FILED October 30, 2019 INDIANA UTILITY REGULATORY COMMISSION

### STATE OF INDIANA

### INDIANA UTILITY REGULATORY COMMISSION

PETITION OF DUKE ENERGY INDIANA, LLC ) PURSUANT TO IND. CODE §§ 8-1-2-42.7 AND 8-1-2-61, ) FOR (1) AUTHORITY TO MODIFY ITS RATES AND ) CHARGES ELECTRIC FOR UTILITY SERVICE THROUGH A STEP-IN OF NEW RATES AND CHARGES **USING A FORECASTED TEST PERIOD; (2) APPROVAL** OF NEW SCHEDULES OF RATES AND CHARGES, ) **GENERAL RULES AND REGULATIONS, AND RIDERS;** ) APPROVAL FEDERAL (3)OF A MANDATE ) CERTIFICATE UNDER IND. CODE § 8-1-8.4-1; (4) ) APPROVAL OF REVISED ELECTRIC DEPRECIATION ) RATES APPLICABLE TO ITS ELECTRIC PLANT IN SERVICE; (5) APPROVAL OF NECESSARY AND ) APPROPRIATE ACCOUNTING DEFERRAL RELIEF; ) AND (6) APPROVAL OF A REVENUE DECOUPLING ) **MECHANISM FOR CERTAIN CUSTOMER CLASSES** )

**CAUSE NO. 45253** 

### INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

### **TESTIMONY OF**

### CYNTHIA M. ARMSTRONG – PUBLIC'S EXHIBIT NO. 3

**OCTOBER 30, 2019** 

Respectfully submitted,

Scott Franson Attorney No. 27839-49 Deputy Consumer Counselor

# TESTIMONY OF OUCC WITNESS CYNTHIA M. ARMSTRONG CAUSE NO. 45253 <u>DUKE ENERGY INDIANA, LLC</u>

# I. <u>INTRODUCTION</u>

1	Q:	Please state your name and business address.	
2	A:	My name is Cynthia M. Armstrong, and my business address is 115 W. Washington	
3		St., Suite 1500 South, Indianapolis, IN, 46204.	
4	Q:	By whom are you employed and in what capacity?	
5	A:	I am employed as a Senior Utility Analyst in the Electric Division for the Indiana	
6		Office of Utility Consumer Counselor ("OUCC"). A summary of my qualifications	
7		can be found in Appendix A.	
8	Q:	What is the purpose of your testimony in this proceeding?	
9	A:	I address several environmental compliance costs Duke Energy Indiana, LLC	
10		("DEI" or "Duke") is seeking pre-approval to recover in this proceeding.	
11		I discuss DEI's request to obtain a Certificate of Public Necessity and	
12		Convenience ("CPCN") for costs related to the closure and remediation of ash	
13		impoundments and other coal combustion residuals ("CCR") units. Specifically, I	
14		recommend the closure costs DEI incurred prior to filing this rate case (July 2,	
15		2019) and any costs related to Agreed Orders between DEI and the Indiana	
16		Department of Environmental Management ("IDEM") be denied. OUCC witness	
17		Lane Kollen and I also offer alternative options for recovery of these costs should	
18		the Indiana Utility Regulatory Commission ("Commission") approve a CPCN	
19		under the Federally Mandated Requirements statute (Ind. Code ch. 8-1-8.4). As to	

1		future ash closure costs, I recommend the Commission decline DEI's requested	
2		CPCN at this time, and delay this determination until a future proceeding.	
3		I address DEI's request to track 316(a) and 316(b) Rule costs as "federally	
4		mandated" in the Environmental Cost Recovery ("ECR") tracker. I recommend	
5		these costs be denied for recovery under the Federally Mandated Requirements	
6		statute, as DEI has not met the requirements to receive recovery under the statute.	
7		Finally, I address DEI's request to track emission allowance ("EA") costs	
8		through Rider No. 62, or the ECR tracker. I recommend EA costs no longer be	
9		tracked through the ECR. Instead, EA sales should continue to be credited to	
10		ratepayers as DEI is recovering the $SO_2$ allowance inventory costs through a	
11		regulatory asset.	
12		My testimony also supports the testimony of OUCC Witness Mr. Kollen.	
13	Q:	What did you do to prepare your testimony?	
	٧٠	what did you do to prepare your testimony.	
14	<b>Q</b> : A:	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential	
14 15	•		
	•	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential	
15	•	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted	
15 16	•	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted to the OUCC and other parties in this Cause. I also reviewed past cases regarding	
15 16 17	•	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted to the OUCC and other parties in this Cause. I also reviewed past cases regarding DEI's environmental compliance plans and activities where it received approval to	
15 16 17 18	•	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted to the OUCC and other parties in this Cause. I also reviewed past cases regarding DEI's environmental compliance plans and activities where it received approval to construct equipment necessary for compliance with environmental rules and	
<ol> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> </ol>	A:	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted to the OUCC and other parties in this Cause. I also reviewed past cases regarding DEI's environmental compliance plans and activities where it received approval to construct equipment necessary for compliance with environmental rules and regulations. <b>To the extent you do not address a specific item or adjustment, does this mean</b>	
15 16 17 18 19 20 21	A: <b>Q:</b>	I reviewed the Verified Petition, Direct Testimony, Exhibits, and Confidential Documents DEI submitted in this Cause. I reviewed data responses Duke submitted to the OUCC and other parties in this Cause. I also reviewed past cases regarding DEI's environmental compliance plans and activities where it received approval to construct equipment necessary for compliance with environmental rules and regulations. To the extent you do not address a specific item or adjustment, does this mean you agree with those portions of DEI's proposals?	

### II. <u>CCR IMPOUNDMENTS AND UNIT REMEDIATION COSTS</u>

Q: What CCR Unit Closure Costs is DEI requesting?
A: DEI's request is separated into two categories: closure costs incurred from 2015 to
2018 ("past costs"), and closure costs incurred after 2018 ("future costs"). DEI also
has CCR closure costs related to IDEM enforcement activities under Indiana's
Solid Waste Management Plan that it includes in both past and future closure costs.
DEI requests issuance of a federally mandated CPCN for CCR unit

closures, and to recover its reasonable and necessary compliance expenses incurred 7 8 through 2018. DEI proposes recovering its expenses over 18 years, based on the 9 estimated retirement date of the last operating Gibson Generating Facility unit.<sup>1</sup> 10 DEI states total company coal ash closure expenditures specifically related to the 11 CCR Rule through 2018 are \$127.796 million (\$117.304 of which is the retail 12 portion). IDEM-related closure costs through 2018 are \$80.544 million (\$73.931 13 million of which is the retail portion), resulting in a total retail portion of these costs of \$191.235 million.<sup>2</sup> DEI requests the creation of a regulatory asset for these costs, 14 15 including carrying costs, and the total amount it is requesting to include in rate base 16 in this case is \$211.716 million.<sup>3</sup>

With regard to CCR unit closure activities after 2018, DEI proposes to
defer these expenses for future consideration in either a proceeding under Ind. Code
ch. 8-1-8.4 or through a future base rate proceeding. DEI estimates \$443 million

<sup>&</sup>lt;sup>1</sup> Petitioner's Witness Timothy Thiemann's Direct Testimony, p. 15, lines 20-23, through p. 16, lines 1-4.

<sup>&</sup>lt;sup>2</sup> Mr. Thiemann's Direct Testimony, Exhibit 21-E.

<sup>&</sup>lt;sup>3</sup> Petitioner's Witness Diana L. Douglas, Exhibit 4-F, Schedule RB-4.

1	for costs from 2019 through 2027, and \$60 million <sup>4</sup> for IDEM-related closure costs.
2	In this proceeding, DEI states it is not seeking recovery of these costs; in response
3	to discovery, DEI clarified it is seeking a federally mandated CPCN for the future
4	CCR closure costs in this proceeding but will seek cost recovery in a future
5	proceeding. <sup>5</sup>

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### Q: What does the CCR Rule require?

A: The CCR Rule sets multiple requirements and standards that utilities must meet in
operating and managing its CCR disposal units. CCR includes any solid waste
products left over from the combustion or use of coal as an energy source. This
includes fly ash, bottom ash, boiler slag, and products resulting from the flue gas
desulfurization ("FGD") process. Common methods utilities use in disposing of or
storing CCR is either through on-site surface impoundments ("ash ponds") or
landfills.

14 Owners or operators of CCR units that were still open and had not yet begun 15 closure or had a closure plan in place as of October 19, 2015, the effective date of 16 the rule, are subject to the requirements. While requirements are in effect for both 17 existing surface impoundments and landfills, the CCR Rule heavily targets existing 18 surface impoundments. Requirements for weekly and annual inspections, 19 groundwater monitoring, vegetation management, corrective action for leaking or 20 breached units, plans for closure and post-closure care, recordkeeping, and 21 reporting certain data to the public through a dedicated website apply to both types

<sup>&</sup>lt;sup>4</sup>Thiemann Direct, p. 17, lines 3-20.

<sup>&</sup>lt;sup>5</sup> OUCC Attachment CMA-1, DEI's Response to DEI Industrial Group's Data Request 13.3.

of units. However, surface impoundments that cannot meet structural stability
 requirements, fail locational requirements, or demonstrate they impact groundwater
 will be forced to close in the forthcoming years. Very few, if any, existing ash ponds
 meet or will meet these requirements.

5 While the Environmental Protection Agency ("EPA") has revised the CCR 6 Rule to extend deadlines related to closure once groundwater impact is detected 7 that fails aquifer location restrictions, pending litigation regarding the CCR Rule 8 may modify the EPA's current compliance requirements or dates. Additionally, the 9 Water Infrastructure Improvements for the Nation ("WIIN") Act, passed in 2016, 10 requires the EPA to develop a federal permitting program for CCR units. States 11 may develop their own permitting programs to take primary enforcement over CCR 12 units, with approval from the EPA. However, the requirements that trigger closure 13 under the original CCR Rule still apply during the permitting program development 14 and approval process.

15 **O**:

### Are the ash pond closures necessary?

A: Yes. Duke's ash ponds do not meet the requirements for existing surface
impoundments under the CCR Rule and, therefore, must close. DEI has already
transitioned to dry bottom and fly ash handling systems for Cayuga and Gibson to
allow both of these facilities to continue operating in compliance with the CCR
Rule.

- 1Q:Do the pond closure costs incurred as of the end of 2018 qualify as "federally2mandated costs" as defined under Ind. Code § 8-1-8.4-4?
- A: While the majority of the past closure costs meet the definition of a "federally
   mandated" cost, the OUCC believes the CCR closure and remediation costs related

to IDEM Agreed Orders should not be considered a federally mandated cost.

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6 Costs Related to IDEM Agreed Orders

## 7 Q: Why do IDEM-related costs not meet the definition of a federally mandated 8 cost?

9 A: First, these costs are not a result of the federal CCR Rule. Rather, they emerge from
10 state enforcement actions after previously closed ash storage sites or active ash
11 ponds leached hazardous constituents into ground or surface waters at the Dresser,
12 Edwardsport, Noblesville, and Gibson Generating Stations.<sup>6</sup> DEI closed the
13 Dresser Station plant in 1975, well before the CCR Rule was in place.

14 Second, these costs would not exist if DEI had not violated state waste rules. 15 While no state or federal regulations for CCR disposal applied to these legacy sites 16 at the time of operation, there were state regulations prohibiting the deposit of any waste that would present a pollution hazard.<sup>7</sup> DEI was obligated to manage its CCR 17 18 waste in a manner that would not result in a release to groundwater, surrounding 19 properties, and surface waters and present a danger to human health or the 20 environment. Since Duke failed to do this, it must now incur additional costs for 21 remediation and clean-up of those facilities. These costs are due to DEI's past

<sup>&</sup>lt;sup>6</sup> OUCC Attachment CMA-2, IDEM Agreed Orders.

<sup>&</sup>lt;sup>7</sup> Ind. Code § 13-30-2-1(3).

1		management decisions for its CCR waste, <sup>8</sup> and it should not be permitted to recover	
2		them under the Federally Mandated Requirements statute.	
3 4	Q:	Given these costs do not qualify for cost recovery via the Federally Mandated Requirements statute, should DEI recover these costs through base rates?	
5	A:	The OUCC is not certain to what extent, if any, DEI should recover these costs	
6		through future rates. With the exception of the Gibson East Ash Pond, the coal units	
7		generating the waste streams that were targeted by the IDEM Agreed Orders are no	
8		longer in service. <sup>9</sup> In the case of the Dresser Station, at least two rate cases have	
9		occurred since DEI removed the Station from service.	
10		In Cause No. 39353 Phase II, the Commission considered Indiana Gas's	
11		recovery of remediation costs related to old manufactured gas plant ("MGP") sites.	
12		The Commission denied recovery of clean-up costs related to MGP sites. In its	
13		Final Order, the Commission stated:	
14		Petitioner was presumptively compensated by the environmental	
15		liability it now realizes all along. Rates and charges, until	
16		investigated and modified, are presumptively lawful. I.C. 8-1-3-6.	
17		These rates and charges are made of many components, of which	
18		one is rate of return. A portion of rate of return which state and	
19		federal regulators consider is business risk, and the concept is not	
20		new. Indeed the Bluefield Co. v. Public Service Commission	
21 22		opinion, rendered by the United State Supreme Court, established that the opportunity to be afforded public utilities should simulate	
22		that of a similar unregulated enterprise specifically in light of the	
23 24		risks taken by such enterprises. See Bluefield Co. v. Public Service	
25		<i>Commission</i> (1923) 262 U.S. 679, 693. It is thus presumptive that	
26		Petitioner and its predecessors and interests received rates which	

included recognition of such similar risks. We have found Petitioner's environmental risks not to be isolated to public utilities,

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<sup>&</sup>lt;sup>8</sup> Note: I am also referring to past waste management practices of Public Service of Indiana ("PSI") and Cinergy.

<sup>&</sup>lt;sup>9</sup> The Noblesville steam units have been converted to operate on natural gas and are still in service. The Edwardsport coal steam units have been retired, but the Integrated Gas Combined Cycle (IGCC) plant is still in operation.

1 2		and so their rates should simulate returns of the environmental risks associated with similar enterprises. <sup>10</sup>	
3		In its Order, the Commission acknowledged ratepayers had not only paid these	
4		costs directly through insurance premiums included in operation and maintenance	
5		costs, but also indirectly as a component of its authorized rate of return, which	
6		reflected Indiana Gas's environmental risk:	
7 8 9 10 11 12 13 14 15		Evidently, Petitioner would have its customers pay not only the premium for its environmental insurance policy, and the business risk component of its rate of return, but the uninsured balance as well. This amounts to no risk for Petitioner's shareholders. Petitioner has not in the past waived environmental business risk as a component of its rate of return and there seems to be a substantial lack, therefore, of the regulatory quid-pro-quo or balancing of interests which we are obligated to maintain in the Petitioner's proposal. <sup>11</sup>	
16		The Indiana Gas case is relevant to the ash pond closure costs in this Cause	
17		because it involves recovery of the remediation of an asset that is no longer	
18		providing service to customers. As the above order indicates, DEI's legacy coal ash	
19		costs have been recognized in past rates through the past rate of return the	
20		Commission authorized for DEI. <sup>12</sup> It is difficult to separate how these costs were	
21		accounted for in the rate of return allowed in past rates.	
22 23	Q:	What does the OUCC recommend with regard to closure costs related to IDEM Agreed Orders?	
24	A:	The OUCC recommends the IDEM-related costs be denied, regardless of any costs	

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that may be approved for other past closure costs. This results in removal of

 <sup>&</sup>lt;sup>10</sup> In re Indiana Gas, Cause No. 39353 Phase II, Final Order, p. 51-52 (Ind. Util. Regulatory Comm'n May 3, 1995).
 <sup>11</sup> Id. p. 52.
 <sup>12</sup> Note: I am also referring to past ratemaking treatment authorized for Cinergy or Public Service of Indiana

<sup>(&</sup>quot;PSI").

1	\$73.931 million, which is the retail portion of the total company amount of \$80.544	
2	of IDEM-related remediation costs, from the overall requested regulatory asset of	
3		\$211.716 million.
4	Past	Closure Costs
5 6	Q:	Has DEI met all conditions required to receive a CPCN under I.C. § 8-1-8.4-7 for the past ash pond closure costs?
7	A:	No. DEI is now requesting a federally mandated CPCN after it already incurred
8		these costs. In Cause No. 44367 FMCA-4, the Commission rejected DEI's request
9		to collect costs related to a vegetation management project to comply with federal
10		transmission requirements that were incurred prior to it seeking a CPCN for these
11		costs. The Commission stated:
12 13 14 15 16		Allowing the recovery of costs incurred before the Commission has authorized the utility to do so undoes the purpose of oversight. The point of a CPCN proceeding is to determine whether the project and its attendant costs are prudent <i>before</i> the utility passes such costs to consumers
17 18 19 20 21		Had the legislature intended utilities to be able to recover federally mandated costs that were already spent, it would have said so. There is no such language in Ind. Code ch. 8-1-8.4. Applying for a CPCN and disclosing project specifics, including costs and alternatives, before performing the project is part of the regulatory bargain
22 23 24 25		engraved in Ind. Code ch. 8-1-8.4 for an energy utility to receive authorization to recover its prospective costs. The Commission and interested stakeholders should have an opportunity to review the project before the energy utility incurs costs that it desires to recover
26		through rates. <sup>13</sup>

<sup>&</sup>lt;sup>13</sup> In re Duke Energy Indiana LLC, Cause No. 44367 FMCA-4, Final Order at 29 (Ind. Util. Regulatory Comm'n Sept. 18, 2019).

1	On October 8, 2019, DEI filed a petition for reconsideration for Cause No. 44367
2	FMCA-4, and also filed an appeal with the Indiana Court of Appeals. <sup>14</sup> However,
3	if the Commission's Order stands, DEI should not be allowed to recover these costs
4	as "federally mandated" because it failed to receive prior Commission
5	authorization. <sup>15</sup>

## 6 Q: Had DEI sought pre-approval of these costs, would these costs meet the 7 conditions of 8-1-8.4-7?

8 A: No. Even if we ignore the fact that some of these costs were incurred before the
9 federal mandated cost recovery statue was even passed, DEI has not adequately
10 addressed the factors it must include in its application under I.C. § 8-1-8.4-6(b).

11 First, while DEI provided the required estimates for the past coal ash closure 12 costs pursuant to I.C. § 8-1-8.4-6(b)(1)(B),<sup>16</sup> it did not provide the level of support 13 for these estimates normally required in a federally mandated CPCN proceeding. 14 DEI Witness Timothy J. Thiemann provides purchase and change orders of over 15 \$250,000 for the ash pond closures in his workpapers, but these differ significantly from the costs provided in Petitioner's Exhibits 21-E and 21-F.<sup>17</sup> Additionally, 16 while DEI provided engineering studies explaining DEI's proposed closure plans,<sup>18</sup> 17 none of these studies included cost estimates for the work to be performed. These 18 19 studies also acknowledged alternatives for closure such as closure by removal and 20 closure in place, but do not explain why each closure option was selected for each

<sup>&</sup>lt;sup>14</sup> Duke Energy Indiana, LLC v. Ind. Ofc. Of Util. Consumer Counselor, 19A-EX-2446 (filed October 18, 2019).

<sup>&</sup>lt;sup>15</sup> OUCC Attachment CMA-3, DEI Response to OUCC DR 13-1.

<sup>&</sup>lt;sup>16</sup> Thiemann Direct, Exhibits 21-E and 21-F.

<sup>&</sup>lt;sup>17</sup> Thiemann Workpaper 1-TJT and Confidential Workpapers 2-TJT through 8-TJT. *See also*, OUCC CONFIDENTIAL Workpaper WP-CMA-1.

<sup>&</sup>lt;sup>18</sup> Thiemann Direct, Exhibits 21-A through 21-D.

pond, nor do they provide cost estimates for alternatives. Without the above
information, the OUCC recommends that the Commission find that DEI has not
met the requirements for federally mandated project costs under I.C. § 8-1-8.46(b)(1)(B), or the alternative plans justifying the proposed compliance project
under I.C. § 8-1-8.4-6(b)(1)(D).

6 Second, the OUCC disagrees with DEI's assertion that the projects in this 7 Cause for which it seeks a CPCN will extend the useful life of the existing energy utility facilities.<sup>19</sup> Mr. Thiemann's exhibits show that DEI is seeking a CPCN for 8 9 closure costs, which he admits do not extend the useful life of a generating 10 facility.<sup>20</sup> DEI needs to undertake these projects regardless of whether the generating facility continues to operate.<sup>21</sup> In passing the Federally Mandated 11 12 Requirements statute, a compliance project's ability to extend the useful life of a 13 generating facility is a statutory factor the Commission must consider in 14 determining whether a project is worth granting cost recovery incentives under the 15 statute. See, I.C. § 8-1-8.4-6(b)(1)(E). The OUCC therefore questions whether coal 16 ash closure costs are eligible for recovery under I.C. ch. 8-1-8.4.

