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INDIANA MICHIGAN POWER

September 1, 2000

C0900-12
10 CFR 50.90

Docket Nos.: 50-315
50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2
TECHNICAL SPECIFICATION CHANGE REQUEST
PRESSURIZER HEATERS

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 (T/S), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to clarify T/S 3/4.4.4, "Pressurizer," to reflect the current power supply to the pressurizer heaters and require two operable trains of pressurizer heaters during Modes 1, 2, and 3. I&M also proposes to revise the Bases for T/S 3/4.4.4 to reflect these changes and to clarify the purpose of the pressurizer heaters.

Attachment 1 provides a detailed description and safety analysis to support the proposed changes. Attachments 2A and 2B provide marked up T/S pages for Unit 1 and Unit 2, respectively. Attachments 3A and 3B provide the proposed T/S pages with the changes incorporated for Unit 1 and Unit 2, respectively. Attachment 4 describes the evaluation performed in accordance with 10 CFR 50.92(c), which concludes that no significant hazard is involved. Attachment 5 provides the environmental assessment.

I&M requests approval of this request by November 15, 2000, to support restart of CNP Unit 1.

No previous submittals affect T/S pages that are submitted in this request. If any future submittals affect these T/S pages, then I&M will coordinate changes to the pages with the Nuclear Regulatory Commission Project Manager to ensure

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proper T/S page control when the associated license amendment requests are approved.

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.

Should you have any questions, please contact Mr. Wayne J. Kropp, Director of Regulatory Affairs, at (616) 697-5056.

Sincerely,

M. W. Rencheck
Vice President Nuclear Engineering

/dmb

Attachments

c: J. E. Dyer
MDEQ - DW & RPD
NRC Resident Inspector
R. Whale

AFFIRMATION

I, Michael W. Rencheck, being duly sworn, state that I am 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

M. W. Rencheck
Vice President Nuclear Engineering

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 1 DAY OF September 2000

Danielle M. Schrader
Notary Public

My Commission Expires April 4, 2004

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

ATTACHMENT 1 TO C0900-12

DESCRIPTION AND SAFETY ANALYSIS FOR THE PROPOSED CHANGES

A. Summary of the Proposed Changes

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 (T/S), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to clarify T/S 3/4.4.4, "Pressurizer," to reflect the current power supply to the pressurizer heaters and require two operable trains of pressurizer heaters during Modes 1, 2, and 3. I&M also proposes to revise the Bases for T/S 3/4.4.4 to reflect these changes and to clarify the purpose of the pressurizer heaters.

The proposed changes are described in detail in Section E of this attachment. T/S pages that are marked to show the proposed changes are provided in Attachments 2A and 2B for Unit 1 and Unit 2, respectively. The proposed T/S pages, with the changes incorporated, are provided in Attachments 3A and 3B for Unit 1 and Unit 2, respectively.

B. Description of the Current Requirements

T/S 3.4.4 requires at least 150 kW of pressurizer heaters. This is verified by T/S surveillance requirement (SR) 4.4.4.2, which requires that the emergency power supply for the pressurizer heaters be demonstrated operable at least once per 18 months by transferring power from the normal to the emergency power supply and energizing the required capacity of heaters.

C. Bases for the Current Requirements

T/S SR 4.4.4.2 was added to the Unit 1 and Unit 2 T/Ss in Amendments 49 to DPR-58 and 34 to DPR-74, respectively, in response to NUREG-0578, "TMI-2 Lessons Learned Category A Items." Specifically, the Nuclear Regulatory Commission (NRC) recommended that licensees provide redundant emergency power to a sufficient number of pressurizer heaters to maintain natural circulation conditions following a loss of offsite power. A letter from D. G. Eisenhut (NRC) to all pressurized water reactor licensees dated July 2, 1980, provided model T/Ss that reflected the intent of NUREG-0578. Model T/S 3/4.4.4 includes an action if the pressurizer is inoperable due to an inoperable emergency power supply. It also contains an SR to demonstrate the operability of the emergency power supply for the pressurizer heaters by transferring power from the normal to the emergency power supply and energizing the heaters at least once per 18 months. This SR was intended to provide assurance that a sufficient number of pressurizer heaters could be energized during a loss of offsite power to maintain natural circulation conditions at hot standby. This requirement was based on a design where the pressurizer heaters are normally

powered from a nonsafety-related bus, but they could be manually transferred to a Class 1E emergency bus.

