FILED November 15, 2023 INDIANA UTILITY REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

PETITION OF INDIANA MICHIGAN POWER)	
COMPANY, AN INDIANA CORPORATION, FOR)	
AUTHORITY TO INCREASE ITS RATES AND)	
CHARGES FOR ELECTRIC UTILITY SERVICE)	
THROUGH A PHASE IN RATE ADJUSTMENT; AND)	
FOR APPROVAL OF RELATED RELIEF INCLUDING:)	
(1) REVISED DEPRECIATION RATES, INCLUDING)	
COST OF REMOVAL LESS SALVAGE, AND)	
UPDATED DEPRECIATION EXPENSE; (2))	
ACCOUNTING RELIEF, INCLUDING DEFERRALS)	
AND AMORTIZATIONS; (3) INCLUSION OF CAPITAL)	
INVESTMENT; (4) RATE ADJUSTMENT)	CAUSE NO. 45933
MECHANISM PROPOSALS, INCLUDING NEW)	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX)	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER)))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE)))))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE IMPLEMENTATION OF THE POWERPAY)))))))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE IMPLEMENTATION OF THE POWERPAY PROGRAM; (7) COST RECOVERY FOR COOK)))))))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE IMPLEMENTATION OF THE POWERPAY PROGRAM; (7) COST RECOVERY FOR COOK PLANT SUBSEQUENT LICENSE RENEWAL)))))))))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE IMPLEMENTATION OF THE POWERPAY PROGRAM; (7) COST RECOVERY FOR COOK PLANT SUBSEQUENT LICENSE RENEWAL EVALUATION PROJECT; AND (8) NEW SCHEDULES	·)))))))))))	
MECHANISM PROPOSALS, INCLUDING NEW GRANT PROJECTS RIDER AND MODIFIED TAX RIDER; (5) A VOLUNTARY RESIDENTIAL CUSTOMER POWERPAY PROGRAM; (6) WAIVER OR DECLINATION OF JURISDICTION WITH RESPECT TO CERTAIN RULES TO FACILITATE IMPLEMENTATION OF THE POWERPAY PROGRAM; (7) COST RECOVERY FOR COOK PLANT SUBSEQUENT LICENSE RENEWAL EVALUATION PROJECT; AND (8) NEW SCHEDULES OF RATES, RULES AND REGULATIONS	·)))))))))))))))))))))))))))))))))))))	

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

PUBLIC'S EXHIBIT NO. 5

REDACTED TESTIMONY OF OUCC WITNESS

JARED J. HOFF

NOVEMBER 15, 2023

Respectfully submitted,

Formane Ai

Lorraine Hitz Attorney No. 18006-29 Deputy Consumer Counselor

INDIANA MICHIGAN POWER COMPANY CAUSE NO. 45933 TESTIMONY OF OUCC WITNESS JARED J. HOFF

I. <u>INTRODUCTION</u>

1	Q:	Please state your name and business address.
2	A:	My name is Jared J. Hoff, and my business address is 115 West Washington Street,
3		Suite 1500 South, Indianapolis, Indiana 46204.
4	Q:	By whom are you employed and in what capacity?
5	A:	I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as a
6		Utility Analyst for the Natural Gas Division. My educational background, experience,
7		and my preparations for this cause are detailed in Appendix JJH-1 attached to this
8		testimony. Also detailed in Appendix JJH-1 is the background of my testimony
9		analysis.
10	Q:	What is the purpose of your testimony?
10 11	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes
10 11 12	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes related to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan Power
10 11 12 13	Q: A:	What is the purpose of your testimony?The purpose of my testimony is to analyze the proposed revenue requirement changesrelated to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan PowerCompany ("I&M") seeks approval for a project to support Cook's Subsequent License
10 11 12 13 14	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes related to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan Power Company ("I&M") seeks approval for a project to support Cook's Subsequent License Renewal ("SLR"); an increase to Cook's Operations and Maintenance ("O&M")
10 11 12 13 14 15	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes related to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan Power Company ("I&M") seeks approval for a project to support Cook's Subsequent License Renewal ("SLR"); an increase to Cook's Operations and Maintenance ("O&M") expense; an increase to Indiana ratepayers' annual contribution to the Nuclear
10 11 12 13 14 15 16	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes related to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan Power Company ("I&M") seeks approval for a project to support Cook's Subsequent License Renewal ("SLR"); an increase to Cook's Operations and Maintenance ("O&M") expense; an increase to Indiana ratepayers' annual contribution to the Nuclear Decommissioning Trust Fund ("DTF" or "Nuclear DTF"); and amortization of the cost
10 11 12 13 14 15 16 17	Q: A:	What is the purpose of your testimony? The purpose of my testimony is to analyze the proposed revenue requirement changes related to the Donald C. Cook Nuclear Power Plant ("Cook"). Indiana Michigan Power Company ("I&M") seeks approval for a project to support Cook's Subsequent License Renewal ("SLR"); an increase to Cook's Operations and Maintenance ("O&M") expense; an increase to Indiana ratepayers' annual contribution to the Nuclear Decommissioning Trust Fund ("DTF" or "Nuclear DTF"); and amortization of the cost of the Decommissioning Cost Study for the D.C. Cook Nuclear Power Plant

Public's Exhibit No. 5 Cause No. 45933 Page 2 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information

1	Q:	Please describe the review you conducted to prepare for this testimony.
2	A:	I reviewed the Petition, Testimony, and Attachments for this Cause. I reviewed
3		Petitioner's direct testimony of Kelly J. Ferneau, Aaron L. Hill, Roderick W. Knight,
4		Tyler H. Ross, and Dona Seger-Lawson with my focus on the Cook Plant. I reviewed
5		Petitioner's prior rate case and Commission Order. I analyzed Petitioner's responses to
6		data requests concerning the proposed Nuclear DTF, Decommissioning Study, Nuclear
7		DTF contribution increase, SLRA Project, and the Cook O&M adjustment. I
8		participated in OUCC case team meetings and an informal discussion between OUCC
9		and Petitioner's staff on September 19, 2023.
10	0.	Are you sponsoring any attachments in this proceeding?
10	Q.	Are you sponsoring any attachments in this proceeding.
11	A:	Yes. I am sponsoring 17 attachments:
12 13		• Attachments JJH-1, JJH-2, JJH-3, JJH-6, JJH-7, JJH-8, JJH-10 relate to the SLR application ("SLRA") project;
14 15		• Attachment JJH-4-C and JJH-5 relate to the D.C. Cook Nuclear Plant SLR Feasibility Study;
16		• Attachment JJH-9 relates to an interview with Steven Baker;
17		• Attachment JJH-11 relates to Cook's O&M expense;
18 19		• Attachments JJH-12 and JJH-16 relate to the Decommissioning Funding Status Report from 2001 to 2023;
20 21		• Attachment JJH-13 relate to the Independent Spent Fuel Storage Installation ("ISFSI"); and
22		• Attachments JJH-14, JJH-15, and JJH-17 relate to the Nuclear DTF balances.
23	Q:	Please summarize your recommendations concerning Cook.
24	A:	I recommend the following:

1 2 3 4 5 6 7		• While the OUCC supports maintaining Cook as a valuable generating asset, the OUCC recommends the Commission deny the Subsequent License Renewal Application ("SLRA") Project at this time because of conflicting and unverifiable data, and because I&M has not formally decided to pursue the license renewal. Once I&M formally chooses to pursue the renewal, it can then seek Commission approval with sufficient detail to support the SLRA Project.
8 9 10 11		• Should the Commission approve I&M's SLRA request in this case, the OUCC alternatively recommends the Commission require I&M to take the following actions:
12 13		• Provide an update on the progress of the SLRA Project not less than every six months until project completion.
14 15 16		• Provide a detailed explanation for each of the elements of the SLRA Project costs subject to approval and recovery if the actual costs exceed the approved estimated amount by 25%. ¹
17 18 19		 Be allowed to seek a return "of", but not a return "on", the costs incurred on the SLRA Project if the Cook license renewal is not sought after the 2024 Integrated Resource Plan ("2024 IRP").
20		• Approve the proposed O&M expense for the Cook operations.
21 22 23 24		• Approve I&M's proposal to recover the Decommissioning Study expense over two years. I also recommend if I&M does not file a base rate case by the time this expense has been recovered, an updated tariff be filed with the Commission removing this expense from rates.
25 26		• Deny I&M's request to increase the annual Indiana jurisdictional contribution to the Nuclear DTF from \$0 to \$2 million.
27 28	Q:	To the extent you do not address a specific item in your testimony, should it be construed to mean you agree with I&M's proposal?
29	A:	No. My silence regarding any topics, issues, or items Petitioner proposes does not
30		indicate my approval of these topics, issues, or items. Rather the scope of my testimony
31		is limited to the specific items addressed herein.

¹ It is my understanding this is consistent with the constraints under the Federal Mandates Statute, Ind. Code ch. 8-1-8.4. This is a reasonable limitation on the approval of costs.

II. SUBSEQUENT LICENSE RENEWAL

1 Q: Please describe what I&M is proposing for the SLRA Project.

- 2 I&M proposes a project to gather and assemble the information required to submit the A: 3 SLR application for the Cook operational license to the Nuclear Regulatory Commission ("NRC").² I&M witness Kelly Ferneau states, "[b]ased on initial cost 4 5 estimates it is expected the full costs of completing the SLRA will be between \$40 million to \$45 million."³ I&M did not provide testimonial clarification in its case-in-6 7 chief on whether this project cost is specifically for I&M's Indiana ratepayers' portion 8 or if this is the cumulative project estimate for both jurisdictions. In response to OUCC 9 DR 13.1 (See Attachment JJH-X), I&M confirmed the cumulative cost estimate of the SLRA Project is \$40-45 million for all jurisdictions.⁴ 10 11 Cook's current operational licenses are set to expire in 2034 and 2037 for Units 12 1 and 2 respectively. NRC approval of an SLR would move the expiration to 2054 and 2057 respectively.⁵ 13 14 **Q**: Is I&M requesting approval for its proposed SLRA Project through the Michigan **Public Service Commission ("MPSC")?** 15 Yes. In testimony, Ms. Ferneau indicated I&M will be filing the appropriate request for 16 A: 17 approval with the MPSC concurrent with the request for approval of the Commission 18 in this Cause.⁶ I&M subsequently filed its base rate case with the MPSC on September
- 19 12, 2023, under Cause No. U-21461.

⁵ Ferneau, p. 20, ll. 22-24.

² Direct Testimony of I&M witness Kelly Ferneau, p. 19, ll. 15-21.

³ *Id.* at p. 25, ll. 4-5.

⁴ Att. JJH-1; I&M's response to OUCC Data Request 13.1.

⁶ *Id.* at p. 24, ll. 16-19.

Have any other nuclear units in the U.S. applied for or received SLRs from the 1 **O**: 2 NRC? 3 Yes. As of October 10, 2023, 17 units at commercial nuclear power plants in the United A: 4 States applied to the NRC for an SLR. Eleven units are currently under review and six 5 units received an SLR, but have not entered the extended license period. As of October 6 10, 2023, an additional eight units submitted a Letter of Intent to the NRC to apply for 7 an SLR between 2023 and 2025.⁷ 8 **Q**: Why is I&M seeking approval for the SLRA Project? 9 A: I&M is proposing the SLRA Project in this base rate case before developing its 2024 10 IRP, where a final decision on whether to seek an SLR will be made. I&M stated that 11 starting the process early will allow it to be "very intentional and thoughtful" in the decision on whether to seek relicensing for Cook in the 2024 IRP⁸ and would allow the 12 13 NRC more time to request any additional information needed during the review and approval process.⁹ The NRC estimates the SLR approval process will take between 22 14 and 24 months following I&M's SLRA submission.¹⁰ 15 16 I&M contracted Enercon to conduct a feasibility study regarding the extension 17 of the Cook operational license, which estimated that gathering the information and 18 consolidating the application would take an additional 2-3 years – an overall estimate of 4-7 years.¹¹ I&M proposes that if the SLR is not included in the 2024 IRP and the 19 20 SLRA Project ends, the recovery of any costs incurred through the SLRA will be

⁷ NRC. As of November 8, 2023. *Status of Subsequent License Renewal Applications*. https://www.nrc.gov/reactors/operating/licensing/renewal/subsequent-license-renewal html.

⁸ Ferneau, p. 22, ll. 5-13.

⁹*Id.*, pp. 23 - 24.

¹⁰ *Id.*, p. 24, ll. 10-11.

¹¹ *Id.* at ll. 7-11.

Public's Exhibit No. 5 Cause No. 45933 Page 6 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information

1		treated as a regulatory asset. ¹² Thus, if I&M decides not to seek an SLR following the
2		2024 IRP, then work on the SLRA Project would end and I&M would seek to recover
3		only the costs already incurred at the time of the decision. ¹³
4	Q:	Did I&M provide a breakdown of the costs included in the SLRA Project?
5	A:	Yes. I&M included a breakdown of the SLRA Project elements totaling \$42.7 million,
6		as follows: ¹⁴
7		• Primary Architect and Engineering consultant estimated at \$17.5 million. ¹⁵
8		• Specialty vendor to perform analysis of the reactor vessel and surrounding
9		components estimated at \$11.0 million. ¹⁶
10		• Specialty vendor to develop the Environmental Report estimated at \$2.0
11		million. ¹⁷
12		• Cook staff to support the SLRA Project estimated at \$5.2 million. ¹⁸
13		• NRC and legal fees estimated at \$7 million. ¹⁹
14	Q:	How did I&M determine this breakdown of costs?
15	A:	When the OUCC requested I&M provide a more detailed scope and cost estimate for
16		each of these elements, I&M responded:
17 18 19 20		No additional details exist currently. We based our SLRA estimate on a review of the Enercon Feasibility Study (45933_IndMich_OUCC_1-04_Attachment 1_08312023). These costs required an adjustment up due to estimates of the external

¹² Att. JJH-2; I&M's response to OUCC DR 7.7.
¹³ Id. and Ferneau, p. 24, ll. 1-5.
¹⁴ Id., p. 25, l. 17 - p. 26, l. 7.
¹⁵ Id., p. 25, ll. 19-20.
¹⁶ Id., p. 25, ll. 21-23.
¹⁷ Id., p. 26, ll. 1-2.
¹⁸ Id., p. 26, ll. 3-4.
¹⁹ Id., p. 26, ll. 5-6.

Cause No. 45933 Page 7 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information scope obtained and benchmarking we performed with other peer 1 applicants already entering the process.²⁰ 2 3 Did you review the Enercon Feasibility Study ("Enercon Study"), and if so, what **Q**: 4 did vou find? 5 Yes, I reviewed the Enercon Study and found it provides different estimates for the A: SLRA Project. In the Enercon Study, one estimate states: <Confidential 6 7 8 9 Confidential>.²¹ In the same Enercon Study, another estimate, also 10 11 different from what is requested in testimony, is proposed in the range of <Confidential Confidential>.²² 12 13 I&M does not explain the differences between the three estimates (two from the 14 study and one in this Cause), beyond connecting the study estimates with the life cycle 15 management program. I&M indicates that the life cycle management project included 16 work on equipment such as the main generator, which was included in the estimate

Public's Exhibit No. 5

produced in the Enercon Study. But the explanation does not include any information
 on the monetary impacts due to the work completed in the life cycle management
 program.²³

²⁰ Att. JJH-3; I&M's response to OUCC DR 1.13.

²¹ Att. JJH-4-C; Enercon Feasibility Study as provided in response to OUCC DR No. 1.4, p. 243 of 326.

²² *Id.*, p. 202 of 326.

²³ Att. JJH-5; I&M's response to OUCC DR No. 1.4. The OUCC asked I&M for further information on the development process of the project scope and estimate in OUCC DR Nos. 6.7 and 6.8 respectively. I&M reiterated the proposed SLRA Project amount and scope based on the Enercon Study, and stated the estimates will be further refined through the internal controls in place at the Cook Plant. Att. JJH-6; I&M's response to OUCC DR 8.6 and 8.7.

1		While Ms. Ferneau clearly states the benefits of the SLRA Project, the details
2		regarding the project development and execution are not clear. Without additional
3		supporting documentation describing the development process for the SLRA Project
4		scope and estimate, I cannot verify I&M's estimate.
5	Q:	Are you recommending approval of I&M's request for SLRA Project?
6	A:	No, I cannot recommend approval of I&M's request in this case. The request is
7		premature.
8 9	Q:	Has I&M proposed any processes to update the Commission on the progress of the SLRA Project?
10	A:	No. There was no proposal from I&M concerning updates to the Commission on the
11		progress of the SLRA Project in Ms. Ferneau's testimony. Regarding project updates,
12		I&M responded to OUCC DR 1.14, generally, that updates to the SLRA Project will
13		be provided to the Commission as required by the appropriate state law. ²⁴ I&M stated
14		it will also evaluate the decision in its next IRP. ²⁵ When questioned on how I&M will
15		update the Commission on the progress and status of the SLRA Project, I&M stated
16		that it "would be willing to report on the status of the SLRA Project in basic rate cases
17		filed following this proceeding through the point in time when the SLRA Project is
18		completed." ²⁶
19	Q:	Do I&M's frequent rate cases provide sufficient review of the SLRA project?

- No. While I&M has filed for a base rate case every two years since 2017, updates and 20 A:
- 21

reviews of a project every two years is not frequent enough to appropriately review a

 ²⁴ Att. JJH-7; I&M's resp. to OUCC DR 1.14.
 ²⁵ Att, JJH-2.

²⁶ Att. JJH-8; I&M's response to OUCC DR 7.8.

1 project that is estimated to take two to three years.

While I&M provides an overview of the internal review process in place at Cook, it does not propose a reasonable method for providing project updates to the Commission or seeking approval of estimate changes.²⁷ I&M indicated the 2024 IRP process would determine whether a license renewal would be sought, and I&M would provide updates on the SLRA project through future rate cases.²⁸

7 The SLR application submission target for I&M is November 2027.²⁹ I&M 8 plans to make the decision regarding whether to pursue a license renewal for Cook in 9 the 2024 IRP process.³⁰ If the SLRA is approved as proposed, the only reviews and 10 updates to the Commission and the OUCC - as proposed - would be late in the project's 11 execution or potentially after project completion. This minimal review does not allow 12 for an appropriate level of oversight given the scale of the project and ratepayer impact, 13 as described in the breakdown and description provided in Ms. Ferneau's testimony.³¹

14 Frequent Commission review will allow identification of potentially imprudent 15 decisions by I&M in pursuing the SLRA. The Commission can thus direct I&M to 16 avoid ineffective investments and unnecessary costs. Without sufficient independent 17 project review, more time, effort, and funding may be allocated following a rejected 18 path, resulting in waste. The I&M project team is also more likely to identify and learn 19 from any mistakes or setbacks with frequent Commission reviews, which can reduce

- ²⁸ Att. JJH-8.
- ²⁹ Ferneau, p. 22, l. 15.
- ³⁰ *Id.* at p. 23, ll. 24-25.

²⁷ Ferneau, p. 26, 11. 8-26.

³¹ *Id.* at p. 25, 1. 19 - p. 26, 1. 7.

1	the likelihood of additional setbacks in later stages of the project. Cook's baseload
2	generation position (comprising around 75% of I&M's generation capacity), ³² makes
3	it crucial to provide transparency to ratepayers, the OUCC, and the Commission
4	because the impact Cook's closure would have on I&M's generation capacity if it were
5	to happen.

6 **Q**: If I&M does not pursue an SLR due to its 2024 IRP results, what do you 7 recommend regarding cost recovery associated with the SLRA Project?

8 A: I&M clarified the impacts to the SLRA Project if a decision to not seek a license renewal is made as part of its 2024 IRP process.³³ When asked how the costs of the 9 10 SLRA Project would be recovered if the SLR is not included in the 2024 IRP, I&M 11 stated that regulatory asset treatment would be sought, specifically, "I&M plans to seek 12 recovery of and on the regulatory asset in the basic rate case following the conclusion of that IRP."³⁴ 13

14 I agree in part to I&M's proposal for this scenario, in that I&M should be 15 allowed to seek recovery "of" the costs incurred in the study to gather the information 16 for the SLR, if a license renewal for Cook is not ultimately sought based on the 2024 17 IRP. I do not agree with the plan to seek recovery "on" the costs incurred on an SLRA 18 Project before being ended by a decision to not seek a license renewal. It is not 19 appropriate for I&M to earn a return "on" the costs incurred for a study or a project 20 I&M decides not to pursue beyond the IRP.

³² Att. JJH-9: Five questions for Steve Baker, President & COO of Indiana Michigan Power, "The Journal Gazette", October 16, 2023, https://www.journalgazette net/opinion/editorials/five-questions-for-steve-bakerpresident-coo-of-indiana-michigan-power/article 06096608-6929-11ee-b744-474df49355e4 html . ³³ Att. JJH-2.

