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Docket Nos.: 50-315
50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2
Path Forward for Resolution of GSI-191

References:

1. Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004.
2. Letter from A. Vietti-Cook, Nuclear Regulatory Commission (NRC), to R. Borchardt, NRC, "Staff Requirements – SECY-10-0113 – Closure Options for Generic Safety Issue - 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," dated December 23, 2010.
3. Pressurized Water Reactor Owners Group, Topical Report (TR) WCAP-16793-NP, Revision 2, "Evaluation of Long-Term Core Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," dated October 12, 2011.
4. Letter from J. Butler, Nuclear Energy Institute (NEI), to W. Ruland, NRC, "GSI-191 - Current Status and Recommended Actions for Closure," dated May 4, 2012.
5. Letter from R. Borchardt, NRC, to Commissioners, NRC, "Closure Options for Generic Safety Issue - 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," SECY-12-0093, dated July 9, 2012.
6. Letter from J. Butler, NEI, to W. Ruland, NRC, "GSI-191 – Revised Schedule for Licensee Submittal of Resolution Path," dated November 15, 2012.
7. Letter from W. Ruland, NRC, to J. Butler, NEI, "Nuclear Regulatory Commission Review of Generic Safety Issue-191 Nuclear Energy Institute Revised Schedule for Licensee Submittal of Resolution Path," dated November 21, 2012.
8. Letter from A. Vietti-Cook, NRC to R. Borchardt, NRC, "Staff Requirements – SECY-12-0093 – Closure Options for Generic Safety Issue - 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," dated December 14, 2012.

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9. Letter from S. Bahadur, NRC, to W. Nowinowski, Westinghouse, "Final Safety Evaluation for Pressurized Water Reactor Owners Group Topical Report WCAP-16793-NP, Revision 2, "Evaluation of Long-Term Cooling Considering Particulate Fibrous and Chemical Debris in the Recirculating Fluid,"" dated April 8, 2013.

By Reference 4, NEI highlighted the current industry status and recommended actions for closure of Generic Safety Issue (GSI)-191 which were based on licensees providing a docketed submittal to NRC by December 31, 2012, that would outline a GSI-191 resolution path and schedule pursuant to the Commission direction in Reference 2. By Reference 6, NEI recommended to NRC that licensees delay submittal of GSI-191 resolution path and schedule until January 31, 2013, or 30 days following placement into the public record of both the Commission response to Reference 5 and the NRC staff safety evaluation (SE) on Reference 3. By Reference 7, the NRC approved the proposed recommendation from NEI contained in Reference 6. By Reference 8, the Commission approved the staff's recommendation in Reference 5 to allow licensees the flexibility to choose any of the three options discussed in Reference 5 to resolve GSI-191. Further, the Commission encouraged the staff to remain open to staggering licensee submittals and the associated NRC reviews to accommodate the availability of staff and licensee resources. The SE (Reference 9) for Reference 3 was made publicly available by the NRC on April 16, 2013.

An industry template was developed by NEI for the identification of a resolution path and schedule, and to describe defense-in-depth and mitigation measures to support the proposed resolution schedule.

Based on the NEI industry template, Indiana Michigan Power, the licensee for Donald C. Cook Nuclear Plant Units 1 and 2, provides, as Enclosure 2 to this letter, a resolution path forward and schedule for resolution for GSI-191, summary of actions completed for Reference 1, and defense-in-depth and mitigation measures which will be established and maintained throughout the resolution period.

There is a new commitment submitted as part of this letter and is provided in Enclosure 3.

Sincerely,

Joel P. Gebbie
Site Vice President

HLE/kmh

Enclosure 1: Affirmation
Enclosure 2: Path Forward for Resolution of GSI-191
Enclosure 3: Regulatory Commitments

c: J. T. King, MPSC
S. M. Krawec, AEP Ft. Wayne, w/o attachment
MDEQ – RMD/RPS
NRC Resident Inspector
T. J. Wengert, NRC Washington DC

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 15 DAY OF May, 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-2013-45
Path Forward for Resolution of GSI-191
Donald C. Cook Nuclear Plant Units 1 and 2

Introduction

References in this Enclosure are listed at the end of this enclosure document in the References section.

