Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1395

INDIANA MICHIGAN POWER

AEP:NRC:4392
10 CFR 50.90

February 14, 2004

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop O-P1-17
Washington, D. C. 20555-0001

SUBJECT: D. C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
Application for Amendment to Delete Surveillance Requirements for Power Range, Intermediate Range, and Source Range Neutron Flux Monitors

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant Units 1 and 2, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to modify the TS 3.9.2 limiting condition for operation, to delete TS Surveillance Requirements (SRs) 4.9.2.a and b for the Source Range Neutron Flux Monitor channel functional test, to revise SR 4.9.2.c for the channel check test, and to add a requirement to perform a channel calibration every 18 months. In addition, TS 4.10.4.2 and 4.10.3.2 (Units 1 and 2 respectively) for Intermediate and Power Range channel functional test are being revised. The proposed changes are consistent with Revision 2 of NUREG 1431, "Standard Technical Specifications for Westinghouse Plants."

Enclosure 1 to this letter provides an oath and affirmation affidavit. Enclosure 2 provides a detailed description and safety analysis to support the proposed changes, including the 10 CFR 50.92(c) evaluation, which concludes that no significant hazard is involved, and the environmental assessment. Attachments 1a and 1b provide the mark up TS pages. Attachments 2a and 2b provide the proposed TS pages with the changes incorporated.

I&M requests approval of the proposed changes by September 15, 2004 with an implementation period of 30 days to support the Unit 2 fall refueling outage.

The proposed amendment has been reviewed for impact on plant operations and procedures. No pending amendment requests affect the TS pages that are

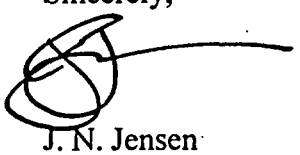
A001

submitted in this request. If any further submittals affect these TS pages, I&M will coordinate the changes to the pages with the Nuclear Regulatory Commission Project Manager to ensure proper TS page control when the associated license amendment requests are approved. In addition, I&M has evaluated this proposed change in accordance with 10 CFR 50.91(a)(1) using the criteria of 10 CFR 50.92(c) and has determined that this change does not involve a significant hazards consideration.

Copies of this letter and its attachments are being transmitted to the Michigan Public Service Commission and Michigan Department of Environmental Quality, in accordance with the requirements of 10 CFR 50.91.

This letter contains no commitments. Should you have any questions, please contact Mr. John A. Zwolinski, Director of Design Engineering and Regulatory Affairs at (269) 697-5007.

Sincerely,



J. N. Jensen
Site Vice President

RV/rdw

Enclosures:

1. Affirmation
2. Application for Amendment, License Amendment Request to Revise Surveillance Requirements for Power Range, Intermediate Range, and Source Range Neutron Flux Monitors

Attachments:

1a. Unit 1 Technical Specifications Pages Marked To Show Proposed Changes
1b. Unit 2 Technical Specifications Pages Marked To Show Proposed Changes
2a. Unit 1 Proposed Technical Specifications Pages
2b. Unit 2 Proposed Technical Specifications Pages

c: J. L. Caldwell, NRC Region III
K. D. Curry, Ft. Wayne AEP, w/o enclosures/attachments
J. T. King, MPSC
MDEQ – WHMD/HWRPS
NRC Resident Inspector
J. F. Stang, Jr., NRC Washington, DC

Enclosure 1 to AEP: NRC:4392

AFFIRMATION

I, Joseph N. Jensen, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

Joseph N. Jensen
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 14 DAY OF February, 2004

Notary Public

My Commission Expires Apr 4, 2004

DANIELLE M. SCHRADER
Notary Public, Berrien County, MI
My Commission Expires Apr 4, 2004

Enclosure 2 to AEP:NRC:4392

Application for Amendment to Delete Surveillance Requirements for Power Range, Intermediate Range, and Source Range Neutron Flux Monitors

1.0 DESCRIPTION

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to modify the TS 3.9.2 limiting condition for operation (LCO), to delete TS Surveillance Requirements (SRs) 4.9.2.a and b for the Source Range Neutron Flux Monitor channel functional test, to revise SR 4.9.2.c for the channel check test, and to add a requirement to perform a channel calibration every 18 months. In addition, TS 4.10.4.2 and 4.10.3.2 (Units 1 and 2 respectively) for Intermediate and Power Range functional channel test are being revised. The proposed changes are consistent with Revision 2 of NUREG 1431, "Standard Technical Specifications for Westinghouse Plants."