Public's Exhibit No. 5 Cause No. 45933 Page 11 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information

1		In particular, receiving a return "on" is not appropriate and presents an
2		additional burden in this case, as Cook generates 75% of I&M's capacity and, as such,
3		would require an enormous investment to replace. ³⁵ Further, with no requirement for
4		the frequency within which I&M must seek a base rate case, these costs could be carried
5		for years. During that time, the return on these costs will increase and create an ever-
6		growing expense to ratepayers in all I&M jurisdictions. Therefore, if I&M incurs costs
7		against the SLRA Project but does not seek a license renewal for Cook, I recommend
8		the Commission allow I&M to seek recovery "of," but not a recovery "on," those costs.
9 10	Q:	What financial and regulatory impacts were identified in the event the Commission or the MPSC does not approve the SLRA Project?
11	A:	In response to OUCC DR 1.12, I&M replied that if either of the regulatory authorities
12		did not approve the SLRA Project, it would negatively impact the ability to move
13		forward with the project. Should this occur, I&M indicated it will need to acquire a
14		significant amount of replacement resources due to Cook providing significant carbon-
15		free capacity. ³⁶
16	Q:	Do you approve of I&M's proposed SLRA Project?
17	A:	No. While the OUCC supports I&M's effort to relicense the Cook Plant through the
18		SLR process, the OUCC does not recommend approval of the SLRA Project before
19		I&M itself has decided to pursue re-licensing. Cook is a critical source of baseload,
20		carbon-free power generation for Indiana, Michigan, and wholesale ratepayers.
21		However, I&M has failed to adequately support ratepayer funding for the SLRA Project

22 with detailed scope and estimates in this proceeding.

³⁵ Att. JJH-9.

³⁶ Att. JJH-10; I&M's response to OUCC DR 1.12.

1 Q: What are your recommendations concerning the SLRA Project?

2 A: To summarize:

13 14

15

16

17

18

3	• The OUCC supports maintaining Cook as a crucial generating	asset But for the
5	• The OOCC supports maintaining Cook as a crucial generating a	isset. Dut for the
4	reasons I have described, the OUCC recommends the Co	mmission deny
5	inclusion of the SLRA Project in rates until I&M formally decide	les to pursue the
6	license renewal. I&M can then seek Commission approval with	sufficient detail
7	to support the SLRA Project. I&M should not seek recove	ry of any costs
8	incurred on the SLRA Project until after the first update	e following the
9	submission and approval of the SLRA Project in its separate fi	ling.
10		

- Should the Commission approve I&M's SLRA request, the OUCC alternatively
 recommends the Commission require I&M to take the following actions:
 - Provide an update on the progress of the SLRA Project not less than every six months until project completion.
 - Provide a detailed explanation for each of the elements of the SLRA Project costs subject to approval and recovery if the actual costs exceed the approved estimated amount by 25%.
- 19oBe allowed to seek a return "of", but not a return "on", the costs incurred20on the SLRA Project if the Cook license renewal is not sought after the212024 Integrated Resource Plan ("2024 IRP").

III. COOK O&M ADJUSTMENT

22Q:Please describe what I&M is proposing for the adjustment to the Cook O&M23expense.

- A: I&M proposes a \$12,405,248³⁷ O&M expense adjustment in WP-A-OM-11. Ms.
- 25 Ferneau gives more detail by providing the four major categories of the O&M expense
- 26 adjustment shown in Figure KJF-1.³⁸ Main drivers of Ms. Ferneau's O&M adjustment
- 27 include Planned Outages or Outage Amortization and Plant Maintenance.³⁹

³⁷ Workpaper of I&M witness Kelly Ferneau "WP-A-OM-11," "Adjustment Summary" tab.

³⁸ Ferneau, Fig. KJF-1, p. 10.

³⁹ *Id.*, p. 12, ll. 5-13.

1 **O**: What justification does I&M give for seeking an adjustment to the Cook O&M 2 expense? 3 Ms. Ferneau states, "[t]he plant maintenance increase is related to projects such as the A: 4 Isophase Bus Duct work for Unit 2 and work on Cook's Risk Informed Engineering Program that was pushed out to later years due to funding constraints."⁴⁰ Additionally, 5 6 for the Planned Outage portion of the adjustment, Ms. Ferneau states, "[t]he increase 7 in outage amortization expense is related to ice condenser scope, updated vendor proposals and cost escalations since the Test Year forecast was complete."41 I&M 8 9 clarifies the Isophase Bus Duct was original Cook equipment and will be replaced in 2024 to aid with the continued safe operation of Cook.⁴² 10 11 **Q**: What do you recommend regarding the adjustment to the Cook O&M expense? 12 A: I recommend approval of the proposed O&M expense for Cook. **COOK PLANT NUCLEAR DECOMMISSIONING** IV. 13 **Q**: How is your analysis of the Cook Nuclear Decommissioning organized? 14 A: I first discuss I&M's decommissioning study, supporting testimony, and study expense. 15 Next, I address the total cost estimate for the Cook Plant site. Finally, I analyze I&M's 16 proposal regarding the Decommissioning Trust Fund and provide my recommendation 17 later in my testimony. 18 A. Decommissioning study 19 **Q**: Please describe the Decommissioning Study.

20 A: The Decommissioning Study included as Attachment RWK-2 to Petitioner's witness

⁴⁰ *Id.* at p. 12, ll. 10-13.

⁴¹ *Id.* at p. 12, ll. 5-7.

⁴² Att. JJH-11; I&M's response to OUCC DR 6.1.

1	Roderick Knight's direct testimony is the 2021 update to the 2018 study, which was
2	published in 2019. ⁴³ The purpose of the Decommissioning Study is to establish cost
3	estimates so I&M can have a guideline to judge the sufficiency of the funds in the
4	Nuclear DTF, and to update these estimates as time passes and conditions change.

5 The NRC has a specific method to escalate generation decommissioning cost 6 estimates to a future year. In his testimony, Petitioner's witness Aaron Hill describes 7 how this process is applied to the decommissioning cost estimates it provided through 8 studies such as Mr. Knight's.⁴⁴ The Decommissioning Funding Status Report 9 ("DFSR") Cook files every two years to the NRC prior to 2011 shows the calculation 10 process as it is applied to the Nuclear DTF and the minimum balance the NRC 11 required.⁴⁵

12 Q: What is I&M proposing regarding the Decommissioning Study expense?

- A: I&M proposes to defer the costs of the Decommissioning Study expense and to recover
 the cost over two years with no carrying charges, consistent with the treatment
 authorized under Cause No. 45576.⁴⁶
- 16 Q: What are your recommendations regarding the Decommissioning Study expense?
- 17 A: I recommend approving I&M's proposal to recover the Decommissioning Study
- 18
- expense over two years. I also recommend if I&M does not file a base rate case by the

⁴³ Direct Testimony of Roderick Knight, p. 4, ll. 18-24. The Decommissioning Study has been updated in each of the previous I&M base rate cases, Cause Nos. 45933, 45576, 45235, and 44967.

⁴⁴ Direct Testimony of Aaron Hill, p. 13, l. 11 - p. 15, l. 26.

⁴⁵ Att. JJH-12; "Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT' from 2001 to 2023.

⁴⁶ Seger-Lawson, p. 43, ll. 1-5.

1 time this expense has been recovered, an updated tariff be filed with the Commission 2 removing this expense from rates.

B. Estimated Total Cost of Decommissioning the Cook Plant Site 3

4 What is the estimated decommissioning cost for Cook Units 1 and 2? **Q**:

5 A: According to the 2021 Decommissioning Study, the estimated cost of decommissioning Cook Units 1 and 2 is \$2,156,000,000 in 2021 dollars.⁴⁷ This 6 7 estimate only includes the cost to decommission and restore the site for the entire Cook 8 facility and excludes the cost for the spent fuel ISFSI. When including the spent fuel 9 ISFSI, Mr. Hill calculates the total estimated decommissioning cost to be 10 \$2,584,154,000. Further, Mr. Hill specifies \$1,262,354,396 and \$1,321,799,604, 11 respectively, as the decommissioning cost of Unit 1 and Unit 2.48 As Mr. Hill explains, 12 his decommissioning cost estimate includes the cost of several ISFSI requirements that are not included in Mr. Knight's decommissioning cost estimate.⁴⁹ 13 14 Specifically, Mr. Hill includes the total cost of ISFSI operation for 53 years, 15 which he calculated using Mr. Knight's annual post-shutdown operation cost estimate,

- and the cost estimate for ultimately decommissioning the ISFSI.⁵⁰ In his testimony, Mr. 16
- Knight considers the ISFSI's post-shutdown costs as separate from the specific 17 18 decommissioning both Cook units.

19 **O**: What is the estimated cost to continue operating the ISFSI following discontinuing 20 Cook Units 1 and 2's operation, and how was that estimate developed?

⁴⁷ Knight, p. 4, ll. 9-15.

⁴⁸ Hill, p. 23, l. 3-11. ⁴⁹ *Id.*, p. 23, ll. 3-9.

⁵⁰ Att. JJH-13; I&M's response to DR 5.4.

Public's Exhibit No. 5 Cause No. 45933 Page 16 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information

1	A:	The annual post-shutdown ISFSI operation cost Mr. Knight provided is \$7,446,000. ⁵¹
2		This cost estimate was developed to cover only the cost of annually operating the ISFSI,
3		not the decommissioning or the ISFSI's site restoration. ⁵² In his calculation of the post-
4		shutdown ISFSI operation cost, Mr. Hill used 2098 as the end of the ISFSI post-
5		shutdown. ⁵³ Mr. Hill clarifies the post-shutdown ISFSI operation, which was assumed
6		for his estimate, was from 2046 to 2098 for a total of 53 years. ⁵⁴ Mr. Hill also presented
7		a \$394,638,000 total post-shutdown operation cost for ISFSI operations ending in
8		2098.55

9 Q: What is the estimated cost of decommissioning the ISFSI at Cook?

- 10 A: The estimated cost of decommissioning the ISFSI is \$33,258,000.⁵⁶ This estimate 11 combines the cost estimates provided by Mr. Knight for both units for: 1) site 12 restoration (\$9,945,000) and 2) ISFSI license termination (\$23,313,000).⁵⁷ The funds
- 13 for these costs are available in the Nuclear DTF.

C. Nuclear DTF Contribution Request

1. Nuclear DTF Indiana Contribution

14 Q: Please describe I&M's proposal for the increase of Indiana ratepayers' annual 15 Nuclear DTF contribution.

⁵¹ Knight direct, Att. RWK-2, Appendix F, p. 2.

⁵² Knight direct, p. 7, l. 1 to p. 8, l. 6.

⁵³ Hill direct, p. 23, ll. 3-9.

⁵⁴ Att. JJH-13.

⁵⁵ Hill direct, p. 23, ll. 3-7.

⁵⁶ Hill direct, p. 23, ll. 8-9.

⁵⁷ Knight direct, figure RWK-1, p. 6.

1	A:	I&M proposes to increase Indiana ratepayer's annual Nuclear DTF contribution from
2		\$0 per year to \$2 million per year. ⁵⁸ I&M states there may be a shortfall of funds when
3		decommissioning starts in the Monte Carlo simulation. ⁵⁹ Mr. Hill states that the
4		probability of there being no shortfall with the increase in Indiana ratepayer
5		contribution is 97.1%.60 This 97.1% is compared with a 96.7% probability of no
6		shortfall with no change in the Indiana ratepayers' annual contribution. ⁶¹
7 8 9	Q:	Is there a need to include an ongoing annual \$2 million revenue requirement to the Nuclear DTF after the test year ends, December 31, 2024, in I&M's Indiana rates?
10	A:	No, the Nuclear DTF had sufficient funds for the complete decommissioning of the
11		Cook Units on December 31, 2022, even after the payment of taxes on unrealized
12		gains. ⁶² It is important to note the Nuclear DTF will continue to accrue interest even
13		beyond the end of the operating license until decommissioning is complete. Even if all
14		the decommissioning activities were completed within a single year, the Nuclear DTF
15		has sufficient funding for the post-shutdown operation of the ISFSI for roughly 18
16		years. This is important to remember, as the Nuclear DTF will continue to grow with
17		the market over the course of the current twelve (12) year decommissioning schedule,
18		even assuming withdrawals occurring to fund the individual decommissioning
19		activities.

⁵⁸ Hill direct, p. 6, ll. 12-14.

⁵⁹ *Id.* at p. 22, ll. 5-7. "[T]he complex interaction of many variables — or the inherently probabilistic nature of certain phenomena — rules out a definitive prediction. So, a Monte Carlo simulation uses essentially random inputs (within realistic limits) to model the system and produce probable outcomes." Explained: Monte Carlo simulations, https://news.mit.edu/2010/exp-monte-carlo-0517 (last accessed Nov. 3, 2023). ⁶⁰ *Id.* at p. 22, ll. 6-7.

⁶¹ *Id.* at p. 22, 11. 5-7.

⁶² Attachment JJH-14; Current Remaining Balance in Nuclear DTF.

1 **O**: Does the OUCC support I&M's Nuclear DTF contribution proposal? 2 A: No. I recommend the change in the annual Indiana contribution to the Nuclear DTF be 3 denied by the Commission, keeping the additional contribution at \$0. 2. Nuclear DTF Balances How is the minimum balance to be held in the Nuclear DTF determined? 4 **Q**: 5 A: The minimum balance is determined through an NRC calculation to consider inflation 6 as it specifically applies to the decommissioning of nuclear facilities. The DFSRs filed 7 by Cook staff to the NRC before 2001 show the calculation of the minimum required 8 for the radiological decommissioning of the nuclear facility.⁶³ 9 What minimum balance does the NRC require to be held in the Nuclear DTF for **Q**: 10 a nuclear power plant? In the biennial DFSRs filed with the NRC on March 28, 2023, the NRC minimum 11 A: 12 balance is \$1,155,763,340, with the Nuclear DTF having \$1,685,270,640 of the posttax funds allocated to the radiological decommissioning of Cook facilities.⁶⁴ 13 14 **O**: What is the projected minimum Nuclear DTF balance according to the DFSR for 15 2037? 16 Mr. Hill did not provide a projected minimum nuclear decommissioning cost estimate A: 17 or a projected Nuclear DTF balance allocated to the radiological decommission of 18 Cook for 2037. Using the DFSR from 2001 to 2023 to find the average annual increase 19 in minimum nuclear decommissioning cost estimate gives an average annual minimum balance of 2.9%.⁶⁵ This rate of growth is the same for the balance allocated to the 20 21 radiological decommissioning of Cook, which is 62% of the total Nuclear DTF

- ⁶³ Att. JJH-12.
- ⁶⁴ Id.

⁶⁵ Attachment JJH-15; Growth of Nuclear DTF calculation.

1		balance. ⁶⁶ While I was not able to use the NRC cost escalation method, as several
2		variables were not available, I used the average growth of the minimum
3		decommissioning cost from the DFSR. With this method, I projected the NRC
4		minimum nuclear decommissioning cost estimate in 2037 to be \$1,718,069,597 and the
5		projected balance of the Indiana jurisdiction's portion of the Nuclear DTF allocated to
6		radiological decommissioning in 2037 to be \$2,775,191,960.67 Using the same method
7		of projection, the projected 2037 Nuclear DTF balance is \$4,476,116,065.68
8	Q:	What amount is currently in I&M's Nuclear DTF?
9	A:	As of December 31, 2022, the Nuclear DTF had a balance of \$3,011,129,969. ⁶⁹ Mr.
10		Hill also refers to this amount as the Market Value of the Nuclear DTE 70
10		This also refers to this amount as the Warket Variae of the Nuclear DTT.
10 11 12 13	Q:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases?
10 11 12 13 14	Q: A:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the
10 11 12 13 14 15	Q: A:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the radiological decommissioning, while the balances provided in the base rate cases
10 11 12 13 14 15 16	Q: A:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the radiological decommissioning, while the balances provided in the base rate cases reflect the total amount in the Nuclear DTF. ⁷¹ The radiological decommissioning of a
10 11 12 13 14 15 16 17	Q: A:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the radiological decommissioning, while the balances provided in the base rate cases reflect the total amount in the Nuclear DTF. ⁷¹ The radiological decommissioning of a nuclear facility is focused only on removing the radioactive portions of the facility, as
10 11 12 13 14 15 16 17 18	Q: A:	 Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the radiological decommissioning, while the balances provided in the base rate cases reflect the total amount in the Nuclear DTF.⁷¹ The radiological decommissioning of a nuclear facility is focused only on removing the radioactive portions of the facility, as characterized through the NRC calculation in the DFSRs filed by Cook staff prior to
10 11 12 13 14 15 16 17 18 19	Q: A:	Why is there a different amount listed on the Decommissioning Funding Status Report submitted to the NRC than what is provided in the current base rate case and the previous two base rate cases? The NRC minimum balance in the Nuclear DTF refers to the funds allocated to the radiological decommissioning, while the balances provided in the base rate cases reflect the total amount in the Nuclear DTF. ⁷¹ The radiological decommissioning of a nuclear facility is focused only on removing the radioactive portions of the facility, as characterized through the NRC calculation in the DFSRs filed by Cook staff prior to 2001. ⁷² The overall decommissioning of location includes the removal of the non-

- ⁷² Att. JJH-12.

⁶⁶ Att. JJH-16; I&M's response to OUCC DR 6.5.
⁶⁷ Att. JJH-15.
⁶⁸ Att. JJH-15.
⁶⁹ Hill direct, p. 10, ll. 10-11.
⁷⁰ *Id.* and Workpaper of Aaron Hill, WP-ALH-6.
⁷¹ Att. JJH-16.
⁷² Att. JH-16.

1		before the nuclear power plant was constructed. The amount in the Nuclear DTF above
2		the minimum balance as required by the NRC is set aside for the decommissioning of
3		the non-radioactive portions of the nuclear power plant.
4	Q:	What is the Nuclear DTF's forecasted value on December 31, 2024?
5	A:	Mr. Hill does not provide a total projected value of the entire Nuclear DTF on
6		December 31, 2024. Using the method employed in WP-ALH-6 and escalating the
7		Indiana jurisdiction from approximately 72.4% to the total funds in the Nuclear DTF,
8		the forecasted value of the Nuclear DTF on December 31, 2024, is \$3,496,812,550.
9 10	Q:	What is the Indiana portion of the actual market value of I&M's Nuclear DTF on December 31, 2022?
11	A:	The Indiana jurisdiction portion of the Nuclear DTF is \$2,179,647,104.73 According to
12		Mr. Hill's testimony, potential estimated taxes on the unrealized gains would be
13		\$217,518,263, leaving a Nuclear DTF "liquidation value" of \$1,962,128,841 in the
14		Indiana jurisdiction. ⁷⁴
15 16	Q:	What is the forecasted value of the Indiana portion of I&M's Nuclear DTF on December 31, 2024?
17	A:	The projected Indiana jurisdictional portion of the Nuclear DTF is \$2,531,215,007. ⁷⁵
18		According to Mr. Hill's testimony, potential estimated taxes on the unrealized gains
19		would be \$287,831,842, leaving a "liquidation value" of \$2,243,383,165 in the Indiana
20		jurisdiction of the Nuclear DTF. ⁷⁶
21 22	Q:	Does I&M's Nuclear DTF have sufficient funds to cover the costs of decommissioning Cook Units 1 and 2?

⁷³ Hill direct, p. 10, ll. 16-17.
⁷⁴ *Id.* at p. 10, ll. 13-18.
⁷⁵ *Id.* at p. 10, ll. 22-23.
⁷⁶ *Id.* at p. 10, ll. 22-24.

1	A:	Yes. The Nuclear DTF has sufficient funds that if all decommissioning activities, all
2		unrealized gains taxes, Mr. Hill's ISFSI operation costs, and all ISFSI
3		decommissioning costs were to occur today, there would still be \$134,024,452
4		remaining in the account. ⁷⁷ Mr. Hill's total ISFSI operation cost was provided in
5		response to OUCC DR No. 5.4 as the total cost of ISFSI operation from 2046 to 2098,
6		or 53 years. ⁷⁸
7		Decommissioning is not a process which is completed overnight, or even over
8		the course of an entire year. The current time estimate for the decommissioning of Cook
9		Units 1 and 2 is 12 years. ⁷⁹ Even with the large removal of funds from the Nuclear DTF
10		when decommissioning begins, the remaining amount in the Nuclear DTF will continue
11		to earn interest until such time that there are no remaining funds, or until
12		decommissioning activities are complete.
13	Q:	Did you perform any other analysis regarding the Nuclear DTF?
14	A:	Yes, I checked the cost estimates for mathematical accuracy as well as consistency with
15		I&M testimony.
16	Q:	What did you find in the analysis of the Nuclear DTF projected balances?
17	A:	In my analysis of the Nuclear DTF projected balances, I found the process used in WP-
18		ALH-6 was different than the process described in Mr. Hill's testimony. The process
19		described in Mr. Hill's testimony is, "[t]o estimate the accumulation of the Indiana
20		jurisdiction's liquidation value through the final date of decommissioning,
21		contributions of \$2.0 million and pre-tax investment earnings of 7.8% annually were

⁷⁷ Att. JJH-15.
⁷⁸ Att. JJH-13.
⁷⁹ Knight direct, Att. RWK-2, Figure 4.1, pp. 72 - 74.

