



**INDIANA  
MICHIGAN  
POWER®**

*A unit of American Electric Power*

**Indiana Michigan Power**  
One Cook Place  
Bridgman, MI 49106  
IndianaMichiganPower.com

March 18, 2011

AEP-NRC-2011-2  
10 CFR 50.90

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

**SUBJECT:** Donald C. Cook Nuclear Plant Unit 1 and Unit 2  
Docket Nos. 50-315 and 50-316  
Application for Technical Specification Change TSTF-491, Removal of the Main  
Steam and Main Feedwater Valve Isolation Time from Technical Specifications  
Using Consolidated Line Item Improvement Process

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M) hereby requests an amendment to the Technical Specifications (TS) for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2.

The proposed amendment will modify the TSs by removing the specific isolation time for the main steam and main feedwater isolation valves (MFIVs) from the associated TS Surveillance Requirements (SRs). The changes are consistent with Revision 2 of NRC-approved industry Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-491, "Removal of Main Steam and Main Feedwater Valve Isolation Times From Technical Specifications." The availability of this TS improvement was announced in the Federal Register on December 29, 2006. CNP is pursuing this path to address non-conservative Main Feedwater valve isolation times in the existing TS SRs. Upon discovery of this condition, I&M confirmed via document reviews that the actual main feedwater valve isolation times were within the correct limits. Therefore, the non-conservative TSs did not result in the inoperability of the MFIVs or main feedwater regulating valves. Administrative controls have been established which specify the correct times during surveillance testing. The condition was determined to have occurred when the main feedwater valve isolation time limits were added to the TS during the conversion to Improved TS in 2005. A review of other numerical limits added to the TS during the Improved TS conversion identified no errors. The correct main feedwater valve isolation times will be specified when the SRs are relocated to the Technical Requirement Manual.

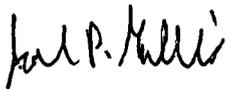
Enclosure 1 to this letter provides an affirmation statement pertaining to the information contained herein. Enclosure 2 provides a description of the proposed change, the requested confirmation of applicability, and plant-specific verifications and commitments. Attachment 1 and Attachment 2 to this letter provide, respectively, the existing Unit 1 and Unit 2 TS pages marked to show the proposed changes. Attachment 3 and 4 provide, respectively, the existing Unit 1 and Unit 2 TS Bases pages marked to show the proposed changes.

A001  
NRR

I&M requests approval of the proposed license amendment in accordance with the normal NRC review schedule for such changes, with the amendment being implemented within 120 days of NRC approval.

In accordance with 10 CFR 50.91, a copy of this application, with enclosures and attachments, is being provided to the designated Michigan state officials. There are no commitments made in this submittal. Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,



Joel P. Gebbie  
Site Vice President

DMB/jmr

Enclosures:

1. Affirmation
2. Description and Assessment - Proposed License Amendment to Remove Main Steam and Main Feedwater Valve Isolation Times from Technical Specification Surveillance Requirements

Attachments:

1. Donald C. Cook Nuclear Plant Unit 1 Technical Specification Pages Marked To Show Proposed Changes.
2. Donald C. Cook Nuclear Plant Unit 2 Technical Specification Pages Marked To Show Proposed Changes.
3. Donald C. Cook Nuclear Plant Unit 1 Technical Specification Bases Pages Marked To Show Proposed Changes.
4. Donald C. Cook Nuclear Plant Unit 2 Technical Specification Bases Pages Marked To Show Proposed Changes.

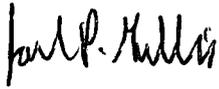
c: J. T. King, MPSC  
S. M. Krawec, AEP Ft. Wayne, w/o enclosures & attachments  
MDNRE – WHMD/RPS  
NRC Resident Inspector  
M. A. Satorius, NRC Region III  
P. S. Tam – NRC Washington DC

Enclosure 1 to AEP-NRC-2011-2

**AFFIRMATION**

I, Joel P. Gebbie, 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.