D. Need for Revision of the Requirement

The CNP pressurizer heaters were originally powered from nonsafety-related buses. The design was subsequently modified to power the pressurizer heaters from the Class 1E buses. As a result, the SR to transfer from the normal to the emergency power supply is no longer necessary. Additionally, the action statement requirements for an inoperable emergency power supply are redundant to other T/S requirements.

The current design provides a redundant capacity of pressurizer heaters from each of the two emergency buses. The T/S should be revised to require 150 kW on each Class 1E bus to assure this redundant capability is available.

The Bases should be revised to reflect the changes to the T/S. In addition, the purpose of the requirement is stated differently in the Bases for each unit and it does not accurately capture the specific need for the pressurizer backup heaters to maintain natural circulation conditions at hot standby during a loss of offsite power. The Bases should be revised to clarify the purpose of the requirement and to make it consistent for both units.

E. Description of the Proposed Changes

I&M proposes to remove the requirement from T/S SR 4.4.4.2 to transfer power from the normal to the emergency power supply. I&M proposes to expand T/S 3.4.4 to require two operable 150-kW trains of pressurizer heaters during Modes 1, 2, and 3 and an allowed outage time of 72 hours is added when one train is inoperable. Changes are also proposed to T/S SR 4.4.4.2 to test both trains of heaters. I&M proposes to revise the Bases for T/S 3/4.4.4 to reflect these changes, and clarify that the pressurizer backup heaters provide assurance there is adequate subcooling margin in the reactor coolant system to maintain natural circulation conditions at hot standby.

I&M proposes to change the format of the action statement to separate its two parts and label them as a and b. Finally, I&M proposes five types of format changes to the revised Unit 2 pages. The types of changes to be applied are:

(1) Reformat the headers to include numbered first and second tier T/S section titles and a full-width single line to separate the header section titles from the page text.

(2) Reformat the footers to include "COOK NUCLEAR PLANT-UNIT 2" on the left side of the page, "Page (page number)" center page, "AMENDMENT (past amendment numbers, with

strikethrough, and ending with the current amendment number)" on the right side, and a full-width single line to separate the footer from the page text.

(3) Delete the full-height double lines on the right side of Page B 3/4 4-2.

(4) Delete the full-width double line separating the header from the page text on Page B 3/4 4-2.

(5) Fully justify the text and change the font.

F. Bases for the Proposed Changes

The proposed change to remove the requirement from T/S SR 4.4.4.2 to transfer power from the normal to the emergency power supply is appropriate because the pressurizer heaters are now permanently powered from the Class 1E emergency buses. These buses receive normal power from the unit generators and emergency power from the emergency diesel generators (EDGs). When the normal power supply is lost, the EDGs automatically supply power to the bus. The plant operators may manually load the pressurizer heaters on the bus, if needed.

In addition, T/S SR 4.8.1.1.2.e.4 tests the EDGs on a simulated loss of offsite power. This surveillance verifies the capability to de-energize the emergency buses and to load shed from the emergency buses. It also verifies the EDGs auto-start and energize the emergency buses with permanently connected loads and auto-connected loads through the load sequencer. T/S SR 4.8.1.1.2.e.6 includes similar requirements for a simulated loss of offsite power in conjunction with a safety injection actuation test signal.

Because the pressurizer heaters are permanently powered from the Class 1E emergency buses, and T/S SRs 4.8.1.1.2.e.4 and 4.8.1.1.2.e.6 verify the ability to transfer the emergency buses from the normal power supply to the emergency power supply, it is not necessary to transfer the power supply for the pressurizer heaters in T/S SR 4.4.4.2.