By Reference 6, the Nuclear Regulatory Commission (NRC) approved three options to licensees for closure of Generic Safety Issue-191 (GSI-191). By Reference 8, the Pressurized Water Reactor Owners Group (PWROG) submitted WCAP-16793-NP, Revision 2, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," to the NRC for their review and approval for use by licensees as an acceptable method for the three options presented in Reference 6, which resolves the aspects of blockage within the reactor fuel assemblies of GSI-191. By Reference 9, the NRC issued the Final Safety Evaluation for Reference 8, which allowed licensees to use Reference 8 as a method acceptable to the NRC to resolve GSI-191.

Indiana Michigan Power (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Units 1 and 2, has selected Option 2 of Reference 6 and intends to pursue refinements to evaluation methods and acceptance criteria. To support use of this path, and continued operation for the period required to complete the necessary analysis and testing, I&M has evaluated the design and procedural capabilities that exist to identify and mitigate in-vessel blockage. A description of these detection and mitigative measures is provided in this enclosure. Additionally, a summary of the existing margins and conservatisms that exist for CNP is also included in this document.

Characterization of Current Containment Fiber Status

From the debris generation and debris transport analysis, I&M has determined that 116.09 lbs of fibrous debris could be transported to the strainers, as documented in Reference 10. This amount includes the additional fibrous insulation identified in Reference 5. Based on previously performed strainer bypass testing, the total quantity of fiber calculated to bypass the strainers is 5.805 lbs. Of this quantity, 32.74% is calculated to recirculate through the Containment Spray (CTS) system, with the remaining 67.26% (3.904 lbs) calculated to reach the reactor fuel. This is based on the scenario of two Residual Heat Removal (RHR) pumps and one CTS pump running, which is the scenario resulting in the highest percentage of flow into the core. This flow split was not previously credited in References 1, 2, and 3. This equates to an approximate value of 9.175 grams per fuel assembly (g/FA).

I&M plans to follow the PWROG initiative to establish acceptable limits for in-vessel debris and as such is providing the previously determined values of in-vessel fiber to support reasonable assurance for continued operation during this period of time. At the time the PWROG establishes new acceptance limits, I&M will evaluate previously performed bypass testing to determine whether additional testing is required, or if re-analysis of those results can be performed to demonstrate acceptable in-vessel debris limits.

The fibrous debris sources considered in these analyses include: Temp-Mat fibrous insulation and latent fibers.

Characterization of Strainer Head Loss Status

I&M previously provided the results of strainer head loss testing, including the impact of chemical effects, in References 1, 2, and 3. The results of this testing demonstrate acceptable results with regard to allowable head loss.

Characterization of In-Vessel Effects

I&M intends to follow the resolution strategy proposed by the PWROG for establishing in-vessel debris limits for the type of plant design that exists at CNP Units 1 & 2.

Licensing Basis Commitments

I&M currently has regulatory commitments to provide the NRC with its evaluation of in-vessel effects and its plans to disposition the Temp-Mat insulation in Containment, and to update its licensing basis following closure of Generic Letter (GL) 2004-02. As a result of the remaining open questions associated with GL 2004-02 for CNP Units 1 & 2, and the information contained within this document, the previously established commitments are considered to remain open. There is a new regulatory commitment and it is provided in Enclosure 3 to this letter.

Resolution Schedule

I&M will achieve closure of GSI-191 and address GL 2004-02 per the following schedule:

- As previously committed in Reference 5, I&M will communicate its resolution for the Temp-Mat insulation in CNP Unit 2 to the NRC in 2013.
- Testing and analysis to support resolution of in-vessel debris loading will be per the PWROG established schedule for CNP plant and fuel specific design.
- As described for Option 2, in Reference 6 and approved by Reference 7, I&M will perform the necessary analysis to adopt a higher in-vessel debris limit by the completion of the third Unit 2 refueling outage following January 1, 2013 (Fall 2016 for Unit 2), per the schedule expected to be established by the PWROG for resolution for CNP plant- and fuel-specific design. If the completion time for resolution is projected to exceed the third Unit 2 refueling outage after January 1, 2013, then I&M will communicate with the NRC to establish a new completion time that is acceptable to the NRC.
- As previously committed to in Reference 3, I&M will submit a final updated supplemental response to support closure of GL 2004-02 for CNP Units 1 & 2 approximately six months following completion of the evaluation per WCAP-16793.
- As previously committed to in Reference 3, I&M will update the CNP current licensing basis following NRC acceptance of the final updated supplemental response for CNP Units 1 & 2.