2.0 PROPOSED CHANGE

The Unit 1 and Unit 2 TS LCO 3.9.2 specifies that as a minimum, two Source Range Neutron Flux Monitors shall be operating, each with continuous visual indication in the control room and one with audible indication in the containment (both units) and control room (Unit 2), when the reactor is in Mode 6.

The TS 3.9.2 LCO would be modified by replacing the requirement for an audible indication in the containment (both units) and control room (Unit 2) with a requirement that a source range audible count rate circuit be operable.

The SRs would be changed by deleting the present 4.9.2.a and 4.9.2.b and renumbering 4.9.2.c and revising it to state, "A channel check at least once per 12 hours". Additionally, a new requirement is added to perform a channel calibration every 18 months.

The Unit 1 TS LCO 3.10.4 and Unit 2 TS LCO 3.10.3 allow limitations of specific Specifications to be suspended during the performance of physics tests provided the rector trip setpoints for the operable Intermediate Range, Neutron Flux and the Power Range, Neutron Flux, Low setpoints are set at less than or equal to 25% of rated thermal power. SR 4.10.4.2 (Unit 1) and 4.10.3.2 (Unit 2) require that each Intermediate and Power Range Channel be subjected to a channel functional test within 12 hours prior to initiating physics tests. These SRs are being revised to only specify the channel functional test must be performed prior to initiating physics tests.

The proposed changes are consistent with Revision 2 of NUREG-1431, "Standard Technical Specifications for Westinghouse Plants."

3.0 BACKGROUND

The Nuclear Instrumentation System uses information from three separate types of instrumentation channels to provide three discrete protection levels. Each range of instrumentation (source, intermediate, and power) provides the necessary overpower reactor trip protection required during operation in that range. The overlap of instrument ranges provides reliable continuous protection beginning with source level through the intermediate and low power level. As the reactor power increases, the overpower protection level is increased by administrative procedures after satisfactory higher range instrumentation operation is obtained. Automatic reset of the trip protection is provided when reducing power.

Various types of neutron detectors, with appropriate solid-state electronic circuitry, are used to monitor the neutron flux leakage from a completely shutdown condition to 120% of full power.

Because of the wide range of neutron flux, monitoring with several ranges of instrumentation is necessary. The lowest reading (source range) covers six decades of leakage neutron flux. The next range (intermediate range) covers eight decades. Detectors and instrumentation are chosen to provide overlap between the higher portion of the source range and the lower portion of the intermediate range. The highest range of instrumentation (power range) covers approximately two decades of the total instrumentation range. This is a linear range that overlaps with the higher portion of the intermediate range. The power range channels are capable of recording overpower excursions up to 200% of full power.

The system described above provides control room indication and recording of signals proportional to reactor neutron flux during refueling, shutdown, startup, and power operation. Start-up-rate indication for the source and intermediate range channels is provided at the control board. Reactor trip and rod stop control and alarm signals are transmitted to the Reactor Control and Protection System for automatic plant control.

CNP TS Table 4.3-1, functions 3 and 4 (Power Range Neutron Flux High Positive and Negative Rate), function 5 (Intermediate Range Neutron Flux), and function 6 (Source Range, Neutron Flux) each require that a channel calibration test be performed every refueling interval.

In Mode 6, two operable Source Range Neutron Flux Monitors are required to provide a signal to alert the operator to unexpected changes in core reactivity such as with a boron dilution accident or an improperly loaded fuel assembly. The audible count rate from the Source Range Neutron Flux Monitors provides prompt and definite indication of any boron dilution. The count rate increase is proportional to the subcritical multiplication factor and allows operators to promptly recognize the initiation of a boron dilution event. Prompt recognition of the initiation of a boron dilution event is consistent with the assumptions of the safety analysis and is necessary to assure sufficient time is available for isolation of the primary water makeup source before shutdown margin is lost. (Reference UFSAR, Section 14.1.5)

The TS 3.9.2 LCO requires that two Source Range Neutron Flux Monitors (any combination of Westinghouse Source Range Neutron Flux Monitors and Thermo Gamma Metrics neutron flux monitors) be operable to ensure that redundant monitoring capability is available to detect changes in core reactivity. To be operable, each monitor must provide visual indication in the control room. In addition, at least one flux monitor must provide an audible count rate indication in the containment (both units) and control room (Unit 2) to alert the operators of a boron dilution event. An audible indication in the Unit 1 control room is procedurally controlled.