# 17 Q: Why does the OUCC question coal ash closure costs recovery under I.C. ch. 8 18 1-8.4?

A: While coal ash closure costs are mandated by a federal rule, these costs are unique
among other federally mandated costs. DEI may not have presented alternatives to
the proposed compliance project because there is no way to avoid it. With other

<sup>&</sup>lt;sup>19</sup> Thiemann Direct, p. 11, lines 9-16.

 $<sup>^{20}</sup>$  Id.

<sup>&</sup>lt;sup>21</sup> OUCC Attachment CMA-4, DEI Response to OUCC DR 13-5.

costs typically considered for recovery under I.C. ch. 8-1-8.4, there is generally
some choice as to whether the compliance project can be avoided by the utility. For
example, an alternative to compliance with many of the environmental laws listed
under I.C. § 8-1-8.4-5 is to stop operating the facility and retire it. However, in the
case of coal ash closures and remediation, it does not matter if the facility ceases
operation, because the utility must nonetheless meet the necessary requirements to
safely close the ash impoundments and landfills.

8 This is different from other federally mandated projects that are awarded 9 CPCNs under I.C. § 8-1-8.4-7. The types of projects approved for electric utilities 10 under the statute include either an addition or an integrity, enhancement, or 11 replacement project to a utility's facilities. Often, there is a new piece of pollution 12 control equipment such as a new wastewater treatment plant, or an upgrade to 13 existing pollution controls. These projects usually allow the facility to continue 14 operating longer without having to shut down because of failing to meet compliance 15 obligations. Conversely in the case of the ash pond closures, an asset is being 16 removed from service and there is no new piece of equipment or value being added 17 to the facility to serve ratepayers into the future.

As I explained previously in my discussion regarding Cause No. 39353 Phase II, these costs were likely reflected in previous rates through O&M expenses for insurance premiums and DEI's authorized return, which already considers DEI's environmental risk. It may be difficult to quantify these items in order to credit ratepayers with the costs they already paid through approved rates in order to offset the substantial costs of closure now. Furthermore, allowing cost recovery

1	in the manner DEI proposes may not provide DEI with the incentive to pursue as	
2	much reimbursement as possible from current and past insurance policies.	
3	Additionally, the previous demolition cost estimates used for determining	
4	depreciation rates in Cause No. 42359, PSI Energy, Inc. ("PSI")/Cinergy/DEI's last	
5	general rate case, included pond closure costs. <sup>22</sup> One of PSI's witnesses admitted	
6	that if PSI were required to remove and dispose of all stored ash from the existing	
7	ash pond at Cayuga, it would add more than \$100 million to the cost of demolishing	
8	the facility. He used this as support for allowing PSI to include a 25% contingency	
9	cost in the dismantling costs used for determining depreciation rates. <sup>23</sup>	
10	Finally, while costs for closing ash ponds have increased since DEI's last	
11	rate case, DEI may also have experienced significant reductions in other costs	
12	occurring outside of the test year that could offset - completely or partially - the	
13	increased closure costs. For example, the previous Edwardsport Generating units,	
1.4		
14	Gallagher Units 1 and 3, and the Wabash River Generating Station have all retired	
14 15		
	Gallagher Units 1 and 3, and the Wabash River Generating Station have all retired	
15	Gallagher Units 1 and 3, and the Wabash River Generating Station have all retired since the last rate case. However, DEI continues to recover the costs for operating	
15 16	Gallagher Units 1 and 3, and the Wabash River Generating Station have all retired since the last rate case. However, DEI continues to recover the costs for operating these facilities in its current rates. It is problematic to focus on one specific cost	
15 16 17	Gallagher Units 1 and 3, and the Wabash River Generating Station have all retired since the last rate case. However, DEI continues to recover the costs for operating these facilities in its current rates. It is problematic to focus on one specific cost DEI incurred outside of the test year without also recognizing any cost savings	

 <sup>&</sup>lt;sup>22</sup> OUCC Attachment CMA-5, Cause No. 42359 Demolition Studies. See also, *In re PSI Energy*, Cause No. 42359, 2004 WL 1493966, Final Order at pp. 59-72 (Ind. Util. Regulatory Comm'n May 18, 2004).
 <sup>23</sup> Cause No. 42359, p. 68.

# Q: Are you aware of another utility that was permitted recovery for ash pond closure costs under I.C. ch. 8-1-8.4?

A: Yes. In Cause No. 45052, the Commission approved \$19.969 million to cover
Vectren South Electric's ("Vectren") costs to close the Culley East Ash Pond.
Vectren proposed closing the Culley East Ash Pond to construct a new lined process
and storm retention pond, which are necessary to continue operating Culley. The
Commission's approval of this project noted there were no alternatives to the
Culley projects closing the ash pond, and that the ash pond closure will extend the
useful life of Culley Unit 3.<sup>24</sup>

10 Vectren also argued in that case the Settlement Agreement approved in 11 Cause No. 44872, NIPSCO's CCR Compliance Plan, suggested the OUCC agreed 12 that closure costs could be recovered as federally mandated costs. This is incorrect. 13 I was heavily involved in settlement discussions in that Cause, and I testified in 14 support of the settlement. The OUCC agreed to the "incremental" cost to construct 15 a new landfill cell related to continuing operation of NIPSCO's coal units. This not 16 only included the difference in the costs to construct a new landfill cell under the 17 previous state rules and the federal CCR Rule, but also included the portion of the 18 project associated with the disposal of ash generated by the continued operation of NIPSCO's coal units. NIPSCO originally planned to recover the costs associated 19 20 with disposing of ash material excavated in "clean closing" its ash impoundments 21 as well as ongoing disposal as part of its "Landfill/Pond Closure" project, and had

<sup>&</sup>lt;sup>24</sup> In re S. Ind. Gas & Elec. Co., Cause No. 45052, Order at 28-32 (Ind. Util. Regulatory Comm'n Jan. 22, 2019).

1		sought approval of \$18.285 million for this project. <sup>25</sup> The OUCC agreed to	
2		"incremental" costs of the "Landfill/Pond Closure project" in the Settlement	
3		Agreement, which decreased this amount to \$4,260,583, but the title of the project	
4		did not change. <sup>26</sup> Thus, while the project name gives the appearance the OUCC	
5		agreed to the cost recovery of a Pond Closure project under the Federally Mandated	
6		Requirements statute, the OUCC agreed only to the disposal costs associated with	
7		continuing to operate NIPSCO's coal units.	
8 9	Q:	Is DEI's ash pond situation similar to the ash pond closure approved in Cause No. 45052?	
10	A:	No. Vectren's situation is different because it did not have enough space at the	
11		facility to comply with the CCR requirements without closing the ash pond, which	
12		would have prevented Culley from continuing to operate. DEI's pond closures will	
13		not extend the useful life of the generating assets.	
14 15	Q:	In determining the estimates for ash pond closures, did DEI take into account any past costs collected through depreciation?	
16	A:	Yes, DEI includes costs it has recovered through depreciation associated with ash	
17		pond closure costs. However, how Duke calculated these amounts is not apparent.	
18		It is unclear if reported amounts include the 10% of indirect costs, 25% contingency	
19		costs, or the inflation of these costs reflected in DEI's previous demolition cost and	
20		depreciation studies.	
21		Additionally, DEI filed a claim with an insurance company associated with	
22		the remediation of the Dresser site and preserved its rights to file more claims with	

 <sup>&</sup>lt;sup>25</sup> In re N. Ind. Pub. Serv. Co., Cause No. 44872, Petitioner's Exhibit No. 4, Attachment 4-A.
 <sup>26</sup> In re N. Ind. Pub. Serv. Co., Cause No. 44872, Final Order at 33 (Ind. Util. Regulatory Comm'n Dec. 13, 2017).

1		other historic liability insurers by providing a notice of circumstances that may give	
2		rise to a claim in the future regarding DEI's potential CCR liabilities. <sup>27</sup> DEI	
3		received a partial payment of this policy, but it has not applied this amount to the	
4		closure costs presented in Mr. Thiemann's exhibits. <sup>28</sup> However, DEI does state it	
5		intends to apply the proceeds from any insurance settlements or reimbursements to	
6		CCR unit closures. <sup>29</sup>	
7 8	Q:	What does the OUCC recommend with regard to coal ash closures over the 2015-2018 timeframe?	
9	A:	The OUCC recommends the Commission deny DEI's proposed recovery of	
10		\$211.716 million in regulatory assets. Issuance of a federally mandated CPCN for	
11		ash pond closure costs incurred from 2015 through 2018 should be denied, as Duke	
12		failed to seek approval of these costs prior to incurring them and has not met the	
13		requirements under I.C. ch. 8-1-8.4.	
14		In the alternative, should the Commission decide to issue a federally	
15		mandated CPCN for past ash pond closure costs, the OUCC recommends federally	
16		mandated costs only be approved for \$117.304 million (the retail portion of the	
17		total company amount of \$127.796 million) to exclude \$73.931 million of the	
18		IDEM-related costs as explained earlier in my testimony. Ash pond closure costs	
19		related to Agreed Orders DEI entered into with IDEM should not be recovered from	
20		ratepayers, as they result from DEI's failure to prevent its CCR wastes from	
21		creating a pollution hazard.	

<sup>&</sup>lt;sup>27</sup> OUCC Attachment CMA-6, DEI's Responses to OUCC 23-1 through 23-6.
<sup>28</sup> OUCC Attachment CMA-6, p. 5.
<sup>29</sup> *Id.*, p. 6.

1	Additionally, it is important to mitigate the impact these substantial closure
2	costs will have on ratepayers, as DEI is incurring these costs at a time when DEI's
3	existing coal-fired steam units are close to the end of their lives. In his testimony,
4	Mr. Kollen discusses a levelized-cost method for regulatory assets sought in this
5	proceeding, and accomplishes this goal. I recommend the Commission adopt this
6	cost recovery methodology for these costs.

Finally, any cost recovery methodology approved should require DEI to offset the overall closure costs with the proceeds from any insurance settlements it receives for ash pond remediation and ash pond demolition costs previously recovered through depreciation. DEI should clearly show how it calculated ash pond closure costs recovered through previous rates, and include any indirect costs, contingency costs, and escalation applied to the demolition costs approved in previous rate cases.

14 Future Closure Costs

# Q: Has DEI met requirements to receive a CPCN under I.C. ch. 8-1-8.4 for future ash pond closures?

A: No. In the case of future ash pond closure costs, it is premature to approve these costs. Similar to the past closure costs, while DEI provided the required estimates for the future coal ash closure costs pursuant to I.C. § 8-1-8.4-6(b)(1)(B),<sup>30</sup> it did not provide the level of support for these estimates normally required in a federally mandated CPCN proceeding. The engineering studies explaining DEI's proposed closure plans do not include cost estimates for the work to be performed in the

<sup>&</sup>lt;sup>30</sup> Thiemann Direct, Exhibit 21-G.

future. <sup>31</sup> As mentioned previously, these studies also do not include reasoning for
 the selection of a closure method nor do they provide cost estimates for alternative
 closure methods.

Normally, the utility provides a detailed engineering study with its
application, which outlines the preferred compliance project and alternatives, the
preferred and alternative projects' costs, and the technical and economic reasoning
for selecting the preferred project. The utility also provides information regarding
the utility's confidence in the estimate, such as the classification and range of
certainty of the estimate pursuant to ACEEE standards. DEI did not provide these
estimates in its application in this Cause.

11 This information is crucial for the Commission to determine if the costs are 12 prudent and warrant approval of a CPCN. I.C. § 8-1-8.4-7(a) requires the utility to 13 support its application with technical information in as much detail as the 14 Commission requires in order to receive a CPCN under I.C. § 8-1-8.4-6. The 15 Commission has noted in the past with other types of CPCNs that the initial cost 16 estimates are a significant factor in the Commission's decision making process 17 when granting a CPCN and has encouraged utilities to improve the accuracy of 18 their initial cost estimates.<sup>32</sup> In Cause No. 44012 Phase I, the Commission stated:

19When considering approval of CPCN requests, the20Commission will take into account if the cost estimate21presented is a preliminary estimate with lower confidence22levels and/or has a high associated range of actual possible23costs, when it considers the CPCN request. It is the duty of

<sup>&</sup>lt;sup>31</sup> Thiemann Direct, Exhibits 21-A through 21-D.

<sup>&</sup>lt;sup>32</sup> In re Indianapolis Power & Light, Cause No. 42170 ECR 16-S1, Final Order at 7 (Ind. Util. Regulatory Comm'n Jul. 7, 2011); In re N. Ind. Pub. Serv. Co., Cause No. 44012 Phase I, Final Order at 19-20 (Ind. Util. Regulatory Comm'n Dec. 28, 2011).

	1 the utility to provide evidence sufficient to warrant the	1
	• •	2
		3
		4
	5 Commission also notes that if actual costs exceed the	5
	6 estimates, additional evidence for supporting the cost	6
		7
	8 Commission and all stakeholders the information necessary	8
	9 to understand the magnitude of the project from the outset.	9
	0 It is also important that a utility provide the Commission and	10
	1 all stakeholders the information necessary to understand the	11
		12
	3 any expected accuracy range associated with the estimate.	13
	5	14
		15
	6 of scenarios to fulfill its statutory obligations. <sup>33</sup>	16
mmission find	7 Without the above information, the OUCC recommends that the Co	17
ect costs under	8 that DEI does not meet the requirements for federally mandated proj	18
the proposed	9 I.C. § 8-1-8.4-6(b)(1)(B), or the alternative plans justifying	19
	0 compliance project under I.C. § 8-1-8.4-6(b)(1)(D).	20
ese ponds, and	1 Additionally, IDEM has not yet issued closure plans for the	21
able to safely	2 the plans could change based on what IDEM determines is reason	22
tion regarding	3 close the ponds. In fact, IDEM recently issued requests for informa	23
do not prevent	4 DEI's closure plans, as the agency appears concerned DEI's plans	24
e. <sup>34</sup> Therefore,	5 the lateral movement of groundwater through the ash closed in plac	25

DEI's current estimates could vary. 26

 <sup>&</sup>lt;sup>33</sup> In re N. Ind. Pub. Serv. Co., Cause No. 44012, Final Order at pp. 19-20.
 <sup>34</sup> OUCC Attachment CMA-7, IDEM Requests for Additional Information.

### 2 **OUCC's concerns?** 3 A: No. If Duke provides this information in rebuttal instead of its case-in-chief as it 4 should have done, it will foreclose the OUCC's and intervenors' opportunity to 5 adequately respond to DEI's compliance plans in testimony. The Commission has 6 noted that waiting until rebuttal to support its requested relief is a needless burden 7 on the parties' time and resources.<sup>35</sup> What does the OUCC recommend with regard to future CCR closure costs? 8 **O**: 9 A: At this time, the OUCC recommends the Commission deny DEI's request for a 10 federally mandated CPCN under I.C. § 8-1-8.4-7(b) for estimated future ash pond 11 closure costs (incurred 2019-2027), as Duke failed to meet the statutory 12 requirements for approval by the Commission in this case. After DEI receives 13 IDEM's approval for its closure plans and has more firm cost estimates for the work 14 required under the closure plans, the Commission, the OUCC and other interested 15 parties should have an opportunity to review and evaluate these costs in a separate 16 proceeding. 17 In the alternative, should the Commission issue a federally mandated CPCN 18 for future ash pond closure costs (incurred 2019-2027) under I.C. § 8-1-8.4-7(b), 19 the OUCC recommends similar alternative recovery methods to those presented 20 above regarding past coal ash closures to mitigate ratepayer impact, including: 21 1. The federally mandated costs be approved for \$443 million and exclude

If DEI provides the above information in rebuttal, does this satisfy the

22

1

**Q**:

\$60 million associated with IDEM-related CCR remediation activities;

<sup>&</sup>lt;sup>35</sup> *Petition of Ind. Amer. Water Co., Inc.,* Cause No. 45142, Final Order at 2 (Ind. Util. Regulatory Comm'n Jun. 26, 2019).

- Adoption of Mr. Kollen's levelized-cost method for recovering these
   costs through a regulatory asset, to be included in DEI's next rate case;
   and
- Any cost recovery method approved should require DEI to offset the
  overall closure costs with the proceeds from insurance settlements it
  receives for ash pond remediation and ash pond demolition costs
  previously recovered via depreciation. DEI should clearly show how it
  calculated ash pond closure costs recovered through previous rates.

### III. CLEAN WATER ACT 316(a) AND 316(B) STUDY COSTS

### 9 **O**: Please describe DEI's Clean Water Act ("CWA") 316(a) and 316(b) costs 10 proposal. 11 A: DEI requests recovery of 80% of the retail portion of study costs associated with 12 the 316(a), 316(b), and National Pollutant Discharge Elimination System 13 ("NPDES") program, as federally mandated costs through Rider 62 and pursuant 14 to I.C. ch. 8-1-8.4. DEI requests deferral of the remaining 20% of costs, which 15 must be expensed as a regulatory asset, with carrying costs at the weighted average cost of capital for recovery in a future rate case.<sup>36</sup> 16

## 17 Q: What concerns do you have regarding DEI's 316(a) and 316(b) requests?

A: The nature of the compliance activities, the amount of the costs DEI is requesting,
 and the timeframe in which they were incurred is unclear, since neither DEI witness
 Mr. James Michael Mosley nor DEI witness Ms. Christa L. Graft, who both support
 these costs in their direct testimony, specifically state their amount.

<sup>&</sup>lt;sup>36</sup> Revised Direct Testimony of DEI Witness Christa L. Graft, p. 30 line 15 – p. 31, lines 1-2.

1	Q:	Has DEI subsequently clarified the costs it is seeking?
2	A:	Yes. In response to a data request regarding these costs, DEI stated the 316(a) study
3		costs were incurred from 2014 to 2019 at a total cost of \$171,302, and 316(b) study
4		costs have been incurred since 2007 at a total cost of \$2,287,623. <sup>37</sup> DEI states it
5		expects to spend another approximate \$200,000 through 2021 to complete the
6		316(b) studies for all of its plants. <sup>38</sup>
7 8	Q:	Please explain your understanding of what Mr. Mosley refers to as "the 316(a) Rule."
9	A:	Mr. Mosley is referring to effluent requirements set forth under Section 316(a) of
10		the CWA. These requirements provide guidance for determining thermal discharge
11		limits for effluents permitted under a NPDES permit, and have been in place since
12		1972. DEI admits its generating facilities have been required to comply with the
13		provisions of the CWA's 316(a) rule since it was promulgated in 1972, and DEI
14		clarified that approximately \$30,000 in ongoing O&M expenses are included in its
15		test year. <sup>39</sup> Duke states the Cayuga Station was required to submit a 316(a)
16		demonstration study on January 16, 2018, and it is this demonstration study DEI is
17		seeks to recover pursuant to the Federally Mandated Requirements statute. <sup>40</sup>
18	Q:	Please explain the 316(b) Rule.
19	A:	The 316(b) Rule protects aquatic species at all stages of life from being injured or
20		killed by electric generating facilities withdrawing water to cool and condense

steam as part of the generation process. The final rule took effect October 14, 2014,

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<sup>&</sup>lt;sup>37</sup> OUCC Attachment CMA-8, DEI Response to OUCC DR 23-7.

 <sup>&</sup>lt;sup>38</sup> Id.
 <sup>39</sup> Id.
 <sup>40</sup> Id.

and addresses two issues for aquatic life mortality: impingement and entrainment.
 Impingement occurs when fish and other organisms are trapped against screens
 when water is drawn into a facility's cooling system. Entrainment occurs when
 organisms (usually very young organisms at the egg or larvae stage) are drawn into
 the facility and are exposed to pressure and high temperatures, which kills them.
 Standards for reducing impingement and entrainment will be included in NPDES
 permits for generating facilities.

8 For the impingement standard, existing facilities that have a design intake 9 flow of greater than two million gallons per day ("MGD") and withdraw at least 25 10 percent of their water from waters of the U.S. solely for cooling purposes must not 11 exceed a 24% annual average fish mortality.<sup>41</sup> The facility must conduct an 12 Impingement Technology Performance Study examining seven compliance options 13 that would best reduce impingement at the facility, and choose one of these options.<sup>42</sup> The facility's permitting authority would evaluate the facility's study and 14 15 recommendations to determine which technology would be optimal for reducing impingement.<sup>43</sup> 16

For the entrainment standard, existing facilities withdrawing at least 125 MGD are required to conduct an Entrainment Characterization Study<sup>44</sup> to assist in their state permitting authority's determination whether and what site-specific controls would be required to reduce the number of aquatic organisms drawn into

<sup>&</sup>lt;sup>41</sup> 40 CFR 125.94. Note: The 24% standard may not apply if a facility's rate of impingement is so low that additional impingement controls may not be justified. [40 CFR 125.94(c)(11)].

