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AEP-NRC-2013-57
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Docket Nos.: 50-315
50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2
Response to Request for Additional Information Regarding the Overall Integrated Plan in Response to Order EA-12-051, "Issuance of Order to Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation"

References:

1. Nuclear Regulatory Commission (NRC) Order No. EA-12-051, "Issuance of Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation," dated March 12, 2012 (ADAMS Accession No. ML12054A679).

2. Nuclear Energy Institute (NEI), NEI 12-02 (Revision 1), "Industry Guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation"," dated August 2012 (ADAMS Accession No. ML12240A307).

3. Letter from Joel P. Gebbie, Indiana Michigan Power Company (I&M), to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Unit 1 and Unit 2 Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051)," dated February 27, 2013 (ADAMS Accession No. ML13071A323).

4. Letter from Thomas J. Wengert, NRC, to Lawrence J. Weber, I&M, "Donald C. Cook Nuclear Plant, Units 1 and 2 – Request for Additional Information on the Overall Integrated Plan in Response to Order EA-12-051 Concerning Reliable Spent Fuel Pool Instrumentation (TAC Nos. MF0761 and MF0762)," dated June 19, 2013 (ADAMS Accession No. ML13164A381).

This letter provides Indiana Michigan Power Company (I&M), licensee for Donald C. Cook Nuclear Plant Units 1 and 2, response to the Request for Additional Information (RAI) from the Nuclear Regulatory Commission (NRC) regarding the Overall Integrated Plan (OIP) submitted by I&M pursuant to NRC Order EA-12-051, "Reliable Spent Fuel Pool Instrumentation."

A001
NRR

By Reference 1, the NRC issued Order EA-12-051, which modified all operating licenses issued under 10 CFR Part 50 to require instrumentation providing reliable spent fuel pool water level; directed the holders of operating licenses to submit by February 28, 2013, an OIP describing measures taken to achieve compliance with the requirements of EA-12-051; and required complete implementation of EA-12-051 no later than the earlier of either two refueling cycles after submission of the OIP, or December 31, 2016. In Reference 2, Nuclear Energy Institute transmitted guidance to assist licensees in responding to Reference 1. In Reference 3, I&M provided its OIP in response to EA-12-051. In Reference 4, the NRC transmitted an RAI regarding the OIP submitted by I&M in Reference 3.

Enclosure 1 to this letter provides an affirmation statement. Enclosure 2 provides I&M's responses to the RAI in Reference 4.

This letter contains no new or revised commitments. Please note that the projected dates identified in Enclosure 2 to this letter are not intended to serve as hard deadlines. The dates are intended to demonstrate I&M's timely compliance with the requirements of Order EA-12-051.

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/kmh

Enclosures:
1. Affirmation
2. I&M's Response to RAI Regarding the OIP Submitted in Response to Order EA-12-051, "Issuance of Order Modifying Licenses with Regard to Reliable Spent Fuel Instrumentation"

c: C. A. Casto, NRC Region III
J. T. King, MPSC
S. M. Krawec, AEP Ft. Wayne
MDEQ-RMD/RPS
NRC Resident Inspector
T. J. Wengert, NRC Washington, DC

ENCLOSURE 1 TO AEP-NRC-2013-57

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 11 DAY OF July, 2013

Notary Public

My Commission Expires 04-04-2018

DANIELLE BURGOYNE
Notary Public, State of Michigan
County of Berrien
My Commission Expires 04-04-2018
Acting In the County of Berrien

ENCLOSURE 2 TO AEP-NRC-2013-57

Indiana Michigan Power Company's Response to Request for Additional Information Regarding the Overall Integrated Plan Submitted in Response to Order EA-12-051, "Issuance of Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation"

Drawings and calculations referenced herein are provided as references at the end of this Enclosure. Reference 1 is Donald C. Cook Nuclear Plant (CNP) Drawing OP-12-5136 (CNP Flow Diagram Spent Fuel Pit Cooling & Clean-Up Unit 1 & 2). Reference 2 is CNP Drawing 12-5465 (CNP Auxiliary Building Spent Fuel Pit Cooling & Clean-Up Piping Units No. 1 & 2, Sheet 3 of 6) Reference 3 is CNP System Calculation HXP-310191-AMS (Spent Fuel Pit Cooling System Friction Analysis).