If I&M determines that a proposed testing or analysis resolution path will not be viable, then an alternate resolution path will be discussed with the NRC to gain acceptance of the proposed path and to establish an acceptable completion schedule.

Summary of Actions Completed To Address GL 2004-02

To support closure of GSI-191 and to address GL 2004-02, I&M has completed the following actions for CNP Units 1 & 2:

- Replaced simple geometry strainers that had a filtering surface area of 85 ft^2 and nominal ¼ in square openings with complex geometry strainers having a filtering surface area of 1972 ft^2 and nominal 2.1 - 2.4 mm circular openings (Reference 1).
- Modified recirculation sump vents to ensure debris would not affect vent function, and to ensure debris larger than strainer openings could not enter the sump via vents (Reference 1).
- Added new safety-related level instruments inside the recirculation sump to provide indication and alarm in the control room in the event of a low water level inside the sump (Reference 1).
- Installed debris interceptors in multiple locations to prevent debris from impeding the flow of water through Containment or the function of level instruments (Reference 1).
- Isolated the lower Containment sump from the recirculation sump to prevent debris from traveling from the former to the latter (Reference 1).
- Removed internals from Containment Equalization (CEQ) fan room drain lines to ensure drainage of CTS water from upper Containment to lower Containment (Reference 1).
- Removed Cal-Sil (Calcium Silicate) and fiberglass insulation and numerous tags and labels from Containment (References 1, 2, and 3).
- Performed strainer head loss and bypass testing, including chemical effects (References 1, 2, and 3).
- Performed latent debris sampling and characterization, including other debris sources (labels, fire tape, etc.) (References 1, 2, and 3).
- Completed debris generation and debris transport analyses (References 1, 2, 3, and 10).
- Completed ex-vessel downstream effects analysis (References 1, 2, and 3).
- Completed Net Positive Suction Head (NPSH) analysis (References 1, 2, and 3).
- Completed Loss of Coolant Accident Disposition Model analysis (References 1, 2, and 3).
- Updated UFSAR and Technical Specifications to reflect changes resulting from GL 2004-02 (References 1, 2, and 3).
- Established programmatic and procedural changes to maintain acceptable configuration and protect the newly established design and licensing basis, including augmentation of the Containment Recirculation Sump Protection Program (References 1, 2, and 3).

Summary of Margins and Conservatisms for Completed Actions for GL 2004-02

The following provides a summary description of the margins and conservatisms associated with the resolution actions taken to date. These margins and conservatisms provide support for the extension of time required to address GL 2004-02 for CNP Units 1 & 2. These margins and conservatisms are discussed in greater detail in Reference 3, Attachment 3, Appendix 2.

Debris Generation:

