

**From:** Wall, Scott  
**Sent:** Wednesday, November 3, 2021 2:20 PM  
**To:** Michael K. Scarpello  
**Cc:** Helen L Levendosky; Bradford M Culwell  
**Subject:** Final RAI - D.C. Cook 1 & 2 - License Amendment Request Regarding Containment Water Level Instrumentation (EPID No. L-2021-LLA-0050)

Dear Mr. Scarpello,

By letter dated March 23, 2021 (Agencywide Documents Access and Management System Accession No. ML21082A496), Indiana Michigan Power Company (I&M, the licensee) submitted a license amendment request for Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2 (CNP) to modify the Technical Specification (TS) Bases for TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation." The proposed change to the TS Bases would allow one channel of TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Function 7, Containment Water Level, to be satisfied by a train of two operable containment water level switches in the event that both containment water level channels become inoperable. This alternate method of satisfying containment water level channel requirements would be limited to the remaining duration of the operating cycle each time it is invoked.

The NRC staff has reviewed the submittals and determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). During a telephone call on November 3, 2021, the I&M staff indicated that a response to the RAIs would be provided by December 9, 2021.

If you have questions, please contact me at 301-415-2855 or via e-mail at [Scott.Wall@nrc.gov](mailto:Scott.Wall@nrc.gov).

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Docket Nos. 50-315 and 50-316

Enclosure:  
Request for Additional Information

cc: Listserv

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**RAI (Containment Water Level Instrumentation)**

**REQUEST FOR ADDITIONAL INFORMATION**

**CONTAINMENT WATER LEVEL INSTRUMENTATION**

**INDIANA MICHIGAN POWER COMPANY**

## DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2

### DOCKET NOS. 50-315 AND 50-316

#### INTRODUCTION

By letter dated March 23, 2021 (Agencywide Documents Access and Management System Accession No. ML21082A496), Indiana Michigan Power Company submitted a license amendment request for Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2 (CNP) to modify the Technical Specification (TS) Bases for TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation." The proposed change to the TS Bases would allow one channel of TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Function 7, Containment Water Level, to be satisfied by a train of two operable containment water level switches in the event that both containment water level channels become inoperable. This alternate method of satisfying containment water level channel requirements would be limited to the remaining duration of the operating cycle each time it is invoked.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing the application and has determined that the following additional information is required in order to complete the review.

#### RAI-STSB

#### APPLICABLE REGULATION AND GUIDANCE

10 CFR 50.36(2)(i) states, when a limiting condition for operation (LCO) of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met. When a LCO of any process step in the system of a fuel reprocessing plant is not met, the licensee shall shut down that part of the operation or follow any remedial action permitted by the TSs until the condition can be met.

10 CFR 50.36(a)(1) states, in part: "A summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the technical specifications."

#### REQUEST FOR ADDITIONAL INFORMATION

In Section 2.4 of the LAR, the licensee proposed to modify the TS Bases for CNP TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Function 7, Containment Water Level, to read as follows:

If both containment water level channels (NLI-320 and NLI-321) become inoperable, a train of containment water level switches (NLI-330 and NLI-340 or NLI-331 and NLI-341) can be used in place of one containment water level channel, but only for the remaining duration of the operating cycle each time it is invoked. At least one containment water level channel shall be restored to operable status prior to startup following the next refueling outage.

The proposed change to the TS Bases would add remedial actions to allow one channel of TS 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," Function 7, Containment Water Level, to be satisfied by a train of two operable containment water level switches in the event that both

containment water level channels become inoperable, because the containment water level switches will provide the relevant PAM information required by control room operators.

When a limiting condition for operation is not met, the licensee shall follow any remedial action permitted by the TS. The licensee proposed to add the remedial actions to the bases only, which are not a part of the TS, as stated in 10 CFR 50.36(a)(1).

### **RAI-STSB-01**

The NRC staff requests that the licensee address how the remedial actions will be addressed in TS 3.3.3 if both containment water level channels (NLI-320 and NLI-321) become inoperable.

### **RAI-SCPB**

#### **APPLICABLE REGULATION AND GUIDANCE**

10 CFR 50.36(b) states, in part, that TSs will be derived from the analyses and evaluation included in the safety analysis report.

10 CFR 50.36(c)(2), requires TSs to contain LCOs, which are the lowest functional capability or performance levels of equipment required for safe operation of the facility

The regulation in 10 CFR 50.36(c)(2)(ii)(C) states that a TS LCO must also be established for:

Criterion 3. A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

#### **REQUEST FOR ADDITIONAL INFORMATION**

When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met." The functionality of the limit switches in performing the functions of the wide range level instrument is necessary for our reasonable assurance finding, given the potential length of time the remedial action could be credited.

### **RAI-SCPB-01**

In order to provide a direct assessment of whether the level switches can adequately substitute for the full range level instrument for the Emergency Operating Procedure (EOP) actions, the staff requests the licensee:

- Identify all manual actions in the EOPs that use the wide range containment water level instrument indications as a decision input and the associated value. Address how the level switch setpoints align with EOP decision input values for containment water level. Address how operability of the normal containment water instrumentation would be assured if it is necessary for any EOP action decision input while the wide range containment water level instruments are inoperable.

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