NRC RAI-1

Please provide the following:

a) *The specific functional reasons for identification of the elevation of Level 1. Specify how the identified elevation represents the HIGHER of the two points described in the NEI 12-02 guidance for this level.*

b) *Provide a clearly labeled sketch depicting the elevation view of the proposed typical mounting arrangement for the portions of instrument channel consisting of permanent measurement channel equipment (e.g., fixed level sensors and/or stilling wells, and mounting brackets). Indicate on this sketch the datum values representing Level 1, Level 2, and Level 3, as well as the top of the fuel. Indicate on this sketch the portion of the level sensor measurement range that is sensitive to measurement of the fuel pool level, with respect to the Level 1, Level 2, and Level 3 datum points.*

c) *The OIP refers to drawings 12-3801, OP-12-5136, and DC-06033. Provide these drawings and, if they do not provide the necessary information requested in this RAI, please provide additional drawings.*

I&M RESPONSE TO NRC RAI-1A

NEI 12-02 specifies that Level 1 represents the HIGHER of the following two points:

1. The level at which reliable suction loss occurs due to uncovering of the coolant inlet pipe, weir or vacuum breaker (depending on the design) or;

2. The level at which the water height, assuming saturated conditions, above the centerline of the cooling pump suction provides the required net positive suction head specified by the pump manufacturer or engineering analysis.

Indiana Michigan Power Company (I&M) will use a more conservative value of 645'1.5" (all elevations at CNP are expressed in National Geodetic Vertical Datum), which Reference 2 notes is the normal spent fuel pool level at CNP, instead of the two points identified in NEI 12-02 for Level 1.

NEI 12-02 Point 1 for CNP is 643'11". Per Reference 1, the centerline of the intake pipe for the Spent Fuel Pit Cooling System is located at 643'6". Because the inside diameter of that intake pipe is (conservatively) 10", the intake pipe for the Spent Fuel Pit Cooling System will begin to be uncovered at a nominal elevation of 643'11". As a result, NEI 12-02 Point 1 for CNP is 643'11".

NEI 12-02 Point 2 for CNP is similarly below the normal spent fuel pool level of 645'1.5". According to Reference 3, at 160 degrees Fahrenheit the required Net Positive Suction Head for the Spent Fuel Pit Cooling Pumps (when operating at normal discharge rate of 2300 gallons per minute) is 10', the centerline of each of the Spent Fuel Pit Cooling Pumps is 610.52', and the friction loss in the associated suction piping for the Spent Fuel Pit Cooling Pump with the greater friction loss is approximately 8.06'. Summing these elevations, NEI 12-02 Point 2 for CNP would be approximately 628.58'. This value is nearly 16.57' below the normal spent fuel level of 645'1.5".

I&M RESPONSE TO NRC RAI-1B

I&M has begun development of a plant modification (hereinafter referred to as EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. As part of the engineering effort related to the development of EC-52892, I&M has contracted with a third party (Sargent & Lundy) to generate the conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP. Because I&M does not expect Sargent & Lundy to complete conceptual design work before early August 2013, I&M will be unable to provide the entirety of the information required by RAI-1B until (at the earliest) submission of CNP's next 6-month update, due on August 28, 2013. I&M has, however, included as Attachment 1 to this Enclosure a sketch depicting the elevation of Levels 1, 2, and 3, as well as the top of the fuel.

I&M RESPONSE TO NRC RAI-1C

The CNP plant drawings requested by RAI-1C, as well as additional drawings and calculations referenced in this enclosure, are available for review at CNP. As noted above, Attachment 1 to this enclosure is a sketch depicting the elevation of Levels 1, 2, and 3, as well as the top of the fuel.

NRC RAI-2

Please provide a clearly labeled sketch or marked-up plant drawing of the plan view of the SFP area, depicting the SFP inside dimensions, the planned locations/ placement of the primary and back-up level sensors, and the proposed routing of the cables that will extend from the sensors toward the location of the read-out/display device.

I&M RESPONSE TO NRC RAI-2

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. As part of the engineering effort related to the development of EC-52892, I&M has contracted with a third party (Sargent & Lundy) to generate the conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP. Because I&M does not expect Sargent & Lundy to complete its conceptual design work

before early August 2013, I&M will be unable to provide the information required by RAI-2 until (at the earliest) submission of CNP's next 6-month update, due on August 28, 2013.