- Strainer testing used substantially more Cal-Sil fines than are available to reach the strainers (approximately 7 times as much for Double Ended Guillotine Break (DEGB)).
- A 17D Zone of Influence (ZOI) was used for Marinite, rather than the as-tested 9.1D ZOI.
- A 5D ZOI was used for qualified coatings rather than the 4D recommended by WCAP-16568-P.
- No credit was taken for the stainless steel flashing around Min-K.
- 200 lbs of latent debris was assumed for both Containments. This resulted in a margin of 38.28 lbs for Unit 1 and 82.74 lbs for Unit 2.
- Vertical surfaces were assumed to contribute 30 lbs of latent debris.
- Latent debris samples were taken from areas that are not routinely cleaned as part of Containment closeout.
- Only a few of the 184 latent debris samples collected between both units had a visible fiber. These visible fibers appeared to be human hair or lint.
- Sacrificial strainer areas of 76 ft^2 and 83 ft^2 were established for the main and remote strainers, respectively. This provides margins of 61.79 ft^2 and 54.16 ft^2 for the Unit 1 and Unit 2 main strainers, and margins of 57.87 ft^2 and 58.69 ft^2 for the Unit 1 and Unit 2 remote strainers, respectively.
- An additional 10% was added to the calculated quantity of qualified coatings that fail within the ZOI.
- Cold galvanizing compound was assumed to fail as 10 micron particles.
- The margin for unqualified coatings is 4007 ft^2 for Unit 1 and 6616 ft^2 for Unit 2.
- Design Basis Accident testing determined that 2% of cold galvanizing compound failed. A 50% failure rate was assumed in the analysis, resulting in 388.75 lbs available for transport and a margin of 388.75 lbs that would not be available for transport.

Debris Transport:

- It was assumed that debris would not transport to the Reactor cavity, which is an inactive volume.
- Debris transport fractions greater than 100% were used.
- It was assumed that all debris would reach the Containment pool.
- It was assumed that 100% of the upper Containment debris sources would fail and transport to the refueling canal drains.
- It was assumed that all coatings, labels, and other miscellaneous debris would fail instantaneously rather than failing over time, if at all.
- No credit was taken for the debris interceptor at the flood-up overflow wall.
- The turbulence from water entering the pool was maximized to increase transport fractions.
- No credit was taken for hold-up of fibrous and particulate debris on the equipment in the Annulus.
- No credit was taken for debris settling in the quiescent area at the Reactor Coolant Drain Tank pit.

Strainer Head Loss:

- Strainer head loss was normalized to 68°F. Containment pool temperatures range from 190°F at the start of recirculation to 100°F later in the event. At 100°F, the head loss could be up to 30% less than it is at 68°F.
- Substantially more debris was used for strainer testing compared to what is available to reach the strainers.
- The flow rate used for testing was approximately 1000 gpm greater than the maximum recirculation flow rate. This 7% flow reduction would result in a 15% head loss reduction.
- It was assumed that the sump water level was lowest at the time of maximum head loss. This provides a margin of 0.1 ft for DEGB.

Chemical Effects:

- CCI (Control Components Inc.) chemical effects testing determined a maximum head loss increase of 53%. A value of 70% was assumed to provide margin.
- It was assumed that 100% of the aluminum fins on the Reactor Coolant Pump (RCP) motor air coolers are exposed to Containment Spray, when not all of the fins are exposed. These components represent the greatest quantity of aluminum in Containment.
- It was assumed that chemical precipitates form immediately, rather than later in the event when the water temperature has decreased. At this later time, the Containment water level will be higher and the required flow rate will be lower, which will increase the allowable head loss and decrease the actual head loss.

Emergency Core Cooling System (ECCS) Flow:

- The Containment minimum water level analysis did not consider the volume of water displaced by the equipment in lower Containment. This would raise the water level at least 2.2 in.
- The quantity of ice melted was minimized for a Small Break Loss of Coolant Accident.
- The effectiveness of Containment Spray was maximized to reduce the quantity of ice melted.
- Initial Containment temperature was assumed to be 60°F, which minimized the steam partial pressure to be condensed.
- The enthalpy of the Reactor Coolant System (RCS) was maximized, which minimized the steam released to Containment.
- The initiation of Containment Spray was biased early, which provided a greater contribution to Containment cooling from Containment Spray.
- The assumed single failure for Containment water level analysis was the failure of one CEQ fan. This reduced the flow through the ice condenser, minimizing ice melt.
- The assumed CEQ fan flow was biased low to reduce ice melt.
- The assumed hold-up volumes were biased high to minimize water available for the Containment pool.
- The flow rate used for testing was approximately 1000 gpm greater than the maximum recirculation flow rate. This represents a 7% increase in flow in the system.

- The NPSH analysis assumed a minimum water level of 601.5 ft in the sump, which provides a minimum NPSH margin of 9.5 ft.