In Mode 6, the Source Range Neutron Flux Monitors must be operable to determine changes in core reactivity. In Modes 2, 3, 4, and 5, these same installed source range detectors and circuitry are also required to be operable in accordance with the Reactor Trip System Instrumentation TSs.

The current TS SR requirement to specifically perform only a channel functional test of the source range neutron flux monitor in Mode 6 is inappropriate as the purpose of a channel function test is to verify that alarms activate and/or equipment functions when an adverse condition is detected by the sensor. In Mode 6, the source range neutron flux monitor does not activate an alarm required to meet the TS 3.9.2 LCO or cause equipment to function. The appropriate test to verify channel operability is a channel calibration. Therefore, a channel calibration is added to TS 3.9.2. The channel calibration requirement has a note excluding the neutron detector from the calibration because it is not possible to provide a signal to the detector.

The current TS SR requirement to perform a channel functional test of the intermediate and power range channel 12 hours prior to physics tests can impose an unnecessary burden if reactor startup is delayed. Physics tests are conducted in Mode 2, and the intermediate and power range channel are required to be operable in Mode 2. Thus, the testing required for physics testing is redundant.

4.0 TECHNICAL ANALYSIS

The TS 3.9.2 LCO requires that there be an audible indication in the containment (both units) and control room (Unit 2). The audible indication's function is to alert the operators to changes in core reactivity. Replacing the current requirement for an audible indication in the containment (both units) and control room (Unit 2) maintains the function while allowing flexibility in the placement of the audible indication.

SR 4.9.2.a requires a channel functional test be performed at least once per 7 days when the reactor is in Mode 6. The proposed amendment would delete this SR. The purpose of a channel functional test is to inject a simulated signal into the channel as close to the primary sensor as practicable to verify operability including alarm and/or trip function. A Source Range Neutron Flux Monitor is not an automatic system and does not provide an alarm required to meet the TS 3.9.2 LCO or a trip function in Mode 6. Therefore, this SR is not actually applicable in this specification. The channel calibration is the appropriate test to verify operability of the

indication only channel. TS Table 4.3-1 requires a channel functional test be performed prior to startup and monthly during Modes 2, 3, 4, and 5 (below the P-6 block of Source Range Reactor Trip) when this channel does perform a trip function.

SR 4.9.2.b requires that a channel functional test be performed within 8 hours prior to the initial start of core alterations. This proposed amendment would delete this SR. As discussed above, a channel functional test for the Source Range Neutron Flux Monitor is not the correct test for the channel.

SR 4.9.2.c (new 4.9.2.a) states that a channel check shall be performed at least once per 12 hours during core alterations. This SR is revised to expand the SR applicability to all of Mode 6 and not just during core alterations. Expanding the applicability of the channel check provides additional assurance that the Source Range Neutron Flux Monitors are available to detect a boron dilution event as well as any other core reactivity changes. The frequency of 12 hours is consistent with the channel check frequency specified for the same instrumentation in Modes 2, 3, 4, and 5.

The requirement to perform a channel calibration every 18 months is being added as SR 4.9.2.b. As discussed above, a channel calibration is the correct test to verify channel operability in Mode 6.

TS SRs 4.10.4.2 (Unit 1) and 4.10.3.2 (Unit 2) require that each Intermediate and Power Range Channel be subjected to a channel functional test within 12 hours prior to initiating physics tests. The proposed change would eliminate the time requirement of 12 hours. This does not result in a significant change to the power range and intermediate range surveillance requirements. To be operable in Mode 2, TS Table 4.3-1, function 3 (Power Range, Neutron Flux, High Positive Rate), function 4 (Power Range, Neutron Flux, High Negative Flux), and function 5 (Intermediate Range, Neutron Flux) require that a channel calibration be performed at refueling outage frequency. Additionally, the power range monitor channel functional test is required to be performed quarterly, and an intermediate range monitor channel functional test is required to be performed prior to startup. Since physics tests are performed in Mode 2, the subject monitors are already required to be operable and the applicable SRs are required to have been performed prior to physics tests. The initiation of physics tests does not affect the ability of the equipment to perform its function, does not affect the trip setpoints or the reactor trip system capability, and does not invalidate the previous surveillances. Therefore, requiring this testing to be performed at a fixed time before the initiation of physics tests provides no benefit.

