



November 19, 2001  
C1101-04

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

SUBJECT: Donald C. Cook Nuclear Plant Unit 1  
Docket No 50-315  
License Amendment Request  
for the Remote Shutdown Instrumentation

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant Unit 1, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating License DPR-58. I&M proposes to eliminate restrictions imposed by TS 3.0.4 for the Remote Shutdown Instrumentation. Specifically, I&M proposes to revise the action statements for TS 3.3.3.5, "Remote Shutdown Instrumentation," to add a statement that the provisions of TS 3.0.4 are not applicable. The proposed change is requested to allow Unit 1 to enter Mode 3 without having met the Limiting Conditions for Operation for TS 3.3.3.5. This is necessary because the TS required monthly channel check for the pressurizer pressure instrumentation, which has a range of 1,700 to 2,500 pounds per square inch gauge (psig), cannot be performed until pressurizer pressure reaches 1,700 psig. Operation below Mode 3 with pressure at or above 1,700 psig is prohibited by the current operational limitations on primary-to-secondary steam generator tube differential pressure.

The proposed change makes the Unit 1 TS consistent with the Unit 2 TS. The proposed change is also consistent with NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4, dated September 1, 1981, and NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2, dated April 30, 2001.

I&M also proposes to make format changes to the affected TS page that improve appearance but are not intended to introduce other changes.

A001

Enclosure 1 provides an oath and affirmation affidavit statement. 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. Attachment 1 provides the marked up TS page for Unit 1. Attachment 2 provides the proposed TS page with the changes incorporated for Unit 1. No regulatory commitments were made in this letter.

I&M requests approval of the proposed amendment by March 7, 2002, to support return from the Unit 1 refueling outage. Once approved, the amendment shall be implemented within 45 days.

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

Should you have any questions, please contact Mr. Ronald W. Gaston, Manager of Regulatory Affairs, at (616) 697-5020.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. C. Bakken, III', with a stylized, flowing script.

A. C. Bakken, III  
Senior Vice President, Nuclear Operations

\bjb

Enclosures:

1. Notarized oath and affirmation
2. Evaluation of the proposed changes

Attachments:

1. Marked-up proposed Technical Specification changes
2. Proposed Technical Specification pages

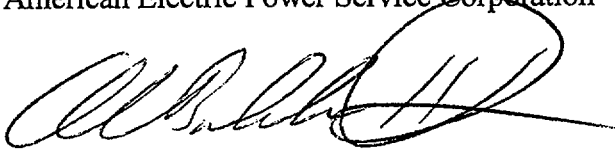
c: J. E. Dyer  
MDEQ - DW & RPD  
NRC Resident Inspector  
R. Whale

bc: P. B. Cowan, w/o attachments  
R. W. Gaston  
J. B. Giessner  
S. A. Greenlee  
S. B. Haggerty  
D. W. Jenkins, w/o attachments  
M. W. Rencheck w/o attachments  
J. F. Stang, Jr., - NRC Washington, DC  
T. R. Stephens

**AFFIDAVIT**

I, A. Christopher Bakken, III, being duly sworn, state that I am Senior Vice President, Nuclear Operations of American Electric Power Service Corporation and 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.

American Electric Power Service Corporation



A. C. Bakken, III  
Senior Vice President, Nuclear Operations

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 19 DAY OF November, 2001

  
Notary Public

My Commission Expires 5/26/05

**JENNIFER L. KERNOSKY**  
Notary Public, Berrien County, Michigan  
My Commission Expires May 26, 2005

**Application for Amendment to Technical Specification (TS) 3.3.3.5,  
"Remote Shutdown Instrumentation"**

**1.0    Description**

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating License DPR-58. I&M proposes to eliminate restrictions imposed by TS 3.0.4 for the Remote Shutdown Instrumentation. Specifically, I&M proposes to revise the action statements for TS 3.3.3.5, "Remote Shutdown Instrumentation," to add a statement that the provisions of TS 3.0.4 are not applicable. The proposed change is requested to allow Unit 1 to enter Mode 3 without having met the Limiting Conditions for Operation (LCO) for TS 3.3.3.5. This is necessary because the TS required monthly channel check for the pressurizer pressure instrumentation, which has a range of 1,700 to 2,500 pounds per square inch gauge (psig), cannot be performed until pressurizer pressure reaches 1,700 psig. Operation below Mode 3 with pressure at or above 1,700 psig is prohibited by the current operational limitations on primary-to-secondary steam generator tube differential pressure.

The proposed change makes the Unit 1 TS consistent with the Unit 2 TS. The proposed change is also consistent with NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4, dated September 1, 1981, and NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2, dated April 30, 2001.

I&M also proposes to make format changes to the affected TS page that improve appearance but are not intended to introduce other changes.

**2.0    Proposed Change**

Specifically, the proposed change would revise the following:

CNP Unit 1 TS 3.3.3.5 Actions a and b will be combined into a new Action a, format change only, and a new Action b will be added to state that the provisions of TS 3.0.4 are not applicable.

