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POWER**

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July 28, 2008

AEP-NRC-2008-7
10 CFR 50.90

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

SUBJECT: Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
Supplement to Application to Revise Technical Specifications Regarding Control Room Envelope Habitability in Accordance with Technical Specification Task Force Improved Technical Specification Change Traveler-448, Revision 3, Using the Consolidated Line Item Improvement Process (TAC Nos MD7554 and MD7555).

Reference: Letter from Joseph N. Jensen, Indiana Michigan Power Company, to U. S. Nuclear Regulatory Commission Document Control Desk, "Application to Revise Technical Specification Regarding Control Room Envelope Habitability in Accordance with Technical Specification Task Force Improved Technical Specification Change Traveler-448, Revision 3, Using the Consolidated Line Item Improvement Process," AEP:NRC:7448, dated December 27, 2007 (ML080160132).

Dear Sir or Madam:

This letter provides a supplement to a request for an amendment to the Technical Specifications (TS) for Donald C. Cook Nuclear Plant, Units 1 and 2. The original amendment request, transmitted by the referenced letter, proposed changes to TS requirements related to control room envelope habitability in accordance with Industry/Technical Specification Task Force (TSTF) Standard Technical Specification change TSTF-448, Revision 3, as implemented by the Consolidated Line Item Improvement Process. This supplement to the original amendment request modifies the justification for one proposed exception to the TSTF requirements and withdraws one proposed exception to the TSTF requirements. These changes were discussed with members of the Nuclear Regulatory Commission staff in a June 17, 2008, telephone conference.

Enclosure 1 to this letter provides an affirmation statement pertaining to the matters set forth herein. Enclosure 2 provides a description of the changes to the original amendment request proposed by this supplement. Enclosure 3 provides replacement pages for the affected pages of Attachment 1 to the original amendment request. Enclosures 4A and 4B provide replacement pages for the affected pages of Attachments 2A and 2B to the original amendment request. Enclosure 5 provides a replacement page for the affected page of Attachment 5 to the original amendment request.

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In accordance with 10 CFR 50.91, a copy of this application supplement, with enclosures, is being provided to the Michigan Public Service Commission and Michigan Department of Environmental Quality.

This letter contains no new or modified regulatory commitments. If you should have any questions regarding this submittal, please contact Mr. John A. Zwolinski, Regulatory Affairs Manager, at (269) 466-2478.

Sincerely,



Lawrence J. Weber
Site Vice President

JRW/rdw

Enclosures:

1. Affirmation
 2. Description of Changes Proposed by this Supplement.
 3. Replacement Pages for Attachment 1 to the Original Amendment Request.
 - 4A. Replacement Pages for Attachment 2A to the Original Amendment Request.
 - 4B. Replacement Pages for Attachment 2A to the Original Amendment Request.
 5. Replacement Pages for Attachment 5 to the Original Amendment Request.
- c: T. A. Beltz, NRC Washington, DC
J. L. Caldwell, NRC Region III
K. D. Curry, AEP Ft. Wayne, w/o enclosures
J. T. King, MPSC
MDEQ – WHMD/RPS
NRC Resident Inspector

Enclosure 1 to AEP-NRC-2008-7

AFFIRMATION

I, Lawrence J. Weber, 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.

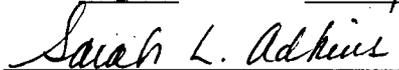
Indiana Michigan Power Company



Lawrence J. Weber
Site Vice President

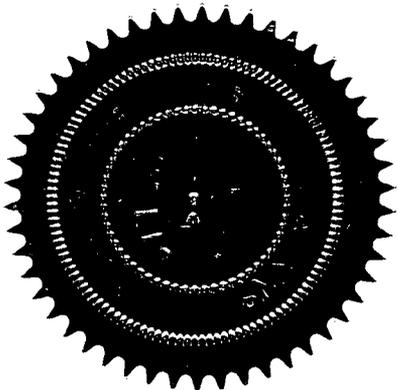
SWORN TO AND SUBSCRIBED BEFORE ME

THIS 28th DAY OF July, 2008



Notary Public

My Commission Expires 9/9/2011



Enclosure 2 to AEP-NRC-2008-7

DESCRIPTION OF CHANGES PROPOSED BY THIS SUPPLEMENT

Documents referenced in this enclosure are identified in Section 3.0.