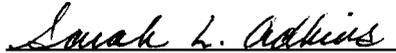
Indiana Michigan Power Company



Joel P. Gebbie  
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 18<sup>th</sup> DAY OF March, 2011



\_\_\_\_\_  
Notary Public

My Commission Expires 9/9/11



## **Enclosure 2 to AEP-NRC-2011-2**

### **Description and Assessment – Proposed License Amendment to Remove Main Steam and Main Feedwater Valve Isolation Times from Technical Specification Surveillance Requirements**

#### **1.0 DESCRIPTION**

The proposed amendment would modify Technical Specifications (TS) by removing the specific isolation time for the Main Steam and Main Feedwater isolation valves from the associated TS Surveillance Requirements.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved industry Technical Specification Task Force (TSTF) TSTF-491 Revision 2, "Removal of Main Steam and Main Feedwater Valve Isolation Times from Technical Specifications." The availability of this TS improvement was published in the *Federal Register* on December 29, 2006, as part of the consolidated line item improvement process (CLIP).

#### **2.0 ASSESSMENT**

##### **2.1 Applicability of TSTF-491, and Published Safety Evaluation**

Indiana Michigan Power Company (I&M) has reviewed TSTF-491 (Reference 1), and the NRC model safety evaluation (SE) (Reference 2) as part of the CLIP. I&M has concluded that the information in TSTF-491, as well as the SE prepared by the NRC staff are applicable to Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, and justify this proposed amendment for the incorporation of the changes to the CNP Unit 1 and Unit 2 TSs.

##### **2.2 Optional Changes and Variations**

I&M is proposing two variations from the changes described in TSTF-491. The first variation is from the TS changes described in TSTF-491. The CNP TS have separate Surveillance Requirements (SRs) for the MFIVs and MFRVs (SR 3.7.3.1 and 3.7.3.2 respectively). This differs from SR 3.7.3.1 of TSTF-491, which has a single SR, 3.7.3.1 for the MFIVs and MFRVs. Therefore, the SR change proposed in TSTF-491 will be made to both CNP TS SR 3.7.3.1 and 3.7.3.2.

The second variation is from the TS Bases changes described in TSTF-491. The CNP TS Bases for SR 3.7.2.1, 3.7.3.1, and 3.7.3.2 correspond to SR 3.7.2.1 and 3.7.3.1 of TSTF-491. The variation is that the following sentence in the TSTF-491 model for the Westinghouse Owners Group Standard TS Bases for these TS will be changed from, "This SR also verifies the valve closure time is in accordance with the Inservice Testing Program" to "The valve(s) may also be tested to a more restrictive requirement in accordance with the Inservice Testing Program." This variation will clarify that the Inservice Testing Program may contain values that are more restrictive than the values that will be contained in the Technical Requirements Manual. In addition, editorial changes have been made to the TS Bases to maintain consistency with CNP.

I&M is not proposing any additional variations or deviations from the TS changes described in TSTF-491 or the NRC staff's model safety evaluation dated October 5, 2006.

### **3.0 REGULATORY ANALYSIS**

#### **3.1 No Significant Hazards consideration Determination**

I&M has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIP. I&M has concluded that the proposed NSHCD presented in the Federal Register notice is applicable to CNP Unit 1 and Unit 2 and is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

#### **3.2 Verification and Commitments**

As discussed in the notice of availability published in the *Federal Register* on December 29, 2006, for this TS improvement, plant-specific verifications were performed as follows:

A review was performed of the affected systems to verify that TSTF-491 was applicable to CNP Units 1 and 2.

In addition, I&M has proposed TS Bases consistent with TSTF-491 which provide guidance and details on how to implement the new requirements. Finally, I&M has a Bases control Program consistent with Section 5.5 of the Standard Technical Specifications.

