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Power Company
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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,

A handwritten signature in black ink that reads 'J. E. Pollock'.

J. E. Pollock
Site Vice President

KAS/rdw

Attachment

Handwritten note:
Aool: Add: Michael
Dusaniowski

- 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

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 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
A	Decommissioning Cost Estimates - Minimum Value Per 10 CFR 50.75(c)	2
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C	Projected Future Funds to Be Collected For Decommissioning	6
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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.

**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.

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

* Calculation is shown on pages 3 and 4.

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_t ¹. 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:

$$\text{Cost} = \$(75 + 0.0088P) \text{ million.}$$

Thus, for 3304 MW_t the cost is:

$$\begin{aligned} \text{Cost} &= \$(75 + 0.0088 \times 3304) \text{ million} \\ &= \$104.1 \text{ million.} \end{aligned}$$

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:

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

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

Employment Cost Index. Data from the first quarter was used, except for 2003 which uses fourth quarter 2002, 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). 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.

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.

Year	L_x	E_x	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

**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	<u>604,998,259</u>	<u>315,299,892</u>	<u>289,698,367</u>
Accrued Interest	962,753	790,038	172,715
Accrued Contributions	3,218,308	1,651,228	1,567,080
Subtotal	<u>609,179,320</u>	<u>317,741,158</u>	<u>291,438,162</u>
Less: Taxes on Unrealized Appreciation	6,137,681	4,342,079	1,795,601
Total	<u>603,041,639</u>	<u>313,399,079</u>	<u>289,642,561</u>

**Indiana Michigan Power Company
Nuclear Decommissioning Trust Fund**

Projected Future Funds To Be Collected For Decommissioning (a)

	Unit 1			Unit 1 Total (d)	Unit 2			Unit 2 Total	Decommissioning Total
	Indiana Jurisdiction (b)	Michigan Jurisdiction (c)	FERC Jurisdiction		Indiana Jurisdiction (b)	Michigan Jurisdiction (c)	FERC Jurisdiction		
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

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.

**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.

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

After Tax Rate of Return Assumption on Amounts
Collected for Decommissioning

Jurisdiction	Jurisdictional 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.

**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 non-qualified 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