The current frequency requires unnecessary testing. In the event that the SR was performed 12 hours prior to starting physics tests and the plant startup is delayed for any reason, the SR will have to be re-performed. Eliminating the redundant requirements with different frequencies clarifies the SR. This change is acceptable because the channels will still be tested on a frequency to ensure that they provide an acceptable level of equipment reliability in the applicable mode.

5.0 REGULATORY SAFETY ANALYSIS

No Significant Hazards Consideration

Indiana Michigan Power Company (I&M) has evaluated whether or not a significant hazards consideration is involved with the proposed amendments by focusing on the three standards set forth in 10 CFR 50.02, "Issuance of amendment," as discussed below:

1.0 Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed amendment replaces the Technical Specification (TS) 3.9.2 limiting condition for operation (LCO) requirement for an audible indication in the containment (both units) and control room (Unit 2) with a requirement that a source range audible count rate circuit be operable. This involves no physical changes to the plant, and maintains the capability to alert the operators to changes in core reactivity. Thus, neither the probability of an accident nor the consequences are significantly increased.

The proposed amendment revises the TS Surveillance Requirement (SR) for the Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors to reduce redundant testing. Surveillance testing is not an initiator to any accident previously evaluated. As a result, the proposed changes will not result in a significant increase in the probability of any accident previously evaluated.

The Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors are used to detect and mitigate accidents previously evaluated. However, the LCOs continue to require the subject flux monitors to be operable and the remaining testing is sufficient to ensure the flux monitors are capable of performing their detection and mitigation functions. Thus, the consequences of an accident are not significantly changed.

Based on the above, I&M concludes that proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated

2.0 Does the proposed change create the possibility of a new or different kind of accident from and accident previously evaluated?

Response: No.

The proposed amendment replaces the TS 3.9.2 LCO requirement for an audible indication in the containment (both units) and control room (Unit 2) with a requirement that a source range audible count rate circuit be operable. The change does not make any physical changes to the plant. Thus, the change does not create the possibility of a new or different kind of accident.

The proposed amendment revises the TS SR for the Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors to reduce redundant testing. The proposed changes do not change the design function or operation of any plant equipment. No new failure mechanisms, malfunctions, or accident initiators are being introduced by the proposed changes. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3.0 Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed amendment replaces the TS 3.9.2 LCO requirement for an audible indication in the containment (both units) and control room (Unit 2) with a requirement that a source range audible count rate circuit be operable. The source range audible count rate circuit will continue to perform its function of alerting the operators to changes in core reactivity.

The proposed amendment revises the TS SR for the Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors to reduce redundant testing. The elimination of redundant testing does not reduce the reliability of the tested flux monitors. The flux monitors continue to be tested in a manner and at a frequency necessary to provide confidence that the equipment can perform its assumed safety function.

Therefore, there is no significant reduction in a margin of safety.

Based on the above, I&M concludes that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92 and accordingly, a finding of "no significant hazards consideration" is justified.

Applicable Regulatory Requirements/Criteria

10 CFR 50 Appendix A, General Design Criteria (GDC) 13 requires that instrumentation shall be provided to monitor variables and systems over their anticipated ranges for normal operation, for anticipated operational occurrences, and for accident conditions as appropriate to assure adequate safety, including those variables and systems that can affect the fission process, the integrity of the reactor core, the reactor coolant pressure boundary, and the containment and its associated systems. Appropriate controls shall be proceeded to maintain these variables and systems within prescribed operating ranges.

The proposed changes will not affect the ability of the Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors to monitor variables and systems within prescribed operating ranges.

10 CFR 50 Appendix A, GDC 21 requires that protection systems shall be designed for high functional reliability and inservice testability commensurate with the safety function to be performed. Redundancy and independence designed into the protection system shall be sufficient to assure that (1) no single failure results in loss of the protection function and (2) removal from service of any component or channel does not result in loss of the required minimum redundancy unless the acceptable reliability of operation of the protection system can be otherwise demonstrated. The protection system shall be designed to permit periodic testing of its functioning when the reactor is in operation, including a capability to test channels independently to determine failures and losses of redundancy that may have occurred.