<sup>&</sup>lt;sup>42</sup> 40 CFR 122.21(r)(6)(ii).

<sup>&</sup>lt;sup>43</sup> 40 CFR 125.94.

<sup>&</sup>lt;sup>44</sup> 40 CFR 122.21(r)(9).

1		cooling water systems. The permitting authority then determines the best
2		technology available ("BTA") for addressing entrainment on a case-per-case basis
3		based on its best professional judgement. <sup>45</sup> If a closed-cycle cooling system is
4		determined to be the BTA for entrainment at a facility, this option would also meet
5		the impingement standard. <sup>46</sup>
6		Many facilities will meet the impingement standard without incurring large
7		capital costs through a combination of control measures such as modified traveling
8		screens, barrier nets, and fish handling and return systems. The entrainment
9		standard may require closed-cycle cooling or other flow reduction measures if the
10		local permitting authority (in this case, IDEM) determines they are warranted.
11 12 13	Q:	Has DEI obtained pre-authorization from the Commission to incur 316(a) and 316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?
12	<b>Q:</b> A:	316(b) Rule study costs and receive cost recovery under the Federally
12 13	-	<b>316(b)</b> Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?
12 13 14	-	<ul><li>316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?</li><li>No. Ms. Graft claims that DEI received approval for these costs in Cause No.</li></ul>
12 13 14 15	-	<ul> <li>316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?</li> <li>No. Ms. Graft claims that DEI received approval for these costs in Cause No.</li> <li>44418,<sup>47</sup> but she mischaracterizes the projects and costs the Commission approved</li> </ul>
12 13 14 15 16	-	<ul> <li>316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?</li> <li>No. Ms. Graft claims that DEI received approval for these costs in Cause No. 44418,<sup>47</sup> but she mischaracterizes the projects and costs the Commission approved in that Cause. Cause No. 44418 involved approval of DEI's Phase 3 Environmental</li> </ul>
12 13 14 15 16 17	-	<ul> <li>316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?</li> <li>No. Ms. Graft claims that DEI received approval for these costs in Cause No. 44418,<sup>47</sup> but she mischaracterizes the projects and costs the Commission approved in that Cause. Cause No. 44418 involved approval of DEI's Phase 3 Environmental Compliance Plan ("Phase 3 Compliance Plan"), which presented how DEI would</li> </ul>
12 13 14 15 16 17 18	-	<ul> <li>316(b) Rule study costs and receive cost recovery under the Federally Mandated Requirements statute?</li> <li>No. Ms. Graft claims that DEI received approval for these costs in Cause No. 44418,<sup>47</sup> but she mischaracterizes the projects and costs the Commission approved in that Cause. Cause No. 44418 involved approval of DEI's Phase 3 Environmental Compliance Plan ("Phase 3 Compliance Plan"), which presented how DEI would comply with the Mercury and Air Toxics Standards ("MATS"). The OUCC entered</li> </ul>

<sup>&</sup>lt;sup>45</sup> 40 CFR 125.94.
<sup>46</sup> 40 CFR 125.94(d).
<sup>47</sup> Revised Direct of Christa Graft, p. 30, lines 9-14.
<sup>48</sup> In re Duke Energy Indiana, Inc., Cause No. 44418, Final Order at 27-28, 30 (Ind. Util. Regulatory Comm'n Aug. 27, 2014).

1	testing and pre-construction costs related to the Phase 3 Compliance Plan. <sup>49</sup> As
2	part of its Phase 3 Compliance Plan, DEI tested mercury trim controls other than
3	those approved in the Phase 2 Compliance Plan, which may have avoided the need
4	for Activated Carbon Injection ("ACI") systems on many of its generating units.
5	As a result, DEI was incurring plan development, engineering, and pre-construction
6	costs related to mercury controls proposed in both the Phase 2 and Phase 3
7	Compliance Plans. The OUCC understood these were the costs would be covered
8	by the settlement agreement.
9	Ms. Graft's Settlement Exhibits in Cause No. 44418 showed the anticipated
10	increases due to the plan development, engineering, and pre-construction costs
11	attributable to Duke's Phase 3 Compliance Plan. <sup>50</sup> The OUCC relied on these
12	estimates in its settlement negotiations with Duke. In no way should the OUCC's
13	agreement to the Phase 3 costs be construed as automatic approval of any and all
14	environmental compliance study costs Duke incurs that are remotely related to a
15	federal mandate. Additionally, in approving the timely recovery of future plan
16	development, preliminary engineering, testing, and pre-construction costs via Rider
17	71, the Commission specifically noted these are in connection with Duke's
18	proposed Phase 3 Compliance Plan. <sup>51</sup>

<sup>&</sup>lt;sup>49</sup> Cause No. 44418, Settlement Agreement, p. 3.
<sup>50</sup> Cause No. 44418, Petitioner's Exhibit H-1, Line No. 3.
<sup>51</sup> Cause No. 44418, Final Order, p. 29.

# 1Q:Should DEI receive the ratemaking treatment approval it requests for the2316(a) and 316(b) Study costs under Ind. Code ch. 8-1-8.4?

A: No. There are multiple issues with granting DEI its desired treatment of the 316(a)
and 316(b) study costs. First, Duke appears to seek approval of costs after it already
incurred them. I previously discussed the Commission's ruling in Cause No. 44367
FMCA 4, which is also applicable here.

7 Second, Duke did not address all factors necessary to obtain a federally 8 mandated CPCN for its 316(a) and 316(b) Study costs under I.C. § 8-1-8.4-6(b). 9 As a part of an application to receive approval for federally mandated projects, I.C. 10 § 8-1-8.4-6(b)(1)(B) requires the energy utility to provide a description of the 11 projected federally mandated costs associated with the proposed compliance 12 project. A necessary part of describing a compliance project's federally mandated 13 costs would be a reasonable estimate of its costs. While DEI briefly describes the 14 rule and the types of activities required as part of complying, DEI did not provide 15 clear estimates of the costs or a timeline for implementation. In the case of the 16 316(b) study costs, it appears DEI recorded costs as far back as 2007, before the 17 General Assembly passed the Federally Mandated Requirements statute.

Further, I.C. § 8-1-8.4-6(b)(1)(C) requires a description of how the proposed compliance project allows the energy utility to comply with the federally mandated requirements. DEI fails to provide adequate information regarding the activities for compliance projects it seeks recovery for in this Cause as part of its application, which is required by I.C. § 8-1-8.4-7(a). The OUCC clarified through the discovery process that these costs were for the characterization studies DEI had to perform to determine the best technology available ("BTA") for compliance with

Public's Exhibit No. 3 Cause No. 45253 Page 27 of 36

1	both I.C. § 8-1-8.4-6(b)(1)(C) and I.C. § 8-1-8.4-7(a). <sup>52</sup> However, the OUCC
2	should not have to issue discovery to determine the federally-mandated compliance
3	projects for which DEI is seeking recovery. In Cause No. 45073, the Commission
4	stated that parties should not have to request basic supporting documentation in
5	discovery:
6 7 8 9 10 11 12 13 14 15 16	[The Petitioner] is reminded that it bears the burden of proof in demonstrating it is entitled to its requested relief. The OUCC should not have to request or otherwise seek basic supporting documentation that should have been provided with Petitioner's case-in-chief to support its requested relief. Further, even if the OUCC is able to ascertain through discovery the information necessary to support Petitioner's requested relief, the Commission, which is the entity that must ultimately render a decision on the matter, would still lack the necessary information to make its determination because it is not privy to the parties' discovery. <sup>53</sup>
17	As I previously noted, DEI should also not delay providing this information
18	until discovery or rebuttal, as it precludes the OUCC's and intervenors' opportunity
19	to review and adequately respond in testimony and wastes the Commission's and
20	stakeholders' time and resources.
21	DEI also did not provide alternative plans demonstrating the proposed
22	316(a) and 316(b) compliance projects are necessary under I.C. § 8-1-8.4-
23	6(b)(1)(D), nor whether they extend the useful life of the existing facility under I.C.
24	§ 8-1-8.4-6(b)(1)(E).
25	Finally, the OUCC questions the need to track these costs. I.C. § 8-1-8.4-
26	6(b)(2) allows the Commission to take into account any other factors it considers

<sup>&</sup>lt;sup>52</sup> OUCC Attachment CMA-8.
<sup>53</sup> Petition of City of Evansville, Cause No. 45073, Final Order at 8, 2018 WL 6528239 at \*9 (Ind. Util. Regulatory Comm'n Dec. 5, 2018).

1		relevant to the utility's application. Although these costs may be related to a
2		federally mandated requirement, it is questionable whether these costs are
3		substantial enough to warrant tracking in the ECR. In the case of the 316(a) study
4		costs, DEI has been complying with the requirements of CWA Section 316(a) for
5		more than 40 years through its NPDES permits. Duke has been able to reflect and
6		absorb such costs as an operating expense. DEI is seeking approval under the
7		Federally Mandated Requirements statute for less than \$200,000, which is the entire
8		five-year period cost for the CWA 316(a) demonstration study. The administrative
9		resources that will be spent for DEI, the Commission, and the OUCC to review
10		these costs every six months until DEI's next rate case are likely more than the
11		costs of the study itself. The same may also apply to the 316(b) Study costs.
		costs of the study fisen. The same may also apply to the 510(0) Study costs.
12 13	Q:	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding?
12	<b>Q:</b> A:	What is your recommendation regarding the 316(a) and 316(b) rule study
12 13	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding?
12 13 14	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally
12 13 14 15	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally mandated." DEI did not supply enough information in its filing for the Commission
12 13 14 15 16	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally mandated." DEI did not supply enough information in its filing for the Commission to approve these costs. Additionally, there may be a more administratively efficient
12 13 14 15 16 17	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally mandated." DEI did not supply enough information in its filing for the Commission to approve these costs. Additionally, there may be a more administratively efficient way to allow cost recovery, such as embedding an amortized annual O&M amount
12 13 14 15 16 17 18	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally mandated." DEI did not supply enough information in its filing for the Commission to approve these costs. Additionally, there may be a more administratively efficient way to allow cost recovery, such as embedding an amortized annual O&M amount in DEI's revenue requirement if DEI will need to repeat such a study for its future
12 13 14 15 16 17 18 19	-	What is your recommendation regarding the 316(a) and 316(b) rule study costs DEI is seeking in this proceeding? I recommend denying the request to track these costs Duke describes as "federally mandated." DEI did not supply enough information in its filing for the Commission to approve these costs. Additionally, there may be a more administratively efficient way to allow cost recovery, such as embedding an amortized annual O&M amount in DEI's revenue requirement if DEI will need to repeat such a study for its future permit reviews. DEI must renew its NPDES permits every five years, but the

<sup>&</sup>lt;sup>54</sup> OUCC Attachment CMA-9, DEI's Responses to OUCC Data Requests 35-6 and 35-7.

1	DEI neither provided adequate cost information in this filing nor indicated these
2	studies would be an ongoing cost.

### IV. EMISSION ALLOWANCES

## 3 Q: What does DEI request with respect to recovering the cost of EAs?

4 A: First, DEI proposes to transfer the native SO<sub>2</sub> EAs from the EA inventory account
5 to a new regulatory asset account to be amortized over a twelve-year period. This
6 would decrease the native SO<sub>2</sub> EA consumption expense to zero.<sup>55</sup>

Second, DEI proposes to discontinue using Rider No. 63 and instead include
any native allowance consumption expense and gains or losses on the sale of native
EAs in the consolidated Rider No. 62.<sup>56</sup> Cost recovery included in Rider No. 62
would continue in DEI's biannual ECR filings.

# 11Q:Does the OUCC take issue with DEI's native SO2 allowance inventory costs12proposal?

13 A: No. The OUCC is aware that DEI has decreased its use of SO<sub>2</sub> allowances. Unit 14 retirements at the Wabash River and Gallagher Generating Stations, coupled with 15 the installation of  $SO_2$  environmental controls at the Gallagher, Cayuga, and Gibson Generating stations have resulted in DEI emitting less SO<sub>2</sub> over the last 16 17 several years. Additionally, the zero-cost SO<sub>2</sub> allowances Duke is awarded each 18 year exacerbate this issue because it lowers the weighted average  $SO_2$  inventory 19 cost, which decreases annual consumption expense and the rate at which DEI 20 recovers the remaining inventory costs.

<sup>&</sup>lt;sup>55</sup> Direct Testimony of DEI Witness Suzanne E. Sieferman, p. 38, lines 6-14.

<sup>&</sup>lt;sup>56</sup> Revised Direct Testimony of DEI Witness Christa Graft, pp. 17-18.

1		The proposal benefits both DEI and its ratepayers. DEI is able to fully
2		recover the costs of more expensive allowances procured prior to the major changes
3		in environmental regulations, unit retirements, and pollution controls impacting the
4		consumption of EAs over the past decade. Ratepayers benefit from an eventual
5		reduction in the remaining inventory balance, which lowers the return on inventory
6		customers must pay in base rates over what they could expect to pay if the inventory
7		balance was slowly reduced over 40 or more years.
8		However, to reduce further impact of the accelerated recovery of native $SO_2$
9		inventory costs, the OUCC recommends adopting Mr. Kollen's ratemaking
10		treatment for recovering regulatory assets.
11 12	Q:	Does the OUCC take issue with DEI's proposal to continue tracking EAs via Rider No. 62?
	<b>Q:</b> A:	
12		Rider No. 62?
12 13		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the
12 13 14		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the movement of $SO_2$ inventory costs into a regulatory asset, EA costs are not expected
12 13 14 15		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the movement of $SO_2$ inventory costs into a regulatory asset, EA costs are not expected to be significant. Additionally, DEI generating unit retirements and $SO_2$ and $NO_X$
12 13 14 15 16		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the movement of $SO_2$ inventory costs into a regulatory asset, EA costs are not expected to be significant. Additionally, DEI generating unit retirements and $SO_2$ and $NO_X$ pollution controls installed at Cayuga, Gibson, and Gallagher resulted in
12 13 14 15 16 17		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the movement of $SO_2$ inventory costs into a regulatory asset, EA costs are not expected to be significant. Additionally, DEI generating unit retirements and $SO_2$ and $NO_X$ pollution controls installed at Cayuga, Gibson, and Gallagher resulted in significantly decreased emissions, lowering the likelihood DEI will consume more
12 13 14 15 16 17 18		<b>Rider No. 62?</b> Yes. DEI's EA costs have been stable over the past several years. <sup>57</sup> With the movement of $SO_2$ inventory costs into a regulatory asset, EA costs are not expected to be significant. Additionally, DEI generating unit retirements and $SO_2$ and $NO_X$ pollution controls installed at Cayuga, Gibson, and Gallagher resulted in significantly decreased emissions, lowering the likelihood DEI will consume more allowances than the zero-cost allowances allocated to DEI annually. Finally, the

<sup>&</sup>lt;sup>57</sup> See DEI's several past ECR filings; Cause No. 42061 ECR 33 is the most recent filing as of the date of this filing.

1		However, DEI should continue to offset the past costs of EAs it will recover
2		through the proposed regulatory asset by selling excess allowances whenever
3		possible. The net proceeds of EA sales should be credited to customers through
4		Rider No. 62 in future ECR filings.
5 6	Q:	What do you recommend regarding DEI's EA recovery proposals in this Cause?
7	A:	I recommend the Commission approve moving the native SO <sub>2</sub> allowance inventory
8		costs into a regulatory asset. This regulatory asset should be recovered using the
9		levelized-cost recovery method Mr. Kollen proposes for all regulatory assets. I
10		recommend discontinuing tracking EA costs. However, DEI should continue
11		selling excess EAs whenever possible, and pass the proceeds of any such allowance
12		sales through Rider No. 62.

### V. <u>RECOMMENDATIONS</u>

- 13 Q: What do you recommend in this proceeding?
- 14 A: I recommend:
- 15 1. The Commission deny issuance of a federally mandated CPCN for ash 16 pond closure costs incurred from 2015 through 2018, as Duke failed to 17 seek approval of these costs prior to incurring them and has not met the 18 requirements under Ind. Code 8-1-8.4. Moreover, the OUCC is 19 concerned that granting such recovery would constitute retroactive 20 ratemaking.
- 21
  2. In the alternative, if the Commission decides to issue a federally
  22 mandated CPCN for past ash pond closure costs mentioned in the

1	previous recommendation, the OUCC recommends the following cost
2	recovery methods to mitigate the impact of these costs on the ratepayer:
3	a. The federally mandated costs be approved for \$117.304 million
4	(the retail portion of the total company amount of \$127.796
5	million) to remove \$73.931 million (the retail portion of the total
6	company amount of \$80.544 million) of IDEM-related
7	remediation costs.
8	b. Adoption of Mr. Kollen's levelized-cost methodology for
9	recovering these costs.
10	c. Any cost recovery methodology approved should require DEI to
11	offset the overall closure costs with the proceeds of any
12	insurance settlements DEI receives for ash pond remediation and
13	ash pond demolition costs previously recovered via
14	depreciation. DEI should clearly show how it calculated ash
15	pond closure costs recovered through previous rates.
16	3. The Commission should deny issuance of a federally mandated CPCN
17	under I.C. § 8-1-8.4-7(b) for estimated future ash pond closure costs
18	(incurred 2019-2027) at this time, as Duke has failed to meet the
19	requirements necessary for the Commission to make a determination in
20	this case. These costs should be evaluated in a separate proceeding after
21	DEI receives approval for its closure plans from IDEM and has more
22	firm cost estimates of the work required under the closure plans.

1	4. Should the Commission issue a federally mandated CPCN for future ash
2	pond closure costs (incurred 2019-2027) under I.C. § 8-1-8.4-7(b), the
3	OUCC recommends similar alternative recovery methods presented in
4	Recommendation No. 2 above to mitigate impacts on ratepayers,
5	including:
6	a. Approving the federally mandated costs for \$443 million and
7	excluding \$60 million associated with IDEM-related CCR
8	remediation activities.
9	b. Adopting Mr. Kollen's levelized-cost methodology for
10	recovering these costs through a regulatory asset, to be included
11	in DEI's next rate case.
12	c. Requiring DEI as part of any cost recovery methodology
13	approval to offset the overall closure costs with the proceeds of
14	any insurance settlements DEI receives for ash pond remediation
15	and ash pond demolition costs previously recovered via
16	depreciation. DEI should clearly show how it calculated ash
17	pond closure costs recovered through previous rates.
18	5. The Commission should deny issuance of a CPCN for both past and
19	future ash pond closure costs related to Agreed Orders DEI entered into
20	with IDEM. These costs should not be recovered from ratepayers as
21	they stem from past DEI management decisions, and constitute a
22	penalty from not complying with previous Indiana waste management
23	rules to prevent pollution hazards. The total estimated amount of these

- 1costs is \$140.544 million, \$129.005 million of which is the retail2portion.
- 3 6. The Commission should deny cost recovery for study costs associated
  4 316(a) and 316(b) Rules compliance, as Duke failed to seek approval of
  5 these costs prior to incurring them and has not met the requirements
  6 under I.C. ch. 8-1-8.4.
- 7 7. The Commission approve the regulatory asset DEI proposes to remove
  8 native SO<sub>2</sub> EA inventory costs, and adopt Mr. Kollen's levelized-cost
  9 methodology to recover the proposed regulatory asset.
- 10 8. The Commission deny DEI's continued tracking of EAs via the ECR. 11 With the creation of a regulatory asset for inventory costs related to SO<sub>2</sub> 12 allowances, there is no need to track EA costs. These costs have 13 remained stable over the past few years. Additionally, retiring several 14 of DEI's generating units, coupled with installation of pollution controls 15 on existing units, decreases DEI's need to purchase allowances. 16 However, any proceeds from the sale of EAs should be credited through 17 the ECR.
- 18 **Q:** Does this conclude your testimony?
- 19 A: Yes.

### APPENDIX A

1	Q:	Summarize your professional background and experience.
2	A:	I graduated from the University of Evansville in 2004 with a Bachelor of Science
3		degree in Environmental Administration. I graduated from Indiana University,
4		Bloomington in May 2007 with a Master of Public Affairs degree and a Master of
5		Science degree in Environmental Science. I have also completed internships with
6		the Environmental Affairs Department at Vectren in the spring of 2004, with the
7		U.S. Environmental Protection Agency in the summer of 2005, and with the U.S.
8		Department of the Interior in the summer of 2006. During my final year at Indiana
9		University, I served as a research and teaching assistant for a Capstone course
10		offered at the School of Public and Environmental Affairs. I also have obtained my
11		OSHA Hazardous Operations and Emergency Response ("HAZWOPER")
12		Certification. I have been employed by the OUCC since May 2007. As part of my
13		continuing education at the OUCC, I have attended both weeks of the National
14		Association of Regulatory Utility Commissioners' ("NARUC") seminar in East
15		Lansing, Michigan, completed annual 8-hour OSHA HAZWOPER refresher
16		courses to maintain my certification, and attended the Indiana Chamber of
17		Commerce's Environmental Permitting and Environmental Management
18		Conferences.