In-vessel:

- As discussed above, the amount of fiber calculated to reach the core is 9.175 g/FA. This provides a margin of 5.825 g/FA to the NRC-accepted value of 15 g/FA from WCAP-16793-NP (References 8, 9).

Summary of Defense-In-Depth (DID) Measures

The following describes the plant-specific design features and procedural capabilities that exist for detecting and mitigating a fuel blockage condition. Since strainer blockage concerns for CNP Units 1 & 2 have already been adequately addressed (Reference 4), discussion of defense-in-depth measures for strainer blockage will not be discussed here. This can be found in the discussion, in Reference 3, of the Alternate Evaluation Methodology (Attachment 3, Appendix 1) and in I&M's responses to Bulletin 2003-01 (References 11, 12, 13, 14, and 15).

As stated above, the amount of fiber reaching the core in CNP Units 1 & 2 is 9.175 g/FA, which is 5.825 g/FA below the NRC-accepted limit of 15 g/FA (References 8, 9). This provides confidence that fuel blockage is not a concern for CNP Units 1 & 2. Despite this, the following defense-in-depth measures have been implemented to detect and/or mitigate fuel blockage:

- Reducing ECCS flows by securing unneeded pumps as discussed in Reference 3, Attachment 3, Appendix 1.
- Terminating CTS and placing Containment Vent Fans in service.
- Realigning ECCS high pressure pumps' suction to the Refueling Water Storage Tank (RWST).
- Refilling the RWST from alternate sources (Boric Acid Blender, opposite unit RWST).
- Monitoring for decreasing Reactor Vessel Level Indicating System (RVLIS) indication.
- Monitoring for increasing Core Exit Thermocouple temperature indication.
- Utilizing intact Steam Generators to dump steam to the condensers.
- Starting a RCP.
- Attempting to supply makeup to the RCS from an alternate source (Volume Control Tank, Boric Acid Storage Tank, Primary Water Storage Tank, Chemical Volume and Control System (CVCS) Hold-Up Tank, Condensate Storage Tank, CVCS unit crosstie).
- Implementing Severe Accident Mitigation Guidelines or Extensive Accident Mitigation Guidelines.
- Monitoring for increasing Containment or Auxiliary Building radiation levels.

I&M is currently evaluating the information in PWROG's DW-12-013 (Reference 16), regarding concerns about the effect of core blockage on differential pressure-based RVLIS, prior to determining if implementation would be beneficial for CNP Units 1 & 2. I&M expects that the demonstrated low amount of fiber that would reach the core provides confidence that fuel assembly blockage is not a concern, and that RVLIS will perform as designed during an accident, allowing I&M to take credit for monitoring for decreasing RVLIS indication. This, combined with the other

defense-in-depth measures identified above, provides adequate defense-in-depth such that implementation of DW-12-013 can be reviewed further before determining if changes would be beneficial to the operators.

Although these measures are not expected to be required based on the very low probability of an event that would challenge either the capability of the strainer to provide the necessary flow to the ECCS and CTS systems, or result in significant quantities of debris being transported to the reactor vessel that would inhibit the necessary cooling of the fuel, they do provide additional assurance that the health and safety of the public would be maintained. These measures provide support for the extension of time required to completely address GL 2004-02 for CNP Units 1 & 2.

Conclusion

I&M expects that the GSI-191 resolution path for CNP Units 1 & 2 is acceptable, based on the information provided in this document. The execution of the actions identified in this document will result in successful resolution of GSI-191 and closure of GL 2004-02.