### **4.0 ENVIRONMENTAL EVALUATION**

The amendment changes requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment adopting TSTF-491, Revision 2, involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The commission has previously issued a proposed finding that TSTF-491, Revision 2, involves no significant hazards considerations, and there has been no public comment on the finding in Federal Register Notice 71 FR 193, October 5, 2006. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

### **5.0 REFERENCES**

1. TSTF-491, Revision 2, "Removal of Main Steam and Main Feedwater Valve Isolation Times from Technical Specifications," Accession Number ML061500078, dated May 18, 2006.
2. NRC Model Safety Evaluation Report published on October 5, 2006 (71 FR 58884).

**Attachment 1 to AEP-NRC-2011-2**

**DONALD C. COOK NUCLEAR PLANT UNIT 1  
TECHNICAL SPECIFICATION PAGES MARKED TO SHOW CHANGES**

**3.7.2-2**

**3.7.3-2**

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<p>SR 3.7.2.1</p> <p style="text-align: center;"><del>NOTE</del></p> <p>Only required to be performed in MODES 1 and 2.</p> <hr/> <p>Verify the isolation time of each SGSV is <math>\leq 8</math> seconds <u>within limits</u>.</p>	<p>In accordance with the Inservice Testing Program</p>
<p>SR 3.7.2.2</p> <p style="text-align: center;"><del>NOTE</del></p> <p>Only required to be performed in MODES 1 and 2.</p> <hr/> <p>Verify each SGSV actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>24 months</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 Verify the isolation time of each MFIV is $\leq 44$ seconds <u>within limits</u> .	In accordance with the Inservice Testing Program
SR 3.7.3.2 Verify the isolation time of each MFRV is $\leq 8$ seconds <u>within limits</u> .	In accordance with the Inservice Testing Program
SR 3.7.3.3 Verify each MFIV and MFRV actuates to the isolation position on an actual or simulated actuation signal.	24 months

**Attachment 2 to AEP-NRC-2011-2**

**DONALD C. COOK NUCLEAR PLANT UNIT 2  
TECHNICAL SPECIFICATION PAGES MARKED TO SHOW CHANGES**

**3.7.2-2**

**3.7.3-2**

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.7.2.1</p> <p style="text-align: center;"><del>NOTE</del></p> <p style="text-align: center;">Only required to be performed in MODES 1 and 2.</p> <hr/> <p>Verify the isolation time of each SGSV is <math>\leq 8</math> seconds <u>within limits</u>.</p>	<p>In accordance with the Inservice Testing Program</p>
<p>SR 3.7.2.2</p> <p style="text-align: center;"><del>NOTE</del></p> <p style="text-align: center;">Only required to be performed in MODES 1 and 2.</p> <hr/> <p>Verify each SGSV actuates to the isolation position on an actual or simulated actuation signal.</p>	<p>24 months</p>

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours
	<u>AND</u> D.2 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.3.1 Verify the isolation time of each MFIV is $\leq 44$ seconds <u>within limits</u> .	In accordance with the Inservice Testing Program
SR 3.7.3.2 Verify the isolation time of each MFRV is $\leq 8$ seconds <u>within limits</u> .	In accordance with the Inservice Testing Program
SR 3.7.3.3 Verify each MFIV and MFRV actuates to the isolation position on an actual or simulated actuation signal.	24 months

**Attachment 3 to AEP-NRC-2011-2**

**DONALD C. COOK NUCLEAR PLANT UNIT 1  
TECHNICAL SPECIFICATION BASES PAGES MARKED TO SHOW CHANGES**

**B 3.7.2-3**

**B 3.7.2-4**

**B 3.7.3-4**

BASES

---

ACTIONS (continued)

achieve this status, the unit must be placed in MODE 2 within 6 hours and Condition C would be entered. The Completion Time is reasonable, based on operating experience, to reach MODE 2 in an orderly manner and without challenging unit systems.

C.1 and C.2

Condition C is modified by a Note indicating that separate Condition entry is allowed for each SGSV.

Since the SGSVs are required to be OPERABLE in MODES 2 and 3, the inoperable SGSVs must be closed. When closed, the SGSVs are already in the position required by the assumptions in the safety analysis.

The 8 hour Completion Time is consistent with that allowed in Condition A.

