

July 2, 2015

AEP-NRC-2015-66
10 CFR 50.90

Docket Nos. 50-315

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

Donald C. Cook Nuclear Plant Unit 1
Response to Request for Additional Information Regarding Exigent
License Amendment Request Regarding Technical Specification 3.3.2,
Engineered Safety Feature Actuation System (ESFAS) Instrumentation

References:

1. Letter from J. P. Gebbie, Indiana Michigan Power Company (I&M), to U. S. Nuclear Regulatory Commission (NRC), "Donald C. Cook Nuclear Plant Unit 1, Exigent License Amendment Request Regarding Technical Specification 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation," dated June 29, 2015, Agencywide Documents Access and Management System Accession No. ML15181A002.
2. Email from T. A. Beltz, NRC, to H. L. Kish, I&M, "Donald C. Cook Nuclear Plant, Unit 1 – Request for Additional Information re: License Amendment Request (Exigent) Associated with TS 3.3.2, (TAC No. MF6390)," dated July 1, 2015.

This letter provides Indiana Michigan Power Company's (I&M), licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1, response to Request for Additional Information (RAI) by the U. S. Nuclear Regulatory Commission (NRC) related to an exigent license amendment request (LAR) regarding Technical Specification (TS) 3.3.2, Engineered Safety Feature Actuation System Instrumentation.

By Reference 1, I&M submitted a request to amend the TS to CNP Unit 1 Renewed Facility Operating License DPR-58. I&M proposes to revise TS 3.3.2 to add a new Condition for one or more inoperable Required Channels, per main feedwater (MFW) pump, for MFW pump trips. By Reference 2, the NRC transmitted an RAI regarding the LAR submitted by I&M in Reference 1.


Enclosure 1 to this letter provides an affirmation statement pertaining to the information contained herein. Enclosure 2 to this letter provides I&M's response to the RAI.

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Copies of this letter and its enclosures 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.

There are no new regulatory commitments made in this letter. 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

TLC/ams

Enclosures:

1. Affirmation
2. Response to Request for Additional Information

c: T. A. Beltz, NRC, Washington, D.C.
A. W. Dietrich, NRC, Washington, D.C.
J. T. King – MPSC
MDEQ – RMD/RPS
NRC Resident Inspector
C. D. Pederson, NRC, Region III
A. J. Williamson, AEP Ft. Wayne, w/o enclosures

Enclosure 1 to AEP-NRC-2015-66

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 U. S. 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 2nd DAY OF July, 2015

Anne M. Sherwood
Notary Public

My Commission Expires 10-16-2017

Enclosure 2 to AEP-NRC-2015-66

Response to Request for Additional Information Regarding Exigent License Amendment Request Regarding Technical Specification 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation

By Reference 1, Indiana Michigan Power Company (I&M), the licensee for the Donald C. Cook Nuclear Plant, Unit 1, submitted a license amendment request application. I&M requested the proposed change under exigent circumstances in accordance with Title 10 *Code of Federal Regulations* Section 50.91(a)(6). The proposed amendment would revise Technical Specification 3.3.2, "Engineering Safety Feature Actuation System Instrumentation," by adding a new Condition for one or more inoperable Required Channels for main feedwater (MFW) pump trips, changing Table 3.3.2-1 to add a footnote to the Applicable Mode Column for Mode 2 and to reflect the new Condition, and renumbering existing Conditions.

The U.S. Nuclear Regulatory Commission staff in the Instrumentation & Controls Branch of the Office of Nuclear Reactor Regulation has reviewed the application and concluded that additional information is necessary in order to complete its review. The text of the requests for additional information (RAIs) and I&M's responses are provided below.

RAI-1

Please provide a description of the operating procedure associated with main feedwater (MFW) pump startup, including a brief explanation of when the first MFW pump is started and will CNP-1 have to enter the 4-hour provision specified in the proposed Note to Condition H.

I&M Response to RAI-1:

During reactor startup, a MFW pump is placed in operation at approximately 2 percent (%) - 4% power, when sufficient steam is available for main feed operations as well as adequate demand for main feedwater flow. Prior to placing a MFW pump in service, the steam generators (SGs) are fed by the Auxiliary Feedwater (AFW) system. The operating procedure for starting a Unit 1 MFW pump is 1-OHP-4021-055-003, Placing a Main Feed Pump In Service. The first MFW pump is prepared for service by lining up the MFW system in accordance with procedure 1-OHP-4021-055-003 and opening the MFW pump turbine stop valves. The motor-driven AFW pump control switches are verified to not be in AUTO and a MFW pump turbine trip test is performed, if required. The MFW pump turbine stop valves are re-opened and steam is admitted to the MFW pump. Once the MFW pump turbine is warmed up and speed has increased sufficiently to overcome SG pressure, the MFW pump begins feeding the SGs. The four-hour provision specified in the proposed Note to Condition H would not apply during the start of the first MFW pump as both motor driven AFW pumps are running the entire time and the addition of the footnote to Table 3.3.2-1 for Function 6.g. modifies the Mode 2 applicability to start after MFW is supplying feedwater to the SGs.