The proposed changes to T/S 3.4.4 to require two operable 150-kW trains of pressurizer heaters and to T/S SR 4.4.4.2 to test both trains of heaters are needed to verify the capacity required by NUREG-0737, "Clarification of TMI Action Plan Requirements." NUREG-0737 required licensees to provide redundant heater capacity with each group having access to only one Class 1E power supply. This was installed as required, but the current T/S 3/4.4.4 only requires and tests a total of 150 kW of pressurizer heaters. The 72-hour allowed outage time in the action statement is reasonable considering the anticipation that a demand caused by a loss of offsite power would be unlikely in this period.

The proposed change to the Bases reflects the proposed changes to T/S 3/4.4.4. It also explains that the requirements apply to the pressurizer backup heaters, states the purpose more clearly, and provides consistency for both units.

The proposed change to the format of the action statement is administrative. It is intended to make it easier to read and understand.

The proposed changes to the format of the Unit 2 pages are administrative. They are intended to improve the appearance. They are not intended to introduce other changes.

The proposed changes are consistent with the intent of NUREG-1431, "Standard Technical Specifications – Westinghouse Plants." However, there are some differences. NUREG-1431 requires two groups of pressurizer heaters, but I&M proposes to require two trains. I&M chose to use the term "train" because group has a different meaning at CNP. There are three switches on the control panel to energize pressurizer heaters on each bus. Each of these switches is referred to as a group and together these three groups make up a train. Therefore, it is appropriate to use train instead of group.

NUREG-1431 also requires the pressurizer heater capacity to be demonstrated at least once per 92 days. However, I&M is retaining the interval of at least once per 18 months. For plants where the pressurizer heaters are frequently used, as they are at CNP, NUREG-1366, "Improvements to Technical Specification Surveillance Requirements," Section 6.6, "Pressurizer Heaters," states, "Most pressurizer heaters are in constant use, both the proportional and to some extent the backup heaters. Therefore, operators should be aware of problems that may arise with pressurizer heaters. In addition, pressurizer heaters are fairly reliable." The NRC recommended that the pressurizer heaters be tested once each refueling interval at plants that meet this criteria. Therefore, the current T/S surveillance frequency is consistent with the NRC recommendation in NUREG-1366.

The pressurizer heaters at CNP are reliable. The surveillance history for the last six years was reviewed, and there was at least 395 kW of operable heater capacity per train in all cases. This exceeds the 150 kW per train requirement. Significant degradation that would result in the inability to meet the 150 kW requirement is not expected based on past performance and excess capacity.

G. Discussion of Risk

The proposed changes will have no effect on the probability of an accident. The pressurizer heaters and surveillance test are not accident initiators. The proposed changes will not create any accident initiators, precursors, or failure modes.

The pressurizer heaters are not used to mitigate the consequences of any accidents evaluated in the Updated Final Safety Analysis Report. While the heaters are not specifically used in any accident analysis, they are required by NUREG-0737 because they are relied upon to maintain subcooling in the reactor coolant system during a loss of offsite power. The proposed change to delete the requirement to transfer from the normal power supply to the emergency power supply will not deter this function. The power supply transfer will continue to be tested in T/S SRs 4.8.1.1.2.e.4 and 4.8.1.1.2.e.6, as described in Section F of this attachment. The proposed change to the action statement to address all conditions involving inoperable pressurizer heaters and the proposed change to require and test two trains of heaters instead of one will provide better assurance the heaters are available to maintain the required subcooling margin. As such, there is no change to the consequences of an accident.

Therefore, the proposed changes will have no effect on risk.

H. Impact on Previous Submittals

No previous submittals affect T/S pages that are submitted in this request. If any future submittals affect these T/S pages, then I&M will coordinate changes to the pages with the NRC Project Manager to ensure proper T/S page control when the associated license amendment requests are approved.

ATTACHMENT 2A TO C0900-12

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 1

3/4 4-6

B 3/4 4-2

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with a water volume less than or equal to 92% of span and ~~at least 150 kW~~ two trains of pressurizer heaters with the capacity of each train greater than or equal to 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the pressurizer inoperable due to an inoperable ~~emergency power supply to the~~ train of pressurizer heaters, either restore the inoperable ~~emergency power supply~~ train within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT SHUTDOWN with the reactor trip breakers open within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The pressurizer water volume shall be determined to be within its limits at least once per 12 hours.