For inoperable SGSVs that are closed, the inoperable SGSVs must be verified on a periodic basis to be closed. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable, based on engineering judgment, in view of SGSV status indications available in the control room, and other administrative controls, to ensure that these valves are in the closed position.

D.1 and D.2

If the SGSVs are not closed within the associated Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed at least in MODE 3 within 6 hours, and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from MODE 2 conditions in an orderly manner and without challenging unit systems.

---

SURVEILLANCE  
REQUIREMENTS

SR 3.7.2.1

This SR verifies that SGSV closure time is  $\leq 8$  seconds. The SGSV isolation time is within the limit given in Reference 4 and is within that assumed in the accident analyses. The valve(s) may also be tested to more restrictive requirements in accordance with the Inservice Testing Program. This Surveillance SR is normally performed upon returning the unit to operation following a refueling outage. The SGSVs should not be tested at power, since a unit trip could occur. As the SGSVs are not tested at power, they are exempt from the ASME OM Code (Ref. 5) requirements during operation in MODE 1 or 2.

BASES

---

SURVEILLANCE REQUIREMENTS (continued)

The Frequency is in accordance with the Inservice Testing Program.

This test is conducted in MODE 3 with the unit at operating temperature and pressure. This SR is modified by a Note that allows entry into and operation in MODE 3 prior to performing the SR. This allows a delay of testing until MODE 3, to establish conditions consistent with those under which the acceptance criterion was generated.

SR 3.7.2.2

This SR verifies that each SGSV can close on an actual or simulated actuation signal. This Surveillance is normally performed upon returning the unit to operation following a refueling outage. The Frequency of SGSV testing is every 24 months. The 24 month Frequency for testing is based on equipment reliability. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, this Frequency is acceptable from a reliability standpoint.

---

REFERENCES

1. UFSAR, Section 10.2.
  2. UFSAR, Section 14.2.5.
  3. 10 CFR 100.11.
  4. Technical Requirements Manual
  45. ASME, Operations and Maintenance Standards and Guides (OM Codes).
-

BASES

---

ACTIONS (continued)

C.1

With both the MFIV and MFRV inoperable in the same flow path, there is no redundant system to operate automatically and perform the required safety function. Under these conditions, the affected flow path must be isolated within 8 hours. This action returns the system to the condition where at least one valve in each flow path is performing the required safety function. The 8 hour Completion Time is reasonable, based on operating experience, to complete the actions required to close the MFIV or MFRV, or otherwise isolate the affected flow path.

D.1 and D.2

If any Required Action and associated Completion Time is not met, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

---

SURVEILLANCE  
REQUIREMENTS

SR 3.7.3.1 and SR 3.7.3.2

These SRs verify that the closure time of each MFIV and MFRV is within the limit given in Reference 2 and is within that  $\leq 44$  seconds and  $\leq 8$  seconds, respectively. The MFIV and MFRV isolation times are assumed in the accident and transient analyses. The valve(s) may also be tested to more restrictive requirements in accordance with the Inservice Testing Program.

The Frequency for this SR is in accordance with the Inservice Testing Program.

SR 3.7.3.3

This SR verifies that each MFIV and MFRV can close on an actual or simulated actuation signal. This Surveillance is normally performed upon returning the unit to operation following a refueling outage.

The Frequency for this SR is every 24 months. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, this Frequency is acceptable from a reliability standpoint.

---

REFERENCES

1. UFSAR, Section 10.5.1.2.

2. Technical Requirements Manual

**Attachment 4 to AEP-NRC-2011-2**

**DONALD C. COOK NUCLEAR PLANT UNIT 2  
TECHNICAL SPECIFICATION BASES PAGES MARKED TO SHOW CHANGES**

**B 3.7.2-3**

**B 3.7.2-4**

**B 3.7.3-4**

BASES

---

ACTIONS (continued)

achieve this status, the unit must be placed in MODE 2 within 6 hours and Condition C would be entered. The Completion Time is reasonable, based on operating experience, to reach MODE 2 in an orderly manner and without challenging unit systems.