In addition, I&M proposes three other types of format changes to the revised TS page. The changes to be applied are:

- (1) Reformat the header to include numbered first and second-tier TS section titles and a full-width single line to separate the header section titles from the page text.
- (2) Reformat the footer to include "Page (page number)" center page, "AMENDMENT (past amendment numbers, with strikethrough, and ending with the current amendment

number)" on the right side of the page, and a full-width single line to separate the footer from the page text.

- (3) Fully justify the text and change the font.

### **3.0 Background**

The Remote Shutdown Instrumentation provides the control room operators with sufficient instrumentation and controls to place and maintain the plant in a safe shutdown condition from a location other than the control room. This capability is necessary to protect against the possibility that the control room becomes inaccessible.

TS 3.0.4 states, "Entry into an OPERATIONAL MODE or other specified applicability condition shall not be made unless the conditions of the Limiting Condition for Operation are met without reliance on provisions contained in the ACTION statements unless otherwise excepted. This provision shall not prevent passage through OPERATIONAL MODES as required to comply with ACTION statements."

Unit 1 TS 3.3.3.5 requires that the remote shutdown instrumentation channels shown in Table 3.3-9, shall be operable with readouts displayed external to the control room in Modes 1 through 3. The actions for TS 3.3.3.5 state, "With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either: a) Restore the inoperable channel to OPERABLE status within 30 days, or b) Be in HOT SHUTDOWN within the next 12 hours."

On September 27, 2001, Unit 1 changed from Mode 4 to Mode 3 operation without the minimum number of remote shutdown monitoring instrumentation channels operable. This is contrary to the LCO for TS 3.3.3.5. This condition has been determined to be reportable under 10 CFR 50.73(a)(2)(i)(B), for a condition prohibited by plant TS. Subsequent investigation also identified that the requirement to perform a monthly channel check for the pressurizer pressure instrument prior to Unit 1 entering Mode 3 cannot be met. Because the pressurizer pressure instrument has a range of 1,700 psig to 2,500 psig, the channel check must be performed at a pressurizer pressure at or above 1,700 psig. However, Mode 4 operation at a pressure of 1,700 psig is prohibited by the current operational limitations on primary-to-secondary steam generator tube differential pressure.

In addition, I&M also identified that Unit 1 TS 3.3.3.5 does not include a statement that the provisions of TS 3.0.4 are not applicable, which is included in TS 3.3.3.5 for Unit 2. The Unit 1 TS were issued prior to Revision 0 of NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," and did not include a statement in TS 3.3.3.5 that the provisions of TS 3.0.4 are not applicable. The Unit 2 TS were based on Revision 1 to NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," which did include a statement that the provisions of TS 3.0.4 are not applicable to TS 3.3.3.5.

The proposed change makes the Unit 1 TS consistent with the Unit 2 TS. The proposed changes are also consistent with NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4, dated September 1, 1981, and NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2, dated April 30, 2001.

#### **4.0 Technical Analysis**

I&M proposes to eliminate restrictions imposed by TS 3.0.4 for the Remote Shutdown Instrumentation. Specifically, the proposed change is requested to allow Unit 1 to enter Mode 3 without having met the LCO for TS 3.3.3.5. This is necessary because the TS required monthly channel check for the pressurizer pressure instrumentation, which has a range of 1,700 to 2,500 psig, cannot be performed until pressurizer pressure reaches 1,700 psig. Operation below Mode 3 with pressure at or above 1,700 psig is prohibited by the current operational limitations on primary-to-secondary steam generator tube differential pressure.

TS 3.3.3.5 for the Remote Shutdown Instrumentation is applicable in Modes 1, 2 and 3 so that the plant can be placed and maintained in a safe shutdown condition for an extended period of time from a location other than the control room. TS 3.3.3.5 is not applicable in Modes 4, 5 or 6 because in these modes, the plant is already subcritical and in a condition of reduced reactor coolant system energy. Under these conditions, considerable time is available to restore necessary instrument control functions if the control room instruments or controls become unavailable.

The proposed change to the Unit 1 TS 3.3.3.5 will allow the plant to enter into an applicable mode of operation while relying on the TS action statements. I&M considers the proposed change to be acceptable due to the limitations on the required equipment and ability to meet the action statements for TS 3.3.3.5.

#### **5.0 Regulatory Safety Analysis**

##### **5.1 No Significant Hazards Consideration**

I&M has evaluated whether or not a significant hazards consideration is involved with the proposed change by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of Amendment," as discussed below:

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

Response: No



Probability of Occurrence of an Accident Previously Evaluated -

The Remote Shutdown Instrumentation system ensures that sufficient capability is available to permit shutdown and maintenance of Hot Standby of the plant from locations outside of the control room. The proposed change allows Unit 1 to ascend in mode without meeting the LCO for TS 3.3.3.5. The proposed change does not impact the ability to comply with the allowed outage time (AOT) described in TS 3.3.3.5. As such, the proposed change does not affect any accident initiators or precursors, since the AOT for TS 3.3.3.5 will continue to be met. The proposed change is also consistent with the Unit 2 TS. Therefore, the probability of occurrence of an accident previously evaluated is not significantly increased.