4.4.4.2 The ~~emergency power supply for the~~ pressurizer heaters shall be demonstrated OPERABLE at least once per 18 months by ~~transferring power from the normal to the emergency power supply and~~ energizing the required capacity of heaters in each train.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each safety valve is designed to relieve 420,000 lbs per hour of saturated steam at the valve set point. The relief capacity of a single safety valve is adequate to relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating RHR loop, connected to the RCS, provides overpressure relief capability and will prevent RCS overpressurization.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss of load assuming no reactor trip until the first Reactor Protective System trip set point is reached (i.e., no credit is taken for a direct reactor trip on the loss of load) and also assuming no operation of the power operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Code.

3/4.4.4 PRESSURIZER

A steam bubble in the pressurizer ensures that the RCS is not a hydraulically solid system and is capable of accommodating pressure surges during operation. The steam bubble also protects the pressurizer code safety valves and power operated relief valves against water relief. The power operated relief valves and steam bubble function to relieve RCS pressure during all design transients up to and including the design step load decrease with steam dump. Operation of the power operated relief valves minimizes the undesirable opening of the spring-loaded pressurizer code safety valves. The requirements for pressurizer heaters apply to the pressurizer backup heaters as they are the only heaters that can be controlled from both the control room and the hot standby panel to perform their required function. The requirement ~~that~~ to verify the capacity of each train ~~150 kW~~ of pressurizer heaters ~~and their associated controls be capable of being supplied electrical power from an emergency bus~~ provides assurance that these heaters can be energized during a loss of offsite power condition to provide adequate subcooling margin in the reactor coolant system to maintain natural circulation conditions at HOT STANDBY.

ATTACHMENT 2B TO C0900-12

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 2

3/4 4-6

B 3/4 4-2

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with a water volume less than or equal to 92% of span and ~~at least 150 kW~~ two trains of pressurizer heaters with the capacity of each train greater than or equal to 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the pressurizer inoperable due to an inoperable ~~emergency power supply to the~~ train of pressurizer heaters, either restore the inoperable ~~emergency power supply~~ train within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT SHUTDOWN with the reactor trip breakers open within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The pressurizer water volume shall be determined to be within its limit at least once per 12 hours.

4.4.4.2 The ~~emergency power supply for the~~ pressurizer heaters shall be demonstrated OPERABLE at least once per 18 months by ~~transferring power from the normal to the emergency power supply and~~ energizing the required capacity of heaters in each train.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each safety valve is designed to relieve 420,000 lbs per hour of saturated steam at the valve setpoint. The relief capacity of a single safety valve is adequate to relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE in MODES 4 and 5, an operating RHR loop, connected to the RCS, provides overpressure relief capability. Additionally, if no safety valves are OPERABLE, then all Safety Injection pumps and all but one charging pump will be rendered inoperable to preclude overpressurization due to an inadvertent increase in the RCS inventory.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss of load assuming no reactor trip until the first Reactor Protective System trip set point is reached (i.e., no credit is taken for a direct reactor trip on the loss of load) and also assuming no operation of the power operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Code.

3/4.4.4 PRESSURIZER

A steam bubble in the pressurizer ensures that the RCS is not a hydraulically solid system and is capable of accommodating pressure surges during operation. The steam bubble also protects the pressurizer code safety valves and power operated relief valves against water relief. The power operated relief valves and steam bubble function to relieve RCS pressure during all design transients up to and including the design step load decrease with steam dump. Operation of the power operated relief valves minimizes the undesirable opening of the spring-loaded pressurizer code safety valves. The requirements for pressurizer heaters apply to the pressurizer backup heaters as they are the only heaters that can be controlled from both the control room and the hot standby panel to perform their required function. The requirement ~~that~~ to verify the capacity of each train ~~150 kW~~ of pressurizer heaters ~~and their associated controls be capable of being supplied electrical power from an emergency bus~~ provides assurance that these heaters can be energized during a loss of offsite power condition to provide adequate subcooling margin in the reactor coolant system to maintain natural circulation conditions at HOT STANDBY.