1		assumed."80 The process as used in WP-ALH-6 used an annual contribution of \$0,
2		instead of the \$2 million as described in testimony. With the response to OUCC DR
3		7.5(e) and my review of WP-ALH-6 for mathematical accuracy, I found no
4		mathematical errors. ⁸¹
5	Q:	How did the Nuclear DTF's total market value perform over the last six years?
6	A:	At the end of 2016, the Nuclear DTF balance was \$1,945,738,907. ⁸² At the end of 2022,
7		the Nuclear DTF balance was \$3,011,129,969.83 This is a total growth of
8		\$1,065,391,062 over six (6) years, or an average growth of \$177,565,177 per year.
9	Q:	How did the Nuclear DTF's total market value perform during the last two years?
10	A:	At the end of 2020, the Nuclear DTF balance was $2,982,336,510$. ⁸⁴ At the end of 2022,
11		the Nuclear DTF balance was \$3,011,129,969.85 This is a total growth of \$23,340,245
12		over two (2) years, or an average growth of \$11,675,123 per year.
13 14	Q:	Will the Nuclear DTF stop earning interest when the decommissioning process begins?
15	A:	No. The Nuclear DTF will continue to accrue interest if there are funds available in the
16		account, even while decommissioning withdrawals occur. Specifically, this means
17		interest accrual even if decommissioning occurs according to the schedule laid out in
18		Figure 4.1 of the Decommissioning Study. ⁸⁶
19	Q:	If for some reason the Nuclear DTF balance does not cover decommissioning

expenses, could I&M seek recovery of such expenses?

20

⁸⁰ Hill direct, p. 10, ll. 18-21.
⁸¹ Att. JJH-17; I&M's response to OUCC DR 7.5.
⁸² *In re I&M*, Cause No. 44967, Aaron Hill direct testimony, p. 9, ll. 10-11.
⁸³ Hill direct, p. 10, ll. 10-11.

 ⁸⁴ *In re I&M*, Cause No. 45576, Aaron Hill direct testimony, p. 10, ll. 5-6.
 ⁸⁵ Hill direct, p. 10, ll. 10-11.
 ⁸⁶ Knight direct, Att. RWK-2, Fig. 4.1, pp. 72-74.

Public's Exhibit No. 5 Cause No. 45933 Page 23 of 24 GRAY HIGHLIGHT indicates CONFIDENTIAL Information

1	A:	Yes, if there is an unforeseen expense which caused a shortfall in the Nuclear DTF,
2		I&M would be able to seek recovery of such an expense. Considering the amount of
3		funds available in the Nuclear DTF, it is reasonable to predict that if there is a shortfall
4		during the decommissioning of Cook, that the shortfall would be somewhat limited in
5		scale. ⁸⁷
		V. <u>RECOMMENDATIONS</u>
6	0:	What are your recommendations?
7	A:	For the reasons stated above, I recommend:
8		• Denial of the SLRA Project until I&M decides to pursue the license renewal.
9 10 11		• In the alternative, if the Commission approves I&M's SLRA request, requiring I&M to take the following actions:
12 13 14		• Provide an update on the progress of the SLRA Project not less than every six months until project completion.
15 16 17		• Provide a detailed explanation for each of the elements of the SLRA Project costs subject to approval and recovery if the actual costs exceed the approved estimated amount by 25%.
18 19 20		• Be allowed to seek a return "of", but not a return "on", the costs incurred on the SLRA Project if the Cook license renewal is not sought after the 2024 Integrated Resource Plan ("2024 IRP").
21		• Approval of the proposed O&M expense for the Cook operations.
22 23 24 25		• Approval of I&M's proposal to recover the Decommissioning Study expense over two years. If I&M does not file a base rate case by the time this expense has been recovered, an updated tariff should be filed with the Commission removing this expense from rates.
26 27		• Denial of I&M's request to increase the annual Indiana jurisdictional contribution to the Nuclear DTF from \$0 to \$2 million.

⁸⁷ Knight direct, p. 12, l. 20 - p. 18, l. 19.

- 1 Q: Does this conclude your testimony?
- 2 A: Yes.

<u>APPENDIX JJH-1 TO THE TESTIMONY OF</u> <u>OUCC WITNESS JARED J. HOFF</u>

I. <u>PROFESSIONAL EXPERIENCE</u>

1 Q: Please describe your educational background and experience.

A: I graduated from the United States Military Academy at West Point, New York with a
Bachelor of Science Degree in Nuclear Engineering in May 2012. I passed the
Fundamentals of Engineering Exam in Spring 2012.

5 From 2012 to 2017, I worked as an Army Ordnance Officer in several positions 6 as I was promoted through the different types of support units. I worked in several 7 locations, including South Korea, Kuwait, Fort Irwin, California and Fort Riley, 8 Kansas. For the first 3 years, I worked with the direct support aspect for different units 9 focusing on the maintenance personnel and then on the general support (i.e., food, fuel, 10 water, parts, and maintenance personnel). For most of the remaining time in the Army, 11 I ran the maintenance program for 1-63 AR at Fort Riley. This included managing the 12 workflow of the approximately 150 maintenance personnel and coordinating the 13 maintenance of over 6,000 pieces of equipment ranging from individual weapons up to 14 tanks and other armored vehicles.

In 2018 I joined the team at CLEAResult Consulting as a Residential Energy Auditor and Senior Warehouse Technician supporting the Demand Side Management ("DSM") program for AES Indiana. My responsibilities ranged from performing assessments on customer homes to increase energy efficiency to maintaining and developing the inventory maintained and used in the DSM program overseen by AES Indiana. While working with CLEAResult, I maintained my Building Performance 1

2

Institute certification, then attained my Building Analyst certification in 2019, and I continue to maintain the certification at this time.

I began working for the Indiana Office of the Utility Consumer Counselor ("OUCC") in February 2023. While working with the OUCC, I have attended professional development seminars such as the Electric Utility Consultants, Inc. ("EUCI") on Pipeline Safety. My current responsibilities include reviewing Transmission, Distribution and Storage System Improvement Charge and Federally Mandated Compliance Adjustment causes with the Natural Gas Division as they are submitted to the Commission.

10 Q: Have you previously filed testimony with the Commission?

A: Yes. I have provided written testimony various Federal Mandate Cost Adjustment
("FMCA") and Transmission, Distribution, and Storage System Improvement Charges
("TDSIC") petitions. I filed testimony or provided analysis in the following FMCA or
TDSIC 7-Year Plan or Tracker petitions: Cause Nos. 45400, 45612, 45330. I have
provided analysis in the following base rate cases: Cause Nos. 45888 and 45889.

II. <u>BACKGROUND OF TESTIMONY ANALYSIS</u>

16 Q: Please describe the review you conducted to prepare for this testimony.

17 A: I reviewed the Petition, Testimony, and Attachments for this Cause. I reviewed

18 Petitioner's direct testimony of Kelly J. Ferneau, Aaron L. Hill, Roderick W. Knight,

1		Tyler H. Ross, and Dona Seger-Lawson with my focus on the Cook Plant. I reviewed
2		Petitioner's prior rate case and Commission Order.
3	Q:	Please describe your analysis of ING's evidentiary support in this Cause.
4	A:	I reviewed the testimonial and evidentiary support provided by Petitioner. I analyzed
5		Petitioner's responses to data requests concerning the proposed Nuclear DTF,
6		Decommissioning Study, proposed Nuclear DTF contribution increase, the proposed
7		SLRA Project, and the proposed Cook Plant O&M adjustment. I participated in OUCC
8		case team meetings and an informal discussion between OUCC and Petitioner staff on
9		September 19, 2023.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 13 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 13-1

<u>REQUEST</u>

Referencing Ms. Ferneau's direct testimony, p. 25, II. 4-7 and included below. Based on initial cost estimates it is expected the full costs of completing the SLRA will be between \$40 million to \$45 million. This cost estimate will be better defined once the Company fully engages the consultants necessary to complete the work necessary to prepare the SLRA.

a.: Please confirm the estimate of \$40-45 million is the cumulative amount for all jurisdictions, including Indiana, Michigan, and Wholesale, as discussed in the meeting between OUCC, I&M, and Cook Plant staff on September 19, 2023.

b.: Please provide a detailed explanation of why approval for \$40-45 million was requested for the SLRA Project from the Commission and the Michigan Public Service Commission, Cause Nos. 45933 and U-21461 respectively.

<u>RESPONSE</u>

a. Yes, this is the cumulative amount for all jurisdictions, including Indiana, Michigan and Wholesale.

b. The \$40-45 million requested for the SLRA Project is a total Company number. Once the project is complete, I&M will request rate recovery of only the Michigan jurisdictional share through Michigan rates, and only the Indiana jurisdictional share through Indiana rates.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 7 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 7-7

<u>REQUEST</u>

Regarding the Subsequent License Renewal Application ("SLRA") Project, please provide a detailed explanation for each of the following:

a.: The recovery method to be used if the SLRA Project is approved, but I&M does not include the license renewal in the 2024 Integrated Resource Plan ("IRP");

b.: The length of time over which the SLRA Project spending will be recovered if approved, but the license renewal is not in the 2024 IRP;

c.: The recovery method to be used if the SLRA Project is approved and the license renewal is included in the 2024 IRP; and

d.: The length of time over which the SLRA Project spending will be recovered if approved and the license renewal is included in the 2024 IRP.

<u>RESPONSE</u>

The direct testimony of Company witnesses Seger-Lawson and Ross discusses the ratemaking and accounting for the SLRA Project.

a.-b. If I&M's next IRP does not include the Cook Plant license renewal in its Preferred Portfolio and a SLRA is therefore not pursued, then I&M is requesting in this case for regulatory asset treatment of the costs incurred in support of making that decision. In this scenario, I&M plans to seek recovery of and on the regulatory asset in the basic rate case following the conclusion of that IRP. In that filing, I&M would propose a recovery period, which would be subject to review and approval by the Commission.

c.-d. If I&M's next IRP does include the Cook Plant license renewal in its Preferred Portfolio and a SLRA is pursued, the SLRA Project costs will be accounted for according to the FERC USofA. Initially these costs will be recorded to account 183 and if construction of an asset results, the costs in 183 will be transferred to electric plant in-service accounts 107/101. If construction of an asset is not required, then I&M is requesting in this case for regulatory asset treatment of the costs incurred. In these scenarios, I&M would seek recovery of

and on the plant asset or regulatory asset in a later rate filing following the SLRA. In that filing, I&M would propose a recovery period, which would be subject to review and approval by the Commission.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 1 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 1-13

<u>REQUEST</u>

Regarding the elements of the SLRA laid out in Ms. Ferneau's Direct Testimony, page 25, line 15 to page 26, line 7, please provide a more detailed scope and cost estimate for each element listed.

<u>RESPONSE</u>

I&M objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. Subject to and without waiver of the foregoing objection, I&M provides the following response.

No additional details exist currently. We based our SLRA estimate on a review of the Enercon Feasibility Study (45339_IndMich_OUCC_1-04_Attachment 1_08312023). These costs required an adjustment up due to estimates of the external scope obtained and benchmarking we performed with other peer applicants already entering the process. As we move forward with our SLRA we will continue to utilize our established internal project controls to refine our estimates.

"Excluded from public access per A.R. 9(G)."

Attachment JJH-4 Cause No. 45933

Attachment JJH-4-C Feasibility study 328 pages

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 1 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 1-4

REQUEST

Please provide a copy of the feasibility study conducted regarding the operational extension of the Cook Plant.

<u>RESPONSE</u>

I&M objects to the request on the grounds and to the extent the request seeks information that is confidential, proprietary, competitively sensitive, and/or trade secret. Subject to and without waiver of the foregoing objection, I&M provides the following response.

See 45339_IndMich_OUCC_1-04_Attachment 1_08312023 for the requested information. Please note, after a review of the feasibility study, Cook Plant is not anticipating performing all the work outlined therein. For example, Table 4.10.1 page 52 describes work performed on the Main Generator. This work was already performed as part of Cook's Life Cycle Management Project and no longer required. In addition, Table 4.10-1 page 55 discusses the one-time procurement of 80 casks to support the Dry Cask Storage efforts. Cook procures casks in 12-13 unit bundles so although these costs would be valid over a 20 year period, they would not be part of an initial cost considered for this SLR effort.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 8 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 8-6

<u>REQUEST</u>

Please provide a detailed description of the development of the cost estimates for each element, as described in Ms. Ferneau's Direct Testimony, page 25, line 15 to page 26, line 7.

RESPONSE

I&M objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. Subject to and without waiver of the foregoing objection, I&M provides the following response.

We based our SLRA estimate on a review of the Enercon Feasibility Study (45339_IndMich_OUCC_1-04_Confidential Attachment 1_08312023). These costs required an adjustment up due to estimates of the external scope obtained and benchmarking we performed with other peer applicants already entering the process. As we move forward with our SLRA we will continue to utilize our established internal project controls to refine our estimates.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 8 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 8-7

<u>REQUEST</u>

Please provide a detailed description of the development of the total requested amount for the Subsequent License Renewal Application Project as described in Ms. Ferneau's Direct Testimony, page 25, line 15 to page 26, line 7.

<u>RESPONSE</u>

I&M objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. Subject to and without waiver of the foregoing objection, I&M provides the following response.

We based our SLRA estimate on a review of the Enercon Feasibility Study (45339_IndMich_OUCC_1-04_Confidential Attachment 1_08312023). These costs required an adjustment up due to estimates of the external scope obtained and benchmarking we performed with other peer applicants already entering the process. As we move forward with our SLRA we will continue to utilize our established internal project controls to refine our estimates.
INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 1 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 1-14

REQUEST

Regarding projects discovered during SLR inspections that must be corrected before submission of the SLR application, please provide how the projects will be approved under the appropriate regulatory authority.

RESPONSE

I&M objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. I&M further objects to the request on the grounds and to the extent the request calls for speculation as to the potential outcome of regulatory filings that have not yet been made. I&M further objects to the Request on the grounds and to the extent it is vague and ambiguous. Subject to and without waiver of the foregoing objection, I&M provides the following response.

The regulatory process utilized to address the required approvals for any such capital projects will be determined based on the state-specific rules and facts and circumstances at that time. In addition, I&M's next IRP will evaluate the decision to extend the Cook license lives, including estimates of the capital investment necessary to support the Cook units ability to operate throughout the 20 year license extension period.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 7 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 7-8

<u>REQUEST</u>

Regarding the SLRA Project, please provide how I&M plans to update the Commission as the SLRA Project develops, including but not limited to overall spending, spending on the elements in Ms. Ferneau's Direct Testimony, page 25, line 15 to page 26, line 7, any additional elements identified during the SLRA Project, and any request for additional funding.

<u>RESPONSE</u>

I&M will specifically address the SLRA decision in its next IRP submitted to the IURC. In addition, I&M would be willing to report on the status of the SLRA Project in basic rate cases filed following this proceeding through the point in time when the SLRA Project is completed.

https://www.journalgazette.net/opinion/editorials/five-questions-for-steve-baker-president-coo-of-indiana-michigan-power/article_06096608-6929-11ee-b744-474df49355e4.html

Five questions for Steve Baker, President & COO of Indiana Michigan Power

Oct 16, 2023



Baker

1 Why is Indiana Michigan Power asking for a 6.8% rate increase?

A: I&M and other utilities do not set their own rates. When we need to make an adjustment in order to invest in new equipment and technology, we have to make a case for that to the Indiana Utilities Regulatory Commission.

I&M has filed the Powering Our Future plan to request a 6.8% overall rate increase. We have an

aging system. In order to provide the level of service our customers expect of us, we need to make the necessary investments to replace aging equipment and systems, taking advantage of new technologies to improve our system performance. I&M's Powering our Future Plan will result in fewer outages, and when outages do occur, it will take us less time to get the lights back on for customers.

2 When will the IURC make its decision?

A: Based on the IURC's 300-day process, we anticipate a decision on our filing by June 2024.

A complete timeline of the rate review process can be found on our website at IndianaMichiganPower.com/PoweringOurFuture-IN.

3 Are you worried that a rate increase will lead to more disconnections because of nonpayments?

A: We understand that our customers are experiencing cost increases in almost every area of their lives. We strive to be good stewards of their dollars and use their money in ways that directly benefit them.

This includes replacing outdated poles and wires; proactively trimming back branches that might interfere with our lines or fall on wires during storms; and developing new technology that enables us to restore power more quickly and gives our customers better insight into their own energy usage. All of these steps provide direct benefits to customers.

We work with our customers who struggle to make ends meet. This past January we launched a campaign to proactively reach out to customers who show signs of falling behind on payments so that we can make them aware of their options. We have a variety of payment assistance programs available, and we also partner with outside organizations that provide additional help.

4 What's your response to Citizen Action Coalition of Indiana's complaint that I&M will use fees from the increase to spend more than \$40 million studying renewal of the D.C. Cook nuclear power plant – which is nearly a half century old – as well as for paying dues to trade associations and lobbying? **A:** The D.C. Cook nuclear plant continues to be a highly valued resource for I&M and its customers. The Cook plant accounts for 75% of I&M's energy production, is carbon-emission free and has an outstanding record of reliable service. While the Cook plant has been in operation since the mid-1970s, I&M has replaced or modernized many of the major components of the plant over the past 10 years to support safe and reliable operation of the plant today and in the future.

I&M's request to study extending the operating license at the D.C. Cook plant an additional 20 years will allow I&M, the IURC and stakeholders to have the information to properly evaluate the benefits and costs associated with license extension. I&M's request in this case is only to begin the study process in order to maintain the timeline to apply for a license extension. The ultimate determination as to whether a license extension application will be pursued will be decided in future regulatory proceedings.

Regarding trade associations and lobbying, the CAC characterization is misleading and not correct.

I&M has made specific adjustments to remove lobbying expenses from the rate request. I&M, along with most other major utilities in the U.S., participates in industry trade organizations that provide a forum for utilities to share industry best practices and engage with legislators who are shaping energy policy. These organizations have discussions with a wide range of stakeholders on industry topics such as safety, reliability, customer service, affordability and new technologies. These associations are the most efficient way for I&M to stay engaged with industry developments and bring best practices to I&M's customers.

5 How does the Powering Our Future program benefit consumers?

A: Customers are at the center of everything we do at I&M, and that is also true of the Powering Our Future program.

We continue to improve reliability with targeted investments in infrastructure and technology. I&M's work in enhancing infrastructure has resulted in a 31% decrease in customer outage minutes over the past five years. We want to continue to build on that success.

In northeast Indiana specifically, that entails rebuilding 69 miles of power lines; replacing 939 poles; trimming trees along 1,721 miles of power lines; and improving three substations and

acquiring land for two new ones.

We are introducing a new voluntary payment option that allows customers to prepay their electric bills, much like prepaid cell phones.

I&M will provide new, innovative service options to customers. The new customer information system will allow us to communicate with customers in a more timely fashion, using the methods they prefer.

IURC hearing

IURC hearing

What: The Indiana Utility Regulatory Commission will hold a field hearing in Fort Wayne on the rate case petition of Indiana Michigan Power Company under Cause No. 45933.

When: 6 p.m. today

Where: Walb Student Union (Classic Ballroom), Purdue University Fort Wayne, 2101 East Coliseum Blvd.

Ratepayers will have the opportunity to speak directly to the Commission or submit written comments. Because this is a pending case, the commissioners and judge are not allowed to answer questions or engage in discussion about the case.

Those individuals unable to attend may submit written comments to the Indiana Office of Utility Consumer Counselor at www.in.gov/oucc/contact-us. Ratepayers also can submit their comments by mail or email:

Mail: Public Comments

Indiana Office of Utility Consumer Counselor

115 W. Washington St., Suite 1500 South

Indianapolis, IN 46204

Email: uccinfo@oucc.in.gov

Written comments should include name, city and ZIP code, and a reference to "Cause No. 45933."

If you would like to access case-related documents under Cause No. 45933, visit the Commission's Online Services Portal at iurc.portal.in.gov/.

Attachment JJH-9 Cause No. 45933 Page 5 of 5

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 1 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 1-12

REQUEST

Please provide the financial and regulatory impacts to the SLRA causes with the MPSC and the Commission if either regulatory authority does not approve the project.

<u>RESPONSE</u>

I&M objects to the Request on the grounds and to the extent it is vague and ambiguous, particularly with respect to the undefined term "SLRA causes". I&M further objects to the request on the grounds and to the extent the request seeks an analysis, compilation, calculation, or study that I&M has not performed and to which I&M objects to performing. I&M further objects to the request on the grounds and to the extent the request calls for speculation as to the potential outcome of regulatory filings that have not yet been made. I&M further objects to the Request on the grounds and to the extent it mischaracterizes the relief sought by the Company. Subject to and without waiver of the foregoing objection, I&M provides the following response.