19 Q: Describe some of your duties at the OUCC.

A: I review and analyze utilities' requests and file recommendations on behalf of
consumers in utility proceedings. Depending on the case at hand, my duties may
also include analyzing state and federal regulations, evaluating rate design and

4	Q:	Have you previously provided testimony to the Commission?
3		many cases where environmental compliance is an issue.
2		studies. Since my expertise lies in environmental science and policy, I assist in
1		tariffs, examining books and records, inspecting facilities, and preparing various

5 A: Yes.

Cause No. 45253 OUCC Attachment CMA-1 Page 1 of 1

IG IURC Cause No. 45253 Data Request Set No. 13 Received: August 21, 2019

IG 13.3

#### **Request:**

Does Duke's request for a CPCN under Ind. Code ch. 8-1-8.4 include a request to have the \$443M approved as "federally mandated costs"? Are there additional amounts that Duke is seeking IURC approval as "federally mandated costs" in this proceeding? Please identify such amounts. Further, please identify any prior costs that have been approved as "federally mandated costs" that Duke will seek to recover pursuant to Ind. Code ch. 8-1-8.4.?

#### **Response:**

Yes. The Company is also requesting approval of the future financing costs associated with the retail portion of the \$443M estimated CCR costs referenced, but the financing costs have not been quantified. In addition, the Company is requesting approval of the approximately \$128M of Total CCR Costs which were incurred through December 2018 which are shown on Petitioner's Exhibit 21-E (TJT) and the actual and projected financing costs on these expenditures through the implementation of new base rates, projected to be approximately \$25M.

Witness: Diana L. Douglas

Cause No. 45253 OUCC Attachment CMA-2 Page 1 of 37



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT We Protect Hoosiers and Our Environment.

100 N. Senate Avenue · Indianapolis, IN 46204

Michael R. Pence Governor

(800) 451-6027 · (317) 232-8603 · www.idem.iN.gov

Thomas W. Easterly Commissioner

STATE OF INDIANA

BEFORE THE INDIANA DEPARTMENT OF ) SS: ENVIRONMENTAL MANAGEMENT

COUNTY OF VIGO

COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT,

)

Complainant,

٧.

DUKE ENERGY INDIANA, INC .-- LEGACY DRESSER STATION.

Case No. 2015-23005-W Case No. 2015-23009-S

Respondent.

#### AGREED ORDER

Complainant and Respondent desire to settle and compromise this action without hearing or adjudication of any issue of fact or law, and consent to the entry of the following Findings of Fact and Order. Pursuant to Indiana Code (IC) 13-30-3-3, entry into the terms of this Agreed Order does not constitute an admission of any violation contained herein. Respondent's entry into this Agreed Order shall not constitute a waiver of any defense, legal or equitable, which Respondent may have in any future administrative or judicial proceeding, except a proceeding to enforce this order.

# I. FINDINGS OF FACT

- Complainant is the Commissioner (Complainant) of the Indiana Department of 1. Environmental Management (IDEM), a department of the State of Indiana created by IC 13-13-1-1.
- 2. Respondent is Duke Energy Indiana, Inc. (Respondent) which owns the property where the former Dresser Generating Station used to be located at approximately 5100 Darwin Road in West Terre Haute, Vigo County, Indiana ("Legacy Dresser Station" or "Site").
- Respondent has self-reported violations of Indiana's environmental statutes and 3. regulations.

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 2

- IDEM has jurisdiction over the parties and the subject matter of this action pursuant to IC 13-30-3.
- 5. Respondent waives issuance of a Notice of Violation and of the settlement period of sixty (60) days as provided for by IC 13-30-3-3.

6. Dresser Station operated from approximately the 1920s to 1975. It was decommissioned and demolished in approximately 1976.

7. At various times while the Dresser Station operated, bottom ash and cinders from the Station were deposited in several piles (the "Waste Area") located on approximately 20 to 30 acres on the north side of the Site as indicated on the attached map. In the 1990s an existing pond was dredged and the dredged material was also deposited in the Waste Area. Other materials have also been placed in the Waste Area.

- 8. The Waste Area also consists of a substantial amount of mine spoils, as the Station was located next to the Dresser Mine which operated from 1925-1954.
- 9. Pursuant to IC 13-30-2-1(3), no person shall deposit any contaminants upon the land in a place and manner which creates or would create a pollution hazard that violates or would violate 329 IAC 10-4-2 and 329 IAC 10-4-3.

Respondent caused and/or allowed some contaminants, including, but not limited to, used parts, old equipment, coal ash pile remnants, ash, and cinders, mine spoils and other materials to be deposited upon the land in a place and manner which creates or would create a pollution hazard that violates or would violate 329 IAC 10-4-2 and 329 IAC 10-4-3.

10. Pursuant to IC 13-30-2-1(4), no person shall deposit or cause or allow the deposit of any contaminants or solid waste upon the land, except through the use of sanitary landfills, incineration, composting, garbage grinding, or another method acceptable to the board.

Respondent deposited or caused and/or allowed the deposit into the Waste Area of some contaminants and/or solid waste, including, but not limited to, used parts, old equipment, coal pile remnants, ash, cinders, dredged materials, mine spoils, and other materials in a method which has been determined by the board to be unacceptable

11. Pursuant to IC 13-30-2-1(5), no person shall dump or cause or allow the open dumping of garbage or any other solid waste in violation of 329 IAC 10-4-2 and 329 IAC 10-4-3.

Respondent dumped or caused and/or allowed the open dumping of some solid waste, including, but not limited to, used parts, old equipment, coal pile remnants,

Cause No. 45253 OUCC Attachment CMA-2 Page 3 of 37

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 3

> ash, cinders, dredged materials, mine spoils and other materials in the Waste Area, an area located on approximately 30 acres on the north side of the Site.

12. Pursuant to 329 IAC 10-4-2, no person shall cause or allow the storage, containment, processing, or disposal of solid waste in a manner which creates a threat to human health or the environment, including the creating of a fire hazard, vector attraction, air or water pollution, or other contamination.

Respondent caused and/or allowed some solid waste, including, but not limited to, used parts, old equipment, coal pile remnants, ash, cinders, dredged materials, mine spoils and other materials to be disposed in the Waste Area.

13. Pursuant to 329 IAC 10-4-3, open dumping and open dumps, as those terms are defined in IC 13-11-2-146 and IC 13-11-2-147, are prohibited.

Respondent caused and/or allowed some solid waste, including, but not limited to, used parts, old equipment, coal pile remnants, ash, cinders, dredged materials, mine spoils and other materials to be open dumped at the Site.

- 14. Respondent's inspection revealed that there are approximately 8 subsurface conveyance pipes at the Site that appear to have the capability to discharge directly or indirectly to the Wabash River.
- 15. Respondent observed that certain of these pipes have some intermittent, low flow.
- 16. One pipe, an approximately 72" diameter reinforced concrete pipe ("RCP"), provides area drainage, including drainage for off-site areas (e.g., the west side of Darwin Road). Preliminary investigation of this pipe indicated that there is some infiltration of the pipe from stormwater that may be interacting with the historic ash or mine spoils in the Waste Area.
- 17. Another pipe, an approximately 24" diameter corrugated metal pipe, is associated with stormwater discharge for the substation that is currently located on a portion of the Site.
- 18. Respondent has observed that there are also a small number of seeps along the Wabash River at the Site.
- 19. Respondent conducted water quality sampling for certain pipes that had discharge and one river bank seep.
- 20. Respondent's sampling results reported elevated levels for aluminum; beryllium; boron; cadmium; cobalt; copper; magnesium; nickel; and TDS. Additionally, the sample from an 18-inch diameter RCP indicated high total acidity (196 mg/L) and low pH (3.1 s.u.).

Cause No. 45253 OUCC Attachment CMA-2 Page 4 of 37

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy -- Legacy Dresser Station West Terre Haute, Vigo County Page 4

21. Pursuant to 327 IAC 5-2-2, any discharge of pollutants into waters of the state as a point source discharge is prohibited unless in conformity with a valid NPDES permit obtained prior to the discharge.

Respondent's water quality sampling indicates an on-going unpermitted pollutant discharge into waters of the state, in violation of 327 IAC 5-2-2.

22. In recognition of the settlement reached, Duke Energy waives any right to administrative and judicial review of this Agreed Order.

#### II. ORDER

- 1. This Agreed Order shall be effective (Effective Date) when it is adopted by Complainant or Complainant's delegate (as evidenced by signature), and the adopted Agreed Order has been received by Respondent. This Agreed Order shall have no force or effect until the Effective Date.
- 2. Within 90 days of the Effective Date, Respondent shall develop and submit to IDEM for approval a Compliance Plan (CP) which identifies actions that Respondent will take to either eliminate discharges from the Site and/or obtain an NPDES permit. The CP shall also include any actions necessary to identify and address any effects of the discharge of pollutants from the pipes. The CP shall also include actions that will be taken to address the solid waste disposed in the Waste Area. The actions for the Waste Area shall include:
  - 1. Capping in place;
  - 2. Removing or relocating some or all of the material;
  - 3. Addressing specific areas of ash that may be impacted by high river levels:
  - 4. In situ monitoring;
  - 5. Other actions determined by IDEM to be necessary to address a threat to human health or the environment; and/or
  - 6. Combinations of these options.

The CP shall also include a site investigation plan, time frames for implementation of that plan, and a report of the data and results obtained.

The CP shall include an implementation and completion schedule, including specific milestone dates.

Cause No. 45253 OUCC Attachment CMA-2 Page 5 of 37

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 5

- 3. In the event that sampling results indicate the presence of contaminants which may present a threat or a potential threat to human health or the environment, pursuant to 329 IAC 10-4-4(b), Respondent must address remediation options under IC 13-25-4 in its CP that require the owner of real estate upon which an open dump is located to perform remedial action, including the installation and monitoring of groundwater monitoring wells or other devices.
- 4. In the event that Respondent determines a milestone date in the CP cannot be achieved, Respondent shall within 60 days develop and submit to IDEM, for approval, an Additional Action Plan which identifies the additional actions that Respondent will take to achieve and maintain compliance. The Additional Action Plan, if required, shall include an implementation and completion schedule, including specific milestone dates.
- 5. The plans required by Paragraphs 2 through 4 above are subject to IDEM approval. In the event IDEM determines that any plan submitted by Respondent is deficient or otherwise unacceptable, Respondent shall revise and resubmit the plan to IDEM in accordance with IDEM's notice. After three submissions of such plan by Respondent, IDEM may seek civil enforcement of this order.
- 6. Respondent, upon receipt of written notification from IDEM, shall immediately implement the approved plan and adhere to the milestone dates therein. The approved CP and Additional Action Plan shall be incorporated into the Agreed Order and shall be deemed an enforceable part thereof. Failure by Respondent to submit any plan by the specified date, or to meet any of the milestones in the approved plan will subject Respondent to stipulated penalties as described below. Failure to achieve compliance at the conclusion of work under an Additional Action Plan will subject Respondent to additional enforcement action.
- 7. Respondent shall submit to IDEM a quarterly progress report detailing activity toward completion of each milestone included in the CP or Additional Action Plan.
- 8. Respondent is assessed and agrees to pay a civil penalty of Eleven Thousand Two Hundred Fifty Dollars (\$11,250) for Case No. 2015-23005-W and Twenty Two Thousand Five Hundred Dollars (\$22,500) for Case No. 2015-23009-S. Said penalty amount shall be due and payable to the Environmental Management Special Fund within 30 days of the Effective Date; the 30<sup>th</sup> day being a "Due Date."

In the event the terms and conditions of the following paragraphs are violated, IDEM may assess and Respondent shall pay the corresponding stipulated penalty:

Order Paragraph Number	Violation	Penalty Amount
2,5	Failure to submit or modify the CP, as required, within the given time period.	\$250 per each week late

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 6

4,5	Failure to submit or modify the Additional Action Plan, if required, within the given time period.	\$250 per each week late
6	Failure to meet any milestone date set forth in the approved CP.	\$500 per each week late
7	Failure to submit quarterly progress reports	\$250 per each week late

- Stipulated penalties shall be due and payable no later than the 30<sup>th</sup> day after 9. Respondent receives written notice that IDEM has determined a stipulated penalty is due, the 30<sup>th</sup> day being a "Due Date." IDEM may notify Respondent at any time that a stipulated penalty is due. Failure to notify Respondent in writing in a timely manner of a stipulated penalty assessment shall not waive IDEM's right to collect such stipulated penalty or preclude IDEM from seeking additional relief against Respondent for violation of this Agreed Order. Neither assessment nor payment of stipulated penalties shall-preclude IDEM from seeking additional relief against Respondent for a violation of this Agreed Order. Such additional relief includes any remedies or sanctions available pursuant to Indiana law, including, but not limited to, civil penalties pursuant to IC 13-30-4.
- Force majeure, for purposes of this Agreed Order, is defined as any event arising 10. from causes totally beyond the control and without fault of Respondent that delays or prevents the performance of any obligation under this Agreed Order despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (1) as it is occurring; and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include: (1) changed business or economic conditions; (2) financial inability to complete the work required by this Agreed Order; or (3) increases in costs to perform the work.

Respondent shall notify IDEM by calling the case manager within three (3) calendar days and by writing no later than seven (7) calendar days after it has knowledge of any event which Respondent contends is a force majeure. Such notification shall describe: (1) the anticipated length of the delay; (2) the cause or causes of the delay; (3) the measures taken or to be taken by Respondent to minimize the delay; and (4) the timetable by which these measures will be implemented. Respondent shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. Respondent

Cause No. 45253 OUCC Attachment CMA-2 Page 7 of 37

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 7

shall have the burden of demonstrating that the event is a force majeure. The decision of whether an event is a force majeure shall be made by IDEM.

If a delay is attributable to a force majeure, IDEM shall extend, in writing, the time period for performance under this Agreed Order, by the amount of time that is directly attributable to the event constituting the force majeure.

11. All submittals and notices required by this Agreed Order shall be sent to the following:

As to Duke Energy:

Julie L. Ezell, Esq. Duke Energy Legal Department 1000 East Main Street Plainfield IN 46168 (317) 838-1100 Julie.ezell@duke-energy.com

As to IDEM;

Edward C. Judson, Enforcement Case Manager Office of Water Quality – IGCN 1255 Indiana Department of Environmental Management 100 North Senate Avenue Indianapolis, IN 46204-2251

- 12. This Agreed Order shall apply to and be binding upon Respondent and its successors and assigns. Respondent's signatories to this Agreed Order certify that they are fully authorized to execute this Agreed Order and legally bind the party they represent. No change in ownership, corporate, or partnership status of Respondent shall in any way alter its status or responsibilities under this Agreed Order.
- 13. In the event that the monies due to IDEM pursuant to this Agreed Order are not paid on or before their Due Date, Respondent shall pay interest on the unpaid balance and any accrued interest at the rate established by IC 24-4.6-1. The interest shall be computed as having accrued from the Due Date until the date that Respondent pays any unpaid balance. The interest shall continue to accrue on the first of each month until the civil penalty and any interest accrued are paid in full. Such interest shall be payable to the Environmental Management Special Fund, and shall be payable to IDEM in the manner specified above.
- 14. In the event that any term of this Agreed Order is found to be invalid, the remaining terms shall remain in full force and effect and shall be construed and enforced as if this Agreed Order did not contain the invalid terms.

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 8

- 15. Respondent shall provide a copy of this Agreed Order, if in force, to any subsequent owners or successors before ownership rights are transferred. Respondent shall ensure that all contractors, firms and other persons performing work under this Agreed Order comply with the terms of this Agreed Order.
- 16. This Agreed Order is not and shall not be interpreted to be a permit or a modification of an existing permit. This Agreed Order, and IDEM's review or approval of any submittal made by Respondent pursuant to this Agreed Order, shall not in any way relieve Respondent of its obligation to comply with the requirements of its applicable permit or any applicable Federal or State law or regulation.
- 17. Complainant does not, by its approval of this Agreed Order, warrant or aver in any manner that Respondent's compliance with any aspect of this Agreed Order will result in compliance with the provisions of any permit, order, or any applicable Federal or State law or regulation. Additionally, IDEM or anyone acting on its behalf shall not be held liable for any costs or penalties Respondent may incur as a result of Respondent's efforts to comply with this Agreed Order.
- 18. Nothing in this Agreed Order shall prevent or limit IDEM's rights to obtain penalties or injunctive relief under any applicable Federal or State law or regulation, except that IDEM may not, and hereby waives its right to, seek additional civil penalties for the same violations specified in this Order.
- 19. Nothing in this Agreed Order shall prevent IDEM, or anyone acting on its behalf, from communicating with the United States Environmental Protection Agency (EPA) or any other agency or entity about any matters relating to this enforcement action. IDEM, or anyone acting on its behalf, shall not be held liable for any costs or penalties Respondent may incur as a result of such communications with EPA or any other agency or entity.
- 20. This Agreed Order shall remain in effect until Respondent has complied with all terms and conditions of this Agreed Order and IDEM issues a Resolution of Case (close out) letter to Respondent.

Cause No. 45253 OUCC Attachment CMA-2 Page 9 of 37

Agreed Order: Case No. 2015-23005-W Agreed Order: Case No. 2015-23009-S Duke Energy – Legacy Dresser Station West Terre Haute, Vigo County Page 9

TECHNICAL RECOMMENDATION: Department of Environmental Management

By:

Mary E. Hooved Chief Enforcement Section Surface Water, Operations and Enforcement Branch Office of Water Quality

Date: May 13, 2015

RESPONDENT:
By: Dezas Flam
Printed: Douglas FEsamann
Title: President
Date: May 13, 2015
COUNSEL FOR RESPONDENT:
By: Julu All
Date: May 13, 2015

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT THIS 13<sup>th</sup> DAY OF Many \_\_\_\_\_, 2015

For the Commissioner: Bruno Pigott Assistant Commissioner Office of Water Quality

10653784.1

#### Cause No. 45253 OUCC Attachment CMA-2 Page 10 of 37

#### Cause No. 45253 OUCC Attachment CMA-2



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMEANI of 37

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Eric J. Holcomb Governor

September 5, 2018

Bruno L. Pigott Commissioner

## VIA CERTIFIED MAIL # 1Z 198 24W A8 9897 0672

Julie L. Ezell, Esq. Duke Energy Legal Department 1000 East Main Street Plainfield, IN 46168

Dear Ms. Ezell:

Re: Adoption of Agreed Order Commissioner, Indiana Department of Environmental Management v. Duke Energy Indiana, LLC, Legacy Edwardsport Station Case No. 2018-25311-S

This is to inform you that the Agreed Order in the above-referenced case has been approved and adopted by the Indiana Department of Environmental Management. A copy of the Agreed Order is enclosed.

Please note the terms of compliance contained in the Agreed Order. The time frames for compliance are effective upon your receipt of this correspondence. Thank you for your cooperation in resolving this matter. If you have any questions, please contact Debbie O'Brien at 317/234-0162 or dobrien@idem.in.gov.

Sincerely,

we ,

Bruce Kizer, Branch Chief Compliance Branch Office of Land Quality

Enclosure

cc: OLQ Public File Knox County Health Department Rebecca Warren, Duke-Energy



Cause No. 45253 OUCC Attachment CMA-2 Page 12 of 37

Stephen Thill, OLC Alan Minne, OLQ Nicole Jeffers, OLQ Leo Kurylo, OLQ

STATE OF INDIANA	)	SS:	BEFORE T	HE INDIANA DEPARTMEN	IT OF
COUNTY OF MARION	)		ENVIRON	MENTAL MANAGEMENT	×.
COMMISSIONER OF THE OF ENVIRONMENTAL M Comp		EMEN'	S		
ν.			)	Case No. 2018-25311-S	
DUKE ENERGY INDIANA LEGACY EDWARDSPOR			)		
Respo	ondent.		5		

#### AGREED ORDER

Complainant and Respondent desire to settle and compromise this action without hearing or adjudication of any issue of fact or law, and consent to the entry of the following Findings of Fact and Order. Pursuant to IC 13-30-3-3, entry into the terms of this Agreed Order does not constitute an admission of any violation contained herein. Respondent's entry into this Agreed Order shall not constitute a waiver of any defense, legal or equitable, which Respondent may have in any future administrative or judicial proceeding, except a proceeding to enforce this order.

#### I. FINDINGS OF FACT

- 1. Complainant is the Commissioner ("Complainant") of the Indiana Department of Environmental Management ("IDEM"), a department of the State of Indiana created by Indiana Code ("IC") 13-13-1-1.
- Respondent is Duke Energy Indiana, LLC which owns and operated the property where the Legacy Edwardsport Station is located at 15424 IN 358, Edwardsport, IN ("Legacy Site").
- 3. IDEM has jurisdiction over the parties and the subject matter of this action.
- 4. Respondent waives issuance of a Notice of Violation and the settlement period of sixty (60) days as provided for by Indiana Code IC 13-30-3-3.
- 5. Respondent's original Edwardsport Generating Station (Legacy Station) started operations as a coal-fired power plant in 1918. The station was retired in 2011 and demolished in 2012. Prior to 1974, the Legacy Station deposited bottom ash in at least three areas with a possible fourth on the west and southwest sides of where the current

substation is located (northeast side of property). These ash disposal areas are collectively referred to as "Historic Ash Placement Areas."