ATTACHMENT 3A TO C0900-12

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 1

3/4 4-6

B 3/4 4-2

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with a water volume less than or equal to 92% of span and two trains of pressurizer heaters with the capacity of each train greater than or equal to 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the pressurizer inoperable due to an inoperable train of pressurizer heaters, either restore the inoperable train within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT SHUTDOWN with the reactor trip breakers open within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The pressurizer water volume shall be determined to be within its limits at least once per 12 hours.

4.4.4.2 The pressurizer heaters shall be demonstrated OPERABLE at least once per 18 months by energizing the required capacity of heaters in each train.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each safety valve is designed to relieve 420,000 lbs per hour of saturated steam at the valve set point. The relief capacity of a single safety valve is adequate to relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating RHR loop, connected to the RCS, provides overpressure relief capability and will prevent RCS overpressurization.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss of load assuming no reactor trip until the first Reactor Protective System trip set point is reached (i.e., no credit is taken for a direct reactor trip on the loss of load) and also assuming no operation of the power operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Code.

3/4.4.4 PRESSURIZER

A steam bubble in the pressurizer ensures that the RCS is not a hydraulically solid system and is capable of accommodating pressure surges during operation. The steam bubble also protects the pressurizer code safety valves and power operated relief valves against water relief. The power operated relief valves and steam bubble function to relieve RCS pressure during all design transients up to and including the design step load decrease with steam dump. Operation of the power operated relief valves minimizes the undesirable opening of the spring-loaded pressurizer code safety valves. The requirements for pressurizer heaters apply to the pressurizer backup heaters as they are the only heaters that can be controlled from both the control room and the hot standby panel to perform their reuired function. The requirement to verify the capacity of each train of pressurizer heaters provides assurance that these heaters can be energized during a loss of offsite power condition to provide adequate subcooling margin in the reactor coolant system to maintain natural circulation conditions at HOT STANDBY.

ATTACHMENT 3B TO C0900-12

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 2

3/4 4-6

B 3/4 4-2

PRESSURIZER

LIMITING CONDITION FOR OPERATION

3.4.4 The pressurizer shall be OPERABLE with a water volume less than or equal to 92% of span and two trains of pressurizer heaters with the capacity of each train greater than or equal to 150 kW.

APPLICABILITY: MODES 1, 2, and 3.

ACTION:

a. With the pressurizer inoperable due to an inoperable train of pressurizer heaters, either restore the inoperable train within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 12 hours.

b. With the pressurizer otherwise inoperable, be in at least HOT SHUTDOWN with the reactor trip breakers open within 12 hours.

SURVEILLANCE REQUIREMENTS

4.4.4.1 The pressurizer water volume shall be determined to be within its limit at least once per 12 hours.

4.4.4.2 The pressurizer heaters shall be demonstrated OPERABLE at least once per 18 months by energizing the required capacity of heaters in each train.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. Each safety valve is designed to relieve 420,000 lbs per hour of saturated steam at the valve setpoint. The relief capacity of a single safety valve is adequate to relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE in MODES 4 and 5, an operating RHR loop, connected to the RCS, provides overpressure relief capability. Additionally, if no safety valves are OPERABLE, then all Safety Injection pumps and all but one charging pump will be rendered inoperable to preclude overpressurization due to an inadvertent increase in the RCS inventory.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss of load assuming no reactor trip until the first Reactor Protective System trip set point is reached (i.e., no credit is taken for a direct reactor trip on the loss of load) and also assuming no operation of the power operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Code.