The Cook Nuclear Plant is an important resource that provides I&M's retail customers in Indiana and Michigan with a significant amount of capacity and carbon-free energy. If either regulatory body did not approve I&M's decision to seek a SLR and any necessary capital investment it could negatively impact I&M's ability to move forward with the SLR and require I&M to acquire a significant amount of replacement generation resources.

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 6 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 6-1

<u>REQUEST</u>

Reference Testimony of Ms. Ferneau, p. 12, ll. 3-13:

Adjustment O&M-11 increases the Test Year amount of O&M expense for the Cook Plant for an identified increase to outage amortization and plant maintenance expense. The increase in outage amortization expense is related to ice condenser scope, updated vendor proposals and cost escalations since the Test Year forecast was complete. Specifically, labor rates for radiation protection technicians and decontamination technicians have increased due to a shortage of the skill set in the industry. Cook has also seen an increase in rates for welders, tensioning technicians, and overall craft labor. The plant maintenance increase is related to projects such as the Isophase Bus Duct work for Unit 2 and work on Cook's Risk Informed Engineering Program that was pushed out to later years due to funding constraints.

a.: Please provide a detailed description of the "ice condenser scope" and its impact on the O&M expenses.

b.: Is work on the "ice condenser scope" complete?

c.: Please provide a detailed description of the "Isophase Bus Duct work for Unit 2" and its impact on the O&M expenses.

d.: Is work on the "Isophase Bus Duct work for Unit 2" complete?

e.: Please provide a detailed description of "Cook's Risk Informed Engineering Program" and its impact on the O&M expenses.

f.: Is work on the "Cook's Risk Informed Engineering Program" complete?

<u>RESPONSE</u>

a. The scope is to remove the build up of ice within Cook's Upper Containment. The impact to the test-year O&M expenses is approximately \$3.71M.

b. This is recurring work that takes place during each refueling outage.

c. The work scope is to modify the Unit 2 Isophase Bus Heat Exchanger which is original Plant equipment, to gain performance acceptability margin and reduce high heat alarms

during summer operations. The impact on the test-year O&M expenses is approximately \$1M.

d. No. This work is scheduled to be complete in 2024.

e. The work scope is to provide engineering and product services for Cook Plant in support of the implementation of 10 CFR 50.69, risk informed categorization and treatment of structures, systems, and components ("SSC") for nuclear power reactors. The impact on the test-year O&M expense is approximately \$1M.

f. No. This work is ongoing and is scheduled to be complete in 2025.

Indiana Michigan Power Company Cock Nuclear Plant One Cock Place Bridgman. MI 49106 616-465-5901

.

Attachment JJH-12 Cause No. 45933 Page 1 of 81



March 27, 2001

C0301-02 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

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

> Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS

Pursuant to the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant, Units 1 and 2, hereby submits the attached report on the status of decommissioning funding. The attached report includes the decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c); the funds accumulated at the end of 2000; a schedule of the annual funds remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs and rates of earnings on decommissioning funds; and a summary of significant changes to the trust agreements for the funds.

If you have any questions on the report or decommissioning funding, please contact Mr. Ronald W. Gaston, Manager of Regulatory Affairs, at (616) 697-5020.

Sincerely,

2 tol for

Scot A. Greenlee Director of Design Engineering and Regulatory Affairs

/dmb

Attachment



C

Attachment JJH-12 Cause No. 45933 Page 2 of 81

U. S. Nuclear Regulatory Commission Page 2

.

C0301-02

c: J. E. Dyer MDEQ - DW & RPD, w/o attachment NRC Resident Inspector R. Whale

Attachment JJH-12 Cause No. 45933 Page 3 of 81 ATTACHMENT TO C0301-02

Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors 2001 Report U.S. Nuclear Regulatory Commission For Indiana Michigan Power Company Donald C. Cook Nuclear Plant Units No. 1 and No. 2

This report is being submitted pursuant to the final rule in 10 CFR Parts 30 and 50. The report is comprised of the following schedules and the general comments set forth herein:

Schedule

.

.

- A Decommissioning Cost Estimates Minimum Value Under Section 10 CFR 50.75(c)
- B Summary of Decommissioning Trust Fund Balances at December 31, 2000
- C Projected Future Funds to be Collected For Decommissioning
- D Cost Escalation Rate Section 50.75(c) Decommissioning Costs
- E After Tax Rate of Return Assumed to be Earned on Amounts Collected for Decommissioning
- F Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes

General Comments

While the Minimum Value Decommissioning Cost Estimate under Section 10 CFR 50.75(c) reported herein on Schedule A is the information the Nuclear Regulatory Commission has specified as appropriate for its purposes, the Company believes a broader and more comprehensive definition of and provision for nuclear decommissioning expenses is needed for its purposes.

The Company for the past several years periodically has presented to its utility regulatory commissions site specific studies containing a more all-inclusive definition of nuclear decommissioning requirements. These studies include the Section 50.75 costs, Section 50.54(bb) costs, and "greenfield" costs. The state utility commissions of Indiana and Michigan have acted on these studies. They have authorized recoveries for nuclear decommissioning based on their determinations, considering the evidence presented, of appropriate recoveries for nuclear decommissioning using this more comprehensive definition. The most current annual provisions authorized for decommissioning are reported on Schedule C.

Attachment JJH-12 Cause No. 45933 Page 4 of 81

Schedule A Page 1 of 3

Indiana Michigan Power Company Donald C. Cook Nuclear Plant

Decommissioning Cost Estimates Minimum Value Under Section 10 CFR 50.75(c)

10 CFR 50.75(a) requires that each utility assure that there will be adequate funding for the decommissioning of the plant. Section 10 CFR 50.75(c) established a table of minimum values for the decommissioning funds and it also set forth a method to adjust those values. Periodically, the NRC publishes NUREG-1307, "Report on Waste Burial Charges", and in that document, the data and more specific guidance is given regarding the method to be used to adjust the minimum amount to equivalent current amounts. The calculation in this report uses the method outlined in NRC Report Number NUREG-1307, Revision 9 to determine the minimum amounts.

Estimated Decommissioning Cost – Section 50.75(c)				
<u>Unit 1</u>	Unit 2	Total		
\$319,277,630	\$315,020,595	\$634,298,224		

^{*} Calculation shown on pages 2 and 3.

Schedule A Page 2 of 3

Calculation

The first part is to determine the 1986 base cost. Cook Plant's two units are rated at 3411 MWt and 3250 MWt¹. From 10 CFR 50(c)(1)(i), the cost is then based on the MWt output of each unit. For reactor power greater than 3400 the cost is \$105 million. For reactor power from 1200 to 3400 MWt the cost is calculated using this formula:

Cost = (75 + 0.0088P) million

Given P is the power level. So, for 3250MWt the cost is:

 $Cost = (75 + 0.0088 \times 3250)$

= 103.6 million.

So the total 1986 base decommissioning cost for Cook is \$105 + \$103.6 million or \$208.6 million.

The next portion of the analysis is to adjust the 1986 cost to a 2001 cost.

Using the formula:

Estimated Cost (Year X) = $[1986 \text{ S Cost}][A L_x + B E_x + C B_x]$

Where A, B, and C are the fractions of the total 1986 \$ costs that are attributable to labor (0.65), energy (0.13), and burial (0.22), respectively, and sum to 1.0. The factors L_x , E_x , and B_x are defined by

- L_x = labor cost escalation, January of 1986 to January of Year X,
- E_x = energy cost escalation, January of 1986 to January of Year X,
- B_x = burial cost escalation, January of 1986 to January of Year X, i.e., burial cost in January of Year X / burial cost in January of 1986.²

The labor escalation factor was obtained by using the U. S. Bureau of Labor Statistics (BLS) data. This data was taken from the World Wide Web following the directions given in NUREG-1307, Rev. 9, Appendix C. Data for the Midwest region was used from the Employment Cost Index. The data from the Qtr 1 were used except for 2001, and is shown in Table 1.

The energy cost escalation is determined by BLS data by using "Producer Price Indexes". The energy term in the adjustment equation is made up of two components, industrial electric power (P), and light fuel oil (F). And E_x is determined from the following equation for PWRs:³

¹ Donald C. Cook Nuclear Plant Operating Licenses

² NUREG-1307, Rev. 9

³ Ibid.

Attachment JJH-12 Cause No. 45933 Page 6 of 81

E = 0.58P + 0.42F

The values of P and F are taken from the BLS as described in NUREG-1307. The data from January were used, and is shown in Table 1. Also, shown are the results of the calculations to determine E. The energy data for 2001 is BLS preliminary data.

Cost Index Values				
		Table 1		
Year	Labor Data (L)	Electric Power (P)	Light Fuel Oil (F)	Energy Data (E)
2001	153.3	136.9	96.2	119.81
2000	148.9	126.8	75.3	105.17
1999	141.7	126.1	40.9	90.32
1998	138.3	127.4	54.3	96.70
1997	133.3	128.3	73.7	105.37
1996	129.5	127.9	62.6	100.47
1995	125.8	127.6	54.7	96.98
1994	122.8	126.2	51.5	94.83
1993	117.9	127.1	59.0	98.50
1992	113.8	125.9	54.4	95.87
1991	108.5	124.2	82.9	106.85
1990	103.5	114.9	85.3	102.47
1989	98.9	112.0	54.9	88.02
1988	95.4	108.8	54.8	86.12
1987	91.6	110.3	51.4	85.56
1986	89.4	114.2	82.0	100.68

The next step is to convert the cost index values into the adjustment factors, L_x and E_x . These are determined by dividing each year's cost index value by the cost index value for 1986. (i.e. L_{1998} = 138.3/89.4) The values for B_x are taken directly from NUREG-1307, Rev. 9 using the data for South Carolina using waste vendors for disposition as a non-Atlantic Compact State.⁴ The results are shown in Table 2.

The final step is to calculate the Estimated Cost for Year X using the equation given above on page 2 and the L_x , E_x , and B_x values. The estimated cost is given in Table 2.

-		Escalation Factors			Estimated
					Decommissioning Cost
				Table 2	
-	Year	L _x	Ex	B _x	
	2001	1.715	1.190	8.052	\$634,298,224.20

⁴ Ibid. Table 2.1

Attachment JJH-12 Cause No. 45933 Page 7 of 81

.

Schedule B

.

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Summary of Decommissioning Trust Fund Balances December 31, 2000

	<u>Total</u>	<u>Unit 1</u>	<u>Unit 2</u>
Book Value	\$471,478,203	\$247,509,366	\$223,968,837
Unrealized Appreciation	73,802,131	43,199,531	30,602,600
Market Value	\$545,280,334	\$290,708,897	\$254,571,437
Accrued Interest	8,228,974	4,271,100	3,957,875
Accrued Contributions	2,751,961	1,552,278	1,199,682
Sub-total	\$556,261,269	\$296,532,275	\$259,728,994
Less: Taxes on Unrealized Appreciation	15,973,619	9,494,213	6,479,406
Total	\$540,287,650	\$287,038,062	\$253,249,588

Attachment JJH-12 Cause No. 45933 Page 8 of 81

> Schedule C Page 1 of 3

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Total Company

Projected Future Funds To Be Collected For Decommissioning(a)

Year	<u>Unit 1</u>	Unit 2	Total Company
2001	\$ 13,949,938	\$ 12,913,407	\$ 26,863,345
2002	13,949,938	12,913,407	26,863,345
2003	13,949,938	12,913,407	26,863,345
2004	13,949,938	12,913,407	26,863,345
2005	13,949,938	12,913,407	26,863,345
2006	13,949,938	12,913,407	26,863,345
2007	13,949,938	12,913,407	26,863,345
2008	13,949,938	12,913,407	26,863,345
2009	13,949,938	12,913,407	26,863,345
2010	13,949,938	12,913,407	26,863,345
2011	13,949,938	12,913,407	26,863,345
2012	13,949,938	12,913,407	26,863,345
2013	13,949,938	12,913,407	26,863,345
2014	11,617,508	12,913,407	24,530,915
2015		12,913,407	12,913,407
2016		12,913,407	12,913,407
2017		12,913,407	12,913,407

.

.

Attachment JJH-12 Cause No. 45933 Page 9 of 81

> Schedule C Page 2 of 3

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Unit No. 1

Projected Future Funds To Be Collected For Decommissioning (a) (b)

	Indiana	Michigan	FERC	Total
Year (b)	Jurisdiction(c)	Jurisdiction(d)	Jurisdiction(e)	<u>Company</u>
2001	\$ 9,732,400	\$ 3,643,788	\$ 573,750	\$ 13,949,938
2002	9,732,400	3,643,788	573,750	13,949,938
2003	9,732,400	3,643,788	573,750	13,949,938
2004	9,732,400	3,643,788	573,750	13,949,938
2005	9,732,400	3,643,788	573,750	13,949,938
2006	9,732,400	3,643,788	573,750	13,949,938
2007	9,732,400	3,643,788	573,750	13,949,938
2008	9,732,400	3,643,788	573,750	13,949,938
2009	9,732,400	3,643,788	573,750	13,949,938
2010	9,732,400	3,643,788	573,750	13,949,938
2011	9,732,400	3,643,788	573,750	13,949,938
2012	9,732,400	3,643,788	573,750	13,949,938
2013	9,732,400	3,643,788	573,750	13,949,938
2014*	8,105,142	3,034,547	477,819	11,617,508

- * To end of month in which license expires (83.28%).
- (a) Based on regulatory commission orders in effect on December 31, 2000.
- (b) Assumes the unit operates over its current licensed life and that authorized collections are not changed.
- (c) Additional annual amounts up to \$1,500,000 per unit may be deposited under flexible funding procedure dependent on continual Commission authorization. Other additional amounts up to \$4,000,000 may be deposited for the years 2001, 2002 and 2003 under Commission orders.
- (d) Amount depends on precise level of Kwh sales. Estimate assumes continuation of mid 2000 level. Base amount before Kwh adjustment is \$3,086,600 per Commission Order. Additional annual amounts up to \$317,124 per unit may be deposited under flexible funding procedure dependent on continued Commission authorization.
- (e) Assumes all current FERC jurisdictional customers continue to receive service or are replaced by other equivalent customers.

Attachment JJH-12 Cause No. 45933 Page 10 of 81

> Schedule C Page 3 of 3

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Unit No. 2

Projected Future Funds To Be Collected For Decommissioning (a) (b)

	Indiana	Michigan	FERC	Total
Year (b)	<u>Jurisdiction(c)</u>	Jurisdiction(d)	Jurisdiction(e)	<u>Company</u>
2001	\$ 8,999,900	\$ 3,477,807	\$ 435,700	\$ 12,913,407
2002	8,999,900	3,477,807	435,700	12,913,407
2003	8,999,900	3,477,807	435,700	12,913,407
2004	8,999,900	3,477,807	435,700	12,913,407
2005	8,999,900	3,477,807	435,700	12,913,407
2006	8,999,900	3,477,807	435,700	12,913,407
2007	8,999,900	3,477,807	435,700	12,913,407
2008	8,999,900	3,477,807	435,700	12,913,407
2009	8,999,900	3,477,807	435,700	12,913,407
2010	8,999,900	3,477,807	435,700	12,913,407
2011	8,999,900	3,477,807	435,700	12,913,407
2012	8,999,900	3,477,807	435,700	12,913,407
2013	8,999,900	3,477,807	435,700	12,913,407
2014	8,999,900	3,477,807	435,700	12,913,407
2015	8,999,900	3,477,807	435,700	12,913,407
2016	8,999,900	3,477,807	435,700	12,913,407
2017*	8,999,900	3,477,807	435,700	12,913,407

* To end of month in which license expires.

.

- (a) Based on regulatory commission orders in effect on December 31, 2000
- (b) Assumes the unit operates over its current licensed life and that authorized collections are not changed.
- (c) Additional annual amounts up to \$1,500,000 per unit may be deposited under flexible funding procedure dependent on continual Commission authorization. Other additional amounts up to \$4,000,000 may be deposited for the years 2001, 2002 and 2003 under Commission orders.
- (d) Amount depends on precisely level of Kwh sales. Estimate assumes continuation of mid 2000 level. Base amount before Kwh adjustment is \$2,946,000 per Commission Order. Additional annual amounts up to \$317,124 per unit may be deposited under flexible funding procedure dependent on continued Commission authorization.
- (e) Assumes all current FERC jurisdictional customers continue to receive service or are replaced by other equivalent customers.

Attachment JJH-12 Cause No. 45933 Page 11 of 81

Schedule D

Indiana Michigan Power Company Donald C. Cook Nuclear Plant

Cost Escalation Rate Section 50.75(c) Decommissioning Costs

Jurisdictiona <u>Allocation</u>	*	Projected <u>Escalation</u> **	Weighted <u>Escalation</u>
73.12908 %	Indiana Jurisdiction (a)) 6.50 %	4.75 %
14.50314	Michigan Jurisdiction (b) 6.50	.94
12.36778	FERC Jurisdiction (c) 6.00	.74
100.00000 %	Total Company		6.43 (d)

- * Reported to Michigan Public Service Commission in most recent decommissioning study and percentages at that date applicable to other jurisdiction.
- ** Escalation of Section 50.75(c) costs within range presented by Company representing amount approved by Commission as a basis of allowed decommissioning provisions. The Indiana and the Michigan Commissions' nuclear decommissioning provisions regarding Section 50.75(c) costs, to be included in the cost of service reflected 4.50% during the first four years to correlate with how site specific cost estimates were prepared. The FERC also had lower cost escalation factors for the first four years for the same general reason.
- (a) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (b) Michigan Public Commission Order in Case No. U-10347.
- (c) Federal Energy Regulatory Commission Order in Case ER90-269-000.
- (d) Company claims 6.43% as an apportionate Section 50.75(c) cost escalation factor on this 2001 report to the Nuclear Regulatory Commission.

Attachment JJH-12 Cause No. 45933 Page 12 of 81

-

Schedule E

Indiana Michigan Power Company Donald C. Cook Nuclear Plant

After Tax Rate of Return Assumed to be Earned on Amounts Collected for Decommissioning

Jurisdictiona Allocation	 *	Proj <u>Ear</u>	jected <u>nings</u> **	Weighted <u>Earnings</u>
73.12908 %	Indiana Jurisdiction	(a) 7	'.00 %	5.12 %
14.50314	Michigan Jurisdiction	(b) 7	'.00	1.02
12.36778	FERC Jurisdiction	(c) 7	.27	.90
100.00000 %	Total Company			7.04 (d)

- * Reported to Michigan Public Service Commission in most recent decommissioning study and percentages at that date applicable to other jurisdictions.
- ** Earnings within range presented by Company representing amount approved by commissions as basis of allowed decommissioning provisions.
- (a) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (b) Michigan Public Commission Order in Case No. U-10347.
- (c) Federal Energy Regulatory Commission Order in Case ER90-269-000.
- (d) Company claims 7.04 % as an apportionate earnings factor in this 2001 report to the Nuclear Regulatory Commission. Company reserves the right to calculate earnings using a 2% real rate of return as authorized by NRC.

Attachment JJH-12 Cause No. 45933 Page 13 of 81

Schedule F

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Unit No. 1 and Unit No. 2

Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes

One or more nuclear decommissioning trust fund agreements for the units at the Donald C. Cook nuclear plant exist with the following trustees:

National City Bank of Indiana Fort Wayne, Indiana

Wells Fargo Bank Indiana, N.A. Fort Wayne, Indiana

First Source Bank South Bend, Indiana

The Bank of New York New York, New York

Since the report dated March 15, 1999, filed with the Nuclear Energy Regulatory Commission on Funding for Donald C. Cook Units 1 and 2, the following substantive changes have been made in the trust agreements or affect the trust arrangements.

1. Changes in Trustee or Name of Trustee

On November 2, 1998, a merger involving Norwest Corporation and Wells Fargo & Company (the Merger) was completed. Norwest Corporation changed its name to "Wells Fargo & Company" and the former Wells Fargo & Company (the former Wells Fargo) became a wholly-owned subsidiary of Norwest Corporation. Norwest Corporation as it was before the Merger is referred to as the former Norwest. On July 8, 2000, the Office of the Controller of the Currency recorded the title change of Norwest Bank Indiana, National Association, Fort Wayne, Indiana, (Charter Nr. 13987), to Wells Fargo Bank Indiana, National Association.

2. <u>Change in Permitted Investments</u>

No change since prior report.

3. Changes in Permitted Decommissioning Disbursements

No change since prior report.

Indiana Michigan Power Company 500 Circle Drive Buchanan, MI 49107 1395 Attachment JJH-12 Cause No. 45933 Page 14 of 81



March 27, 2003

AEP:NRC:3075-01 10 CFR 50.75(f)(1)

Docket Nos: 50-315 50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the attached report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the escalated Nuclear Regulatory Commission minimum cost of decommissioning, confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions on the report or decommissioning funding, please contact Mr. Brian A. McIntyre, Manager of Regulatory Affairs, at (269) 697-5806.