6. In the early 1970s, the Legacy Station began wet sluicing bottom and fly ash to the ash pond on-site. At certain times when the ash pond was dredged, the material was also deposited in a Historic Ash Placement Area on the northeast side of the property. After the Legacy Station was out of service, the ash from the ash ponds was removed and disposed of at the Duke Energy Gibson Station. Over time, the Historic Ash Placement Areas periodically received some soil cover, however some of the disposed ash was exposed for some periods of time.

7. In 2015, based upon the results of an internal environmental audit, Respondent voluntarily and proactively notified IDEM of the existence of the Historic Ash Placement Areas at the Legacy Site.

8. Based on Respondent's disclosures and an investigation including an inspection conducted by representatives of IDEM on May 2, 2018, the following violations were found:

a. Pursuant to IC 13-30-2-1(3), no person shall deposit any contaminants upon the land in a place and manner which creates or would create a pollution hazard that violates 329 IAC 10-4-2 and 329 IAC 10-4-3.

Respondent has caused and/or allowed coal combustion waste to be deposited upon the Legacy Site in a place and manner which creates or would create a pollution hazard that violates or would violate 329 IAC 10-4-2 and 329 IAC 10-4-3. In addition, during the May 2, 2018 inspection, some areas of the Historic Ash Placement Areas lacked vegetative cover, had erosion channels, exposed coal combustion waste, and natural woody growth.

b. Pursuant to IC 13-30-2-1(4), no person shall deposit or cause or allow the deposit of any contaminants or solid waste upon the land, except through the use of sanitary landfills, incineration, composting, garbage grinding, or another method acceptable to the board.

Respondent has deposited or caused and/or allowed the deposit of coal combustion waste on the Historic Ash Placement Areas of the Legacy Site in a method which has not been deemed acceptable to the board. In addition, during the May 2, 2018 inspection, some areas of the Historic Ash Placement Areas lacked vegetative cover, had erosion channels, exposed coal combustion waste, and natural woody growth.

c. Pursuant to 329 IAC 10-4-3, open dumping and open dumps, as those terms are defined in IC 13-11-2-146 and IC 13-11-2-147, are prohibited.

Respondent has caused and/or allowed coal combustion waste to be open dumped at the Historic Ash Placement Areas of the Legacy Site. In addition, during the

May 2, 2018 inspection, some areas of the Historic Ash Placement Areas lacked vegetative cover, had erosion channels, exposed coal combustion waste, and natural woody growth.

- d. Pursuant to 329 IAC 10-4-4(a), the owner of real estate upon which an open dump is located is responsible for the following:
  - Correcting and controlling any nuisance conditions that occur as a result of the open dump, Correction and control of nuisance conditions must include:
    - (A) removal of all solid waste from the area of the open dump and disposal of such wastes in a solid waste land disposal facility permitted to accept the waste; or
    - (B) other methods as approved by the commissioner.
  - (2) Eliminating any threat to human health or the environment.

Respondent has caused and/or allowed coal combustion waste to be open dumped at the Historic Ash Placement Areas of the Legacy Site and has failed to comply with the requirements of 329 IAC 10-4-4(a)(1) and (2). In addition, during the May 2, 2018 inspection, some areas of the Historic Ash Placement Areas lacked vegetative cover, had erosion channels, exposed coal combustion waste, and natural woody growth.

- 9. Respondent is currently evaluating long term actions to: (a) further investigate and monitor the Legacy Site; (b) inhibit off-site movement of contaminants, if any, from the Historic Ash Placement Areas; (c) conduct closure of the Historic Ash Placement Areas; and (d) appropriately address off-site impacts to groundwater water, if any, from the Historic Ash Placement Areas.
- 10. In recognition of the settlement reached, Respondent waives any right to administrative and judicial review of this Agreed Order.

#### II. ORDER

- 1. This Agreed Order shall be effective ("Effective Date") when it is approved by Complainant or Complainant's delegate, and has been received by Respondent. This Agreed Order shall have no force or effect until the Effective Date.
- 2. Within ninety (90) days of the Effective Date, Respondent shall develop and submit to IDEM for review and approval a Compliance Plan ("CP") which identifies actions that Respondent will take to: (a) further investigate and monitor the Legacy Site; and (b) inhibit off-site movement of contaminants, if any, from the Historic Ash Placement Areas. The CP shall include an implementation and completion schedule, including specific milestone dates.

- 3. In the event that Respondent determines a milestone date in the CP cannot be achieved, Respondent shall within sixty (60) days of making that determination, develop and submit to IDEM, for approval, an Additional Action Plan which identifies the additional actions that Respondent will take to achieve and maintain compliance. The Additional Action Plan, if required, shall include an implementation and completion schedule, including specific milestone dates
- 4. Respondent, upon receipt of written notification from IDEM, shall immediately implement the approved CP and adhere to the milestone dates therein. The approved CP and Additional Action Plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof
- 5. Respondent shall within ninety (90) days following receipt of IDEM's written notification of approval of the CP and every ninety (90) days thereafter until completion, submit to IDEM a quarterly progress report detailing activity toward completion of each milestone included in the CP or Additional Action Plan.
- 6. Within one (1) year of the Effective Date, Respondent shall submit three (3) hard copies and one (1) complete copy of the entire document on CD, in PDF format no greater than 100 megabytes per file, of a closure/post closure plan for the Historic Ash Placement Areas at the Legacy Site to IDEM for review and approval. This closure/post closure plan shall be in accordance with the provisions of 329 IAC 10-30 and 10-31 for Restricted Waste Sites Type I, unless IDEM approves otherwise in writing.

The closure/post closure plan shall include an implementation and completion schedule, including specific milestone dates.

- 7. Respondent, upon receipt of written notification from IDEM, shall immediately implement the approved closure/post closure plan and adhere to the milestone dates therein. The approved closure/post closure plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof
- 8. In the event IDEM determines that any plan submitted by Respondent is deficient or otherwise unacceptable, Respondent shall revise and resubmit the plan to IDEM in accordance with IDEM's notice. After three (3) submissions of such plan by Respondent, IDEM may modify and approve any such plan and Respondent must implement the plan as modified by IDEM. The approved plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof
- 9. The closure/post closure plan shall include an implementation and completion schedule, including specific milestone dates. The closure/post closure plan shall include a proposal for financial assurance for closure and post closure care of the Historic Ash Placement Areas at the Legacy Site in accordance with 329 IAC 10-39. Within thirty (30) days after IDEM approves the closure/post closure plan, Respondent shall demonstrate to IDEM financial assurance for closure and post closure care of the Historic Ash Placement Areas at the Legacy Site is in effect in accordance with 329 IAC 10-39.

10. All submittals required by this Agreed Order, unless Respondent is notified otherwise in writing by IDEM, shall be sent to:

Debbie O'Brien, Enforcement Case Manager Office of Land Quality Indiana Department of Environmental Management 100 North Senate Avenue Indianapolis, IN 46204-2251

As to Respondent:

Julie L. Ezell, Esq. Duke Energy Legal Department 1000 East Main Street Plainfield, IN 46168 (317) 838-1100 Julie.Ezell@duke-energy.com

- 11. Respondent is assessed and agrees to pay a civil penalty of seventeen thousand five hundred dollars (\$17,500). Said penalty amount shall be due and payable to the Environmental Management Special Fund within thirty (30) days of the Effective Date; the 30th day being the "Due Date".
- 12. In the event the terms and conditions of the following paragraphs are violated, Complainant may assess and Respondent shall pay a stipulated penalty in the following amount:

Order Paragraph Number	Violation	Penalty Amount
2	Failure to submit or modify the CP, as required, within the given time period	\$250 per each week late
3	Failure to submit or modify the Additional Action Plan, if required, within the given time period.	\$250 per each week late
4	Failure to meet any milestone date set forth in the approved CP or Additional Action Plan.	\$500 per each week late
5	Failure to submit quarterly progress reports. First one being due ninety (90) days from the Effective Date.	\$250 per each week late
6	Failure to submit closure/post closure plan, within given time period.	\$250 per each week late
7	Failure to implement the approved closure/post closure plan, and/or meet	\$250 per each week late

	any milestone date set forth therein	
9	Failure to demonstrate financial assurance for closure/post closure.	\$250 per each week late

- 13. Stipulated penalties shall be due and payable no later than the 30th day after Respondent receives written notice that Complainant has determined a stipulated penalty is due; the 30th day being the "Due Date". Complainant may notify Respondent at any time that a stipulated penalty is due. Failure to notify Respondent in writing in a timely manner of stipulated penalty assessment shall not waive Complainant's right to collect such stipulated penalty or preclude Complainant from seeking additional relief against Respondent for violation of this Agreed Order. Neither assessment nor payment of stipulated penalties shall preclude Complainant from seeking additional relief against Respondent for a violation of this Agreed Order; such additional relief includes any remedies or sanctions available pursuant to Indiana law, including, but not limited to, civil penalties pursuant to IC 13-30-4.
- 14. Civil and stipulated penalties are payable by check to the "Environmental Management Special Fund." Checks shall include the Case Number of this action and shall be mailed to:

Indiana Department of Environmental Management Office of Legal Counsel IGCN, Room N1307 100 North Senate Avenue Indianapolis, IN 46204-2251

- 15. In the event that the monies due to IDEM pursuant to this Agreed Order are not paid on or before their Due Date, Respondent shall pay interest on the unpaid balance at the rate established by IC 24-4.6-1. The interest shall be computed as having accrued from the Due Date until the date that Respondent pays any unpaid balance. Such interest shall be payable to the Environmental Management Special Fund, and shall be payable to IDEM in the manner specified in Paragraph 14, above.
- 16. Force majeure, for purposes of this Agreed Order, is defined as any event arising from causes totally beyond the control and without fault of Respondent that delays or prevents the performance of any obligation under this Agreed Order despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (1) as it is occurring; and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include: (1) changed business or economic conditions; (2) financial inability to complete the work required by this Agreed Order; or (3) increases in costs to perform the work.

Respondent shall notify IDEM by calling the case manager within three (3) calendar days and by writing no later than seven (7) calendar days after it has knowledge of any event which Respondent contends is a force majeure. Such notification shall describe: (1) the anticipated length of the delay; (2) the cause or causes of the delay; (3) the measures taken or to be taken by Respondent to minimize the delay; and (4) the timetable by which these measures will be implemented. Respondent shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. Respondent shall have the burden of demonstrating that the event is a force majeure. The decision of whether an event is a force majeure shall be made by 1DEM.

If a delay is attributable to a force majeure, IDEM shall extend, in writing, the time period for performance under this Agreed Order, by the amount of time that is directly attributable to the event constituting the force majeure.

- 17. This Agreed Order shall apply to and be binding upon Respondent and its successors and assigns. Respondent's signatories to this Agreed Order certify that they are fully authorized to execute this Agreed Order and legally bind the party they represent. No change in ownership, corporate, or partnership status of Respondent shall in any way alter its status or responsibilities under this Agreed Order.
- 18. In the event that any terms of this Agreed Order are found to be invalid, the remaining terms shall remain in full force and effect and shall be construed and enforced as if this Agreed Order did not contain the invalid terms.
- 19. Respondent shall provide a copy of this Agreed Order, if in force, to any subsequent owners or successors before ownership rights are transferred. Respondent shall ensure that all contractors, firms and other persons performing work under this Agreed Order comply with the terms of this Agreed Order.
- 20. This Agreed Order is not and shall not be interpreted to be a permit or a modification of an existing permit. This Agreed Order, and IDEM's review or approval of any submittal made by Respondent pursuant to this Agreed Order, shall not in any way relieve Respondent of its obligation to comply with the requirements of its applicable permits or any applicable Federal or State law or regulation.
- 21. Complainant does not, by its approval of this Agreed Order, warrant or aver in any manner that Respondent's compliance with any aspect of this Agreed Order will result in compliance with the provisions of any permit, order, or any applicable Federal or State law or regulation. Additionally, IDEM or anyone acting on its behalf shall not be held liable for any costs or penalties Respondent may incur as a result of Respondent's efforts to comply with this Agreed Order.
- 22. Nothing in this Agreed Order shall prevent or limit IDEM's rights to obtain penalties or injunctive relief under any applicable Federal or State law or regulation, except that

IDEM may not, and hereby waives its right to, seek additional civil penalties for the same violations specified in this Agreed Order.

23. This Agreed Order shall remain in effect until Respondent has complied with all terms and conditions of this Agreed Order and IDEM issues a Resolution of Case letter to Respondent.

**Signature Page Follows** 

**TECHNICAL RECOMMENDATION:** Department of Environmental Management

**RESPONDENT:** Duke Energy Indiana, LLC, Legacy Edwardsport Station

By: n

Enforcement Section

By:

Nancy Johnston, Section Chiefinted: Title: Office of Land Quality

Melody Birmingham-Byrd

President, Duke Energy Indiana

8/28/18 Date:

Date:

8/7/18

COUNSEL FOR RESPONDENT:

By:

Date:

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL th September MANAGEMENT THIS DAY OF

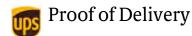
, 2018.

For the Commissioner:

Corey L. Webb

Peggy Dorsey, Assistant Commissioner Office of Land Quality

Dear Customer,



Close Window

This notice serves as proof of delivery for the shipment listed below.					
Tracking Number:	1Z19824WA898970672				
Reference Number(s):	1833, 1833 2018-25311-S				
Service:	UPS Ground				
Special Instructions:	Adult Signature Required				
Weight:	1.00 lb				
Shipped/Billed On:	09/05/2018				
Delivered On:	09/07/2018 11:12 A.M.				
Delivered To:	PLAINFIELD, IN, US				
Received By:	PATCHETT				
	Deate				
Left At:	Dock				

Thank you for giving us this opportunity to serve you. Sincerely,

UPS

Tracking results provided by UPS: 09/13/2018 2:06 P.M. ET

Page 1 of 2 Cause No. 45253 OUCC Attachment CMA-2 Page 23 of 37

1/2 ) Hurricane Florence Evacuations Impacting Areas of the East CoastMore (/us/en/service UPS Campus Ship)	$\otimes$	
QUICK START 🔻		

<u>Home (/us/en/Home.page?)</u> > <u>Tracking (/us/en/services/tracking.page?)</u> > Track & Tracking History

# Tracking

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Plainfield, IN, United States	09/07/2018				

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Cause No. 45253 OUCC Attachment CMA-2 Page 24 of 37

Indianapolis, IN, United States	09/07/2018	7:00 A.M.	Departure Scan
	09/07/2018	6:37 A.M.	Destination Scan
	09/07/2018	3:06 A.M.	Arrival Scan
	09/07/2018	2:28 A.M.	Departure Scan
Indianapolis, IN, United States	09/06/2018	7:57 P.M.	Origin Scan
	09/06/2018	3:44 P.M.	Pickup Scan
United States	09/05/2018	9:45 A.M.	Order Processed: Ready for UPS

Reference Number(s):	1833 1833 2018-25311-S	
Shipment Category:	Package	
Shipped/Billed On:	09/05/2018	
Weight:	1.00 lb	

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#### Legal

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Ask UPS



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMEEN 25 of 37

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204 (800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Bruno L. Pigott Commissioner

Eric J. Holcomb Governor

January 31, 2018

## **VIA CERTIFIED MAIL** # 1Z 198 24W A8 9374 0232

Julie L. Ezell, Esq. Duke Energy Legal Department 1000 East Main Street Plainfield, IN 46168

Dear Ms. Ezell:

Re: Adoption of Agreed Order Commissioner, Indiana Department of Environmental Management

v.

Duke Energy Indiana, LLC, Noblesville Station Case No. 2017-24922-S

This is to inform you that the Agreed Order in the above-referenced case has been approved and adopted by the Indiana Department of Environmental Management. A copy of the Agreed Order is enclosed.

Please note the terms of compliance contained in the Agreed Order. The time frames for compliance are effective upon your receipt of this correspondence. Thank you for your cooperation in resolving this matter. If you have any questions, please contact Debbie O'Brien at 317/234-0162 or dobrien@idem.in.gov.

Sincerely,

Bun Han

Bruce Kizer, Branch Chief Compliance Branch Office of Land Quality

Enclosure



Cause No. 45253
OUCC Attachment CMA-2
Page 26 of 37

IDEM	Indiana Dep	ARTMENT OF We Protect Hoo		IMENTAL MAN Environment,	AGEMENT			
ATTA ETT	to a second s	100 N. Senate Avenue • Indianapolis, IN 45204						
	(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov							
	Eric J. Holcomb Governor				Bruno L. Pigott Commissioner			
STATE O	F INDIANA	) SS:	BEFORE	THE INDIANA I	DEPARTMENT OF			
COUNTY	OF MARION	)	ENVIRON	MENTAL MAN	IAGEMENT			
	SIONER OF THE E RONMENTAL MA		) )					
		Complai	nant, )					
		V.	). ). ):	Case No. 2017	-24922-S			
	ERGY INDIANA, VILLE STATION	LLC,	)					
			)					
		Respon	dent. )					

#### AGREED ORDER

Complainant and Respondent desire to settle and compromise this action without hearing or adjudication of any issue of fact or law, and consent to the entry of the following Findings of Fact and Order. Pursuant to IC 13-30-3-3, entry into the terms of this Agreed Order does not constitute an admission of any violation contained herein. Respondent's entry into this Agreed Order shall not constitute a waiver of any defense, legal or equitable, which Respondent may have in any future administrative or judicial proceeding, except a proceeding to enforce this order.

#### I. FINDINGS OF FACT

- 1. Complainant is the Commissioner ("Complainant") of the Indiana Department of Environmental Management ("IDEM"), a department of the State of Indiana created by Indiana Code ("IC") 13-13-1-1.
- 2. Respondent is Duke Energy Indiana, LLC which owns and operates the property where the Noblesville Generating Station ("Noblesville Station") is located at 21225 Riverwood Ave., Noblesville, IN ("Site").
- 3. IDEM has jurisdiction over the parties and the subject matter of this action.
- 4. Respondent waives issuance of a Notice of Violation and the settlement period of sixty (60) days as provided for by Indiana Code IC 13-30-3-3.



- 5. Respondent's Noblesville Station has been owned or operated by Duke Energy or its predecessor companies from the 1950s to the present. Noblesville Station was coal-fired until its conversion to natural gas combined cycle operations in approximately 2003. Prior to that time, Noblesville Station managed its coal ash in various ways. Noblesville Station never wet-sluiced coal ash to any on-site impoundment.
- 6. From the 1950s until about 1989, fly ash (at various times) and bottom ash was regularly transported from Noblesville Station's dry ash handling silos to two (2) contiguous above-ground ash placement mounds on the northwest portion of the Site (collectively the "Northwest Ash Mound"). The Northwest Ash Mound Covers approximately 18 acres. (See Exhibit A attached hereto).
- 7. Small amounts of trash and other refuse were also placed on the Northwest Ash Mound (e.g., garbage, small pieces of equipment, appliances, and tires).
- 8. There is a second historic ash management mound (approximately four (4) acres in size) on the Site known as the "Eastern Hill." (See Exhibit A attached hereto). At various times until 1989, ash was placed at the Eastern Hill. There is no evidence that trash or refuse was ever placed at the Eastern Hill.
- 9. At the time Noblesville Station ceased placing ash at the Northwest Ash Mound and Eastern Hill (collectively the "Historic Ash Placement Areas"), some soil was placed over the ash (from a couple of inches up to two feet in some locations), grass was sown, and trees were planted. However, although there is some soil and vegetation over the ash, the Historic Ash Placement Areas did not receive "cover" as defined in the landfill permitting context.
- 10. In 2015, based upon the results of an internal environmental audit, Respondent voluntarily and proactively disclosed the existence of the Historic Ash Placement Areas at the Site. At that time, IDEM was informed that Respondent had no evidence to believe that the Historic Ash Placement Areas were causing any groundwater impacts of concern. Indeed, at that time the sampling of Noblesville Station's production well and drinking water well did not indicate any such impacts.
- 11. Subsequently, Respondent voluntarily installed numerous on-site monitoring wells in conjunction with Respondent's Site investigation activities. In addition, Respondent voluntarily offered to, and did, sample many private drinking water wells in the area near Noblesville Station.
- 12. The results from the on-site monitoring well and private drinking water sampling indicate the existence of elevated levels of boron at certain on-site and off-site locations above what would be expected as naturally occurring. The Historic Ash Placement Areas are likely the source of the elevated boron levels.

