs. Since the fuel oil for the CL pumps comes from the common fuel oil tanks shared by the Unit 1 diesel generators, the testing and the quality of the fuel oil is controlled by Technical Specification 5.5.11, "Diesel Fuel Oil Testing Program."

The 31 day Frequency is adequate to ensure that a sufficient supply of fuel oil is available, since low level alarms are provided and plant operators would be aware of any large uses of fuel oil during this period.

SR 3.7.8.4

This SR verifies the vertical motor driven CL pump, **when required to meet the LCO,** is OPERABLE to provide assurance that equipment, when lined up in the safeguards mode, will perform as expected in the safety analysis.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.7.8.5 (continued)

A test is considered satisfactory if control board indication and visual observations indicate that all components have operated satisfactorily and if cooling water flow paths required for accident mitigation have been established.

The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during an outage of one unit (the other unit may be operating) and the potential for an unplanned transient in the unit affected by the tested components if the Surveillance were performed with that reactor at power. Operating experience has shown that these components usually pass the Surveillance when performed. Therefore, the Frequency is acceptable from a reliability standpoint.

SR 3.7.8.6

The safeguards CL pumps may be actuated by either a safety injection (SI) signal or system low pressure. This SR verifies proper automatic operation of the **required** diesel driven and vertical motor driven CL pumps on an actual or simulated safety injection actuation signal and verifies proper automatic operation of these pumps on an actual or simulated low pressure actuation signal. The CL is a normally operating system that cannot be fully actuated in a safeguards mode as part of normal testing during normal operation. A test is considered satisfactory if control board indication and visual observations indicate that all components have operated satisfactorily.

The 24 month Frequency is based on the need to perform the SI signal portion of this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with the reactor at power.

BASES

ACTIONS (continued)

G.1

Condition G corresponds to a level of degradation in which all redundancy in the AC electrical power supplies has been lost. At this severely degraded level, any further losses in the AC electrical power system may cause a loss of function. Therefore, no additional time is justified for continued operation. The unit is required by LCO 3.0.3 to commence a controlled shutdown.

SURVEILLANCE REQUIREMENTS

The AC sources are designed to permit inspection and testing of all important areas and features, especially those that have a standby function, as discussed in the USAR (Ref. 2). Periodic component tests are supplemented by extensive functional tests during refueling outages (under simulated accident conditions). The SRs for demonstrating the OPERABILITY of the DGs are in accordance with regulatory guidance as addressed in the USAR. The voltages and frequencies discussed in these SRs are consistent with analysis described in the USAR (Ref. 2).

SR 3.8.1.1

This SR ensures proper circuit continuity for the required offsite AC electrical power supply to the onsite distribution network and availability of offsite AC electrical power. The breaker alignment verifies that each breaker is in its correct position to ensure that distribution buses and loads are connected to their offsite power source, and that appropriate independence of offsite circuits is maintained. The 7 day Frequency is adequate since breaker position is not likely to change without the operator being aware of it and because its status is displayed in the control room.

BASES

ACTIONS (continued)

C.1 and C2

With no audible core subcritical neutron flux monitor count rate circuit OPERABLE, only visual indication is available and prompt and definite indication of a boron dilution event would be lost. In this situation, the boron dilution event may not be detected quickly enough to assure sufficient time is available for operators to manually isolate the unborated water source and stop the dilution prior to the loss of SHUTDOWN MARGIN. Therefore, action must be taken to prevent an inadvertent boron dilution event from occurring. This is accomplished by isolating all the unborated water flow paths to the Reactor Coolant System. Isolating these flow paths ensures that an inadvertent dilution of the reactor coolant boron concentration is prevented. Since CORE ALTERATIONS and addition of unborated water can not be made, the core reactivity is stabilized until the audible count rate capability is restored.

The Completion Time of "Immediately" assures prompt response by operation and requires an operator to initiate actions to isolate an affected flow path immediately. Performance of Required Actions C.1 and C.2 shall not preclude completion of movement of a component to a safe position. Once actions are initiated, they must be continued until all the necessary flow paths are isolated or the circuit is restored to OPERABLE status.

SURVEILLANCE REQUIREMENTS

SR 3.9.3.1

SR 3.9.3.1 is the performance of a CHANNEL CHECK of required channels, which is a comparison of the parameter indicated on one channel to a similar parameter on other channels. It is based on the assumption that the two indication channels should be consistent with core conditions. Changes in fuel loading and core geometry can result in significant differences between source range channels, but each channel should be consistent with its local conditions.

BASES

SURVEILLANCE REQUIREMENTS ~~(continued)~~

SR 3.9.3.~~1~~2 (continued)

The Frequency of 12 hours is consistent with the CHANNEL CHECK Frequency specified similarly for the same instruments in LCO 3.3.1.