NRC RAI-3

Please provide the following:

a) *The design criteria that will be used to estimate the total loading on the mounting device(s), including static weight loads and dynamic loads. Describe the methodology that will be used to estimate the total loading, inclusive of design basis maximum seismic loads and the hydrodynamic loads that could result from pool sloshing or other effects that could accompany such seismic forces.*

b) *A description of the manner in which the level sensor (and stilling well, if appropriate) will be attached to the refueling roof and/or other support structures for each planned point of attachment of the probe assembly. Indicate in a drawing the portions of the level sensor that will serve as points of attachment for mechanical/mounting and electrical connections.*

c) *A description of the manner by which the mechanical connections will attach the level instrument to permanent SFP structures so as to support the level sensor assembly.*

I&M RESPONSE TO NRC RAI-3A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-3A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-3A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-3B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-3B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-3B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-3C

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-3C. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-3C until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-4

Please provide the following:

a) *A description of the specific method or combination of methods that will be applied to demonstrate the reliability of the permanently installed equipment under Beyond-Design-Basis (BDB) ambient temperature, humidity, shock, vibration, and radiation conditions.*

b) *A description of the testing and/or analyses that will be conducted to provide assurance that the equipment will perform reliably under the worst-case credible design basis loading at the location where the equipment will be mounted. Include a discussion of this seismic reliability demonstration as it applies to: 1) the level sensor mounted in the SFP area, and 2) any control boxes, electronics, or read-out and re-transmitting devices that will be employed to convey the level information from the level sensor to the plant operators or emergency responders.*

c) *A description of the specific method or combination of methods that will be used to confirm the reliability of the permanently installed equipment such that, following a seismic event, the instrument will maintain its required accuracy.*

I&M RESPONSE TO NRC RAI-4A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-4A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-4A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-4B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a

complete response to RAI-4B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-4B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-4C

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-4C. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-4C until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-5

Please provide the following:

a) *A description of how the two channels of the proposed level measurement system meet this requirement [for separation] so that the potential for a common cause event to adversely affect both channels is minimized to the extent practicable.*

b) *Further information on how each level measurement system, consisting of level sensor electronics, cabling, and readout devices will be designed and installed to address independence through the application and selection of independent power sources, independence of signals sent to the location(s) of the readout devices, and the independence of the displays.*

I&M RESPONSE TO NRC RAI-5A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-5A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-5A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-5B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-5B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information

required by RAI-5B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-6

Please provide the following:

a) *If the level measurement channels are to be powered through a battery system (either directly or through an Uninterruptible Power Supply), provide the design criteria that will be applied to size the battery in a manner that ensures, with margin, that the channel will be available to run reliably and continuously following the onset of the BDB event for the minimum duration needed, consistent with the plant mitigation strategies for BDB external events (Order EA-12-049).*

b) *The location where the batteries will be located, indicating the accessibility, and the distance from the related instrument display.*

I&M RESPONSE TO NRC RAI-6A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-6A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-6A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-6B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-6B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-6B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-7

Please provide the following:

a) *An estimate of the expected instrument channel accuracy performance (e.g., in percent of span) under both: 1) normal SFP level conditions (approximately Level 1 or higher), and 2) at the BDB conditions (i.e., radiation, temperature, humidity, post-*

seismic and post-shock conditions) that would be present if the SFP level were at the Level 2 and Level 3 datum points.

b) *A description of the methodology that will be used for determining the maximum allowed deviation from the instrument channel design accuracy that will be employed under normal operating conditions as an acceptance criterion for a calibration procedure to flag to operators and to technicians that the channel requires adjustment to within the normal condition design accuracy.*

I&M RESPONSE TO NRC RAI-7A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-7A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-7A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-7B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-7B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-7B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-8

Please provide the following:

a) *A description of the capability and provisions the proposed level sensing equipment will have to enable periodic testing and calibration, including how this capability enables the equipment to be tested in-situ.*

b) *A description how such testing and calibration will enable the conduct of regular channel checks of each independent channel against the other, and against any other permanently-installed SFP level instrumentation.*

c) *A description of the calibration and functional checks that will be performed, the frequency at which they will be conducted with a discussion on the measures taken to detect when the instrumentation is operable but degraded, and how these surveillances will be incorporated into the plant surveillance program.*

d) A description of the preventative maintenance tasks required to be performed during normal operation, and the planned maximum surveillance interval that is necessary to ensure that the channels are fully conditioned to accurately and reliably perform their functions when needed.

I&M RESPONSE TO NRC RAI-8A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-8A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-8A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-8B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-8B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-8B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014. CNP will have no permanently-installed Spent Fuel Pool Level Instruments besides those that will be installed under EC-52892.