Sincerely,

J. E. Pollock Site Vice President

KAS/rdw

Attachment

Add: Michael Add: Dusaniwskys

Attachment JJH-12 Cause No. 45933 Page 15 of 81

U. S. Nuclear Regulatory Commission Page 2

AEP:NRC:3075-01

c: H. K. Chernoff, NRC Washington, DC
K. D. Curry, Ft. Wayne AEP, w/o attachment
J. E. Dyer, NRC Region III
J. T. King, MPSC, w/o attachment
MDEQ - DW & RPD, w/o attachment
NRC Resident Inspector
J. F. Stang, Jr., NRC Washington, DC

Attachment JJH-12 Cause No. 45933 Page 16 of 81

U. S. Nuclear Regulatory Commission Page 3

AEP:NRC:3075-01

bc: A. C. Bakken III, w/o attachment M. J. Finissi, w/o attachment J. B. Giessner
D. W. Jenkins, w/o attachment J. S. Kiser - AEP Columbus J. A. Kobyra, w/o attachment
D. H. Malin
B. A. McIntyre, w/o attachment
W. T. MacRae
J. E. Newmiller
J. E. Pollock, w/o attachment
D. J. Poupard
M. K. Scarpello, w/o attachment

T. K. Woods, w/o attachment

Attachment JJH-12 Cause No. 45933 Page 17 of 81

ATTACHMENT TO AEP:NRC:3075-01

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Units 1 and 2 2003 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

This report is being submitted in accordance with 10 CFR 50.75(f)(1). The report is comprised of the following schedules and the general comments set forth herein:

Schedule	Title	Page
А	Decommissioning Cost Estimates - Minimum Value Per 10 CFR 50.75(c)	2
В	Summary of Decommissioning Trust Fund Balances December 31, 2002	5
С	Projected Future Funds to Be Collected For Decommissioning	6
D	Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs	8
Е	After Tax Rate of Return Assumption on Amounts Collected for Decommissioning	9
F	Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes	10

General Comments

While the Minimum Value Decommissioning Cost Estimate under 10 CFR 50.75(c) reported on Schedule A is the information the Nuclear Regulatory Commission (NRC) has specified as appropriate for its purposes, the Indiana Michigan Power Company (I&M) believes a broader and more comprehensive definition of and provision for nuclear decommissioning expenses is needed for its purposes.

For the past several years I&M has periodically provided the Indiana and Michigan utility regulatory commissions site specific studies containing a more inclusive definition of nuclear decommissioning requirements. These studies include the 10 CFR 50.75 (b) and (c) costs, 10 CFR 50.54(bb) costs, and "greenfield" costs, versus only the required 10 CFR 50.75 costs. These costs have been commingled in the decommissioning trust funds. For 2003 and 2004, a separate trust fund was established for the disposal of Unit 1 steam generators. This has been presented in reports to the utility regulatory commissions in addition to the site specific decommissioning studies. The commissions have accepted these studies and have authorized recoveries for nuclear decommissioning based on their determinations, considering the reports presented, of appropriate recoveries for nuclear decommissioning using the more comprehensive definition. The most current annual provisions authorized for decommissioning are reported on Schedule C.

Attachment JJH-12 Cause No. 45933 Page 18 of 81

Attachment to AEP:NRC:3075-01

Page 2 Schedule A

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Decommissioning Cost Estimates Minimum Value Per 10 CFR 50.75(c)

10 CFR 50.75(a) requires that each utility assure that there will be adequate funding for the decommissioning of the plant. 10 CFR 50.75(c) established a table of minimum values for the decommissioning funds, in January 1986 dollars, and it also set forth a method to adjust those values. Periodically, the NRC publishes NUREG-1307, "Report on Waste Burial Charges," and in that document, the data and more specific guidance is given regarding the method to be used to adjust the minimum amount to equivalent current amounts. The calculation in this report uses the method outlined in NRC NUREG-1307, Revision 10 to determine the minimum amounts.

Estimated Decommissioning Cost – 10 CFR 50.75(c)				
Unit 1	Unit 2	Total		
\$357,661,331	\$360,839,468	\$718,500,799 [*]		

^{*} Calculation is shown on pages 3 and 4.

Attachment to AEP:NRC:3075-01

Page 3 Schedule A

Decommissioning Cost Estimate Calculation

The first part is to determine the 1986 base cost. Donald C. Cook Nuclear Plant's (CNP) two units are rated at 3304 megawatt-thermal (MW_t) and 3411 MW_t¹. The Unit 1 power level of 3304 MW_t represents an increase from the 2001 submittal based on a license amendment approved in late 2002. From 10 CFR 50(c)(1)(i), the cost is then based on the MW_t output of each unit. For reactor power greater than 3400 MW_t the cost is \$105 million. For reactor power from 1200 to 3400 MW_t the cost is calculated using the following formula, given that P is the power level:

Cost = (75 + 0.0088P) million.

Thus, for 3304 MW_t the cost is:

 $Cost = (75 + 0.0088 \times 3304)$ million

= \$104.1 million.

Therefore, the total 1986 base decommissioning cost for Cook is \$104.1 + \$105 million or \$209.1 million.

The next portion of the analysis is to adjust the 1986 cost to a 2003 cost.

Using the formula:

Estimated Cost (Year X) = $[1986 \text{ Dollar Cost}][A L_x + B E_x + C B_x],$

where A, B, and C are the fractions of the total 1986 dollar costs that are attributable to labor (0.65), energy (0.13), and burial (0.22), respectively, and sum to 1.0. The factors L_x , E_x , and B_x are defined as:

- L_x = labor cost escalation, January of 1986 to January of Year X,
- E_x = energy cost escalation, January of 1986 to January of Year X,
- $B_x =$ burial cost escalation, January of 1986 to January of Year X (i.e., burial cost in January of Year X / burial cost in January of 1986).²

The labor escalation factor was obtained by using the U. S. Bureau of Labor Statistics (BLS) data. This data was taken from the World Wide Web following the directions given in NUREG-1307, Rev. 10, Appendix C. Data for the Midwest region was used from the

¹ Donald C. Cook Nuclear Plant Unit 1 and Unit 2 Operating Licenses

² NUREG-1307, Rev. 10

Attachment JJH-12 Cause No. 45933 Page 20 of 81

Attachment to AEP:NRC:3075-01

•

Page 4 Schedule A

Employment Cost Index. Data from the first quarter was used, except for 2003 which uses fourth quarter 2002, and is shown in Table 1.

Attachment JJH-12 Cause No. 45933 Page 21 of 81

Attachment to AEP:NRC:3075-01

Page 5 Schedule A

The energy cost escalation is determined by BLS data by using "Producer Price Indexes." The energy term in the adjustment equation is made up of two components; industrial electric power (P), and light fuel oil (F). E is determined from the following equation for Pressurized Water Reactors:³

E = 0.58P + 0.42F.

The values of P and F are taken from the BLS as described in NUREG-1307. The data from January was used, and is shown in Table 1. Also, shown are the results of the calculations to determine E. The energy data for 2003 is BLS preliminary data.

<u></u>		Table 1				
	Cost Index Values					
Year	Labor Data (L)	Electric Power (P)	Light Fuel Oil (F)	Energy Data (E)		
2003	164.6	139.7	96.7	121.64		
2002	161.1	136.3	58.3	103.54		
1986	89.4	114.2	82.0	100.68		

The next step is to convert the cost index values into the adjustment factors, L_x and E_x . These are determined by dividing the year's cost index value by the cost index value for 1986 (e.g. $L_{2003} = 164.6/89.4$). The values for B_x are taken directly from NUREG-1307, Rev. 10 using the data for the South Carolina site using direct disposal with waste vendors for disposition as a non-Atlantic Compact State.⁴ The results are shown in Table 2.

The final step is to calculate the Estimated Cost for Year X using the equation given above on page 2 and the L_x , E_x , and B_x values. The estimated cost for 2003 is given in Table 2.

			Table 2	
	Esc	alation Factors a	and Estimated C	Cost for 2003
Year	L _x	Ex	B _x	Estimated Decommissioning Cost
2003	1.84116	1.20823	9.46700	\$718,500,798.52
2002	1.80201	1.20845	9.46700	\$708,293,865.89

³ Ibid.

⁴ Ibid. Table 2.1

Attachment JJH-12 Cause No. 45933 Page 22 of 81

Attachment to AEP:NRC:3075-01

\$

e "

Page 6 Schedule B

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Summary of Decommissioning Trust Fund Balances December 31, 2002

	<u>Total</u>	<u>Unit 1</u>	<u>Unit 2</u>
Book Value	580,072,433	297,300,787	282,771,646
Unrealized Appreciation	24,925,826	17,999,105	6,926,721
Market Value	604,998,259	315,299,892	289,698,367
Accrued Interest	962,753	790,038	172,715
Accrued Contributions	3,218,308	1,651,228	1,567,080
Subtotal	609,179,320	317,741,158	291,438,162
Less: Taxes on Unrealized Appreciation	6,137,681	4,342,079	1,795,601
Total	603,041,639	313,399,079	289,642,561

Page 7 Schedule C ۴,

•

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund

Projected Future Funds To Be Collected For Decommissioning (a)

		Unit 1				Unit 2]	
	Indiana Jurisdiction (b)	Michigan Jurisdiction (c)	FERC Jurisdiction	Unit 1 Total (d)	Indiana Jurisdiction (b)	Michigan Jurisdiction (c)	FERC Jurisdiction	Unit 2 Total	Decommis- sioning Total
2003	15,232,396	3,737,448	602,532	19,572,376	14,491,504	3,631,726	458,262	18,581,492	38,153,868
2004	10,190,729	3,737,448	602,532	14,530,709	9,449,837	3,631,726	458,262	13,539,825	28,070,534
2005	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2006	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2007	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2008	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2009	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2010	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2011	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2012	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
2013	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868
*2014	8,105,142	3,034,547	477,819	11,617,508	8,991,504	3,631,726	458,262	13,081,492	24,699,000
2015				-	8,991,504	3,631,726	458,262	13,081,492	13,081,492
2016				-	8,991,504	3,631,726	458,262	13,081,492	13,081,492
*2017				-	8,991,504	3,631,726	458,262	13,081,492	13,081,492
Total	121,119,831	44,146,475	7,105,671	172,371,977	140,830,893	54,475,890	6,873,930	202,180,713	374,552,690

Attachment to AEP:NRC:3075-01

Page 8 Schedule C ¢

Notes:

- (a) Based on regulatory commission orders in effect on December 31, 2002. Assumes each unit operates over its current licensed life and that authorized collections are not changed.
- (b) Includes additional annual amounts of up to \$5,500,000 per unit in 2003 and \$458,000 in 2004 deposited under flexible funding arrangement.
- (c) Amount dependent on kWh sales. Base amount is \$3,086,600 per year for Unit 1 and \$2,946,000 for Unit 2.
- (d) Projected funds for 2003 and 2004 include Unit 1 steam generator disposal as authorized by Indiana and Michigan utility regulatory commissions.
- * The Operating License for Unit 1 expires in October 2014. The Operating License for Unit 2 expires in December 2017.

Attachment JJH-12 Cause No. 45933 Page 25 of 81

Attachment to AEP:NRC:3075-01

L

Page 9 Schedule D

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs

Jurisdiction	Jurisdictional Allocation (a)	Projected Escalation	Weighted Escalation
Indiana (b)	73.1291%	6.50%	4.75%
Michigan (c)	14.5031%	6.50%	0.94%
FERC (d)	12.3678%	6.00%	0.74%
Total			6.43%

Notes:

(a)	Reported to Indiana Utility Regulatory Commission in most recent
	decommissioning study.
(b)	Indiana Utility Regulatory Commission Order in Case No. 39314.
(c)	Michigan Public commission Order in Case No. U-10347.
(d)	Federal Energy Regulatory Commission Order in Case ER90-269-000.

Attachment JJH-12 Cause No. 45933 Page 26 of 81

Attachment to AEP:NRC:3075-01

¥

Page 10 Schedule E

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

After Tax Rate of Return Assumption on Amounts Collected for Decommissioning

	Jurisdictional				
Jurisdiction	Allocation (a)	Projected Earnings	Weighted Earnings		
Indiana (b)	73.1291%	7.00%	5.12%		
Michigan (c)	14.5031%	7.00%	1.02%		
FERC (d)	12.3678%	7.27%	0.90%		
Total			7.04%		

Notes:

(a)	Reported to Indiana Utility Regulatory Commission in most recent
	decommissioning study.

- (b) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (c) Michigan Public commission Order in Case No. U-10347.
- (d) Federal Energy Regulatory Commission Order in Case ER90-269-000.
Attachment JJH-12 Cause No. 45933 Page 27 of 81

Attachment to AEP:NRC:3075-01

Page 11 Schedule F

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes

A nuclear decommissioning trust fund agreement for the units at the Donald C. Cook Nuclear Plant (CNP) exists with the following trustee:

Mellon Bank Pittsburgh, Pennsylvania.

Since the report dated March 27, 2001, filed with the NRC on Funding for CNP, Units 1 and 2, the following substantive changes have been made in the trust agreements or affect the trust arrangements:

On July 2, 2001, the decommissioning trust funds for CNP were transferred to Mellon Bank of Pittsburgh, PA. With the transfer, separate accounting records continue to be maintained for each unit and each regulatory jurisdiction for both the qualified and nonqualified trusts. The transfer was made to increase administrative efficiencies and take advantage of economies of scale. Effective with the transfer, decommissioning trust agreements with the following trustees were terminated:

National City Bank of Indiana Fort Wayne, Indiana

Wells Fargo Bank Indiana Fort Wayne, Indiana

First Source Bank South Bend, Indiana

The Bank of New York New York, New York Attachment JJH-12 Cause No. 45933 Page 28 of 81



î

INDIANA MICHIGAN POWER'

A unit of American Electric Power

March 23, 2005

Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 AEP.com

AEP:NRC:5075 10 CFR 50.75(f)(1)

Docket Nos: 50-315 50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the attached report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the escalated Nuclear Regulatory Commission minimum cost of decommissioning, confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions on the report or decommissioning funding, please contact Mr. John A. Zwolinski, Safety Assurance Director, at (269) 466-2428.

Sincerely,

J. N. Jensen Site Vice President

DMB/rdw

Attachment/Enclosures

Attachment JJH-12 Cause No. 45933 Page 29 of 81

U. S. Nuclear Regulatory Commission Page 2

•

AEP:NRC:5075

c: J. L. Caldwell – NRC Region III
K. D. Curry – AEP Ft. Wayne, w/o attachment/enclosures
J. E. Dyer, NRC Region III
J. T. King, MPSC, w/o attachment/enclosures
C. F. Lyon – NRC Washington DC
MDEQ – WHMD/HWRPS, w/o attachment/enclosures
NRC Resident Inspector

ATTACHMENT TO AEP:NRC:5075

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Units 1 and 2 2005 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

This report is being submitted in accordance with 10 CFR 50.75(f)(1). The report is comprised of the following schedules and the general comments set forth herein:

Schedule	Title	Page
Α	Decommissioning Cost Estimates - Minimum Value Per 10 CFR 50.75(c)	2
В	Summary of Decommissioning Trust Fund Balances December 31, 2004	5
С	Projected Future Funds to Be Collected For Decommissioning	6
D	Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs	7
Е	After Tax Rate of Return Assumption on Amounts Collected for Decommissioning	8
F	Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes	9

General Comments

While the Minimum Value Decommissioning Cost Estimate under 10 CFR 50.75(c) reported on Schedule A is the information the Nuclear Regulatory Commission (NRC) has specified as appropriate for its purposes, the Indiana Michigan Power Company (I&M) believes a broader and more comprehensive definition of and provision for nuclear decommissioning expenses is needed for its purposes.

For the past several years I&M has periodically provided the Indiana and Michigan utility regulatory commissions site specific studies containing a broader definition of nuclear decommissioning requirements. These studies include the 10 CFR 50.75 (b) and (c) costs, 10 CFR 50.54(bb) costs, and "greenfield" costs, versus only the required 10 CFR 50.75 costs. These costs have been commingled in the decommissioning trust funds. For 2003 and 2004, a separate trust fund was established for the disposal of Unit 1 steam generators. This has been presented in reports to the utility regulatory commissions in addition to the site specific decommissioning studies. The commissions have accepted these studies and have authorized recoveries for nuclear decommissioning based on their determinations, considering the reports presented, of appropriate recoveries for nuclear decommissioning using the more comprehensive definition. The currently estimated annual fund collections authorized for decommissioning are reported on Schedule C.

Attachment JJH-12 Cause No. 45933 Page 31 of 81

Attachment to AEP:NRC:5075

Page 2 Schedule A

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Decommissioning Cost Estimates Minimum Value Per 10 CFR 50.75(c)

10 CFR 50.75(a) requires that each utility assure that there will be adequate funding for the decommissioning of the plant. 10 CFR 50.75(c) established a table of minimum values for the decommissioning funds, in January 1986 dollars, and it also set forth a method to adjust those values. Periodically, the NRC publishes NUREG-1307, "Report on Waste Burial Charges," and in that document, the data and more specific guidance is given regarding the method to be used to adjust the minimum amount to equivalent current amounts. The calculation in this report uses the burial cost escalation values and the method outlined in NRC NUREG-1307, Revision 10 to determine the minimum values.

<u>Estimated</u>	timated Decommissioning Cost – 10 CFR 50.75(c)			
Unit 1	<u>Unit 2</u>	Total		
\$369,902,533	\$373,189,443	\$743,091,976		

Attachment to AEP:NRC:5075

Page 3 Schedule A

Decommissioning Cost Estimate Calculation

The first step of the decommissioning cost estimate calculation is to determine the 1986 base cost. Donald C. Cook Nuclear Plant's (CNP) Units 1 and 2 are rated at 3304 megawatt-thermal (MW_t) and 3468 MW_t, respectively. From 10 CFR 50(c)(1)(i), the cost is then based on the MW_t output of each unit. For reactor power greater than 3400 MW_t, the cost is \$105 million. For reactor power from 1200 to 3400 MW_t the cost is calculated using this formula:

Cost = (75 + 0.0088P) million.

Given P is the power level. So, for Unit 1 at 3304 MW_t the cost is:

 $Cost = (75 + 0.0088 \times 3304)$ million

= \$104.1 million.

For Unit 2, since the power level is greater than 3400 MW_t , the cost is \$105 million which is taken directly from the NRC's model.

So, the total 1986 base decommissioning cost for Cook is \$104.1 + \$105 million or \$209.1 million.

The next portion of the analysis is to adjust the 1986 cost to the current year cost.

Using the formula:

Estimated Cost (Year X) = $[1986 \text{ S Cost}][A L_x + B E_x + C B_x]$

Where A, B, and C are the fractions of the total 1986 \$ costs that are attributable to labor (0.65), energy (0.13), and burial (0.22), respectively, and sum to 1.0. The factors L_x , E_x , and B_x are defined by:

 L_x = labor cost escalation, January of 1986 to January of Year X

 E_x = energy cost escalation, January of 1986 to January of Year X

B_x = burial cost escalation, January of 1986 to January of Year X, i.e., burial cost in January of Year X / burial cost in January of 1986.

The labor escalation factor was obtained by using the U. S. Bureau of Labor Statistics data. This data was taken from the World Wide Web following the directions given in NUREG-1307, Revision 10, Appendix C. Data for the Midwest region was used from the Employment Cost Index. The data from the first quarter was used, except for 2005, which uses fourth quarter 2004, and is shown in Table 1.

Attachment to AEP:NRC:5075

The energy cost escalation is determined by BLS data by using "Producer Price Indexes." The energy term in the adjustment equation is made up of two components; industrial electric power (P), and light fuel oil (F). E_x is determined from the following equation for Pressurized Water Reactors:

E = 0.58P + 0.42F.

The values of P and F are taken from the BLS as described in NUREG-1307. The data from January was used, and is shown in Table 1. Also shown are the results of the calculations to determine E. The energy data for 2005 is BLS preliminary data.

		Table 1		
		Cost Index Value	S	
Year	Labor Data (L)	Electric Power (P)	Light Fuel Oil (F)	Energy Data (E)
2005	177.9	147.5	124.5	137.84
2004	174.7	143.1	106.8	127.85
1986	89.4	114.2	82.0	100.68

The next step is to convert the cost index values into the adjustment factors, L_x and E_x . These are determined by dividing the year's cost index value by the cost index value for 1986 (e.g. $L_{2005} = 177.9/89.4$). The values for B_x are taken directly from NUREG-1307, Revision 10 using the data for the South Carolina site using direct disposal with waste vendors for disposition as a non-Atlantic Compact State. The results are shown in Table 2.

The final step is to calculate the Estimated Cost for Year X using the equation given above on Page 3 and the L_x , E_x , and B_x values. The estimated cost is given in Table 2.