1.0 DESCRIPTION

This letter provides a supplement to a request for an amendment to the Technical Specifications (TS) for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2. The original amendment request, (Reference 1) proposed changes to TS requirements related to control room envelope habitability in accordance with Industry/Technical Specification Task Force (TSTF) Standard Technical Specification change TSTF-448, Revision 3, as implemented by the Consolidated Line Item Improvement Process (CLIIP). This supplement to the original amendment request modifies the justification for one proposed exception to the TSTF requirements and withdraws one proposed exception to the TSTF requirements. These changes were discussed with members of the Nuclear Regulatory Commission (NRC) staff in a June 17, 2008, telephone conference. The specific changes are discussed below.

TSTF-448 includes the addition of requirements for a new program, the Control Room Envelope Habitability Program, to Section 5.5 of the TS. In accordance with the TSTF, the program specified in TS Section 5.5 shall reference Regulatory Guide 1.197 (Reference 2) requirements for determining unfiltered air inleakage into the control room envelope. The original CNP amendment request proposed that two exceptions to the Regulatory Guide 1.197 requirements, be documented in CNP TS Section 5.5.16.c.

The first proposed exception involved application of ASTM E741-00 (Reference 3) which is endorsed by Regulatory Guide 1.197 as an acceptable method for performing tracer gas testing of control room envelopes. As stated in Attachment 1 of the original amendment request, the proposed exception is as follows:

Exception: The appropriate application of ASTM E-741-00, required by C.1.1 may include taking minor exceptions to the test methodology. These exceptions shall be documented in the test report.

The justification for this exception in Attachment 1 of the original amendment request referenced Revision 1 to NEI 99-03 (Reference 4) as providing examples of such exceptions, and referenced an amendment for another licensee who had referenced Revision 1 to NEI 99-03 in their amendment request. However, Revision 1 of NEI 99-03 has not been formally reviewed by the NRC staff. Accordingly, the justification for the proposed exception is revised to be as follows:

Justification: This exception is necessary because the required testing methodology, ASTM E741-00, was not originally intended for nuclear power plant control room envelope testing. Some minor exceptions from the standard are necessary and are usually determined by the test vendor. Any exceptions to the test methodology will be documented in the individual test report to allow confirmation that the testing performed

is in accordance with the Control Room Envelope Habitability Program requirements of proposed Technical Specification 5.5.16.c.

The second proposed exception would have allowed use of Section 4.3.2 of Revision 1 of NEI 99-03, as input to a site specific procedure for periodic assessment of the control room envelope, in lieu of Appendix H to Revision 0 of NEI 99-03 (Reference 5). Since Revision 0 of NEI 99-03 has been formally reviewed by the NRC staff and Revision 1 of NEI 99-03 has not, this proposed exception is withdrawn.

Additionally, editorial changes were made to provide consistent designation of ASTM E741-00.

2.0 EFFECT ON ORIGINAL AMENDMENT REQUEST

Description and Assessment of the Proposed Changes

Attachment 1 to the original amendment request provided a description and assessment of the proposed changes. Enclosure 3 to this letter provides replacement pages 2 and 3 of Attachment 1 to the original amendment request. These replacement pages reflect the changes proposed by this supplement. Revision bars in the right margin indicate the portion of the text modified by this supplement.

TS Changes

Attachments 2A and 2B to the original amendment request provided existing Unit 1 and Unit 2 TS pages marked to show the proposed changes. Enclosures 4A and 4B to this letter provide replacement marked up Unit 1 and Unit 2 TS Pages 5.5-14 of Attachments 2A and 2B to the original amendment request. These replacement pages show the text proposed by the original amendment request as modified by this supplement. Revision bars in the right margin indicate the portion of the originally proposed text modified by this supplement.

Attachments 3A and 3B to the original amendment request provided clean Unit 1 and Unit 2 TS pages with proposed changes incorporated. New clean Unit 1 and Unit 2 TS pages with all proposed changes incorporated, including the above described changes proposed by this supplement, will be provided to the NRC Licensing Project Manager when requested. These pages will replace the pages provided in Attachments 3A and 3B to the original amendment request.

TS Bases Changes

Attachment 4 to the original amendment request provided existing Unit 1 TS Bases pages showing planned changes. The TS Bases pages provided in Attachment 4 to the original amendment request are not affected by this supplement.

Model Safety Evaluation Changes

Attachment 5 to the original amendment request provided a copy of Section 3.0 of the CLIP model safety evaluation marked to make it applicable to CNP. Enclosure 5 to this letter provides a replacement Page 5 of Attachment 5 to the original amendment request. The

replacement page reflects the changes proposed by this supplement. Revision bars in the right margin indicate the portion of the text modified by this supplement.