The format changes do not impact any accident initiators or precursors. Thus, the probability of occurrence of an accident previously evaluated is not significantly increased.

Consequences of an Accident Previously Evaluated -

The proposed change to allow Unit 1 to ascend in mode without meeting the LCO for TS 3.3.3.5, while continuing to meet the action statement, will not significantly impact the Remote Shutdown Instrumentation systems' capability of performing its design function. The Remote Shutdown Instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of Hot Standby of the plant from locations outside of the control room. The proposed change does not impact the ability to comply with AOT described in TS 3.3.3.5. The proposed change is also consistent with the Unit 2 TS. Thus, there will be no increase in offsite doses, and the consequences of an accident previously analyzed are not increased.

The format changes do not impact the function of the Remote Shutdown Instrumentation. Thus, there will be no increase in offsite doses, and the consequences of an accident previously analyzed are not significantly increased.

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

Response: No

The Remote Shutdown Instrumentation system ensures that sufficient capability is available to permit shutdown and maintenance of Hot Standby of the plant from locations outside of the control room. Allowing Unit 1 to ascend in mode without meeting the LCO for TS 3.3.3.5, while continuing to meet the action statement, does not change the function of the Remote Shutdown Instrumentation system or create the possibility of a new or different type of accident. The proposed change does not impact the ability to comply with the AOT described in TS 3.3.3.5. The proposed change is also consistent with the Unit 2 TS. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

The format changes do not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No

The proposed change does not impact the Remote Shutdown Instrumentation system's capability of performing its design function, nor does the proposed change impact the operational characteristics of the Remote Shutdown Instrumentation system. The Remote Shutdown Instrumentation ensures that sufficient capability is available to permit shutdown and maintenance of Hot Standby of the plant from locations outside of the control room. Allowing Unit 1 to ascend in mode without meeting the LCO for TS 3.3.3.5, while continuing to meet the action statement, does not impact CNP's accident analysis. The proposed change is also consistent with the Unit 2 TS. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

The format changes do not involve a significant reduction in the margin of safety.

In summary, based upon the above evaluation, I&M has concluded that the proposed change involves 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

### 5.2.1 Regulations

The regulatory basis for TS 3.3.3.5, "Remote Shutdown Instrumentation," ensures that sufficient capability is available to permit shutdown and maintenance of Hot Standby of the plant from locations outside of the control room. This capability is required in the event control room habitability is lost and is consistent with 10 CFR Part 50, Appendix A, General Design Criteria (GDC) 19, "Control Room."

10 CFR Part 50, Appendix A, GDC 19, requires a control room to be provided from which actions can be taken to operate the nuclear power plant safely under normal conditions and to maintain it in a safe condition under accident conditions, including loss-of-coolant accidents. Adequate radiation protection shall be provided to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of the accident. Equipment at appropriate locations outside the control room shall be provided (1) with a design capability for prompt hot shutdown of the reactor, including necessary instrumentation and controls to maintain the unit in a safe condition during hot shutdown, and (2) with a potential capability for subsequent cold shutdown of the reactor through the use of suitable procedures.

### 5.2.2 Design Bases [Updated Final Safety Analysis Report (UFSAR)]

UFSAR Section 7.7.8, "Hot Shutdown Control," states that a hot shutdown control station for each unit is provided in the rear of the other unit's control room. This control station is a totally enclosed panel which provides for the operator's supervision and control of those systems and equipment required to maintain the reactor in a hot shutdown condition for an extended period of time.

The proposed changes do not alter these requirements.

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 Considerations**

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 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.

## **7.0 References**

1. NUREG-0452, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," Revision 4, dated September 1, 1981.
2. NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 2, dated April 30, 2001.
3. 10 CFR Part 50, Appendix A, Criterion 19, "Control Room."

Attachment 1 to C1101-04

TECHNICAL SPECIFICATIONS PAGE  
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGE  
UNIT 1

3/4 3-46

3/4 **LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS**  
3/4.3 **INSTRUMENTATION**

---

REMOTE SHUTDOWN INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

~~With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either:~~

- a. ~~With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either Restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.~~
- b. ~~Be in HOT SHUTDOWN within the next 12 hours. The provisions of Specification 3.0.4 are not applicable.~~

SURVEILLANCE REQUIREMENTS

4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.

PROPOSED TECHNICAL SPECIFICATIONS PAGE

REVISED PAGE  
UNIT 1

3/4 3-46

REMOTE SHUTDOWN INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

- 3.3.3.5 The remote shutdown monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE with readouts displayed external to the control room.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With the number of OPERABLE remote shutdown monitoring channels less than required by Table 3.3-9, either restore the inoperable channel to OPERABLE status within 30 days, or be in HOT SHUTDOWN within the next 12 hours.
- b. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

- 4.3.3.5 Each remote shutdown monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3-6.