Table 2						
Escalation Factors Estimated Decommissioning Cost					ning Cost	
Year	L _x	Ex	B _x	Unit 1	Unit 2	Total
2005	1.98993	1.36914	9.46700	\$369,902,533	\$373,189,443	\$743,091,976
2004	1.95414	1.26996	9.46700	\$366,139,085	\$369,392,554	\$735,531,639

Attachment JJH-12 Cause No. 45933 Page 34 of 81

Attachment to AEP:NRC:5075

.

Page 5 Schedule B

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Summary of Decommissioning Trust Fund Balances December 31, 2004

	<u>Total</u>	<u>Unit 1</u>	<u>Unit 2</u>
Book Value	674,390,897	343,618,753	330,772,144
Unrealized Appreciation	133,702,256	72,337,328	61,364,928
Market Value	808,093,153	415,956,081	392,137,072
Accrued Interest	4,895	4,895	0
Accrued Contributions	2,830,796	1,480,093	1,350,703
Subtotal	810,928,844	417,441,069	393,487,775
Less: Taxes on Unrealized Appreciation	26,888,908	14,551,143	12,337,765
Total	784,039,936	402,889,926	381,150,010

Page 6 Schedule C

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund

Projected Future Funds To Be Collected For Decommissioning (a)

[Unit 1			Unit 2					
	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 1 Total	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 2 Total	Decommis- sioning Total	
2005	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2006	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2007	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2008	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2009	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2010	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2011	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2012	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
2013	9,732,396	3,737,448	602,532	14,072,376	8,991,504	3,631,726	458,262	13,081,492	27,153,868	
*2014	8,105,142	3,034,547	477,819	11,617,508	8,991,504	3,631,726	458,262	13,081,492	24,699,000	
2015				•	8,991,504	3,631,726	458,262	13,081,492	13,081,492	
2016				-	8,991,504	3,631,726	458,262	13,081,492	13,081,492	
2017				-	8,991,504	3,631,726	458,262	13,081,492	13,081,492	
Total	95,696,706	36,671,579	5,900,607	138,268,892	116,889,552	47,212,438	5,957,406	170,059,396	308,328,288	

Notes:

(a) Based on regulatory commission orders that remain in effect since prior to December 31, 2002. Assumes each unit operates over its current licensed life and that authorized collections are not changed.

(b) Amount dependent on Kwh sales. Base amount is \$3,086,600 per year for Unit 1 and \$2,946,000 for Unit 2.

* License for Unit 1 expires in October 2014. License for Unit 2 expires in December 2017.

Attachment JJH-12 Cause No. 45933 Page 36 of 81

Attachment to AEP:NRC:5075

Page 7 Schedule D

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs

Jurisdiction	Jurisdictional Allocation (a)	Projected Escalation	Weighted Escalation
Indiana (b)	73.1291%	6.50%	4.75%
Michigan (c)	14.5031%	6.50%	0.94%
FERC (d)	12.3678%	6.00%	0.74%
Total			6.44%

Notes:

(a) Reported to Indiana Utility Regulatory Commission in most recent decommissioning study.

- (b) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (c) Michigan Public commission Order in Case No. U-10347.
- (d) Federal Energy Regulatory Commission Order in Case ER90-269-000.

Attachment JJH-12 Cause No. 45933 Page 37 of 81

Attachment to AEP:NRC:5075

Page 8 Schedule E

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

After Tax Rate of Return Assumption on Amounts Collected for Decommissioning

	Jurisdictional		
Jurisdiction	Allocation (a)	Projected Earnings	Weighted Earnings
Indiana (b)	73.1291%	7.00%	5.12%
Michigan (c)	14.5031%	7.00%	1.02%
FERC (d)	12.3678%	7.27%	0.90%
Total			7.03%

- (a) Reported to Indiana Utility Regulatory Commission in most recent decommissioning study.
- (b) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (c) Michigan Public commission Order in Case No. U-10347.
- (d) Federal Energy Regulatory Commission Order in Case ER90-269-000.

Attachment JJH-12 Cause No. 45933 Page 38 of 81

Attachment to AEP:NRC:5075

Page 9 Schedule F

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes

A nuclear decommissioning trust fund agreement for the units at the Donald C. Cook Nuclear Plant (CNP) exists with the following trustee:

Mellon Bank Pittsburgh, Pennsylvania.

Since the report dated March 27, 2003, filed with the NRC on Funding for CNP, Units 1 and 2, the following substantive changes have been made in the trust agreements:

1. Changes in Trustee or Name of Trustee

The decommissioning trust was amended (Amendment No. 1) in February 2003 to add separate accounts to the trust to accumulate funds for the disposal of the Steam Generators for Unit 1.

The decommissioning trust was amended (Amendment No. 2) in December 2003 to comply with changes in NRC rules.

Copies of the two amendments are attached for reference as Enclosure 1 and Enclosure 2, respectively.

2. Change in Permitted Investments

No change since prior report.

3. Changes in Permitted Decommissioning Disbursements

The Unit 1 Steam Generators were disposed in 2004. Funds accumulated in a separate account were used for this disposal. The NRC had previously been notified of the disbursement in AEP:NRC:4075, dated January 24, 2004.

Attachment JJH-12 Cause No. 45933 Page 39 of 81

ENCLOSURE 1 TO AEP:NRC:5075

AMENDMENT NO. 1 TO NUCLEAR DECOMMISSIOINING MASTER TRUST AGREEMENT

Attachment JJH-12 Cause No. 45933 Page 40 of 81

AMENDMENT NO. 1 TO NUCLEAR DECOMMISSIONING MASTER TRUST AGREEMENT

AMENDMENT NO. 1 made this 19th day of February, 2003 to the NUCLEAR DECOMMISSIONING MASTER TRUST AGREEMENT, dated as of June 27, 2001 (the "Master Trust") between INDIANA MICHIGAN POWER COMPANY, a corporation duly organized and existing under the laws of the State of Indiana having its principal office at One Riverside Plaza, Columbus, Ohio 43215 (the "Company"), and MELLON BANK, N.A., as Trustee, having its principal office at One Mellon Center, Pittsburgh, Pennsylvania 15258 (the "Trustee");

WITNESSETH:

WHEREAS, the Company owns the D.C. Cook Nuclear Generating Plant consisting of the D.C. Cook Unit 1 and D.C. Cook Unit 2 (the "Units"); and

WHEREAS, the Company has, pursuant to orders of public utility commissions having jurisdiction of the Company's rates, established various trust fund(s) each of which either qualifies as a Nuclear Decommissioning Reserve Fund under section 468A of the Internal Revenue Code of 1986, as amended, or any corresponding section or sections of any future United States internal revenue statute (the "Code") and the regulations thereunder (the "Qualified Funds"), or which does not so qualify (the "Nonqualified Funds"; collectively, the "Funds"); and

WHEREAS, the Company has heretofore appointed Mellon Bank, N.A. successor trustee of the trusts ("the Trustee") and the Trustee has agreed to serve as successor trustee; and

WHEREAS, the Company has heretofore established the Master Trust to hold the assets of each Fund, wherein each Fund shall continue as a separate trust subject to the terms of the Master Trust; and

WHEREAS, the Company desires to establish additional Nonqualified Funds within the Master Trust to provide for the funding by the Company of the costs of removal and disposal of the D.C. Cook Unit 1 Steam Generator;

 NOW, THEREFORE, the Company and the Trustee hereby agree as

 follows:

 1.

 That Section 1.01 of the Master Trust be amended and

That Section 1.01 of the Master Trust be amended and restated as follows:

Attachment JJH-12 Cause No. 45933 Page 41 of 81

"Section 1.01. <u>Establishment of the Funds</u>. The Master Trust shall be divided by the Trustee into Funds to be identified as follows:

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Indiana Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Michigan Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Federal Energy Regulatory Commission Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Indiana Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Michigan Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Federal Energy Regulatory Commission Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Indiana Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Michigan Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Federal Energy Regulatory Commission Jurisdiction Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Indiana Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Michigan Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Qualified Federal Energy Regulatory Commission Jurisdiction Decommissioning Fund Unit 2

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Indiana Jurisdiction Steam Generator Decommissioning Fund Unit 1

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Michigan Jurisdiction Steam Generator Decommissioning Fund Unit 1 Attachment JJH-12 Cause No. 45933 Page 42 of 81

Indiana Michigan Power Company D.C. Cook Nuclear Generating Plant Nonqualified Federal Energy Regulatory Commission Jurisdiction Steam Generator Decommissioning Fund Unit 1.

The Funds shall be maintained separately at all times in the United States as the Nonqualified Funds and the Qualified Funds pursuant to this Agreement and as separate trusts under this Master Trust Agreement in accordance with the laws of the Commonwealth of Pennsylvania. The Company intends that the Qualified Funds shall qualify as Nuclear Decommissioning Reserve Funds under section 468A of the Code. The assets of the Qualified Funds may be used only in a manner authorized by section 468A of the Code and the regulations thereunder and this Agreement cannot be amended to violate section 468A of the Code or the regulations thereunder. The Trustee shall maintain such records as are necessary to reflect each Fund separately on its books from each other Fund and shall create and maintain such subaccounts within each Fund as the Company shall direct.

2. Each of the parties represents and warrants to the other party that it has full authority to enter into this Amendment No. 1 upon the terms and conditions hereof and that the individual executing this Amendment No. 1 on its behalf has the requisite authority to bind such party to this Amendment No.1.

IN WITNESS WHEREOF, the parties hereto, each intending to be legally bound hereby, have hereunto set their hands and seals as of the day and year first above written.

Indiana Michigan Power Company

Name: J. Steven Kiser Title: Director, Trusts and Investments

Mellon Bank, N.A

Name: Paul R. Kraus, Vice President Mellon Bank, N.A.

Attachment JJH-12 Cause No. 45933 Page 43 of 81

ENCLOSURE 2 TO AEP:NRC:5075

AMENDMENT NO. 2 TO NUCLEAR DECOMMISSIOINING MASTER TRUST AGREEMENT

Attachment JJH-12 Cause No. 45933 Page 44 of 81

AMENDMENT NO. 2 TO NUCLEAR DECOMMISSIONING MASTER TRUST AGREEMENT

AMENDMENT NO. 2 made this 18 day of 10 Center, 2003 to the NUCLEAR DECOMMISSIONING MASTER TRUST AGREEMENT, dated as of June 27, 2001 (the "Master Trust") between INDIANA MICHIGAN POWER COMPANY, a corporation duly organized and existing under the laws of the State of Indiana having its principal office at One Riverside Plaza, Columbus, Ohio 43215 (the "Company"), and MELLON BANK, N.A., as Trustee, having its principal office at One Mellon Center, Pittsburgh, Pennsylvania 15258 (the "Trustee");

WITNESSETH:

WHEREAS, the Company owns the D.C. Cook Nuclear Generating Plant consisting of the D.C. Cook Unit 1 and D.C. Cook Unit 2 (the 'Units"); and

WHEREAS, the Company has, pursuant to orders of public utility commissions having jurisdiction of the Company's rates, established various trust funds(s) each of which either qualifies as a Nuclear Decommissioning Reserve Fund under section 468A of the Internal Revenue Code of 1986, as amended, or any corresponding section or sections of any future United States internal revenue statute (the "Code") and the regulations thereunder (the 'Qualified Funds"), or which does not so qualify (the "Nonqualified Funds"; collectively, the "Funds"); and

WHEREAS, the Company has heretofore appointed Mellon Bank, N.A. successor trustee of the trusts ("the Trustee") and the Trustee has agreed to serve as successor trustee; and

WHEREAS, the Company has heretofore established the Master Trust to hold the assets of each Fund, wherein each Fund shall continue as a separate trust subject to the terms of the Master Trust; and

WHEREAS, the Company and the Trustee also entered into that First Amendment dated as of February 19, 2003 to the Master Trust to establish additional Nonqualified Funds within the Master Trust to provide for the funding of the cost of removal and disposal of the D. C. Cook Unit 1 Steam Generator; and

WHEREAS, pursuant to Article IV of the Master Trust Agreement the Company and the Trustee wish to amend the Agreement in certain ways;

NOW, THEREFORE, the parties hereto, each intending to be legally bound, do hereby amend the Agreement as follows:

1. The following Section 2.05 shall be added:

Section 2.05 <u>Notice Regarding Disbursements or Payments</u>. Except for (i) payments of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in

Attachment JJH-12 Cause No. 45933 Page 45 of 81

connection with the operation of the fund, (ii) withdrawals being made under 10 CFR 50.82(a)(8), and (iii) adjustments for excess contributions being transferred to the Nonqualified Funds pursuant to Section 4 of the Special Terms, no disbursement or payment may be made from the trust until written notice of the intention to make a disbursement or payment has been given to the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the Master Trust may be made following the 30-working day notice period if no written notice of objection from the Director. Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, is received by the Trustee or the Company within the notice period. The required notice may be made by the Trustee or on the Trustee's behalf. No such notice is required for withdrawals being made pursuant to 10 CFR 50.82(a)(8)(ii), including withdrawals made during the operating life of the plant to be used for decommissioning planning. In addition, no such notice is required to be made to the NRC after decommissioning has begun and withdrawals are being made under 10 CFR 50.82(a)(8).

- 2. Except as set forth herein, the Agreement is hereby ratified and confirmed and remains in full force and effect.
- 3. Each of the parties represents and warrants to the other parties that it has full authority to enter into this Amendment upon the terms and conditions hereof and that the individual executing this Amendment on its behalf has the requisite authority to bind the respective parties to this Amendment.

IN WITNESS WHEREOF, the parties hereto, each intending to be legally bound hereby, have executed this Amendment as of the day and year first above written.

Authorized Signer of: MELLON BANK, N.A.

By: Name: -Title:

Date: /

Authorized Officer of: INDIANA MICHIGAN POWER COMPANY

By:

J. Steven Kise: Name: Title: Director, Trusts 6 2003 Date: Dec 18

Attachment JJH-12 Cause No. 45933 Page 46 of 81



-. .



A unit of American Electric Power

March 30, 2007

Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 AEP.com

AEP:NRC:7075 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the attached report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the escalated Nuclear Regulatory Commission minimum cost of decommissioning, confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions on the report or decommissioning funding, please contact Ms. Susan D. Simpson, Regulatory Affairs Manager, at (269) 466-2428.

Sincerely, uQ

Joseph N. Jensen Site Vice President

JEN/rdw

Attachment

ADD

Attachment JJH-12 Cause No. 45933 Page 47 of 81

U. S. Nuclear Regulatory Commission Page 2

AEP:NRC:7075

- c: J. L. Caldwell NRC Region III
 - K. D. Curry AEP Ft. Wayne, w/o attachment
 - J. T. King, MPSC, w/o attachment
 - MDEQ WHMD/RMPWS, w/o attachment
 - NRC Resident Inspector
 - P. S. Tam NRC Washington DC

Attachment JJH-12 Cause No. 45933 Page 48 of 81

ATTACHMENT TO AEP:NRC:7075

Indiana Michigan Power Company Donald C. Cook Nuclear Plant Units 1 and 2 2007 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

This report is being submitted in accordance with 10 CFR 50.75(f)(1). The report is comprised of the following schedules and the general comments set forth herein:

Schedule	Title	Page
А	Decommissioning Cost Estimates - Minimum Value Per 10 CFR 50.75(c)	2
В	Summary of Decommissioning Trust Fund Balances December 31, 2006	6
С	Projected Future Funds to Be Collected For Decommissioning	7
D	Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs	9
E	After Tax Rate of Return Assumed to be Earned on Amounts Collected for Decommissioning	10
F	Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes	11

General Comments

While the Minimum Value Decommissioning Cost Estimate under 10 CFR 50.75(c) reported on Schedule A is the information the Nuclear Regulatory Commission (NRC) has specified as appropriate for its purposes, Indiana Michigan Power Company (I&M) believes a broader and more comprehensive definition of, and provision for, nuclear decommissioning expenses is needed for its purposes.

For the past several years, I&M has periodically provided the Indiana and Michigan utility regulatory commissions site-specific studies containing a broader definition of nuclear decommissioning requirements. These studies include the 10 CFR 50.75(b) and (c) costs, 10 CFR 50.54(bb) costs, and "greenfield" costs, versus only the required 10 CFR 50.75 costs. These costs have been commingled in the decommissioning trust funds. The site decommissioning studies have been presented in reports to the utility regulatory commissions. The commissions have accepted these studies and have authorized recoveries for nuclear decommissioning based on their determinations, considering the reports presented, of appropriate recoveries for nuclear decommissioning using the more comprehensive definition. The currently estimated annual fund collections authorized for decommissioning are reported on Schedule C.

Attachment JJH-12 Cause No. 45933 Page 49 of 81

Attachment to AEP:NRC:7075

Page 2 Schedule A

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Decommissioning Cost Estimates Minimum Value Per 10 CFR 50.75(c)

10 CFR 50.75(a) requires that each utility assure that there will be adequate funding for the decommissioning of the plant. 10 CFR 50.75(c) established a table of minimum values for the decommissioning funds, in January 1986 dollars, and it also set forth a method to adjust those values. Periodically, the NRC publishes NUREG-1307, "Report on Waste Burial Charges," and in that document, the data and more specific guidance is given regarding the method to be used to adjust the minimum amount to equivalent current amounts. The calculation in this report uses the burial cost escalation values and the method outlined in NRC NUREG-1307, Revision 12, to determine the minimum values.

Estimated Decommissioning Cost – 10 CFR 50.75(c)						
Unit 1	<u>Unit 2</u>	Total				
\$367,778,975	\$370,958,620	\$738,737,595				

Attachment to AEP:NRC:7075

Page 3 Schedule A

Decommissioning Cost Estimate Calculation

The first step of the decommissioning cost estimate calculation is to determine the 1986 base cost. Donald C. Cook Nuclear Plant (CNP) Units 1 and 2 are rated at 3304 megawatt-thermal (MW_t) and 3468 MW_t, respectively. From 10 CFR 50(c)(1)(i), the cost is then based on the MW_t output of each unit. For reactor power greater than 3400 MW_t, the cost is \$105 million. For reactor power from 1200 to 3400 MW_t, the cost is calculated using this formula:

Cost = (75 + 0.0088P) million.

Given P is the power level. So, for Unit 1 at 3304 MW, the cost is:

 $Cost = (75 + 0.0088 \times 3304)$ million

= \$104.1 million.

For Unit 2, since the power level is greater than 3400 MW_t , the cost is \$105 million which is taken directly from the NRC's model.

So, the total 1986 base decommissioning cost for CNP is \$104.1 + \$105 million or \$209.1 million.

The next portion of the analysis is to adjust the 1986 cost to the current year cost.

Using the formula:

Estimated Cost (Year X) = $[1986 \text{ Cost}][A L_x + B E_x + C B_x]$

Where A, B, and C are the fractions of the total 1986 \$ costs that are attributable to labor (0.65), energy (0.13), and burial (0.22), respectively, and sum to 1.0. The factors L_x , E_x , and B_x are defined by:

 L_x = labor cost escalation, January of 1986 to January of Year X

- E_x = energy cost escalation, January of 1986 to January of Year X
- B_x = burial cost escalation, January of 1986 to January of Year X, i.e., burial cost in January of Year X / burial cost in January of 1986.

The labor escalation factor is determined by U. S. Bureau of Labor Statistics (BLS) data using the "Employment Cost Index" and the NUREG-1307, Table 3.2, data for the Midwest region. No 2007 data has been published, so fourth quarter 2006 data is used for 2007.

Attachment JJH-12 Cause No. 45933 Page 51 of 81

Attachment to AEP:NRC:7075

Page 4 Schedule A

The energy cost escalation is determined by BLS data by using "Producer Price Indexes." The energy term in the adjustment equation is made up of two components; industrial electric power (P), and light fuel oil (F). E_x is determined from the following equation for Pressurized Water Reactors:

E = 0.58P + 0.42F.

The values of P and F are taken from the BLS as described in NUREG-1307. The data from January were used, and is shown in Table 1. Also shown are the results of the calculations to determine E. The energy data for 2007 is BLS preliminary data.

41_1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	<u></u>	Table 1	***************************************	анан талан талан талан талар талан талан талар талан тала Талан талап талап талар талан талап тала
		Cost Index Value	S	
Year	Labor Data (L)	Electric Power (P)	Light Fuel Oil (F)	Energy Data (E)
2007	102.8	170.8	180.3	174.79
2006	102.8	167.0	191.8	177.42
2005	100.0	148.9	138.5	144.53
2004		143.1	106.8	127.85
1986		114.2	82.0	100.68

The next step is to convert the cost index values into the adjustment factors, L_x and E_x .

The Labor adjustment factor is determined by multiplying the current year's cost index value by the applicable base labor adjustment factor, then dividing by the 2005 reference cost. Per NUREG-1307, Revision 12, Table 3.2, the Midwest Labor Adjustment Factor is 2.13824. $(L_{2006} = 102.8*2.08/100.0)$

The energy adjustment factor is determined by dividing each year's electric power (P) and light fuel oil (F) cost by the respective 1986 reference cost, then applying the allocation of .58Px + .42Fx (2007 Px = 170.8/114.2), (2007 Fx = 180.3/82), (2007 Ex = .58 (170.8/114.2) + .42 (180.3/82 = 1.790948)

The values for B_x are taken directly from NUREG-1307, Revision 12, Table 2.1, using the data for South Carolina using waste vendors for disposition as a non-Atlantic Compact State. For years where no data is provided, the value of the most recent year is used with no escalation. The results are shown in Table 2.