The proposed changes will not affect the reliability of the Power Range, Intermediate Range, and the Source Range Neutron Flux Monitors as the flux monitors will continue to be tested in a manner and at a frequency necessary to provide confidence that the equipment can perform its intended safety function.

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 by 10 CFR 20, or would change an inspection or SR. 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(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

Attachment 1a to AEP:NRC:4392

UNIT 1
TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
3 / 4 9-2
3 / 4 10-5

INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.9.2 As a minimum, two source range neutron flux monitors shall be operating, each with continuous visual indication in the control room and one with audible ~~indication in the containment~~count rate circuit to be OPERABLE.

APPLICABILITY: MODE 6.

ACTION:

a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes except addition of water from the RWST, provided the boron concentration in the RWST is greater than the minimum required by Specification 3.1.2.7.b.2.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.2 Each source range neutron flux monitor shall be demonstrated OPERABLE by performance of:

~~a. A CHANNEL FUNCTIONAL TEST at least once per 7 days, and~~

~~b. A CHANNEL FUNCTIONAL TEST within 8 hours prior to the initial start of CORE ALTERATIONS, and~~

~~c~~a. A CHANNEL CHECK at least once per 12 hours ~~during CORE ALTERATIONS~~.

b. A CHANNEL CALIBRATION at least every 18 months.*

* Neutron detectors may be excluded from CHANNEL CALIBRATION

PHYSICS TESTS

LIMITING CONDITION FOR OPERATION

3.10.4 The limitations of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.4 and 3.1.3.5 may be suspended during the performance of PHYSICS TESTS provided:

a. The THERMAL POWER does not exceed 5% of RATED THERMAL POWER, and

b. The Reactor Trip Setpoints for the OPERABLE Intermediate Range, Neutron Flux and the Power Range, Neutron Flux, Low Setpoints are set at less than or equal to 25% of RATED THERMAL POWER.

APPLICABILITY: MODE 2.

ACTION:

With the THERMAL POWER greater than 5% of RATED THERMAL POWER, immediately open the reactor trip breakers.

SURVEILLANCE REQUIREMENTS

4.10.4.1 The THERMAL POWER shall be determined to be less than or equal to 5% of RATED THERMAL POWER at least once per hour during PHYSICS TESTS.

4.10.4.2 Each Intermediate and Power Range Channel shall be subjected to a CHANNEL FUNCTIONAL TEST ~~within 12 hours~~ prior to initiating PHYSICS TESTS.

Attachment 1b to AEP:NRC:4392

UNIT 2
TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
3 / 4 9-2
3 / 4 10-3

INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.9.2 As a minimum, two source range neutron flux monitors shall be operating, each with continuous visual indication in the control room and one with audible ~~indication in the containment and control room~~count rate circuit to be OPERABLE.

APPLICABILITY: MODE 6.

ACTION:

a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes except addition of water from the RWST, provided the boron concentration in the RWST is greater than the minimum required by Specification 3.1.2.7.b.2.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.2 Each source range neutron flux monitor shall be demonstrated OPERABLE by performance of:

~~a. A CHANNEL FUNCTIONAL TEST at least once per 7 days, and~~

~~b. A CHANNEL FUNCTIONAL TEST within 8 hours prior to the initial start of CORE ALTERATIONS, and~~

~~c~~a. A CHANNEL CHECK at least once per 12 hours ~~during CORE ALTERATIONS~~.

b. A CHANNEL CALIBRATION at least every 18 months.*

* Neutron detectors may be excluded from CHANNEL CALIBRATION

PHYSICS TEST

LIMITING CONDITION FOR OPERATION

3.10.3 The limitations of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.5 and 3.1.3.6 may be suspended during the performance of PHYSICS TESTS provided:

a. The THERMAL POWER does not exceed 5% of RATED THERMAL POWER, and

b. The Reactor Trip Setpoints for the OPERABLE Intermediate Range, Neutron Flux and the Power Range, Neutron Flux, Low Setpoint are set at less than or equal to 25% of RATED THERMAL POWER.