SR 3.9.3.2

SR 3.9.3.2 is the performance of a CHANNEL CALIBRATION of required channels every 24 months. This SR is modified by a Note stating that neutron detectors are excluded from the CHANNEL CALIBRATION. The 24 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a plant outage. Operating experience has shown these components usually pass the Surveillance when performed.

REFERENCES

1. AEC "General Design Criteria for Nuclear Power Plant Construction Permits," Criteria 13, 19, 27 and 31, issued for comment July 10, 1967, as referenced in USAR Section 1.2.

2. USAR, Section 14.4.

Exhibit C

PROPOSED TECHNICAL SPECIFICATION AND BASES CHANGES (revised)

Technical Specification Pages

3.3.3-4	3.7.8-5
3.3.3-5	3.8.1-6
3.3.5-3	3.8.1-7
3.3.5-4	3.9.3-3
3.7.8-4	

9 pages follow

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 for each required channel.	24 months

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.5-1 to determine which SRs apply for each Containment Ventilation Isolation Function.

	SURVEILLANCE	FREQUENCY
SR 3.3.5.1	Perform CHANNEL CHECK of required channels.	12 hours
SR 3.3.5.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.5.3	Perform COT of required channels.	31 days
SR 3.3.5.4	Perform SLAVE RELAY TEST.	24 months
SR 3.3.5.5	----------NOTE---------- Verification of setpoint is not required. --- Perform TADOT.	24 months
SR 3.3.5.6	Perform CHANNEL CALIBRATION of required channels.	24 months

Table 3.3.5-1 (page 1 of 1)
Containment Ventilation Isolation Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1.	Manual Initiation	1[(a)], 2[(a)], 3[(a)], 4[(a)]	2	SR 3.3.5.5	NA
2.	Automatic Actuation Relay Logic	1[(a)], 2[(a)], 3[(a)], 4[(a)]	2 trains	SR 3.3.5.2 SR 3.3.5.4	NA
3.	High Radiation in Exhaust Air	1[(a)], 2[(a)], 3[(a)], 4[(a)]	2 (1 per train)	SR 3.3.5.1 SR 3.3.5.3 SR 3.3.5.6	(b)
4.	Manual Containment Isolation	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a., for initiation functions and requirements.			
5.	Safety Injection	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 1, for initiation functions and requirements.			
6.	Manual Containment Spray	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 2.a., for initiation functions and requirements.			

(a) When the Containment Inservice Purge System is not isolated.
(b) $\leq$ count rate corresponding to 500 mrem/year whole body and 3000 mrem/year skin due to noble gases at the site boundary

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Diesel driven CL pumps stored fuel oil supply < 17,000 gal. OR Required Action and associated Completion Time of Condition D not met.	E.1 Declare diesel driven CL pumps inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.8.1	----------NOTE---------- Isolation of CL flow to individual components does not render the CL System inoperable. ---------- Verify each CL System manual, power operated, and automatic valve in the flow path servicing safety related equipment, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR 3.7.8.2	Verify each required diesel driven CL pump starts and assumes load within one minute.	31 days

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.8.3	Verify stored diesel driven CL pumps fuel oil supply $\geq$ 19,500 gal.	31 days
SR 3.7.8.4	Verify OPERABILITY of required vertical motor driven CL pump.	92 days
SR 3.7.8.5	Verify each CL System automatic valve required to mitigate accidents that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.7.8.6	Verify the required diesel driven and required vertical motor driven CL pumps start automatically on an actual or simulated actuation signal.	24 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each required path.	7 days
SR 3.8.1.2	----------NOTES---------- 1. Performance of SR 3.8.1.6 satisfies this SR. 2. All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading. 3. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR in consideration of manufacturer's recommendations. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.6 must be met. ---------- Verify each DG starts from standby conditions and achieves steady state voltage $\geq$ 3740 V and $\leq$ 4580 V, and frequency $\geq$ 58.8 Hz and $\leq$ 61.2 Hz.	31 days

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.3	----------NOTES---------- 1. DG loadings may include gradual loading in consideration of manufacturer's recommendations. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2 or SR 3.8.1.6. ---------- Verify each DG is synchronized and loaded and operates for $\geq$ 60 minutes at a load: a. Unit 1; $\geq$ 1650 kW; and b. Unit 2; $\geq$ 5100 kW and $\leq$ 5300 kW.	31 days
SR 3.8.1.4	Verify fuel oil level above lower limit switch in each day tank.	31 days
SR 3.8.1.5	Verify the fuel oil transfer system operates to transfer fuel oil from storage tank to the day tank.	31 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.3.1	Perform CHANNEL CHECK of required channels.	12 hours
SR 3.9.3.2	----------NOTE---------- Neutron detectors are excluded from CHANNEL CALIBRATION. ----------	
	Perform CHANNEL CALIBRATION of required channels.	24 months