The final step is to calculate the Estimated Cost for Year X using the equation given above and the L_x , E_x , and B_x values. The estimated cost is given in Table 2.

Attachment JJH-12 Cause No. 45933 Page 52 of 81

Attachment to AEP:NRC:7075

Page 5 Schedule A

				Table 2		
Escalation Factors Estimated Decommissioning Cost						ng Cost
Year	L _x	Ex	B _x	Unit 1	Unit 2	Total
2007	2.13824	1.790948	8.683	\$367,778,975	\$370,958,620	\$738,737,595
2006	2.13824	1.83055	8.683	\$368,314,909	\$371,499,188	\$739,814,096

Attachment JJH-12 Cause No. 45933 Page 53 of 81

ŧ

Attachment to AEP:NRC:7075

Page 6 Schedule B

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Summary of Decommissioning Trust Fund Balances December 31, 2006

	<u>Total</u>	<u>Unit 1</u>	<u>Unit 2</u>
Book Value	776,669,183	396,453,566	380,215,617
Unrealized Appreciation	195,205,400	104,215,324	90,990,076
Market Value	971,874,583	500,668,890	471,205,693
Accrued Interest	0	0	. 0
Accrued Contributions	2,872,007	1,501,642	1,370,365
Subtotal	974,746,590	502,170,532	472,576,058
Less: Taxes on Unrealized Appreciation	39,077,642	20,862,258	18,215,384
Total	935,668,948	481,308,274	454,360,674

Page 7 Schedule C

e^r

••••

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund

Projected Future Funds to Be Collected For Decommissioning (a)

[Unit 1]		Unit 2			
	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 1 Total	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 2 Total	Decommis- sioning Total
2005	9,732,400	3,787,396	3,598,199	17,117,995	. 8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2006	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2007	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2008	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2009	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2010	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2011	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2012	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950.723	33,068,718
2013	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2014	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2015	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2016	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2017	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2018	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2019	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2020	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2021	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2022	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2023	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2024	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2025	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2026	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718

• • •

· .

Attachment JJH-12 Cause No. 45933 Page 55 of 81

Attachment to AEP:NRC:7075

Page 8 Schedule C

12

_					•			_	
	Unit 1] .		Unit 2				
	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 1 Total	Indiana Jurisdiction	Michigan Jurisdiction (b)	FERC Jurisdiction	Unit 2 Total	Decommis- sioning Total
2027	9,732,400	3,787,396	3,598,199	. 17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2028	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2029	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2030	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068.718
2031	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2032	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
2033	9,732,400	3,787,396	3,598,199	17,117,995	8,999,900	3,614,198	3,336,625	15,950,723	33,068,718
*2034	8,110.333	3,156,163	2,998,499	14,264,996	8,999,900	3,614,198	3,336,625	15,950,723	30,215,719
2035					8,999,900	3,614,198	3,336,625	15,950,723	15,950,723
2036					8,999,900	3,614,198	3,336,625	15,950,723	15,950,723
2037					8,999,900	3,614,198	3,336,625	15,950,723	15,950,723
Total	290,349,933	112,990,647	107,346,270	510,686,851	296,996,700	119,268,534	110,108,625	526,373,859	1,037,060,710

- (a) Based on regulatory commission orders in effect on December 31, 2006. Assumes each unit operates over its current licensed life and that authorized collections are not changed.
- (b) Amount dependent on Kwh sales. Base amount is \$3,086,600 per year for Unit 1 and \$2,946,000 for Unit 2.
- * License for Unit 1 expires in October 2034. License for Unit 2 expires in December 2037.

Attachment JJH-12 Cause No. 45933 Page 56 of 81

Attachment to AEP:NRC:7075

Page 9 Schedule D

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Cost Escalation Rate for 10 CFR 50.75(c) Decommissioning Costs

Jurisdiction	Jurisdictional Allocation (a)	Projected Escalation (b, c, d)	Weighted Escalation
Indiana	71.3333%	6.50%	4.64%
Michigan	15.1651%	6.50%	0.99%
FERC	13.5016%	6.00%	0.81%
Total	· ·		6.43%

- (a) Most recent jurisdictional demand allocation factors.
- (b) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (c) Michigan Public Commission Order in Case No. U-10347.
- (d) Federal Energy Regulatory Commission Order in Case ER90-269-000.

Attachment JJH-12 Cause No. 45933 Page 57 of 81

Attachment to AEP:NRC:7075

Page 10 Schedule E

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

After Tax Rate of Return Assumed to be Earned on Amounts Collected for Decommissioning

Jurisdiction	Jurisdictional Allocation (a)	Projected Earnings (b, c, d)	Weighted Earnings
Indiana	71.3333%	7.00%	4.99%
Michigan	15.1651%	7.00%	1.06%
FERC	13.5016%	7.27%	0.98%
Total			7.04%

- (a) Most recent jurisdictional demand allocation factors.
- (b) Indiana Utility Regulatory Commission Order in Case No. 39314.
- (c) Michigan Public Commission Order in Case No. U-10347.
- (d) Federal Energy Regulatory Commission Order in Case ER90-269-000.

Attachment JJH-12 Cause No. 45933 Page 58 of 81

Attachment to AEP:NRC:7075

Page 11 Schedule F

Indiana Michigan Power Company Nuclear Decommissioning Trust Fund Donald C. Cook Nuclear Plant

Nuclear Decommissioning Trust Fund Agreements Summary of Significant Changes

A nuclear decommissioning trust fund agreement for the units at the Donald C. Cook Nuclear Plant (CNP) exists with the following trustee:

Mellon Bank Pittsburgh, Pennsylvania.

>

Since the report dated March 23, 2005, filed with the Nuclear Regulatory Commission on Funding for CNP, Units 1 and 2, there have been no substantive changes made in the trust agreement.

Attachment JJH-12 Cause No. 45933 Page 59 of 81

INDIANA MICHIGAN POWER Indiana Michigan Power Company Nuclear: Generation Group One Cook Place Bridgman; MI 49106 aep.com

AEP-NRC-2009-8 10 CFR 50.75(f)(1)

March 30, 2009

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the attached report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current/license/expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the Nuclear Regulatory Commission minimum cost of decommissioning; confirming compliance with the financial assurance requirements of 10 CFR(50:75; 2000, 2000, 2000, 2000, 2000)

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. John A. Zwolinski, Regulatory Affairs Manager, at (269) 466-2478.

Sincerely,

)

Lauren Jereben

Lawrence J. Weber Site Vice President

JEN/rdw https://www.sciencescomer

ct) CABTRA Beltz - NRC Washington DC

CEACH KADSCurry – AEP Ft: Wayne, W/o attachment 673 U. 2003) HURALHAR HURAL HURAL AND AVE OUT COM J. T. King – MPSC; W/o attachment 20030000 Ecologies 22 Courses and Ecologies 2000 MDEQ – WHMD/RPS, W/o attachment 200305 (OL 95 Second) 7, 2003/2003000 - 2003000 NRC Resident Inspector

en 1 M. A. Satorius – NRC Region III And Andreas Andreas

n en general en en gelennen gelennen gener gener her her gelennen en gelennen an en en en en en gelenne A.007, 1921 - El gelegner i herer en en en gelennen gelennen er er gelegnen gelegner en gelennen er gelennen A.007, 1921 - El gelegner i herer er gelegner bestellte gelegner er er gelegner er gelegner er en gelennen er gelennen 1921 - El gelegner i gelegner er gelegner bestellte gelegner er er gelegner er gelegner er gelegner er det gele

Attachment JJH-12 Cause No. 45933 Page 60 of 81

ATTACHMENT TO AEP-NRC-2009-8

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2008 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$402,004,355
 - b. Cook Unit 2 \$405,576,518
 - c. Total \$807,580,873

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 13, to determine minimum values.

- 2. The amount accumulated in the fund allocated to radiological decommissioning at the end of the calendar year preceeding the date of this report (2008) for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$337,752,554
 - b. Cook Unit 2 \$304,621,043
 - c. Total \$642,373,597
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$5,326,500 for years 2009 2033 and \$4,438,750 for year 2034 (current license expires in October 2034)
 - b. Cook Unit 2 \$5,326,500 for years 2009 2037
- 4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return was applied to the annual balance for future funding projections.

- 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- 6. Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report:

On July 1, 2008, the Bank of New York Company and Mellon Financial Corporation completed their merger of these two holding companies, forming The Bank of New York Mellon Corporation.

7. Any material changes to trust agreements: None Attachment JJH-12 Cause No. 45933 Page 61 of 81



Indiana Michigan Power One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

March 30, 2011

AEP-NRC-2011-22 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the Nuclear Regulatory Commission minimum cost of decommissioning, confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,

Joel P. Gebbie Site Vice President

DMB/jmr

Attachment

c: J. T. King, MPSC
 S. M. Krawec, AEP Ft. Wayne, w/o attachment
 MDNRE – WHMD/RPS
 NRC Resident Inspector
 M. A. Satorius, NRC Region III
 P. S. Tam – NRC Washington DC

Aoz

Attachment JJH-12 Cause No. 45933 Page 62 of 81

ATTACHMENT TO AEP-NRC-2011-22

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2010 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$468,394,872
 - b. Cook Unit 2 \$472,556,974
 - c. Total \$940,951,846

These cost estimates were determined by 2011 Decommissioning Funding Status Report and using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 14, to determine minimum values.

- The amount accumulated in the fund allocated to radiological decommissioning at the end of the calendar year preceding the date of this report (2010) for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$399,384,123
 - b. Cook Unit 2 \$361,895,591
 - c. Total \$761,279,714
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$4,441,500 for years 2011 2033 and \$3,701,250 for year 2034 (current license expires in October 2034)
 - b. Cook Unit 2 \$4,441,500 for years 2011 2037
- 4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return was applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of \$778 million for Unit 1 and \$776 million for Unit 2 at the time those units are shut down, which are above the NRC minimum decommissioning cost estimates

- Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None
Attachment JJH-12 Cause No. 45933 Page 63 of 81



Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

March 26, 2013

AEP-NRC-2013-28 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,

Joel P. Gebbie Site Vice President

DMB/ssl

Enclosure

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

ADDI

Attachment JJH-12 Cause No. 45933 Page 64 of 81

ENCLOSURE TO AEP-NRC-2013-28

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2012 Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$ 516,630,334
 - b. Cook Unit 2 \$ 521,221,050
 - c. Total \$1,037,851,384

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 15, to determine minimum values.

- 2. The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2012, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a.Cook Unit 1\$431,218,764b.Cook Unit 2\$391,983,031c.Total\$823,201,795
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:
 - a. Cook Unit 1 \$3,100,000 for years 2013 2033 and \$2,583,333 for year 2034 (current license expires in October 2034)
 - b. Cook Unit 2 \$3,100,000 for years 2013 2037

The citations for the Orders that provide these rates are the State of Michigan Case Number U-15276 and the State of Indiana Cause Number 44075.

4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return was applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$752 million for Unit 1 and \$743 million for Unit 2 at the time those units are shut down, which are above the NRC calculated minimum decommissioning cost estimates pursuant to 10 CFR 50.75(b) and (c).

- 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

Attachment JJH-12 Cause No. 45933 Page 65 of 81



A unit of American Electric Power

March 20, 2015

Indiana Michigan Power Cook.Nuclear Plant One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

AEP-NRC-2015-16 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the U. S. Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,

pu PAUL

Joel P. Gebbie Site Vice President

KMH/amp

Enclosure

c: M. L. Chawla – NRC Washington DC J. T. King – MPSC MDEQ – RMD/RPS NRC Resident Inspector C. Pederson – NRC Region III A. J. Williamson – AEP Ft. Wayne, w/o enclosure



Attachment JJH-12 Cause No. 45933 Page 66 of 81

ENCLOSURE TO AEP-NRC-2015-16

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2014 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the U. S. Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$517,252,703
 - b. Cook Unit 2 \$521,848,950
 - c. Total \$1,039,101,653

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 15, to determine minimum values.

- 2. The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2014, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$537,925,429
 - b. Cook Unit 2 \$489,331,963
 - c. Total \$1,027,257,392
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:
 - a. Cook Unit 1 \$3,100,000 for years 2015 2033 and \$2,583,333 for year 2034 (current license expires in October 2034)
 - b. Cook Unit 2 \$3,100,000 for years 2015 2037

The citations for the Orders that provide these rates are the State of Michigan Case Number U-15276 and the State of Indiana Cause Number 44075

4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return was applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$811 million for Unit 1 and \$791 million for Unit 2 net of tax at the time those units are shut-down, which are above the NRC minimum decommissioning cost estimates.

- 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

Attachment JJH-12 Cause No. 45933 Page 67 of 81



A unit of American Electric Power

March 21, 2017

Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

AEP-NRC-2017-12 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the U. S. Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,

unton J. C.

Q/Shane Lies Site Vice President

DMB/mll

Enclosure

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

A DOI NRR

Attachment JJH-12 Cause No. 45933 Page 68 of 81

ENCLOSURE TO AEP-NRC-2017-12

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2016 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the U.S. Nuclear Regulatory Commission (NRC) on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$487,715,537
 - b. Cook Unit 2 \$492,049,320
 - c. Total \$979,764,857

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 16, to determine minimum values.

- 2. The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2016, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$459,454,502
 - b. Cook Unit 2 \$418,248,246
 - c. Total \$877,702,748
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:
 - a. See Table 1 below for schedule of contributions. While there are no changes for Indiana and Michigan, the FERC contributions are expected to decline in years 2019, 2020, 2021, 2026, 2027, and 2034 as wholesale customer's contracts expire.

The citations for the Orders that provide these rates are the State of Michigan Case Number U-15276 and the State of Indiana Cause Number 44075

4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return was applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$653 million for Unit 1 and \$633 million for Unit 2 net of tax at the time those units are shut-down, which are above the NRC minimum decommissioning cost estimates.

- 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

Enclosure to AEP-NRC-2017-12

Attachment JJH-12 Cause No. 45933 Page 69 of 81

Page 2

Table 1

U	n	it	1
-			

	C	ontributions		
-	Indiana	Michigan	FERC	Total
2017	\$973,000	\$729,750	\$581,044	\$2,283,794
2018	\$973,000	\$729,750	\$581,044	\$2,283,794
2019	\$973,000	\$729,750	\$569,754	\$2,272,504
2020	\$973,000	\$729,750	\$379,918	\$2,082,668
2021	\$973,000	\$729,750	\$250,082	\$1,952,832
2022	\$973,000	\$729,750	\$250,082	\$1,952,832
2023	\$973,000	\$729,750	\$250,082	\$1,952,832
2024	\$973,000	\$729,750	\$250,082	\$1,952,832
2025	\$973,000	\$729,750	\$250,082	\$1,952,832
2026	\$973,000	\$729,750	\$241,873	\$1,944,623
2027	\$973,000	\$729,750	\$236,010	\$1,938,760
2028	\$973,000	\$729,750	\$236,010	\$1,938,760
2029	\$973,000	\$729,750	\$236,010	\$1,938,760
2030	\$973,000	\$729,750	\$236,010	\$1,938,760
2031	\$973,000	\$729,750	\$236,010	\$1,938,760
2032	\$973,000	\$729,750	\$236,010	\$1,938,760
2033	\$973,000	\$729,750	\$236,010	\$1,938,760
10/25/2034	\$810,833	\$608,125	\$87,479	\$1,506,437

Unit 2

		Contributions		
	Indiana	Michigan	FERC	Total
2017	\$973,000	\$729,750	\$581,044	\$2,283,794
2018	\$973,000	\$729,750	\$581,044	\$2,283,794
2019	\$973,000	\$729,750	\$569,754	\$2,272,504
2020	\$973,000	\$729,750	\$379,918	\$2,082,668
2021	\$973,000	\$729,750	\$250,082	\$1,952,832
2022	\$973,000	\$729,750	\$250,082	\$1,952,832
2023	\$973,000	\$729,750	\$250,082	\$1,952,832
2024	\$973,000	\$729,750	\$250,082	\$1,952,832
2025	\$973,000	\$729,750	\$250,082	\$1,952,832
2026	\$973,000	\$729,750	\$241,873	\$1,944,623
2027	\$973,000	\$729,750	\$236,010	\$1,938,760
2028	\$973,000	\$729,750	\$236,010	\$1,938,760
2029	\$973,000	\$729,750	\$236,010	\$1,938,760
2030	\$973,000	\$729,750	\$236,010	\$1,938,760
2031	\$973,000	\$729,750	\$236,010	\$1,938,760
2032	\$973,000	\$729,750	\$236,010	\$1,938,760
2033	\$973,000	\$729,750	\$236,010	\$1,938,760
2034	\$973,000	\$729,750	\$104,974	\$1,807,724
2035	\$973,000	\$729,750	\$39,814	\$1,742,564
2036	\$973,000	\$729,750	\$39,814	\$1,742,564
12/23/2037	\$973,000	\$729,750	\$39,814	\$1,742,564

Attachment JJH-12 Cause No. 45933 Page 70 of 81



A unit of American Electric Power

Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

March 27, 2019

AEP-NRC-2019-10 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the U. S. Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Director, at (269) 466-2649.

Sincerely,

unton A. P.

Q. Shane Lies Site Vice President

JMT/mll

Enclosure: Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2018 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

ADDI NIRK-

Attachment JJH-12 · Cause No. 45933 Page 71 of 81

U. S. Nuclear Regulatory Commission Page 2

.

AEP-NRC-2019-10

c: R. J. Ancona – MPSC R. F. Kuntz – NRC Washington DC MDEQ – RMD/RPS NRC Resident Inspector D. J. Roberts – NRC Region III A. J. Williamson – AEP Ft. Wayne, w/o enclosure

Attachment JJH-12 Cause No. 45933 Page 72 of 81

ENCLOSURE TO AEP-NRC-2019-10

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2018 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the U.S. Nuclear Regulatory Commission (NRC) on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c) is:
 - a. Cook Unit 1 \$512,446,094
 - b. Cook Unit 2 \$516,999,630
 - c. Total \$1,029,445,724

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 17, to determine minimum values.

- 2. The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2018, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a.Cook Unit 1\$648,808,262b.Cook Unit 2\$590,864,127c.Total\$1,239,672,390
- 3. A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:

See Table 1 (attached) for schedule of contributions. While there are no changes for Indiana and Michigan, the FERC contributions are expected to decline in years 2019, 2020, 2021, 2026, 2027, and 2034 as wholesale customer's contracts expire.

The citations for the Orders that provide these rates are the State of Michigan Case Numbers U-15276 and U-18370 and the State of Indiana Cause Number 44967.

4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows:

A two percent real rate of return is applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$871 million for Unit 1 and \$840 million for Unit 2 net of tax at the time those units are shut down. These amounts are above the NRC minimum decommissioning cost estimates shown in item 1 above.

- 5. Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- 6. Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

Attachment JJH-12 Cause No. 45933 Page 73 of 81

Enclosure to AEP-NRC-2019-10

.

Page 2

 		Table 1			
 		Unit 1			• · · · · · · · · · · · · · · · · · · ·
		Contri	butions		
	Indiana	Michigan	FERC	Total	
2019	\$620,000	\$930,000	\$726,099	\$2,276,099	
2020	\$620,000	\$930,000	\$484,171	\$2,034,171	
2021	\$620,000	\$930,000	\$318,707	\$1,868,707	
2022	\$620,000	\$930,000	\$318,707	\$1,868,707	
2023	\$620,000	\$930,000	\$318,707	\$1,868,707	
2024	\$620,000	\$930,000	\$318,707	\$1,868,707	
2025	\$620,000	\$930,000	\$318,707	\$1,868,707	
2026	\$620,000	\$930,000	\$308,246	\$1,858,246	
2027	\$620,000	\$930,000	\$300,773	\$1,850,773	
2028	\$620,000	\$930,000	\$300,773	\$1,850,773	
2029	\$620,000	\$930,000	\$300,773	\$1,850,773	
2030	\$620,000	\$930,000	\$300,773	\$1,850,773	
2031	\$620,000	\$930,000	\$300,773	\$1,850,773	
2032	\$620,000	\$930,000	\$300,773	\$1,850,773	
2033	\$620,000	\$930,000	\$300,773	\$1,850,773	
10/25/2034	\$516,667	\$775,000	\$111,483	\$1,403,150	

		Unit 2			
		Contributions			
	Indiana	Michigan	FERC	Total	
2019	\$620,000	\$930,000	\$726,099	\$2,276,099	
2020	\$620,000	\$930,000	\$484,171	\$2,034,171	
2021	\$620,000	\$930,000	\$318,707	\$1,868,707	
2022	\$620,000	\$930,000	\$318,707	\$1,868,707	
2023	\$620,000	\$930,000	\$318,707	\$1,868,707	
2024	\$620,000	\$930,000	\$318,707	\$1,868,707	
2025	\$620,000	\$930,000	\$318,707	\$1,868,707	
2026	\$620,000	\$930,000	\$308,246	\$1,858,246	
2027	\$620,000	\$930,000	\$300,773	\$1,850,773	
2028	\$620,000	\$930,000	\$300,773	\$1,850,773	
2029	\$620,000	\$930,000	\$300,773	\$1,850,773	
2030	\$620,000	\$930,000	\$300,773	\$1,850,773	
2031	\$620,000	\$930,000	\$300,773	\$1,850,773	
2032	\$620,000	\$930,000	\$300,773	\$1,850,773	
2033	\$620,000	\$930,000	\$300,773	\$1,850,773	
2034	\$620,000	\$930,000	\$133,780	\$1,683,780	
2035	\$620,000	\$930,000	\$50,739	\$1,600,739	
2036	\$620,000	\$930,000	\$50,739	\$1,600,739	
12/23/2037	\$620,000	\$930,000	\$50,739	\$1,600,739	

Attachment JJH-12 Cause No. 45933 Page 74 of 81



Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 IndianaMichiganPower.com

March 25, 2021

AEP-NRC-2021-25 10 CFR 50.75(f)(1)

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

> Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the U. S. Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Director, at (269) 466-2649.