- 13. While additional investigation is ongoing and next steps are being evaluated, Respondent is paying for and providing bottled water to participating property owners (one of the property owners declined) that have boron levels in their drinking water near or above 2.0 mg/L. Because Indiana does not have a Maximum Contaminant Level for boron, this action level was chosen in consideration of USEPA's health advisory guidelines for boron.
- 14. Based on Respondent's disclosures and an investigation including an inspection conducted by representatives of IDEM on November 9, 2017, the following violations were found:
  - a. Pursuant to IC 13-30-2-1(3), no person shall deposit any contaminants upon the land in a place and manner which creates or would create a pollution hazard that violates 329 IAC 10-4-2 and 329 IAC 10-4-3.

Respondent has caused and/or allowed contaminants, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials to be deposited upon the land in a place and manner which creates or would create a pollution hazard that violates or would violate 329 IAC 10-4-2 and 329 IAC 10-4-3. In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

b. Pursuant to IC 13-30-2-1(4), no person shall deposit or cause or allow the deposit of any contaminants or solid waste upon the land, except through the use of sanitary landfills, incineration, composting, garbage grinding, or another method acceptable to the board.

Respondent has deposited or caused and/or allowed the deposit of contaminants and/or solid waste, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials on the Historic Ash Placement Areas of the Site in a method which has not been deemed acceptable to the board. In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

c. Pursuant to IC 13-30-2-1(5), no person shall dump or cause or allow the open dumping of garbage or any other solid waste in violation of 329 IAC 10-4-2 and 329 IAC 10-4-3.

Respondent has dumped or caused and/or allowed the open dumping of solid waste, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials on the Historic Ash Placement Areas of the Site. In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

d. Pursuant to 329 IAC 10-4-2, no person shall cause or allow the storage, containment, processing, or disposal of solid waste in a manner which creates a threat to human health or the environment, including the creating of a fire hazard, vector attraction, air or water pollution, or other contamination.

Respondent has caused and/or allowed solid waste, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials to be disposed in the Historic Ash Placement Areas of the Site in a manner that caused adverse impacts to ground water. In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

e. Pursuant to 329 IAC 10-4-3, open dumping and open dumps, as those terms are defined in IC 13-11-2-146 and IC 13-11-2-147, are prohibited.

Respondent has caused and/or allowed solid waste, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials to be open dumped at the Historic Ash Placement Areas of the Site. In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

- f. Pursuant to 329 IAC 10-4-4(a), the owner of real estate upon which an open dump is located is responsible for the following:
  - Correction and controlling any nuisance conditions that occur as a result of the open dump. Correction and control of nuisance conditions must include:
    - (A) removal of all solid waste from the area of the open dump and disposal of such wastes in a solid waste land disposal facility permitted to accept the waste; or
    - (B) other methods as approved by the commissioner.
  - (2) Eliminating any threat to human health or the environment.

Respondent has caused and/or allowed solid waste, including, but not limited to, coal ash, used parts, old equipment, trash, and other materials to be open dumped at the Historic Ash Placement Areas of the Site and has failed to comply with the requirements of 329 IAC 10-4-4(a)(1) and (2). In addition, during the November 9, 2017 inspection, areas of the Historic Ash Placement Areas appeared to have erosion or the cover soils were minimal.

- 15. Respondent is currently evaluating long term actions to: (a) further investigate and monitor the Site; (b) inhibit further off-site movement of contaminants from the Historic Ash Placement Areas; (c) conduct closure of the Historic Ash Placement Areas (which may also include coal ash that has been beneficially re-used on the Site); and (d) address off-site impacts to groundwater/drinking water from the Historic Ash Placement Areas, including without limitation securing an alternative water supply for sufficiently impacted properties or appropriately treating the drinking water that may be used for consumption.
- 16. In recognition of the settlement reached, Respondent waives any right to administrative and judicial review of this Agreed Order.

Cause No. 45253 OUCC Attachment CMA-2 Page 30 of 37

#### II. ORDER

- 1. This Agreed Order shall be effective ("Effective Date") when it is approved by Complainant or Complainant's delegate, and has been received by Respondent. This Agreed Order shall have no force or effect until the Effective Date.
- 2. Within ninety (90) days of the Effective Date, Respondent shall develop and submit to IDEM for review and approval a Compliance Plan ("CP") which identifies actions that Respondent will take to: (a) further investigate and monitor the Site; (b) inhibit further off-site movement of contaminants from the Historic Ash Placement Areas; and (c) address off-site impacts to drinking water from the Historic Ash Placement Areas, including without limitation securing an alternative water supply for sufficiently impacted properties or appropriately treating the drinking water that may be used for consumption, if the approved alternative water supply is accepted by the property owner.

The CP shall include an implementation and completion schedule, including specific milestone dates.

- 3. In the event that Respondent determines a milestone date in the CP cannot be achieved, Respondent shall within sixty (60) days of making that determination, develop and submit to IDEM, for approval, an Additional Action Plan which identifies the additional actions that Respondent will take to achieve and maintain compliance. The Additional Action Plan, if required, shall include an implementation and completion schedule, including specific milestone dates.
- 4. Respondent, upon receipt of written notification from IDEM, shall immediately implement the approved CP and adhere to the milestone dates therein. The approved CP and Additional Action Plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof.
- 5. Respondent shall within ninety (90) days following receipt of IDEM's written notification of approval of the CP and every ninety (90) days thereafter until completion, submit to IDEM a quarterly progress report detailing activity toward completion of each milestone included in the CP or Additional Action Plan.
- 6. Within one hundred eighty (180) days of the Effective Date, Respondent shall submit three (3) hard copies and one (1) complete copy of the entire document on CD, in PDF format no greater than 100 megabytes per file, of a closure/post closure plan for the Historic Ash Placement Areas at the Site to IDEM for review and approval. This closure/post closure plan shall be in accordance with the provisions of 329 IAC 10-30 and 10-31 for Restricted Waste Sites Type I, unless IDEM approves otherwise in writing.

The closure/post closure plan shall include an implementation and completion schedule, including specific milestone dates.

The closure/post closure plan shall include a proposal for financial assurance for closure and post closure care of the Historic Ash Placement Areas at the Site in accordance with 329 IAC 10-39. Within thirty (30) days after IDEM approves the closure/post closure

plan, Respondent shall demonstrate to IDEM financial assurance for closure and post closure care of the Historic Ash Placement Areas at the Site is in effect in accordance with 329 IAC 10-39.

- 7. Respondent, upon receipt of written notification from IDEM, shall immediately implement the approved closure/post closure plan and adhere to the milestone dates therein. The approved closure/post closure plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof.
- 8. In the event IDEM determines that any plan submitted by Respondent is deficient or otherwise unacceptable, Respondent shall revise and resubmit the plan to IDEM in accordance with IDEM's notice. After three (3) submissions of such plan by Respondent, IDEM may modify and approve any such plan and Respondent must implement the plan as modified by IDEM. The approved plan shall be incorporated into this Agreed Order and shall be deemed an enforceable part thereof.
- 9. All submittals required by this Agreed Order, unless Respondent is notified otherwise in writing by IDEM, shall be sent to:

Debbie O'Brien, Enforcement Case Manager Office of Land Quality Indiana Department of Environmental Management 100 North Senate Avenue Indianapolis, IN 46204-2251

As to Respondent:

Julie L. Ezell, Esq. Duke Energy Legal Department 1000 East Main Street Plainfield, IN 46168 (317) 838-1100 Julie.ezell@duke-energy.com

- 10. Respondent is assessed and agrees to pay a civil penalty of seventeen thousand five hundred dollars (\$17,500). Said penalty amount shall be due and payable to the Environmental Management Special Fund within thirty (30) days of the Effective Date; the 30th day being the "Due Date".
- 11. In the event the terms and conditions of the following paragraphs are violated, Complainant may assess and Respondent shall pay a stipulated penalty in the following amount:

Order	α <sup>ν δ</sup> ατό το διαδού του το το δια του	
Paragraph		Penalty
Number	Violation	Amount
2	Failure to submit or modify the CP, as required, within the given time period.	\$250 per each week late
3	Failure to submit or modify the Additional Action Plan, if required, within the given time period.	\$250 per each week late
4	Failure to meet any milestone date set forth in the approved CP or Additional Action Plan.	\$500 per each week late
5	Failure to submit quarterly progress reports. First one being due ninety (90) days from the Effective Date.	\$250 per each week late
6	Failure to submit closure/post closure plan and/or failure to demonstrate financial assurance for closure/post closure within any milestone date set forth therein.	\$250 per each week late
7	Failure to implement the approved closure/post closure plan, and/or meet any milestone date set forth therein.	\$250 per each week late

- 12. Stipulated penalties shall be due and payable no later than the 30th day after Respondent receives written notice that Complainant has determined a stipulated penalty is due; the 30th day being the "Due Date". Complainant may notify Respondent at any time that a stipulated penalty is due. Failure to notify Respondent in writing in a timely manner of stipulated penalty assessment shall not waive Complainant's right to collect such stipulated penalty or preclude Complainant from seeking additional relief against Respondent for violation of this Agreed Order. Neither assessment nor payment of stipulated penalties shall preclude Complainant from seeking additional relief against Respondent for a violation of this Agreed Order; such additional relief includes any remedies or sanctions available pursuant to Indiana law, including, but not limited to, civil penalties pursuant to IC 13-30-4.
- Civil and stipulated penalties are payable by check to the "Environmental Management Special Fund." Checks shall include the Case Number of this action and shall be mailed to:

Indiana Department of Environmental Management Office of Legal Counsel IGCN, Room N1307 100 North Senate Avenue Indianapolis, IN 46204-2251

- 14. In the event that the monies due to IDEM pursuant to this Agreed Order are not paid on or before their Due Date, Respondent shall pay interest on the unpaid balance at the rate established by IC 24-4.6-1. The interest shall be computed as having accrued from the Due Date until the date that Respondent pays any unpaid balance. Such interest shall be payable to the Environmental Management Special Fund, and shall be payable to IDEM in the manner specified in Paragraph 13, above.
- 15. Force majeure, for purposes of this Agreed Order, is defined as any event arising from causes totally beyond the control and without fault of Respondent that delays or prevents the performance of any obligation under this Agreed Order despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (1) as it is occurring; and (2) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include: (1) changed business or economic conditions; (2) financial inability to complete the work required by this Agreed Order; or (3) increases in costs to perform the work.

Respondent shall notify IDEM by calling the case manager within three (3) calendar days and by writing no later than seven (7) calendar days after it has knowledge of any event which Respondent contends is a force majeure. Such notification shall describe: (1) the anticipated length of the delay; (2) the cause or causes of the delay; (3) the measures taken or to be taken by Respondent to minimize the delay; and (4) the timetable by which these measures will be implemented. Respondent shall include with any notice all available documentation supporting its claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. Respondent shall have the burden of demonstrating that the event is a force majeure. The decision of whether an event is a force majeure shall be made by IDEM.

If a delay is attributable to a force majeure, IDEM shall extend, in writing, the time period for performance under this Agreed Order, by the amount of time that is directly attributable to the event constituting the force majeure.

16. This Agreed Order shall apply to and be binding upon Respondent and its successors and assigns. Respondent's signatories to this Agreed Order certify that they are fully authorized to execute this Agreed Order and legally bind the party they represent. No change in ownership, corporate, or partnership status of Respondent shall in any way alter its status or responsibilities under this Agreed Order.

- 17. In the event that any terms of this Agreed Order are found to be invalid, the remaining terms shall remain in full force and effect and shall be construed and enforced as if this Agreed Order did not contain the invalid terms.
- 18. Respondent shall provide a copy of this Agreed Order, if in force, to any subsequent owners or successors before ownership rights are transferred. Respondent shall ensure that all contractors, firms and other persons performing work under this Agreed Order comply with the terms of this Agreed Order.
- 19. This Agreed Order is not and shall not be interpreted to be a permit or a modification of an existing permit. This Agreed Order, and IDEM's review or approval of any submittal made by Respondent pursuant to this Agreed Order, shall not in any way relieve Respondent of its obligation to comply with the requirements of its applicable permits or any applicable Federal or State law or regulation.
- 20. Complainant does not, by its approval of this Agreed Order, warrant or aver in any manner that Respondent's compliance with any aspect of this Agreed Order will result in compliance with the provisions of any permit, order, or any applicable Federal or State law or regulation. Additionally, IDEM or anyone acting on its behalf shall not be held liable for any costs or penalties Respondent may incur as a result of Respondent's efforts to comply with this Agreed Order.
- 21. Nothing in this Agreed Order shall prevent or limit IDEM's rights to obtain penalties or injunctive relief under any applicable Federal or State law or regulation, except that IDEM may not, and hereby waives its right to, seek additional civil penalties for the same violations specified in this Agreed Order.
- 22. This Agreed Order shall remain in effect until Respondent has complied with all terms and conditions of this Agreed Order and IDEM issues a Resolution of Case letter to Respondent.

## **REMAINDER OF PAGE LEFT BLANK INTENTIONALLY**

Cause No. 45253 OUCC Attachment CMA-2 Page 35 of 37

Duke Energy Indiana, LLC, Noblesville Station Case # 2017-24922-S Page 10

TECHNICAL RECOMMENDATION: Department of Environmental Management

By: ti.

Nancy Johnston, Section Chief Enforcement Section Office of Land Quality

Date: 1/17/18

**RESPONDENT:** 

By:

Printed: Melody Birmingham-Byrd

Title: President

Date: <u>1-24-18</u>

COUNSEL FOR RESPONDENT:

2NBy: 2

Date: 1/24/18

APPROVED AND ADOPTED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT THIS <u>31</u> DAY OF <u>primar</u>, 2018

For the Commissioner: msle

Peggy Dorsey Assistant Commissioner Office of Land Quality

Cause No. 45253 OUCC Attachment CMA-2 Page 36 of 37



Tracking Number	Track	<u>View Tracking History</u> (/WebTracking/track?loc=en_US)	Other Tracking Options 🔻
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Special Instructions:			
Adult Signature Required ①			Shipping Informatio
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Reference Number(s):	1833		
	1833 2017-24922	2-S	
Shipment Category:	Package		

Cause No. 45253 OUCC Attachment CMA-3 Page 1 of 1

OUCC IURC Cause No. 45253 Data Request Set No. 13 Received: August 30, 2019

# OUCC 13.1

## **Request:**

On pages 11-15, of his testimony, Mr. Thiemann describes the Coal Combustion Residuals ("CCR") closure activities Duke Energy Indiana ("DEI") incurred from 2015-2018, did DEI receive approval to recover or defer any of these closure costs from the Commission prior to incurring them? If yes, please cite all Causes in which the Company received approval for CCR closure activities.

### **Response:**

No CCR closure activities have yet been approved for recovery or deferral by the Commission. On-going expenditures at Cayuga, Gibson and Gallagher were approved in IURC Cause No. 44765.

### Witness: Timothy J. Thiemann

Cause No. 45253 OUCC Attachment CMA-4 Page 1 of 1

OUCC IURC Cause No. 45253 Data Request Set No. 13 Received: August 30, 2019

OUCC 13.5

## **Request:**

Will DEI incur the costs for the projects and activities listed in Petitioner's Exhibits 21-E, 21-F, and 21-G if the generating facilities ceased operation? If no, please explain.

## **Response:**

Yes. The projects will still need to occur if the generating facilities cease operation.

# Witness: Timothy J. Thiemann

Cause No. 45253 OUCC Attachment CMA-5 Page 1 of 79 PETITIONER'S EXHIBIT U-1 (AWW-1)

Page 1 of 79 DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA CONCEPTUAL COST ESTIMATE PREPARED FOR CINERGY GALLAGHER - UNITS 1, 2, 3 & 4 SARGENT & LUNDY ESTIMATE NO. 13347-7 PROJECT NO. 9940-001 March 22,2002 REVIEWED BY: -APPROVED BY:

Cause No. 45253 OUCC Attachment CMA-5 Page 2 of 79

1.0

Estimate No: 13347-7

TABLE OF CONTENTS

Report

Page

Basis	of	Es	ti	ma	te			÷		÷		•		2		÷	è.					ų,	÷			1	5
Summa	ry.					÷.	ŝ	÷		ÿ.	÷				,	ŝ,	÷	÷	ì	÷	ł,	ŝ	÷	÷	÷		5
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Cause No. 45253 OUCC Attachment CMA-5 Page 3 of 79

Sargent & Lundy Chicago

#### BASIS OF ESTIMATE CINERGY GALLAGHER - UNITS 1, 2, 3 & 4 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES,

Page: 1 Estimate No: 13347-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT, DUCTS AND PIPING, DENOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

#### Technical Basis

SEE ASSUMPTIONS BELOW

#### Assumptions

- ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION - NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT
  - FOR ASBESTOS REMOVAL AND DISPOSAL
- . ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GRADE ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE, AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED
- THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, HOPPERS BELOW GRADE, OR THE ASH POND TO DISPOSE OF ALL DEBRIS
- THE ASH POND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON
- SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE SWITCHYARD IS NOT DEMOLISHED

 A NEW SWITCHYARD CONTROL BUILDING, EQUIPMENT, AND CABLES HAVE BEEN INCLUDED TO REPLACE THE EXISTING SWITCHYARD CONTROL BUILDING WHICH IS DEMOLISHED
 DEMOLITION IS BASED ON 40 HOUR WORKWEEK

a particular of county and the set

#### Commercial Basis

1. Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE:

- COPPER \$1,400.00 PER TON - STEEL \$85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION, DISPOSAL, INSURANCE COSTS, AND OVERHEAD & PROFIT:

÷.	WRECKING CREW	\$ 70.30/hr
÷	ASBESTOS & PCB WORK	\$100.40/hr
-	EARTHWORK	\$139.27/hr
4	SEEDING & MULCHING	\$ 42.23/hr
•	ELECTRICIAN	\$ 50.70/hr
-	CARPENTER	\$ 41.50/hr

3. Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

4. Productivity

AS THOSE APPLIED TO INDIANA

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

### Cause No. 45253 OUCC Attachment CMA-5 Page 4 of 79

#### Sargent & Lundy Chicago

## BASIS OF ESTIMATE

Page: 2 Estimate No: 13347-7

### Commercial Basis continued

6. Project Schedule

24 HONTHS DURATION

7. Indirect Expenses

CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST

- 8. Escalation Rates (See Cost Summary for rates) NOT INCLUDED
- 9. Sales/Use Taxes (See Cost Summary for rates) NOT INCLUDED
- 10, Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

### Cause No. 45253 OUCC Attachment CMA-5 Page 5 of 79

Sargent & Lundy Chicago

### COST SUMMARY REPORT

CINERGY GALLAGHER - UNITS 1, 2, 3 & 4 CONCEPTUAL COST ESTIMATE

DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 3 Estimate No: 13347-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR07

Price level: 2002

ACCT NO.	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		675,000	7,417,000	8,092,000
312	BOILER PLANT			8,461,000	8,461,000
314	TURBINE PLANT			879.000	879,000
316	MISCELLANEOUS POWER PLANT EQUIPMENT			143,000	143,000
317	SCRAP VALUE (SEE BASIS)				S BELOW
353	ELECTRICAL SWITCHYARD		708,000	505,000	1,213,000
	TOTAL CONSTRUCTION COSTS		1,383,000	17,405.000	18,788,000
	INDIRECT EXPENSES ESCALATION				1,878,800
	SALES/USE TAX CONTINGENCY				5,167,000
	TOTAL PROJECT COST SCRAP				25,833,800 -2,142,000
	GRAND TOTAL COST				23,691,800
	FINANCIAL ASSUMPTIONS: ESCALATION RATES: Equipment 0.	000%			
		000%			

Labor 0.000% Indirects 0.000%

SALES/USE TAX RATES: Equipment 0.000% Material 0.000% CONTINGENCY RATES: Equipment 0.0% Material 25.0% Labor 25.0% Indirects 25.0% Cause No. 45253 OUCC Attachment CMA-5 Page 6 of 79