Regulatory Analysis

Indiana Michigan Power Company (I&M) has reviewed the proposed no significant hazards consideration determination (NSHCD) published in the Federal Register as part of the CLIIP. I&M has concluded that the proposed NSHCD presented in the Federal Register notice is not affected by this supplement and remains applicable to CNP.

Environmental Evaluation

I&M has reviewed the environmental evaluation included in the model safety evaluation dated January 17, 2007, as part of the CLIIP. I&M has concluded that the NRC staff's findings presented in that evaluation are not affected by this supplement and remain applicable to CNP.

3.0 REFERENCES

1. Letter from Joseph N. Jensen, I&M, to NRC Document Control Desk, "Application to Revise Technical Specification Regarding Control Room Envelope Habitability in Accordance with Technical Specification Task Force Improved Technical Specification Change Traveler-448, Revision 3, Using the Consolidated Line Item Improvement Process," AEP:NRC:7448, dated December 27, 2007 (ML080160132).
2. Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, dated May 2003 (ML031490664).
3. American Society for Testing and Materials, "Standard Test Method for Determining Air Change in a Single Zone by Means of a Tracer Gas Dilution," ASTM E741-00, 2000.
4. Nuclear Energy Institute report NEI 99-03, "Control Room Habitability Guidance," Revision 1, dated March 2003.
5. Nuclear Energy Institute report NEI 99-03, "Control Room Habitability Assessment Guidance," Revision 0, dated June 2001.

Enclosure 3 to AEP-NRC-2008-7

REPLACEMENT PAGES FOR ATTACHMENT 1 TO THE
ORIGINAL AMENDMENT REQUEST

(AEP:NRC:7448)

Page 2

Page 3

- The changes to TS 3.7.10, Condition E, identified in TSTF-448 have been applied to TS 3.7.10, Condition F, in the CNP TS because CNP TS 3.7.10, Condition F, corresponds to TS 3.7.10, Condition E, in TSTF-448.
- The TSTF-448 editorial correction which changes the word “irradiate” to “irradiated” in TS 3.7.10, Condition E, has not been applied to CNP TS 3.7.10, Condition F, because the correction was made during the CNP transition to the NUREG-1431 standard TS.
- The description of requirements for the new Control Room Envelope Habitability Program, designated as TS Section 5.5.18 in TSTF-448, has been designated as CNP TS Section 5.5.16 because 5.5.16 is the next available section number in CNP TS 5.5.
- The “5 rem total effective dose equivalent (TEDE)” criteria option, rather than the “5 rem whole body or its equivalent to any part of the body” criteria option, has been specified in CNP TS Section 5.5.16 for consistency with the criteria used in the CNP control room dose analyses.
- The option of proposing exceptions to Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0, has been selected. The following two exceptions are proposed for inclusion in CNP TS 5.5.16.c:

Exception: The appropriate application of ASTM E741-00, required by C.1.1 may include taking minor exceptions to the test methodology. These exceptions shall be documented in the test report.

Justification: This exception is necessary because the required testing methodology, ASTM E741-00, was not originally intended for nuclear power plant control room envelope testing. Some minor exceptions from the standard are necessary and are usually determined by the test vendor. Any exceptions to the test methodology will be documented in the individual test report to allow confirmation that the testing performed is in accordance with the Control Room Envelope Habitability Program requirements of proposed Technical Specification 5.5.16.c.

- A 24-month Surveillance Frequency for the control room envelope (CRE) pressure test, rather than the 18-month Frequency option, has been specified in CNP TS 5.5.16.d for consistency with the nominal 24-month refueling cycle Surveillance Frequency specified throughout the CNP TS (except for ice condenser related TS).
- CNP TS 5.5.16.d refers to a “periodic assessment” of the CRE boundary rather than the “[18] month assessment” of the CRE boundary referenced in TSTF-448. The term “periodic assessment” is consistent with the requirements Regulatory Guide 1.197, Figure 1, which can result in a variable periodicity.

TS Bases Changes

As shown in the marked up CNP TS Bases pages provided in Attachment 4 to this letter, there are optional changes and non-significant variations or deviations from the TS Bases changes provided with TSTF-448 that are similar to those identified above for the TS changes.

Additionally, text has been included in the Bases providing site-specific information regarding the CRE boundary, limits for smoke, chemical hazard analyses, and CREV System SRs with respect to chemical hazards or smoke. This information is consistent with the current CNP plant design and hazards analyses. If the CNP design or hazards change in the future, the TS Bases would be modified accordingly and the proposed new Actions B.1 and B.2 of TS 3.7.10 would address the chemical and/or smoke hazards to assure that appropriate mitigating actions are taken.