Sincerely,

unton S. B.

Q. Shane Lies Site Vice President

KMH/mll

Enclosure:

 Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2020 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors Attachment JJH-12 Cause No. 45933 Page 75 of 81

U. S. Nuclear Regulatory Commission Page 2

AEP-NRC-2021-25

- c: R. J. Ancona MPSC
 - EGLE RMD/RPS
 - J. B. Giessner NRC Region III
 - D. L. Hille AEP Ft. Wayne, w/o enclosure
 - NRC Resident Inspector
 - R. M. Sistevaris AEP Ft. Wayne, w/o enclosure
 - S. P. Wall NRC Washington, D.C.
 - A. J. Williamson AEP Ft. Wayne, w/o enclosure

Attachment JJH-12 Cause No. 45933 Page 76 of 81

ENCLOSURE TO AEP-NRC-2021-25

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2020 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the U.S. Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$519,171,554 b. Cook Unit 2 \$523,784,851

c. Total \$1,042,956,405

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 18, to determine minimum values.

- The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2020, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$869,981,945 b. Cook Unit 2 \$791,948,450 c. Total \$1,661,930,395
- A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:

See Table 1 (attached) for schedule of contributions. The Indiana and Michigan contributions reflect the most recent rate cases referenced below. The FERC contributions continue to reflect the expected decline as wholesale customer contracts expire.

The citations for the Orders that provide these rates are the State of Michigan Case Numbers U-20359 and U-18370 and the State of Indiana Cause Number 45235.

- 4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows: A two percent real rate of return is applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$1.106 billion for Unit 1 and \$1.061 billion for Unit 2 net of tax at the time those units are shut down. These amounts are above the NRC minimum decommissioning cost estimates shown in Item 1 above.
- Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None
- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

Enclosure to AEP-NRC-2021-25

		Table 1		
	Indiana	Unit 1 Contributions Michigan	FERC	Total
12/31/2020				
2021	\$620,000	\$465,000	\$153,719	\$1,238,719
2022	\$620,000	\$465,000	\$153,719	\$1,238,719
2023	\$620,000	\$465,000	\$153,719	\$1,238,719
2024	\$620,000	\$465,000	\$153,719	\$1,238,719
2025	\$620,000	\$465,000	\$153,719	\$1,238,719
2026	\$620,000	\$465,000	\$150,249	\$1,235,249
2027	\$620,000	\$465,000	\$146,779	\$1,231,779
2028	\$620,000	\$465,000	\$146,779	\$1,231,779
2029	\$620,000	\$465,000	\$146,779	\$1,231,779
2030	\$620,000	\$465,000	\$146,779	\$1,231,779
2031	\$620,000	\$465,000	\$146,779	\$1,231,779
2032	\$620,000	\$465,000	\$146,779	\$1,231,779
2033	\$620,000	\$465,000	\$129,334	\$1,214,334
10/25/2034	\$516,667	\$387,500	\$71,922	\$976,088

		Unit 2		
		Contri	butions	
	Indiana	Michigan	FERC	Total
12/31/2020				
2021	\$620,000	\$465,000	\$153,719	\$1,238,719
2022	\$620,000	\$465,000	\$153,719	\$1,238,719
2023	\$620,000	\$465,000	\$153,719	\$1,238,719
2024	\$620,000	\$465,000	\$153,719	\$1,238,719
2025	\$620,000	\$465,000	\$153,719	\$1,238,719
2026	\$620,000	\$465,000	\$150,249	\$1,235,249
2027	\$620,000	\$465,000	\$146,779	\$1,231,779
2028	\$620,000	\$465,000	\$146,779	\$1,231,779
2029	\$620,000	\$465,000	\$146,779	\$1,231,779
2030	\$620,000	\$465,000	\$146,779	\$1,231,779
2031	\$620,000	\$465,000	\$146,779	\$1,231,779
2032	\$620,000	\$465,000	\$146,779	\$1,231,779
2033	\$620,000	\$465,000	\$129,334	\$1,214,334
2034	\$620,000	\$465,000	\$86,306	\$1,171,306
2035	\$620,000	\$465,000	\$60,725	\$1,145,725
2036	\$620,000	\$465,000	\$60,725	\$1,145,725
12/23/2037	\$620,000	\$465,000	\$60,725	\$1,145,725

Page 2

Attachment JJH-12 Cause No. 45933 Page 78 of 81



BOUNDLESS ENERGY

March 28, 2023

Docket Nos.: 50-315 50-316

U. S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-001

> Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT

In accordance with the requirements of 10 CFR 50.75(f)(1), Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant (CNP), Units 1 and 2, hereby submits the biennial report on the status of decommissioning funding. The recovery of decommissioning funds for the eventual decommissioning of CNP Units 1 and 2 is fully assured through cost of service regulation and the resulting contribution of funds into an external trust.

When projected to the current license expiration date for each unit, the Nuclear Decommissioning Trust balance is greater than the U. S. Nuclear Regulatory Commission calculated minimum cost of decommissioning pursuant to 10 CFR 50.75(b) and (c), confirming compliance with the financial assurance requirements of 10 CFR 50.75.

This letter contains no new commitments. If you have any questions regarding the report or decommissioning funding, please contact Mr. Michael K. Scarpello, Regulatory Affairs Director, at (269) 466-2649.

Sincerely,

unton S. C.

Q. Shane Lies Senior Vice President and Chief Nuclear Officer

JMT/sjh

Enclosure: Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2022 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

Indiana Michigan Power Cook Nuclear Plant One Cook Place Bridgman, MI 49106 Indianamichiganpower.com

AEP-NRC-2023-15 10 CFR 50.75(f)(1) Attachment JJH-12 Cause No. 45933 Page 79 of 81

U. S. Nuclear Regulatory Commission Page 2

AEP-NRC-2023-15

C:

EGLE – RMD/RPS J. B. Giessner – NRC Region III NRC Resident Inspector N. Quilico – MPSC R. M. Sistevaris – AEP Ft. Wayne, w/o enclosure S. P. Wall – NRC Washington D.C. A. J. Williamson – AEP Ft. Wayne, w/o enclosure

ENCLOSURE TO AEP-NRC-2023-15

Indiana Michigan Power Company, Donald C. Cook Nuclear Plant Units 1 and 2 2022 U. S. Nuclear Regulatory Commission Financial Assurance Requirements Report for Decommissioning Nuclear Power Reactors

As provided in 10 CFR 50.75(f)(1), each power reactor licensee is required to report to the U. S. Nuclear Regulatory Commission on a calendar year basis, beginning on March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor or share of reactors it owns.

- 1. The minimum decommissioning cost estimate, pursuant to 10 CFR 50.75(b) and (c):
 - a. Cook Unit 1 \$575,325,532
 - b. Cook Unit 2 \$580,437,808
 - c. Total \$1,155,763,340

These cost estimates were determined using the burial cost escalation values and the methods outlined in NUREG-1307, Revision 19, to determine minimum values.

- The amount accumulated in the fund allocated to radiological decommissioning reflects the market value of the funds accumulated through December 31, 2022, net of all taxes currently due for items included in 10 CFR 50.75(b) and (c) are:
 - a. Cook Unit 1 \$882,504,898
 - b. Cook Unit 2 \$802,765,742
 - c. Total \$1,685,270,640
- A schedule of the annual amounts to be collected for items in 10 CFR 50.75(b) and (c) are as follows:

See Table 1 (attached) for schedule of contributions. The Indiana and Michigan contributions reflect the most recent rate cases referenced below. The FERC contributions continue to reflect the expected decline as wholesale customer contracts expire.

The citations for the Orders that provide these rates are the State of Michigan Case Numbers U-20359 and U-18370 and the State of Indiana Cause Number 45576.

Note that per the State of Indiana Cause Number 45576 concerning expense adjustments: \$2.0 million decrease in nuclear decommissioning expense. The Settling Parties agree that Indiana Michigan Power Company may seek an adjustment to the funding level of the Nuclear Decommissioning Trust based on future analysis of the adequacy of the Nuclear Decommissioning Trust funds to pay for decommissioning.

- 4. The assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections are as follows: A two percent real rate of return is applied to the annual balance for future funding projections. Incorporating the two percent real rate of return on trust assets as well as future contributions to the trust results in projected trust fund balances of approximately \$1.076 billion for Unit 1 and \$1.029 billion for Unit 2 net of tax at the time those units are shut down. These amounts are above the NRC minimum decommissioning cost estimates shown in item 1 above.
- Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v): None

Attachment JJH-12 Cause No. 45933 Page 81 of 81

Enclosure to AEP-NRC-2023-15

- Any modifications occurring to a licensee's current method of providing financial assurances since the last submitted report: None
- 7. Any material changes to trust agreements: None

24		Table 1		
		Unit 1		
		Contributions	5	
100 B	Indiana	Michigan	FERC	Total
12/31/2022	1.11	18.38 L ()	- 10x 3x1	1018 A.
2023	\$0	\$465,000	\$153,719	\$618,719
2024	\$0	\$465,000	\$153,719	\$618,719
2025	\$0	\$465,000	\$153,719	\$618,719
2026	\$0	\$465,000	\$150,249	\$615,249
2027	\$0	\$465,000	\$146,779	\$611,779
2028	\$0	\$465,000	\$146,779	\$611,779
2029	\$0	\$465,000	\$146,779	\$611,779
2030	\$0	\$465,000	\$146,779	\$611,779
2031	\$0	\$465,000	\$146,779	\$611,779
2032	\$0	\$465,000	\$146,779	\$611,779
2033	\$0	\$465,000	\$129,334	\$594,334
10/25/2034	\$0	\$387,500	\$71,922	\$459,422

		Unit 2		
	Indiana	Michigan	FERC	Total
12/31/2022		1000		1000
2023	\$0	\$465,000	\$153,719	\$618,719
2024	\$0	\$465,000	\$153,719	\$618,719
2025	\$0	\$465,000	\$153,719	\$618,719
2026	\$0	\$465,000	\$150,249	\$615,249
2027	\$0	\$465,000	\$146,779	\$611,779
2028	\$0	\$465,000	\$146,779	\$611,779
2029	\$0	\$465,000	\$146,779	\$611,779
2030	\$0	\$465,000	\$146,779	\$611,779
2031	\$0	\$465,000	\$146,779	\$611,779
2032	\$0	\$465,000	\$146,779	\$611,779
2033	\$0	\$465,000	\$129,334	\$594,334
2034	\$0	\$465,000	\$86,306	\$551,306
2035	\$0	\$465,000	\$60,725	\$525,725
2036	\$0	\$465,000	\$60,725	\$525,725
12/23/2037	\$0	\$465,000	\$60,725	\$525,725

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 5 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 5-4

<u>REQUEST</u>

Regarding the cost estimate of the operation of the Independent Spent Fuel Storage Installation ("ISFSI"). Please provide the following:

a.: Confirmation that the annual ISFSI operation cost is approximately \$7,446,000. Knight, Figure RWK-1, p. 6.

b.: Reference Testimony of Aaron Hill, p. 23, II. 6-7. Please provide the number of years and the annual ISFSI operation cost used to determine the total ISFSI operation cost of \$394,638,000.

c.: Given that Mr. Knight and Mr. Hill provide different annual ISFSI operation cost estimates, please identify which figure the parties should rely on for rate calculations.

d.: If the answer to the foregoing identifies Mr. Knight's annual ISFSI operation cost estimate, please provide how this estimate changes the Monte Carlo simulation discussed by Mr. Aaron Hill in his testimony on page 17, line 20 to page 18, line 21 and the probability of shortfall in Mr. Hill's Direct Testimony, page 22, lines 1-10.

e.: Please provide a detailed explanation for the difference between the estimate provided by Mr. Knight and that provided by Mr. Hill, including but not limited to which elements and their estimated cost were considered.

RESPONSE

I&M objects to the request, and in particular subpart (c), on the grounds and to the extent the request mischaracterizes I&M's testimony. Subject to and without waiver of the foregoing objection, I&M provides the following response.

a. Confirmed.

b. The number of years used to determine the total ISFSI operation costs was 53 years (2046 – 2098). The annual ISFSI operation cost used in the calculation was 7,446,000 ($7,446,000 \times 53$ years = 394,638,000).

c. Mr. Knight and Mr. Hill agree on the annual ISFSI operation cost estimates, \$7,446,000 per year.

d. Please see the Company's response to subpart (c). Given Mr. Knight's and Mr. Hill's values agree, no change to the Monte Carlo simulations is necessary.

e. Mr. Hill uses Mr. Knight's annual ISFSI cost of \$7,446,000 in the decommissioning funding model through the year 2098 and escalates those costs at a 2.5% rate of inflation. Then, beginning in 2099, Mr. Hill uses Mr. Knight's ISFSI License Termination cost of \$23,313,000, escalated at a 2.5% rate of inflation plus a radioactive waste disposal premium of 0.49%. Then, beginning in 2100, Mr. Hill uses Mr. Knight's ISFSI Site Restoration cost of \$9,945,000 escalated at a 2.5% rate of inflation plus a radioactive waste disposal premium of 0.49%.

Cause No. 45933

Attachment JJH-14 Excel Spreadsheet

Current Remaining Balance in Nuclear Decommissioning Trust Fund

Cause No. 45933 Attachment JJH-15 Excel Spreadsheet Projection of Nuclear Decommissioning Trust Fund

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 6 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 6-5

REQUEST

Reference Testimony of Hill, WP-ALH-6, and the "Donald C. Cook Nuclear Plant Units 1 and 2 DECOMMISSIONING FUNDING STATUS REPORT" ("Funding Status Report") dated March 28, 2023, filed with the Nuclear Regulatory Commission. Please provide a detailed explanation regarding the differences between each of the balances listed on each of the documents, and please provide which balance in WP-ALH-6 relates to which balance in the Funding Status Report.

RESPONSE

The difference in balances results from the Funding Status Report's requirement to specify the amount of assets allocated to radiological decommissioning. WP-ALH-6:

- a. The total market value as of 12/31/22 was \$3,011,129,969 per the trust bank's audited financial statements.
- b. The after tax liquidation value was \$2,718,178,452.
- c. The liquidation value consists of \$1,423,394,997 held in the NDT for Unit 1, and \$1,294,783,455 held in the NDT for Unit 2 totaling \$2,718,178,452.

Funding Status Report:

- a. The Decommissioning Funding Status report filed with the NRC on March 28th, 2023 shows the amount of assets allocated to radiological decommissioning.
- b.The amount allocated to radiological decommissioning is 62% of the assets held in the trust.
 - a. Unit 1 = \$1,423,394,997 * 62% = \$882,504,898
 - b. Unit 2 = \$1,294,783,455 * 62% = \$802,765,742

INDIANA MICHIGAN POWER COMPANY INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR DATA REQUEST SET NO. OUCC Set 7 IURC CAUSE NO. 45933-IN Base Case 2024 TY

DATA REQUEST NO OUCC 7-5

<u>REQUEST</u>

Referencing WP-ALH-6, please provide the following:

a.: Confirmation of the amount of "Indiana Contributions, 2023" and "Indiana Contributions, 2024" used in the calculation of the "Projected Earnings, 2023" and "Projected Earnings, 2024" were \$0. If not confirmed, please provide the amount of "Indiana Contributions, 2023" and "Indiana Contributions, 2024" the parties should use in the calculation.

b.: An explanation why \$0 was used for "Indiana Contributions, 2023" and "Indiana Contributions, 2024" and not \$2 million as stated in Mr. Hill's direct testimony, page 10, lines 18-21.

c.: Confirmation the formula used to calculate the "Projected Earnings, 2023" is ("December 31, 2022" x "Annual Investment Earnings Rate (PreTax):") + (("Indiana Contributions, 2023"/2) x "Annual Investment Earnings Rate (PreTax):"). If not confirmed, please provide the formula on which the parties should rely for rate calculations.

d.: Confirmation the formula used to calculate the "Projected Earnings, 2024" is ("Projected Indiana Balance, YE 2024" x "Annual Investment Earnings Rate (PreTax):") + (("Indiana Contributions, 2024"/2) x "Annual Investment Earnings Rate (PreTax):"). If not confirmed, please provide the formula on which the parties should rely for rate calculations;

e.: An explanation why "Indiana Contributions, 2023" and "Indiana Contributions, 2024" are divided by 2.

f.: Confirmation the "Annual Investment Earnings Rate (PreTax):" used is 7.763434787096%. If not confirmed, please provide the full percent on which the parties should rely for rate calculations.

g.: Confirmation that "Projected Indiana Balance, YE 2024" should be "Projected Indiana Balance, YE 2023".

RESPONSE

a. Confirmed. Cause No. 45576 reduced decommissioning contributions to \$0.

b. The decommissioning funding model considered both \$0 and \$2 million annual contributions. \$0 was used in Mr. Hill's direct testimony and as shown in workpaper WP-ALH-6, per the Commission's Order in Cause No. 45576 reducing decommissioning contributions to \$0.

c. Confirmed.

d. Confirmed.

e. Contributions were divided by 2, because they are received each month, over the course of the year. While January contributions could be invested for approximately 12 months and earn a return for almost the full year, December contributions would be invested for less than 30 days and have hardly any time at all to earn a return during the year. If the contributions were not divided by 2, the projected return on those contributions would be overstated.

f. Confirmed.

g. Confirmed.

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.

Jarah J. Holf

Jared J. Hoff Utility Analyst II Indiana Office of Utility Consumer Counselor

Cause No. 45933 Indiana Michigan Power Company

November 15, 2023_ Date

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *Indiana Office of Utility Consumer Counselor Public's Exhibit No. 5 Redacted Testimony of OUCC Witness Jared J. Hoff* has been served upon the following counsel of record in the captioned proceeding by electronic service on November 15, 2023.

Teresa Morton Nyhart Jeffrey M. Peabody Janet Nichols **BARNES & THORNBURG, LLP** <u>tnyhart@btlaw.com</u> <u>jpeabody@btlaw.com</u> <u>janet.nichols@btlaw.com</u>

W. Erik Weber **MEFFORD WEBER AND BLYTHE** <u>erik@lawmwb.com</u> Mark W. Cooper Attorney at Law <u>attymcooper@indy.rr.com</u>

Brian C. Bosma Kevin D. Koons **KROGER GARDIS & REGAS, LLP** <u>bcb@krglaw.com</u> <u>kdk@kgrlaw.com</u> Jennifer A. Washburn Reagan Kurtz CITIZENS ACTION COALITION jwashburn@citact.org rkurtz@citact.org

J. Christopher Janak Kristina Kern Wheeler Bose McKINNEY & EVANS LLP cjanak@boselaw.com kwheeler@boselaw.com

Eric E. Kinder Barry A. Naum Steven W. Lee **SPILMAN THOMAS & BATTLE, PLLC** <u>ekinder@spilmanlaw.com</u> <u>bnaum@spilmanlaw.com</u> <u>slee@spilmanlaw.com</u> Clayton C. Miller CLAYTON MILLER LAW, P. C. clay@claytonmillerlaw.com Courtesy Copy Damon Xenopoulos STONE MATTHEIS XENOPOULOS & BREW, PC dex@smxblaw.com

Jeremy L. Fetty J. Michael Deweese Leah Robyn Zoccola **PARR RICHEY FRANDSEN PATTERSON KRUSE LLP** jfetty@parrlaw.com jdeweese@parrlaw.com rzoccola@parrlaw.com

Foriaine Hitz

Lorraine Hitz Deputy Consumer Counselor

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR 115 West Washington Street, Suite 1500 South Indianapolis, IN 46204 infomgt@oucc.in.gov <u>lhitz@oucc.in.gov</u> 317.232.2775 – Lorraine's Direct Line 317.232.2494 – Phone 317.232.5923 – Facsimile