I&M RESPONSE TO NRC RAI-8C

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-8C. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-8C until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-8D

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-8D. Because I&M does not expect to finalize EC-52892 until late

December 2013, I&M will be unable to provide the information required by RAI-8D until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-9

Please provide the following:

a) *The specific location for the primary and backup instrument channel display.*

b) *If the primary or backup display location is other than the main control room, then provide justification for prompt accessibility to displays including primary and alternate route evaluation, habitability at display location(s), continual resource availability for personnel responsible to promptly read displays, and provisions for communications with decision-makers for the various SFP drain-down scenarios and external events.*

c) *The reasons justifying why the locations selected enable the information from these instruments to be considered "promptly accessible" to various drain-down scenarios and external events.*

I&M RESPONSE TO NRC RAI-9A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. As part of the engineering effort related to the development of EC-52892, I&M has contracted with a third party (Sargent & Lundy) to generate the conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP. Because I&M does not expect Sargent & Lundy to complete its conceptual design work before early August 2013, I&M will be unable to provide the information required by RAI-9A until (at the earliest) submission of CNP's next 6-month update, due on August 28, 2013.

I&M RESPONSE TO NRC RAI-9B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-9B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-9B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-9C

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-9C. Because I&M does not expect to finalize EC-52892 until late

December 2013, I&M will be unable to provide the information required by RAI-9C until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-10

Please provide the following:

A list of the operating (both normal and abnormal response) procedures, calibration/test procedures, maintenance procedures, and inspection procedures that will be developed for use of the spent fuel pool instrumentation in a manner that addresses the Order requirements. Please include a brief description of the specific technical objectives to be achieved within each procedure. If your plan incorporates the use of portable spent fuel level monitoring components, please include a description of the objectives to be achieved with regard to the storage location and provisions for installation of the portable components, when needed.

I&M RESPONSE TO NRC RAI-10

CNP will not employ portable spent fuel pool level instruments in complying with EA-12-051. I&M has begun development of a plant modification (EC-52892) for the permanent installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-10. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-10 until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

NRC RAI-11

Please provide the following:

a) *Further information describing the maintenance and testing program the licensee will establish and implement to ensure that regular testing and calibration is performed and verified by inspection and audit to demonstrate conformance with design and system readiness requirements. Include a description of your plans for ensuring that necessary channel checks, functional tests, periodic calibration, and maintenance will be conducted for the level measurement system and its supporting equipment.*

b) *A description of how the guidance in NEI 12-02, Section 4.3, regarding compensatory actions for one or both non-functioning channels will be addressed.*

c) *A description of what compensatory actions are planned in the event that one of the instrument channels cannot be restored to functional status within 90 days.*

I&M RESPONSE TO NRC RAI-11A

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to

generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-11A. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-11A until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-11B

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-11B. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-11B until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

I&M RESPONSE TO NRC RAI-11C

I&M has begun development of a plant modification (EC-52892) for the installation of Spent Fuel Pool Level Instruments as directed by EA-12-051. Although I&M has located an equipment vendor (Mohr Test & Measurement) and contracted with a third party (Sargent & Lundy) to generate a conceptual design for the installation of the Spent Fuel Pool Level Instruments at CNP in early August 2013, that conceptual design will contain insufficient detail to provide a complete response to RAI-11C. Because I&M does not expect to finalize EC-52892 until late December 2013, I&M will be unable to provide the information required by RAI-11C until (at the earliest) submission of CNP's subsequent 6-month update, due on February 28, 2014.

REFERENCES:

1. American Electric Power (AEP) Drawing OP-12-5136 (Rev. 25), Donald C. Cook Nuclear Plant Flow Diagram Spent Fuel Pit Cooling & Clean-Up Unit 1 & 2, dated May 21, 2012.

2. AEP Drawing 12-5465 (Rev. 17), Donald C. Cook Nuclear Plant Auxiliary Building Spent Fuel Pit Cooling & Clean-Up Piping Units No. 1 & 2, Sheet 3 of 6, dated October 31, 2011.

3. AEP Functional Calculation HXP-310191-AMS (Rev. 1), Donald C. Cook Nuclear Plant Spent Fuel Pit Cooling System Friction Analysis, dated March 28, 2000.

Attachment 1 to Enclosure 2 of AEP-NRC-2013-57
Sketch: Elevations of Levels 1, 2, and 3

Elevations of Levels 1, 2, and 3