Sargent & Lu Chicago	indy	ESTI		CON	CINE HER - UNI	ORKS RGY TS 1, 2, 3 & OST ESTIMATE EQUIPMENT AN	4			Pro	Page: 4 imate No: 13 oject No: 99 bared by: KS	347-7 40-001
Price level:	2002	AND :	SITE FA	CILI	TIES OUTS	IDE THE POWER	R BLOCK ARE	EA.		Estime	ate Date: 22	MAR02
Note: Extend	led costs	are rounded up to next the	ousand	doll	ars							
ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY	UN		A T E R I A EQUIPMENT COST	MATERIAL COST	MNHR RATE		A B O R WAGE RATE	LABOR COST	TOTAL
311		STRUCTURES AND INPROVEMENTS - DEMOLITION AND MODIFICATIONS	N									
311.1		SITE STRUCTURES DEMOLITION										
311.11		RAILROAD TRACKS	4000	LF				0.300	1200	70.30	84,000	84,000
311.12		PAVED SURFACES	15000	SY				0.180	2700	70.30	190,000	190,000
311.13		FENCES AND GATES	4000	LF				0.040	160	70.30	11,000	11,000
311.14		FILL SITE AREAS WHERE REQUIRED AND ASH POND (2 FT CAPING)	484000	CY				0.025	12100	139.27	1,685,000	1,685,000
311.15		PLUG CIRCULATING WATER PIPE WITH SLURRY & PLACE CONCRETE AT ENDS	1	LS	59000		59,000	2400.000	2400	70.30	169,000	228,000
311.16		SEED & MULCH SITE INCLUDING TOPSOIL	550	AC	1100.00		605,000	30.000	16500	42.23	697,000	1,302,000
		SUB TOTAL 311.1					664,000		35,060		2,836,000	3,500,000
311.2		OUTLYING BUILDINGS DEMOLITION										
311.21		MISCELLANEOUS STRUCTURES	27300	CF				0.006	164	70.30	12,000	12,000
311.23		WAREHOUSE	230400	CF				0.006	1382	70.30	97,000	97,000
311.24		YARD GARAGE	104000	CF				0.006	624	70.30	44,000	44,000
311.27		CRIB HOUSE						1	NCL. A	CCT. 311	.3	
311.28		WATER TREATING BUILDING						1	NCL. A	CCT. 311	.3	
311.29		MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291		TANK FOUNDATIONS	1	LS				500.000	500	70.30	35,000	35,000
311.293		FLOATING DOCKS AND CELLS	400	CY				2.500	1000	70.30	70,000	70,000
		SUB TOTAL 311.29							1,500		105,000	105,000
		SUB TOTAL 311.2							3,670		258,000	258,000
311.3		MAIN POWER BLOCK DEMOLITION	1	LS					61250	70.30	4,306,000	4,306,000
311.31		BOILER ROOM						1	NCL. A	CT. 311	.3	

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Cause No. 45253 OUCC Attachment CMA-5 Page 7 of 79

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Chicago																	

Page: 5 Estimate No: 13347-7

Note: Extended costs are rounded up to next thousand dollars

ACCOUNT NO. PACKAGE	DESCRIPTION TURBINE ROOM	QTY	UM	RATE	COST	COST	RATE		RATE	COST	COS
311.33	CONTROL HOUSE								CT. 31		
311.34	CONVEYOR ROOM						IN	CL. AC	CT. 311	.3	
311.35	ELEVATOR AREA						IN	CL. AC	CT. 311	.3	
311.36	TURBINE PEDESTALS						1.9	BURIED	IN PLA	CE	
	SUB TOTAL 311.3						6	1,250		4,306,000	4,306,000
311.4	NEW SWITCHYARD CONTROL BUILDING, 15'X15'X12'H	1	LS	11000		11,000	400.000	400	41.50 CARP	17,000	28,000
	TOTAL 311					675,000	100	0,380		7,417,000	8,092,000

Cause No. 45253 OUCC Attachment CMA-5 Page 8 of 79

Sargent & Lundy Chicago

1

## ESTIMATE WORKSHEET

Page: 6 Estimate No: 13347-7

Note: Extended costs are rounded up to next thousand dollars

ACCOUNT NO.	WORK	DESCRIPTION		UM	MATERIAL RATE	A T E R I A EQUIPMENT COST	MATERIAL	NNHR		A B O R WAGE RATE	LABOR COST	TOTAL
312		BOILER PLANT										
312.11		REMOVAL OF ALL ASBESTOS	1	LT				28000	28000	100.40	2,811,000	2,811,000
312.12		BOILERS AND EQUIPMENT	9253	TN				4.000	37012	70.30	2,602,000	2,602,000
		SUB TOTAL 312.1						d	65,012		5,413,000	5,413,000
312.21		CONCRETE CHIMNEY REMOVAL	2	EA				8750.000	17500	70.30	1,230,000	1,230,000
312.22		DRAFT EQUIPMENT	616	TN				4.000	2464	70.30	173,000	173,000
312.24		FLUES AND DUCTS	1545	TN				4.000	6180	70.30	434,000	434,000
312.25		PRECIPITATORS	1000	TN				4.000	4000	70.30	281,000	281,000
		SUB TOTAL 312.2			_				30,144	-	2,118,000	2,118,000
312.31		WATER SUPPLY AND PURIFICATION EQUIPMENT	390	TN				3.000	1170	70.30	82,000	82,000
312.41		PULVERIZED FUEL EQUIPMENT	1200	ŦN				3.000	3600	70.30	253,000	253,000
312.44		DEMOLISH COAL HANDLING STRUCTURES										
312.441		CONVEYORS INCLUDING TRUSSES, BENTS, & EQUIPMENT	998	TN				3.000	2994	70.30	210,000	210,000
312.442		BUILDINGS INCLUDING BARGE UNLOADING TOWER & BRIDGE	760	TN				3.000	2280	70.30	160,000	160,000
312.443		FOUNDATIONS	700	CY				1.500	1050	70.30	74,000	74,000
		SUB TOTAL 312.44							6,324		444,000	444,000
		SUB TOTAL 312.4							9,924	1	697,000	697,000
312.51		ASH HANDLING EQUIPMENT	220	TN				3.000	660	70.30	46,000	46,000
312.71		HEAVY WALL PIPING	1	LŢ				1500.000	1500	70.30	105,000	105,000
		TOTAL 312						1	08,410		8,461,000	8,461,000

Cause No. 45253 OUCC Attachment CMA-5 Page 9 of 79

7

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314	TURBINE	PLANT							-						-							-		-	
314.11	TURBINE	GENERA	TOR	UNI	TS		140	0 TN	Ċ.											4.000	560	ю	70.30	394,000	394,000
314.111	GENERAT	ORS																			INCL	D	IN 314.1	1	
	SUB	TOTAL 3	14.	11														-	-		5,60	00		394,000	394,000
	SUB	TOTAL 3	14.	1								-							-		5,60	00		394,000	394,000
314.21	CONDENS	ERS					1378	B TN	e,											4.000	551	12	70.30	387,000	387,000
314.26	CIRCULA	TING WA	TER	PUM	PS		199	9 TN	r.											3.000	59	7	70.30	42,000	42,000
	SUB	TOTAL 3	14.	2				7													6,10	9		429,000	429,000
314.71	HEAVY W	ALL PIP	ING				118	1 1.1											9	800.000	80	00	70.30	56,000	56,000
	TOTA	L 314																			12,50	9		879,000	879,000

Cause No. 45253 OUCC Attachment CMA-5 Page 10 of 79

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316	MISCELLANEOUS POWER	PLAN	T																	
316.11	MISCELLANEOUS POWER	PLAN	T	444	TN										3	.000	1332	70.30	94,000	94,000
316.111	TURBINE ROOM CRANE																INCL'D	IN 316.	11	
	SUB TOTAL 316.1															_	1,332		94,000	94,000
316.12	TANKS			67	TN										3	.000	201	70.30	14,000	14,000
316.13	PIPING AND HANGERS			1	LT										500	.000	500	70.30	35,000	35,000
	SUB TOTAL 316.1																2,033	1.2.1	143,000	143,000
	TOTAL 316													-			2,033	1	143,000	143,000

Cause No. 45253 OUCC Attachment CMA-5 Page 11 of 79

Sargent & Lu Chicago	ndy		B	s	T	Ţ	M	A	T	E	W	0	R	ĸ	s	H	B	E	т				Estin	Page: 9 e No: 13347	.7
Note: Extend	ed costs WORK PACKAGE	are rounded u		ne	xt	the		and		MATER	AL		JIPM	ENT		MAT	* * ERIA OST			* *			B O R WAGE	LABOR	TOTAL
317	PACKAGE	SCRAP VALUE		- 84	ST	()	-	wij	UN	KAI	-	-	COST	-			USI	-	_	RATE	MACH	K5	RATE \$ BELC	 COST	COST
317.11		SCRAP VALUE					15	7100	TN														* DELL		
317.12		SCRAP VALUE	OF (	COPF	ER			370	TN																
		SUB TOTAL	317	7.1																		-			
		TOTAL 317				-																		_	

Cause No. 45253 OUCC Attachment CMA-5 Page 12 of 79

Sargent & Lun Chicago	dγ	EST:	IM	A	Т	E	W	ORK	8	HEI	3 T		Estin	Page: 10 nate No: 13	
	WORK PACKAGE	are rounded up to next t DESCRIPTION	thous	and QTY		MATERIAL		ATERI EQUIPMENT COST		MATERIAL		- L	A B O R WAGE RATE	+ + + LABOR COST	TOTAL
353		ELECTRICAL SWITCHYARD	-												
353.1		NEW SWITCHYARD CONTROL HOUSE									1	NCL. AC	CT. 311.	4	
353.2		CONTROL PANELS, RELAYS		1	LT	408000	0			408,000	750.000	750	50.70	38,000	446,000
353.3		CABLE		1	LT	168000				168,000	8000.000	8000	50.70	406,000	574,000
353.4		BUILDING ELECTRICAL SERVICE, LIGHTING, BATTERY, HVAC SERVICES GROUNDING	2	1	LT	132000	0			132,000	1000.000	1000	50.70	51,000	183,000
353.5		TESTING		1	LT						200.000	200	50.70	10,000	10,000
		TOTAL 353								708,000		9,950	-	505,000	1,213,000

Cause No. 45253 OUCC Attachment CMA-5 Page 13 of 79

Sargent & LL Chicago			E	S	Т	I	M	A	T	E	6	W	0	R	ĸ	S	H	E	E	T				Estin	Page: 11 Nate No: 13	
Note: Extend ACCOUNT NO.	ded costs WORK PACKAGE	are rounded u DESCRIPTIO		to	nex	t tł	nous		dol r un	*	* * TERIA RATE			T E DIPN	ENT	A (	MAT	* * TERI	AL		NNHR	* •		A B D R WAGE RATE	* * * LABOR COST	TOTAL
900		INDIRECT EXP	EN	SES	1															-			_			
900.1		PSI INDIRECT	E	XPE	NSE	s																			1,878,800	1,878,800
		TOTAL 900	6																						1,878,800	1,878,800
		TOTAL DIR	EC	T&	IN	DIRE	CT	cos	s								1,38	33,0	00		2	33,2	82	1	9,283,800	20,666,800

Cause No. 45253

OUCC Attachment CMA-5 Page 14 of 79

> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

CONCEPTUAL COST ESTIMATE

PREPARED FOR

CINERGY WABASH RIVER - UNITS 1, 2, 3, 4, 5, & 6

SARGENT & LUNDY

ESTIMATE NO. 13348-8 PROJECT NO. 9940-001 March 22, 2002

REVIEWED BY: APPROVED BY:

Cause No. 45253 OUCC Attachment CMA-5 Page 15 of 79

Estimate No: 13348-8

TABLE OF CONTENTS

Report

Page

Basis	of	Es	ti	m	at	e	÷.	ÿ,		÷	ŝ,	Â	ŵ	÷	x	ų,	à	÷	â	ŵ	è	ŝ,	â	÷	ù.	41	1	
Summa	ry.	23	44	4	24		k	à	÷	÷	i.	à	4	ŝ	x	ų,	à	÷	ų,	÷,	÷	i.	à	÷	i,	а.	3	
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Cause No. 45253 OUCC Attachment CMA-5 Page 16 of 79

Sargent & Lundy Chicago

### BASIS OF ESTIMATE

CINERGY WABASH RIVER - UNITS 1, 2, 3, 4, 5, & 6 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 1 Estimate No: 13348-8 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

#### Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT, DUCTS AND PIPING, DEMOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

#### Technical Basis

SEE ASSUMPTIONS BELOW

#### Assumptions

- ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION
- NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT FOR ASBESTOS REMOVAL AND DISPOSAL
- ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GROUND ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE,
- AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED
- THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, NOPPERS BELOW GRADE, OR THE ASH POND TO DISPOSE OF ALL DEBRIS
- THE ASH POND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON
- SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE SWITCHYARD IS NOT DEMOLISHED
- A NEW SWITCHYARD CONTROL BUILDING, EQUIPMENT, AND CABLES HAVE BEEN INCLUDED
- TO REPLACE THE EXISTING SWITCHYARD CONTROL BUILDING WHICH IS DEMOLISHED
- BASED ON 40 HOUR WORK WEEK

#### Commercial Basis

1. Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE:

- COPPER \$1400.00 PER TON - STEEL \$85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION, DISPOSAL, INSURANCE COSTS, AND OVERHEAD & PROFIT:

÷	WRECKING CREW	\$ 70.30/hr
	ASBESTOS & PCB WORK	\$100.40/hr
	EARTHWORK	\$139.27/hr
	SEEDING & MULCHING	\$ 42.23/hr
4	ELECTRICIAN	\$ 50.70/hr
	CARPENTER	\$ 41.50/hr

3. Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

4. Productivity

AS THOSE APPLIED TO INDIANA

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

### Cause No. 45253 OUCC Attachment CMA-5 Page 17 of 79

### Sargent & Lundy Chicago

## BASIS OF ESTIMATE

Page: 2 Estimate No: 13348-8

### Commercial Basis continued

- 6. Project Schedule
- 24 MONTHS DURATION
- 7. Indirect Expenses CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST
- 8. Escalation Rates (See Cost Summary for rates)

NOT INCLUDED

- Sales/Use Taxes (See Cost Summary for rates) NOT INCLUDED
- 10. Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

### Cause No. 45253

OUCC Attachment CMA-5

Page 18 of 79

4.1

Sargent & Lundy Chicago

#### COST SUMMARY REPORT

CINERGY

WABASH RIVER - UNITS 1, 2, 3, 4, 5, 5 6 CONCEPTUAL COST ESTIMATE DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES. AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

Fage: 3 Estimate No: 13348-8 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

ACCT . NO	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		366,000	11,989,000	12,355,000
312	BOILER PLANT			11,772.000	11,772,000
314	TURBINE PLANT			1,189,000	1,189,000
316	MISCELLANEOUS PONER PLANT EQUIPMENT			188,000	168,000
317	SCRAP VALUE (SEE BASIS)				S BELOW
353	ELECTRICAL SWITCHYARD		804,000	561,000	1,365,000
	TOTAL CONSTRUCTION COSTS		1,170,000	25,699,000	26,869,000
	INDIRECT EXPENSES ESCALATION SALES/USE TAX				2,686,900
	CONTINGENCY				7, 389,000
	TOTAL PROJECT COST SCRAP				36,944,900 -3,246,000
	GRAND TOTAL COST				33,698,900
	FINANCIAL ASSUMPTIONS: ESCALATION RATES: Equipment 0.0 Material 0.0 Labor 0.0	00%			

Indirects 0.000% SALES/USE TAX RATES: Equipment 0.000% Material 0.000% CONTINGENCY RATES: Equipment 0.0% Material 25.0% Labor 25.0% Indirects 25.0%

Cause No. 45253 OUCC Attachment CMA-5 Page 19 of 79

Chicago

#### Sargent & Lundy ESTIMATE WORKSHEET Page: 4 CINERGY Estimate No: 13348-8 WABASH RIVER - UNITS 1, 2, 3, 4, 5, & 6 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES. Project No: 9940-001 Prepared by: KSZ/JK /GA AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Estimate Date: 22MAR02 Price level: 2002 Note: Extended costs are rounded up to next thousand dollars \* \* \* MATERIAL \* \* \* LABOR \* \* \* ....

WORK		977 1		RIAL	A T E R I A EQUIPMENT COST	MATERIAL	MNHR	MNHRS	A B O R WAGE RATE	LABOR	TOTAL
311	STRUCTURES AND IMPROVEMENTS - DEMOLITIO AND MODIFICATIONS	N									
311.1	SITE STRUCTURES										
311.11	RAILROAD TRACKS	24000	F.				0.300	7200	70.30	506,000	506,000
311.12	PAVED SURFACES	32000 \$	SY .				0.180	5760	70.30	405,000	405,000
311.13	FENCES AND GATES	8000	F				0.040	320	70.30	22,000	22,000
311.14	FILL SITE AREAS WHERE REQUIRED AND ASH POND (2 FT CAPING)	300000 (	Y.				0.025	7500	70.30	527,000	527,000
311.15	PLUG CIRCULATING WATER PIPE WITH SLURRY & PLACE CONCRETE AT ENDS	11	.s 80	0000		80,000	3370.000	3370	70.30	237,000	317,000
311.16	SEED & MULCH SITE INCLUDING TOPSOIL	250 /	C 1100	0.00		275,000	30.000	7500	42.23	317,000	592,000
	SUB TOTAL 311.1					355,000	1	31,650		2,014,000	2,369,000
311.2	OUTLYING BUILDINGS DEMOLITION										
311.21	MISCELLANEOUS STRUCTURES	24200 0	1F				0.006	145	70.30	10,000	10,000
311.23	WAREHOUSE	304000 (	F				0.006	1824	70.30	128,000	128,000
311.29	MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291	TANK FOUNDATIONS	11	s				600.000	600	70.30	42,000	42,000
311.294	TRAINING BUILDING	30750	F				0.006	185	70.30	13,000	13,000
311.295	YARD MAINTENANCE	105000 (	F				0.006	630	70.30	44,000	44,000
311.297	MID-STATE RAILCAR	48000 (	F				0.006	288	70.30	20,000	20,000
1	SUB TOTAL 311.29							1,703	1 40	119,000	119,000
	SUB TOTAL 311.2	-					-	3,672	12.7	257,000	257,000
311.3	MAIN POWER BLOCK DEMOLITION	11	5					138000	70.30	9,701,000	9,701,000
311.31	BOILER ROOM						1	NCL. AC	ст. 311	.3	
311.32	TURBINE ROOM						1	NCL. AC	ст. 311	.3	

Cause No. 45253

OUCC Attachment CMA-5 Page 20 of 79

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Sargent & Lux Chicago	ndy	E	8	т	I	M	A	T	B	P	R	ĸ	S	H	E	E	т		Esti	Page: 5 mate No: 13	348-8
Note: Extend ACCOUNT NO.	WORK PACKAGE	are rounded up	to	next	t th	ousa		dol r UH	MAT	* ERIAL ATE		R I Ment T		MAT	ERIA COST		* * MNHR RATE	* L MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
311.33		CONTROL HOUSE															- 1	NCL. A	CCT. 311	.3	
311.34		CONVEYOR ROOM															1	NCL. A	CCT. 311	.3	
311.35		ELEVATOR AREA															1	NCL. A	CCT. 311	1.3	
311.36		TURBINE PEDEST	ALS	5													1	NCL. A	CCT. 311	1.3	-
		SUB TOTAL 3	511.	3										-			1	38,000	100	9,701,000	9,701,000
311.4		NEW SWITCHYARD BUILDING, 15'X						1 LS	n s	11000				1	11,00	0	00.000	400	41.50	17,000	28,000
		TOTAL 311												36	56,00	00	1	73,722	1	11,989,000	12,355,000

## Cause No. 45253 OUCC Attachment CMA-5 Page 21 of 79

Sargent & Lundy Chicago

### ESTIMATE WORKSHEET

Page: 6 Estimate No: 13348-8

Note: Extended costs are rounded up to next thousand dollars

WORK ACCOUNT NO. PACKAGE	DESCRIPTION	QTY		MATERIAL RATE	A T E R I EQUIPMENT COST	A L *** MATERIAL COST	MNHR		A B O R WAGE RATE	LABOR COST	TOTAL
312	BOILER PLANT								0.5		
312.11	REMOVAL OF ALL ASBESTOS INSULATION	1	ij					38080	100.40	3,823,000	3,823,000
312.12	BOILERS AND EQUIPMENT	12584	TN				4.000	50336	70.30	3,539,000	3,539,000
	SUB TOTAL 312.1						0	88,416		7,362,000	7,362,000
312.21	REMOVAL OF CONCRETE CHIMNEYS	1	EA				8000.000	8000	70.30	562,000	562,000
312.22	DRAFT EQUIPMENT	838	TN				4.000	3352	70.30	236,000	236,000
312.24	FLUES AND DUCTS	2463	TN				4.000	9852	70.30	693,000	693,000
312.25	PRECIPITATORS	2246	TN				4.000	8984	70.30	632,000	632,000
X	SUB TOTAL 312.2							30, 188	1001	2,123,000	2,123,000
312,31	WATER SUPPLY AND PURIFICATION EQUIPMENT	530	TN				3.000	1590	70.30	112,000	112,000
312.41	PULVERIZED FUEL EQUIPMENT	1632	TN				3.000	4896	70.30	344,000	344,000
312.44	DEMOLISH COAL HANDLING STRUCTURES										
312.441	CONVEYORS INCLUDING TRUSSES, BENTS, & EQUIPMENT	1357	TN				3.000	4071	70.30	286,000	286,000
312,442	BUILDINGS AND TOWERS	500	TN				3.000	1500	70.30	105,000	105,000
312,443	FOUNDATIONS	550	CY				1.500	825	70.30	58,000	58,000
	SUB TOTAL 312.44					e e		6,396		449,000	449,000
	SUB TOTAL 312.4						-	11,292	3	793,000	793,000
312.51	ASH HANDLING EQUIPMENT	299	TN				3.000	897	70.30	63,000	63,000
312.71	HEAVY WALL PIPING	1	LŢ				2000.000	2000	70.30	141,000	141,000
312.8	DEMOLITION OF REPOMERING ADDITIONS FOR UNIT 1										
312.81	REPOWERING BUILDINGS	912500	CF				0.006	5475	70.30	385,000	385,000
312.82	REPOWERING EQUIPMENT	2169	TN				3.000	6507	70.30	457,000	457,000
312.83	REPOWERING TANKS	180	TN				3.000	540	70.30	38,000	38,000
312.84	REPOWERING DUCTWORK	713	TN				4.000	2852	70.30	200,000	200,000
312.85	REPOWERING PIPING	99	TN				1.000	99	70.30	7,000	7,000
312.86	REPOWERING CONCRETE STRUCTURES	477	CY				2.500	1193	70.30	84,000	84,000