C.1 and C.2

Condition C is modified by a Note indicating that separate Condition entry is allowed for each SGSV.

Since the SGSVs are required to be OPERABLE in MODES 2 and 3, the inoperable SGSVs must be closed. When closed, the SGSVs are already in the position required by the assumptions in the safety analysis.

The 8 hour Completion Time is consistent with that allowed in Condition A.

For inoperable SGSVs that are closed, the inoperable SGSVs must be verified on a periodic basis to be closed. This is necessary to ensure that the assumptions in the safety analysis remain valid. The 7 day Completion Time is reasonable, based on engineering judgment, in view of SGSV status indications available in the control room, and other administrative controls, to ensure that these valves are in the closed position.

D.1 and D.2

If the SGSVs are not closed within the associated Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed at least in MODE 3 within 6 hours, and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from MODE 2 conditions in an orderly manner and without challenging unit systems.

---

SURVEILLANCE  
REQUIREMENTS

SR 3.7.2.1

This SR verifies that SGSV closure time is  $\leq 8$  seconds. ~~The SGSV isolation time is~~ within the limit given in Reference 4 and is within that assumed in the accident analyses. ~~The valve(s) may also be tested to more restrictive requirements in accordance with the Inservice Testing Program.~~ This Surveillance SR is normally performed upon returning the unit to operation following a refueling outage. The SGSVs should not be tested at power, since a unit trip could occur. As the SGSVs are not tested at power, they are exempt from the ASME OM Code (Ref. 5) requirements during operation in MODE 1 or 2.

BASES

---

SURVEILLANCE REQUIREMENTS (continued)

The Frequency is in accordance with the Inservice Testing Program.

This test is conducted in MODE 3 with the unit at operating temperature and pressure. This SR is modified by a Note that allows entry into and operation in MODE 3 prior to performing the SR. This allows a delay of testing until MODE 3, to establish conditions consistent with those under which the acceptance criterion was generated.

SR 3.7.2.2

This SR verifies that each SGSV can close on an actual or simulated actuation signal. This Surveillance is normally performed upon returning the unit to operation following a refueling outage. The Frequency of SGSV testing is every 24 months. The 24 month Frequency for testing is based on equipment reliability. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, this Frequency is acceptable from a reliability standpoint.

---

REFERENCES

1. UFSAR, Section 10.2.
  2. UFSAR, Section 14.2.5.
  3. 10 CFR 100.11.
  4. Technical Requirements Manual
  45. ASME, Operations and Maintenance Standards and Guides (OM Codes).
- 
-

BASES

---

ACTIONS (continued)

C.1

With both the MFIV and MFRV inoperable in the same flow path, there is no redundant system to operate automatically and perform the required safety function. Under these conditions, the affected flow path must be isolated within 8 hours. This action returns the system to the condition where at least one valve in each flow path is performing the required safety function. The 8 hour Completion Time is reasonable, based on operating experience, to complete the actions required to close the MFIV or MFRV, or otherwise isolate the affected flow path.

D.1 and D.2

If any Required Action and associated Completion Time is not met, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

---

SURVEILLANCE  
REQUIREMENTS

SR 3.7.3.1 and SR 3.7.3.2

These SRs verify that the closure time of each MFIV and MFRV is within the limit given in Reference 2 and is within that  $\leq 44$  seconds and  $\leq 8$  seconds, respectively. The MFIV and MFRV isolation times are assumed in the accident and transient analyses. The valve(s) may also be tested to more restrictive requirements in accordance with the Inservice Testing Program.

The Frequency for this SR is in accordance with the Inservice Testing Program.

SR 3.7.3.3

This SR verifies that each MFIV and MFRV can close on an actual or simulated actuation signal. This Surveillance is normally performed upon returning the unit to operation following a refueling outage.

The Frequency for this SR is every 24 months. Operating experience has shown that these components usually pass the Surveillance when performed at the 24 month Frequency. Therefore, this Frequency is acceptable from a reliability standpoint.

---

REFERENCES

1. UFSAR, Section 10.5.1.2.

2. Technical Requirements Manual