Model Safety Evaluation Changes

The model TSTF-448 license amendment request provided by the NRC as part of the CLIIP indicates that licensees should state which parts of Section 3.0 of the model safety evaluation are applicable to their facility, since the model contains variations based on the plant-specific design and existing TS requirements. Accordingly, Attachment 5 to this letter provides a copy of Section 3.0 of the model safety evaluation marked to make it applicable to CNP.

Additionally, Section 2.2 of the model safety evaluation should indicate that the CNP CREV System trains are not completely redundant in that they share a common high efficiency particulate air filter and charcoal adsorber, and that the CNP CREV System does not contain

Enclosure 4A to AEP-NRC-2008-7

REPLACEMENT PAGE FOR ATTACHMENT 2A TO THE
ORIGINAL AMENDMENT REQUEST
(AEP:NRC:7448)

Proposed Technical Specification Changes (Mark-Up) for Donald C. Cook Plant Unit 1.

Page 5.5-14

5.5 Programs and Manuals

5.5.15 Battery Monitoring and Maintenance Program

This program provides for battery restoration and maintenance, based on the recommendations of IEEE Standard 450-1995, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications," or of the battery manufacturer including the following:

- a. Actions to restore battery cells with float voltage < 2.13 V; and
- b. Actions to equalize and test battery cells that had been discovered with electrolyte level below the minimum established design limit.

5.5.16 Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Ventilation (CREV) System, CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

- a. The definition of the CRE and the CRE boundary.
- b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.
- c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

The following is an exception to Section C.1 and C.2 of Regulatory Guide 1.197, Revision 0:

The appropriate application of ASTM E741-00 required by C.1.1 may include minor exceptions to the test methodology. These exceptions shall be documented in the test report.

Enclosure 4B to AEP-NRC-2008-7

REPLACEMENT PAGE FOR ATTACHMENT 2B TO THE
ORIGINAL AMENDMENT REQUEST
(AEP:NRC:7448)

Proposed Technical Specification Changes (Mark-Up) for Donald C. Cook Plant Unit 2.

Page 5.5-14

5.5 Programs and Manuals

5.5.16 Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Ventilation (CREV) System, CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

- a. The definition of the CRE and the CRE boundary.
- b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.
- c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

The following is an exception to Section C.1 and C.2 of Regulatory Guide 1.197, Revision 0:

The appropriate application of ASTM E741-00 required by C.1.1 may include minor exceptions to the test methodology. These exceptions shall be documented in the test report.

- d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation by one train of the CREV System, operating at the flow rate required by the VFTP, at a Frequency of 24 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the periodic assessment of the CRE boundary.
- e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in Paragraph C. The unfiltered

Enclosure 5 to AEP-NRC-2008-7

REPLACEMENT PAGE FOR ATTACHMENT 5 TO THE
ORIGINAL AMENDMENT REQUEST
(AEP:NRC:7448)

Model Safety Evaluation Section 3.0 Mark-Up for Donald C. Cook Nuclear Plant

Page 5

Configuration control and preventive maintenance of the CRE boundary. This element is intended to ensure the CRE boundary is maintained in its design condition. Guidance for implementing this element is contained in Regulatory Guide 1.196 (Reference 4), which endorsed, with exceptions, NEI 99-03 (Reference 6). Maintaining the CRE boundary in its design condition provides assurance that its leak-tightness will not significantly degrade between CRE inleakage determinations.

Assessment of CRE habitability at the frequencies stated in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0 (Reference 5), and measurement of unfiltered air leakage into the CRE in accordance with the testing methods and at the frequencies stated in Sections C.1 and C.2 of Regulatory Guide 1.197. [The licensee proposed the following exception{s} to Sections C.1 and C.2 of Regulatory Guide 1.197, to be listed in the TS with this program element.] ~~[[Insert plant specific evaluation of licensee's proposed exceptions.]]~~

Exception: The appropriate application of ASTM E741-00 required by C.1.1 may include taking minor exceptions to the test methodology. These exceptions shall be documented in the test report.

The licensee provided the following justification for this exception.

This exception is necessary because the required testing methodology, ASTM E741-00, was not originally intended for nuclear power plant control room envelope testing. Some minor exceptions from the standard are necessary and are usually determined by the test vendor. Any exceptions to the test methodology will be documented in the individual test report to allow confirmation that the testing performed is in accordance with the Control Room Envelope Habitability Program requirements of proposed Technical Specification 5.5.16.c.