References

1. Letter from M. A. Peifer, I&M, to NRC Document Control Desk, "Supplemental Response to Nuclear Regulatory Commission Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated February 29, 2008, (ML080770394, ML080770395, ML080770396, ML080770400, and ML080770404).
2. Letter from L. J. Weber, I&M, to NRC Document Control Desk, "Final Response to Nuclear Regulatory Commission Generic Letter 2004-02: Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors and Associated Request for Additional Information," dated August 29, 2008, (ML082520025).
3. Letter from J. P. Gebbie, I&M, to NRC Document Control Desk, "Updated Final Response to Nuclear Regulatory Commission Generic Letter 2004 02: Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors and a June 2009 Request for Additional Information," dated May 26, 2010, (ML101540527).
4. Letter from P. S. Tam, NRC, to L. J. Weber, I&M, "Donald C. Cook Nuclear Plant, Units 1 And 2 (DCCNP 1&2) – NRC Staff Comments on Licensee's Supplemental Responses to Generic Letter 2004-02 (TAC Nos. MC4679 and MC4680)," dated July 27, 2010, (ML101960128).
5. Letter from J. P. Gebbie, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Disposition Of Temp-Mat Fibrous Insulation in Unit 1 and Unit 2 Containments With Respect To Generic Letter 2004-02 Concerns," dated May 19, 2011, (ML11147A072).
6. Policy Issue from R.W. Borchardt, NRC, for The Commissioners, NRC, "Closure Options For Generic Safety Issue - 191, Assessment Of Debris Accumulation On Pressurized-Water Reactor Sump Performance," SECY-12-0093, dated July 9, 2012, (ML121310648).
7. Memorandum from A. L. Vietti-Cook, NRC, to R. W. Borchardt, NRC, "Staff Requirements – SECY-12-0093 – Closure Options For Generic Safety Issue - 191, Assessment Of Debris Accumulation On Pressurized-Water Reactor Sump Performance," dated December 14, 2012, (ML12349A378).
8. WCAP-16793-NP, Revision 2, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," dated October 12, 2011, (ML11292A020).
9. Final Safety Evaluation By The Office Of Nuclear Reactor Regulation, Topical Report WCAP-16793-NP, Revision 2, "Evaluation Of Long-Term Cooling Considering Particulate, Fibrous And Chemical Debris in the Recirculating Fluid," dated April 8, 2013, (ML13084A152, ML13084A154).
10. I&M calculation ALION-CAL-AEP-3085-16, Revision 3, "D. C. Cook Units 1 & 2 Summary of Debris Generation and Debris Transport Results."
11. Letter from A. C. Bakken III, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Response To Nuclear Regulatory Commission Bulletin 2003-01 Regarding Debris Blockage Of Recirculation Sump," dated August 7, 2003, (ML032260668).

12. Letter from M. K. Nazar, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Clarification - Response To Nuclear Regulatory Commission Bulletin 2003-01 Regarding Debris Blockage Of Recirculation Sump," dated June 28, 2004, (ML041890357).
13. Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Response To Request For Additional Information - Nuclear Regulatory Commission Bulletin 2003-01 Regarding Debris Blockage Of Recirculation Sump," dated January 24, 2005, (ML050270184).
14. Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Additional Information - Nuclear Regulatory Commission Bulletin 2003-01 Regarding Debris Blockage Of Recirculation Sump," dated August 31, 2005, (ML052510417).
15. Letter from J. N. Jensen, I&M, to NRC Document Control Desk, "Donald C. Cook Nuclear Plant Units 1 and 2 Additional Information - Nuclear Regulatory Commission Bulletin 2003-01 Regarding Debris Blockage Of Recirculation Sump'" dated September 15, 2005, (ML052700379).
16. Letter OG-13-137 from PWROG, to PWROG Procedures Subcommittee Westinghouse NSSS Members, "Transmittal of the Approved Response for DW-12-013," dated April 5, 2013.

Enclosure 3 to AEP-NRC-2013-45
REGULATORY COMMITMENTS

The following table identifies those actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions described in this submittal represent intended or planned actions by I&M. They are described to the Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments.

COMMITMENT	DATE
As described for Option 2, in Reference 6, and approved by Reference 7, I&M will perform the necessary analysis to adopt a higher in-vessel debris limit by the completion of the third Unit 2 refueling outage following January 1, 2013 (Fall 2016 for Unit 2), per the schedule expected to be established by the PWROG for resolution for CNP plant- and fuel-specific design. If the completion time for resolution is projected to exceed the third Unit 2 refueling outage after January 1, 2013, then I&M will communicate with the NRC to establish a new completion time that is acceptable to the NRC.	Completion of Unit 2 Refueling Outage – Fall of 2016