APPLICABILITY: MODE 2.

ACTION:

With the THERMAL POWER greater than 5% of RATED THERMAL POWER, immediately open the reactor trip breakers.

SURVEILLANCE REQUIREMENTS

4.10.3.1 The THERMAL POWER shall be determined to be less than or equal to 5% of RATED THERMAL POWER at least once per hour during PHYSICS TESTS.

4.10.3.2 Each Intermediate and Power Range Channel shall be subjected to a CHANNEL FUNCTIONAL TEST ~~within 12 hours~~ prior to initiating PHYSICS TESTS.

Attachment 2a to AEP:NRC:4392

UNIT 1
PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
3 / 4 9-2
3 / 4 10-5

INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.9.2 As a minimum, two source range neutron flux monitors shall be operating, each with continuous visual indication in the control room and one with audible count rate circuit to be OPERABLE.

APPLICABILITY: MODE 6.

ACTION:

a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes except addition of water from the RWST, provided the boron concentration in the RWST is greater than the minimum required by Specification 3.1.2.7.b.2.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.2 Each source range neutron flux monitor shall be demonstrated OPERABLE by performance of:

a. A CHANNEL CHECK at least once per 12 hours.

b. A CHANNEL CALIBRATION at least every 18 months.*

* Neutron detectors may be excluded from CHANNEL CALIBRATION

PHYSICS TESTS

LIMITING CONDITION FOR OPERATION

3.10.4 The limitations of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.4 and 3.1.3.5 may be suspended during the performance of PHYSICS TESTS provided:

a. The THERMAL POWER does not exceed 5% of RATED THERMAL POWER, and

b. The Reactor Trip Setpoints for the OPERABLE Intermediate Range, Neutron Flux and the Power Range, Neutron Flux, Low Setpoints are set at less than or equal to 25% of RATED THERMAL POWER.

APPLICABILITY: MODE 2.

ACTION:

With the THERMAL POWER greater than 5% of RATED THERMAL POWER, immediately open the reactor trip breakers.

SURVEILLANCE REQUIREMENTS

4.10.4.1 The THERMAL POWER shall be determined to be less than or equal to 5% of RATED THERMAL POWER at least once per hour during PHYSICS TESTS.

4.10.4.2 Each Intermediate and Power Range Channel shall be subjected to a CHANNEL FUNCTIONAL TEST prior to initiating PHYSICS TESTS.

Attachment 2b to AEP:NRC:4392

UNIT 2
PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
3 / 4 9-2
3 / 4 10-3

INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.9.2 As a minimum, two source range neutron flux monitors shall be operating, each with continuous visual indication in the control room and one with audible count rate circuit to be OPERABLE.

APPLICABILITY: MODE 6.

ACTION:

a. With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes except addition of water from the RWST, provided the boron concentration in the RWST is greater than the minimum required by Specification 3.1.2.7.b.2.

b. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.2 Each source range neutron flux monitor shall be demonstrated OPERABLE by performance of:

a. A CHANNEL CHECK at least once per 12 hours.

b. A CHANNEL CALIBRATION at least every 18 months.*

* Neutron detectors may be excluded from CHANNEL CALIBRATION

PHYSICS TEST

LIMITING CONDITION FOR OPERATION

3.10.3 The limitations of Specifications 3.1.1.4, 3.1.3.1, 3.1.3.5 and 3.1.3.6 may be suspended during the performance of PHYSICS TESTS provided:

a. The THERMAL POWER does not exceed 5% of RATED THERMAL POWER, and

b. The Reactor Trip Setpoints for the OPERABLE Intermediate Range, Neutron Flux and the Power Range, Neutron Flux, Low Setpoint are set at less than or equal to 25% of RATED THERMAL POWER.

APPLICABILITY: MODE 2.

ACTION:

With the THERMAL POWER greater than 5% of RATED THERMAL POWER, immediately open the reactor trip breakers.

SURVEILLANCE REQUIREMENTS

4.10.3.1 The THERMAL POWER shall be determined to be less than or equal to 5% of RATED THERMAL POWER at least once per hour during PHYSICS TESTS.

4.10.3.2 Each Intermediate and Power Range Channel shall be subjected to a CHANNEL FUNCTIONAL TEST prior to initiating PHYSICS TESTS.