3/4.4.4 PRESSURIZER

A steam bubble in the pressurizer ensures that the RCS is not a hydraulically solid system and is capable of accommodating pressure surges during operation. The steam bubble also protects the pressurizer code safety valves and power operated relief valves against water relief. The power operated relief valves and steam bubble function to relieve RCS pressure during all design transients up to and including the design step load decrease with steam dump. Operation of the power operated relief valves minimizes the undesirable opening of the spring-loaded pressurizer code safety valves. The requirements for pressurizer heaters apply to the pressurizer backup heaters as they are the only heaters that can be controlled from both the control room and the hot standby panel to perform their required function. The requirement to verify the capacity of each train of pressurizer heaters provides assurance that these heaters can be energized during a loss of offsite power condition to provide adequate subcooling margin in the reactor coolant system to maintain natural circulation conditions at HOT STANDBY.

ATTACHMENT 4 TO C0900-12

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

Indiana Michigan Power Company (I&M) has evaluated this proposed amendment and determined that it does not involve a significant hazard. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

1. involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated;

2. create the possibility of a new or different kind of accident from any previously analyzed; or

3. involve a significant reduction in a margin of safety.

I&M proposes to clarify T/S 3/4.4.4, "Pressurizer," to reflect the current power supply to the pressurizer heaters and require two operable trains of pressurizer heaters during Modes 1, 2, and 3. I&M also proposes to revise the Bases for T/S 3/4.4.4 to reflect the changes to the T/S and to clarify the purpose of the pressurizer heaters. The determination that the criteria set forth in 10 CFR 50.92 are met for this amendment request is indicated below.

1. Does the change involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated?

The proposed changes do not affect any accident initiators or precursors. Neither the pressurizer heaters nor the surveillance test is an accident initiator. Therefore, the proposed changes will not affect the probability of an accident.

The pressurizer heaters are not credited to mitigate the consequences of any accidents evaluated in the Updated Final Safety Analysis Report; however, they are needed during a loss of offsite power to provide adequate subcooling margin in the reactor coolant system so that natural circulation conditions can be maintained at hot standby. The proposed change to reflect the current power supply to the pressurizer heaters modifies the surveillance requirement to reflect the design and eliminates redundancy with other surveillance requirements. Components will continue to be tested just as frequently. The proposed change to require two trains of heaters instead of one will provide better assurance that the required capacity is operable.

Overall, testing the same components and requiring redundant capacity provides assurance that the required function will be performed as assumed. As such, the consequences of an accident will not significantly increase.

Therefore, the probability of occurrence or consequences of accidents previously evaluated are not increased.

2. Does the change create the possibility of a new or different kind of accident from any accident previously analyzed?

The proposed changes do not modify any equipment or the operational limits of any equipment. The proposed changes do not introduce any new failure mechanisms to the pressurizer or any other plant systems. The proposed changes do not change the method by which any plant system performs its function.

Therefore, the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously analyzed.

3. Does the change involve a significant reduction in a margin of safety?

T/S 3.4.4 requires pressurizer heater capacity of at least 150 kW to provide adequate subcooling margin in the reactor coolant system during a loss of offsite power condition to maintain natural circulation conditions at hot standby. The proposed changes will increase the requirements for pressurizer heaters by requiring two trains of pressurizer heaters to be operable with at least 150 kW in each train instead of 150 kW total capacity. This provides assurance that the required function will be performed as assumed.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

In summary, based upon the above evaluation, I&M has concluded that the proposed amendment involves no significant hazards consideration.

ATTACHMENT 5 TO C0900-12

ENVIRONMENTAL ASSESSMENT

Indiana Michigan Power Company (I&M) has evaluated this license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. I&M has determined that this license amendment request meets the criteria for a categorical exclusion set forth in 10 CFR 51.22(c)(9). This determination is based on the fact that this change is being proposed as an amendment to a license issued pursuant to 10 CFR 50 that changes a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or that changes an inspection or a surveillance requirement, and the amendment meets the following specific criteria.

(i) The amendment involves no significant hazards consideration.

As demonstrated in Attachment 4, this proposed amendment does not involve significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of any effluent that may be released offsite.

There will be no significant change in the types or significant increase in the amounts of any effluents released offsite.

(iii) There is no significant increase in individual or cumulative occupational radiation exposure.

The proposed changes will not result in significant changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no significant increase in individual or cumulative occupational radiation exposure resulting from this change.