After the first MFW pump is feeding the steam generators, the AFW pumps are removed from service. Startup of the second MFW pump is conducted prior to reaching 60% reactor power. The second MFW pump is placed in service similar to the first MFW pump.

RAI-2

Briefly explain the condition of when the second MFW is started, and when is the 4-hour provision specified in the proposed Note to Condition H to be used

I&M Response to RAI-2:

When placing the second MFW pump in service, the point in time that the turbine stop valves on the second MFW pump are opened is when the four-hour provision specified in the proposed Note to Condition H would start to apply. The proposed Note to Condition H would stop being applied for the second MFW pump when that MFW pump is either capable of feeding the SGs (i.e. discharge pressure of the MFW pump is just below SG pressure) or feeding the SGs. In this condition, both MFW pumps are in service and the two required channels (per pump) are functionally able to provide the required trip input for actuation of AFW.

RAI-3

Please confirm that once both MFW pumps are running, the 4-hour provision will no longer be used.

I&M Response to RAI-3:

The proposed note to LCO 3.3.2, Required Action H.1, states, "Two channels on one Main Feedwater pump may be inoperable for up to 4 hours during the process of removing the pump from service or placing the pump in service." As it indicates, this note will not be applicable when both MFW pumps are in service (i.e. the first MFW pump is feeding the SGs and the second MFW pump is capable of feeding or feeding the SGs). Therefore, this provision will not be used once both MFW pumps are in service.

RAI-4

Please briefly describe the MFW pump shutdown procedure, and discuss whether the 4-hour provision is entered during normal shutdown or at any other time during CNP-1 shutdown.

I&M Response to RAI-4:

The procedure used to shutdown the MFW pumps is 1-OHP-4021-055-004, Feed Pump Turbine Shutdown. In general, to shutdown both MFW pumps, reactor power is verified low enough to be supplied by one MFW pump and the speed on the first MFW pump is lowered to just below

the pressure of the second MFW pump until the first MFW pump is no longer feeding the SGs. The first MFW pump is maintained just below the second MFW pump discharge pressure, not feeding the SGs, but still in service. Reactor power is then lowered to approximately 17% and AFW is placed in service with the second MFW pump feeding the SGs. Then, both MFW pumps are removed from service by tripping the reactor at approximately 17% power. Tripping the reactor causes both MFW pumps to trip and allows the already running AFW pumps to supply feedwater to the SGs.

The normal method for shutdown of the MFW pumps is to trip the pumps (i.e. both MFW turbine stop valves go closed). Therefore, the 4-hour provision would not typically be used for the shutdown of a MFW pump. However, if plant conditions warrant, a slower method for shutting down the MFW pump may be used and the MFW pump would be removed from service under the provision of the note.

RAI-5

Please discuss under what circumstances proposed Required Action H.1 would be entered. Also, please confirm that the 48-hour Completion Time would not be used during normal plant startup and shutdown.

I&M Response to RAI-5:

As described on page 6 of Enclosure 2 to Reference 1, with one MFW pump in service, the second MFW pump turbine may be started uncoupled from the pump to facilitate some post maintenance testing activities. In this instance, Required Action H.1 would be entered and the 48-hour completion time would only apply when the stop valves are opened. This post maintenance testing is not considered a normal plant startup or shutdown activity, but instead can be completed with one MFW pump in service to facilitate completion of maintenance activities.

Additionally, required action H.1 would be entered any time one or more MFW pump trip channels are inoperable due to an actual channel failure or degradation mechanism being present.

REFERENCES:

1. Letter from J. P. Gebbie, Indiana Michigan Power Company, to U. S. Nuclear Regulatory Commission, "Donald C. Cook Nuclear Plant Unit 1, Exigent License Amendment Request Regarding Technical Specification 3.3.2, Engineered Safety Feature Actuation System (ESFAS) Instrumentation," dated June 29, 2015, Agencywide Documents Access and Management System Accession No. ML15181A002.