Cause No. 45253 OUCC Attachment CMA-5 Page 22 of 79

		TOTAL 312	-	-	-					-									15	1,14	9	11,772,000	11,772,00
		SUB TOTAL	312	.8															1	6,76	5	1,178,000	1,178,000
312.87		REPOWERING PI	PE	BRID	GE		10	D TN										1.0	000	100	70.30	7,000	7,000
ACCOUNT NO.	WORK	DESCRIPTION						r UN	RATER			COST			1 C C	ERIA	L		IHR	MNHRS	WAGE RATE	LABOR	COST
Note: Extend	ed costs	are rounded up	to	nex	t tł	nous	and	dol	lars * * *			TE	RI			**			*	* 1			
Sargent & Lu Chicago	ndy	E	5	T	I	M	A	т	E	W	0	R	ĸ	S	H	E	E	т			Esti	Page: 7 mate No: 13	348-8
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Page 23 of 79

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Sargent & Lundy Chicago	ESTI	MA	т	E W	1 0	R	ĸ	s	H	E	E	т		Esti	Page: 8 mate No: 133	48-8
Note: Extended costs WORK ACCOUNT NO. PACKAGE	are rounded up to next th DESCRIPTION		dol Y UN	MATERIAL		T E DUIPI COST	AENT	A	MAT	eri/		* * NNHR RATE	* L MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL COST
314	TURBINE PLANT															
314.11	TURBINE GENERATOR UNITS	190	4 TN									4.000	7616	70.30	535,000	535,000
314.111	GENERATORS												INCL'D	IN 314.	11	-
	SUB TOTAL 314.11											T.Y	7,616		535,000	535,000
	SUB TOTAL 314.1											- 20	7,616		535,000	535,000
314.21	CONDENSERS	187	4 TN									4.000	7496	70,30	527,000	527,000
314.26	CIRCULATING WATER PUMPS	27	1 TH	V								3.000	813	70.30	57,000	57,000
20180	SUB TOTAL 314.2									-			8,309		584,000	584,000
314.71	HEAVY WALL PIPING		11									1000.000	1000	70.30	70,000	70,000
	TOTAL 314							_					16,925		1,189,000	1,189,000

Page 24 of 79

Sargent & Lundy	E	S	тј	м	A	т	E	W	0	R	ĸ	s	H	E	E	т			Page: 9	
Chicago																		ESTI	mate No: 133	48-8
Note: Extended costs WORK ACCOUNT NO, PACKAGE			ext t	hous		dol	MATERI	AL	EQ	T E JIPM COST	ENT		MAT	er I	AL	MNHI RATI	* L MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
316	MISCELLANEOUS EQUIPMENT	POWER	PLA	NT																
316.11	MISCELLANEOUS EQUIPMENT	POWER	PLA	NT	604	TN										3.00	1812	70.30	127,000	127,000
316.111	TURBINE ROOM	CRANE															INCL 'D	IN 316.	.11	
	SUB TOTAL	316.11														- 6	1,812		127,000	127,000
316.12	TANKS				9	TN										3.00	273	70.30	19,000	19,000
316.13	PIPING AND HAN	NGERS				LT	£									600.00	600	70.30	42,000	42,000
	SUB TOTAL	316.1	_						_								2,685	2	188,000	188,000
	TOTAL 316																2,685	8	188,000	188,000

Page 25 of 79

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Sargent & Lu Chicago	ndy			E	S	T	I	M	A	т	E	W	0	R	ĸ	S	H	E	E	T					Estin		age: 10 No: 1334	48-8	
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ACCOUNT NO.	WORK	DESC	RIPTIC	N					QTY	UM	RATER			COST				ERI	AL		RATE		HRS		RATE		COST		COS
317		SCRAP	VALUE	(5	E E	ASI	S)																	13	S BELC	W			
317.11		SCRAP	VALUE	OF	STE	EL		25	954	TN																			
317.12		SCRAP	VALUE	OF	COP	PER			500	TN																			
		SUB	TOTAL	3	17.1																								
		TOT	AL 317	11														-											

Page 26 of 79

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Sargent & Lundy Chicago

## ESTIMATE WORKSHEET

Page: 11 Estimate No: 13348-8

Note: Extended costs are rounded up to next thousand dollars

MORK ACCOUNT NO. PACKAGE	DESCRIPTION	QTY UM	MATERIAL	A T E R I A EQUIPMENT COST	MATERIAL COST	MNHR RATE	MNHRS	A B O R WAGE RATE	LABOR	TOTAL
353	ELECTRICAL SWITCHYARD									
353.1	NEW SWITCHYARD CONTROL HOUSE					IN	ICL. AC	CT. 311.	4	
353.2	CONTROL PANELS, RELAYS	1 11	480000		480,000	900.000	900	50.70	46,000	526,000
353.3	CABLE	1 11	192000		192,000	9000.000	9000	50.70	456,000	648,000
353.4	BUILDING ELECTRICAL SERVICE, LIGHTING, BATTERY, HVAC SERVICES & GROUNDING	1 17	132000		132,000	1000.000	1000	50.70	51,000	183,000
353.5	TESTING	1 11				200.000	200	41.90	8,000	8,000
	TOTAL 353				804,000	6 - A	1,100	-	561,000	1,365,000

Page 27 of 79

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Chicago		1000	1	P									1										Esti	mate	No: 1	3348-	8
Note: Extend	ied costs	are rounded up	to	next	t th	ious	and	dol	lars * *	M	A	ТЕ	R 1	A		* *				. *	L	A	BOR				
ACCOUNT NO.	WORK PACKAGE	DESCRIPTION					-	Y UM	RATER	AL	EQ	COST	ENT		HA	COST			MNHR				WAGE		LABOR		COST
900		INDIRECT EXPEN	SES		-						-																
900.1		CINERGY INDIRE	CT	EXP	ENSE	s																		2,6	86,900	2,	686,900
		TOTAL 900	1													-								2,6	86,900	2,	686,900
		TOTAL DIREC	TS	INC	DIRE	CT	cos	TS							1,1	70,0	00			355,	581	QL I	1	28,3	85,900	29,	555,900

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PETITIONER'S EXHIBIT U-3 (AWW-3)

Page 28 of 79 DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA (W/O SCR) CONCEPTUAL COST ESTIMATE PREPARED FOR CINERGY CAYUGA - UNITS 1 & 2 SARGENT & LUNDY ESTIMATE NO. 13240-7X PROJECT NO. 9940-001 May 03, 2002 REVIEWED BY: APPROVED BY:

Cause No. 45253 OUCC Attachment CMA-5 Page 29 of 79

Estimate No: 13240-7

TABLE OF CONTENTS

Report

Page

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### Cause No. 45253 OUCC Attachment CMA-5 Page 30 of 79

Sargent & Lundy Chicago

### BASIS OF ESTIMATE

CINERGY CAYUGA - UNITS 1 & 2 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES,

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA (W/O SCR)

Page: 1 Estimate No: 13240-7X Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 03MAY02

Price level: 2002

Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT. DUCTS AND PIPING, DEMOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

#### Technical Basis

SEE ASSUMPTIONS BELOW

#### Assumptions

- ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION
- NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT FOR ASBESTOS REMOVAL AND DISPOSAL
- ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GRADE ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE, AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED
- THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, HOPPERS BELOW GRADE, AND THE ASH POND TO DISPOSE OF ALL DEBRIS
- THE ASH POND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON
- SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE SWITCHYARD IS NOT DEMOLISHED
- A NEW SWITCHYARD CONTROL BUILDING, EQUIPMENT, AND CABLES HAVE BEEN INCLUDED TO REPLACE THE EXISTING SWITCHYARD CONTROL BUILDING WHICH IS DEMOLISHED
- NO WORK HAS BEEN INCLUDED FOR MODIFYING THE FGD WASTE AREAS
- BASED ON 40 HOUR WORKWEEK

#### Commercial Basis

1 Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE:

- COPPER \$1400.00 PER TON - STEEL \$85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION, DISPOSAL, INSURANCE COSTS, AND OVERHEAD & PROFIT:

8	WRECKING CREW	\$ 70.30/hr
$\hat{\sim}$	ASBESTOS & PCB WORK	\$100.40/hr
$\sim$	EARTHWORK	\$139.27/hr
4	SEEDING & MULCHING	\$ 42.23/hr
-	ELECTRICIAN	\$ 50.70/hr
8	CARPENTER	\$ 41,50/hr

3 Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

4. Productivity

AS THOSE APPLIED TO INDIANA

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

### Cause No. 45253 OUCC Attachment CMA-5 Page 31 of 79

Sargent & Lundy Chicago

## BASIS OF ESTIMATE

Page: 2 Estimate No: 13240-7X

### Commercial Basis continued

6. Project Schedule

24 MONTHS DURATION

7. Indirect Expenses

CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST

8 Escalation Rates (See Cost Summary for rates)

NOT INCLUDED

9. Sales/Use Taxes (See Cost Summary for rates)

NOT INCLUDED

10. Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

OUCC Attachment CMA-5

Page 32 of 79

Sargent & Lundy Chicago

### COST SUMMARY REPORT

CINERGY CAYUGA - UNITS 1 & 2 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES,

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA (W/O SCR)

Page: 3 Estimate No: 13240-7X Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 03MAY02

Price level: 2002

ACCT.NO.	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		948,000	13,878,000	14,826,000
312	BOILER PLANT			11,267,000	11,267,000
314	TURBINE PLANT			2,114,000	2,114,000
316	MISCELLANEOUS POWER PLANT EQUIPMENT			195,000	195,000
317	SCRAP VALUE (SEE BASIS)				S BELOW
353	ELECTRICAL SWITCHYARD		636,000	449,000	1,085,000
	TOTAL CONSTRUCTION COSTS	_	1.584,000	27,903,000	29,487,000
	INDIRECT EXPENSES ESCALATION SALES/USE TAX				3,068,000
	CONTINGENCY				8,139,000
	TOTAL PROJECT COST SCRAP				40,694,000 -3,150,000
	GRAND TOTAL COST				37,544,000
	Material 0.0				

CONTINGENCY RATES: Equipment 0.0% Material 25.0% Labor 25.0% Indirects 25.0%

### Cause No. 45253 OUCC Attachment CMA-5 Page 33 of 79

### ESTIMATE WORKSHEET

CINERGY

CAYUGA - UNITS 1 & 2 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES.

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA (W/O SCR)

Page: 4 Estimate No: 13240-7X Project No: 9940-001 Prepared by: KS2/JK /GA

Estimate Date: 03MAY02

Price level: 2002

Sargent & Lundy

Chicago

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	OTY			A T E R I A EQUIPMENT COST	MATERIAL COST	MNHR RATE	MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
311		STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS	v									
311.1		SITE STRUCTURES DEMOLITION										
311.11		RAILROAD TRACKS	20000	TF				0,300	6000	70.30	422,000	422,000
311.12		PAVED SURFACES	45000	sy				0,180	8100	70.30	569,000	569,000
311,13		FENCES AND GATES	18000	LF				0,040	720	70.30	51,000	51,000
311,14		FILL SITE AREAS WHERE REQUIRED AND ASH POND (2 FT CAPING)	1200E3	CY				0,025	30000	139.27	4,178,000	4,178,000
311.15		PLUG CIRCULATING WATER PIPE WITH SLURRY & PLACE CONCRETE AT ENDS	ä	LS	220000		220,000	6900.000	6900	70.30	485,000	705,000
311.16		SEED & MULCH SITE INCLUDING TOPSOIL	650	AC	1100.00		715,000	30.000	19500	42.23	823,000	1,539,000
		SUB TOTAL 311 1					935.000		71,220	1	6.528.000	7,463,000
311.2		OUTLYING BUILDINGS DEMOLITION										
311,23		WAREHOUSE	107000	CF				0,006	642	70.30	45,000	45,000
311.27		CRIB HOUSE	206000	CF				0,006	1236	70.30	87,000	87,000
311.28		WATER TREATING BUILDING	292400	CF				0.006	1754	70.30	123,000	123,000
311.29		MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291		TANK FOUNDATIONS	1	1.5				600.000	600	70.30	42,000	42,000
311 292		LOADING DOCKS	100	CY				2,500	250	70,30	18,000	18,000
311,293		MISCELLANEOUS SMALL BUILDINGS	46000	CF				0.006	276	70.30	19,000	19,000
311.294		TRAINING BUILDING	31320	CF				0.006	188	70.30	13,000	13,000
311.295		YARD MAINTENANCE	105000	CF				0,006	630	70.30	44,000	44,000
		SUB TOTAL 311.29							1,944		136,000	136,000
		SUB TOTAL 311.2							5,576	1	391,000	391,000
112.3		MAIN POWER BLOCK DEMOLITION	1	LS					98750	70-30	6,942,000	6,942,000

### Cause No. 45253 • OUCC Attachment CMA-5

Page 34 of 79

### Sargent & Lundy Chicago EST IMATE WORKSHEET

# Page: 5 Estimate No: 13240-7X

	WORK	DESCRIPTION	QTY		MATERIAL RATE	A T E R I . EQUIPMENT COST	A L MATERIAL COST	M	NHR ATE N	NHRS	A B O WAGE RATE	LABOR	TOTAL
311.31	-	BOILER ROOM							INC	L. AC	CT. 31	1.3	
311.32		TURBINE ROOM							INC	L. AC	ст. 31	1.3	
311.33		CONTROL HOUSE							INC	L. AC	CT 31	1.3	
311,34		CONVEYOR ROOM							INC	L. AC	CT. 31	1.3	
311 . 35		ELEVATOR AREA							INC	L. AC	CT. 31	1.3	
311.36		TURBINE PEDESTALS							INC	L. AC	CT. 31	1.3	
		SUB TOTAL 311.3							98	,750	1	6,942,000	6,942,000
311 4		NEW SWITCHYARD CONTROL BUILDING, 15'X15'X12'H	1	LS	13000		13,000	400.	000	400	42.23 CARP	17,000	30,000
		TOTAL 311					948,000		175	,946		13,878,000	14,826,000

OUCC Attachment CMA-5

Page 35 of 79

Sargent & Lundy Chicago

### ESTIMATE WORKSHEET

Page: 6 Estimate No: 13240-7X

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY		MATERIAL RATE	A T E R I A EQUIPMENT COST	MATERIAL COST	MINHR		A B O R WAGE RATE	LABOR COST	TOTAL
312	-	BOILER PLANT										
312.11		REMOVAL OF ALL ASBESTOS INSULATION	1	LT					39760	100.40	3,992,000	3,992,000
312.12		BOILERS AND EQUIPMENT	13139	TN				4.000	52556	70.30	3,695,000	3,695,000
-		SUB TOTAL 312.1							92,316	1	7.587.000	7,687,000
312.21		REMOVAL OF CONCRETE CHIMNEYS	2	EA				8000.000	16000	70,30	1,125,000	1,125,000
312.22		DRAFT EQUIPMENT	875	TN				4.000	3500	70.30	246,000	246,000
312.24		FLUES AND DUCTS	2194	TN				4.000	8776	70.30	617,000	617,000
312.25		PRECIPITATORS	1420	TN				4.000	5680	70.30	399,000	399,000
		SUB TOTAL 312.2							33,956		2,387.000	2.387,000
312.31		WATER SUPPLY AND PURIFICATION EQUIPMENT	554	TN				3,000	1662	70,30	117,000	117,000
312.41		PULVERIZED FUEL EQUIPMENT	1704	TN				3.000	5112	70.30	359,000	359,000
312.44		DEMOLISH COAL HANDLING STRUCTURES										
312.441		CONVEYORS INCLUDING TRUSSES, BENTS, EQUIPMENT	1417	TN				3.000	4251	70,30	299,000	299,000
312.442		BUILDINGS AND TOWERS	600	TN				3.000	1800	70.30	127,000	127,000
312.443		FOUNDATIONS	800	CY				1.500	1200	70.30	84,000	84,000
		SUB TOTAL 312.44							7,251		510,000	510,000
		SUB TOTAL 312.4						1	12,363		869.000	869,000
312 51		ASH HANDLING EQUIPMENT	312	TN				3.000	936	70.30	66,000	66,000
312.71		HEAVY WALL PIPING	1	LT	-			2000.000	2000	70.30	141,000	141,000
		TOTAL 312						1	43,233		11,267,000	11.267,000

# Cause No. 45253 OUCC Attachment CMA-5 Page 36 of 79

Note: Extend	led costs	are rounded up to next thou	usand	doll				8 ÷	0.0.0.2.	100.00	
ACCOUNT NO.	WORK. PACKAGE	DESCRIPTION	QTY		A T E R I A EQUIPMENT COST	L MATERIAL COST	MNHR RATE	• L MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
314		TURBINE PLANT									
314.11		TURBINE GENERATOR UNITS	1988	TN			4.000	7952	70.30	559,000	559,000
314 111		GENERATORS					1	NCL. AC	CT 314.1	1	
		SUB TOTAL 314.11						7,952		559,000	559,000
		SUB TOTAL 314.1						7,952	1	559,000	559,000
314.21		CONDENSERS	1957	TN			4.000	7828	70.30	550,000	550,000
314.26		CIRCULATING WATER PUMPS	283	TN			3.000	849	70.30	60,000	60,000
		SUB TOTAL 314.2						8,677		610,000	610,000
314.3		NEW WORK SINCE 1992									
314.31		WAREHOUSE & ELECTRICAL : BUILDINGS	156000	CF			0 006	935	70.30	66,000	66,000
314.32		COMBUSTION TURBINE AND ASSOCIATED EQUIPMENT	558	TN			3.000	1674	70.30	118,000	118,000
314.33		FUEL OIL TANK	61	TN			3.000	183	70.30	13,000	13,000
314.34		FUEL OIL TANK CONCRETE CONTAINMENT	605	cr			2,500	1513	70.30	106,000	106,000
		SUB TOTAL 314.3						4,306		303,000	303,000
314.71		HEAVY WALL PIPING	1	LT			1000.000	1000	70,30	70,000	70,000
314.T41		COOLING TOWERS DEMOLITION	1600	TN			2,000	3200	70.30	225,000	225,000
314.T42		BASINS	900	CY			2.500	2250	70,30	158,000	158,000
314 .T43		NEW BOOSTER COOLING TOWERS	450	TN			2,000	900	70 30	53,000	63,000
314.T44		BASIN	650	CY			2.500	1625	70.30	114,000	114,000
314.T45		PUMPS, PIPING & PLATFORMS	85	TN			2.000	170	70.30	12,000	12,000
		SUB TOTAL 314 T4						8,145		572,000	572,000
		SUB TOTAL 314.T						8,145		572,000	572,000
		TOTAL 314						30,080	1	2,114,000	2,114,000

### Cause No. 45253 OUCC Attachment CMA-5 Page 37 of 79

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Note: Extende	WORK PACKAGE	are rounded up DESCRIPTION		o n	ext	th	ous		dol r uv	M			T E QUIE COS	MEN			ATER COS	1000		* * MNHR RATE	* L	A B O WAGE RATE	5	LABOR COST	TOTAL
316		MISCELLANEOUS EQUIPMENT	S PO	OWE	R P	LAN	T																		
316 11		MISCELLANEOUS EQUIPMENT	S P	OWE	RP	LAN	T	630	) TN	i.										3.000	1890	70,30	1	133.000	133,000
316.111		TURBINE ROOM	CR	ANE																INC	CL AC	ст. 316	. 11		
		SUB TOTAL	31	6.1	1																1,890			133,000	133,000
316.12		TANKS						9!	5 Th	1										3.000	285	70.30	)	20,000	20,000
316.13		PIPING AND HA	ANG	ERS				4	1 17	r.										600,000	600	70.30	)	42,000	42,000
		SUB TOTAL	31	6.1																	2,775	4		195,000	195.000
		TOTAL 316																		-	2,775			195,000	195,000

OUCC Attachment CMA-5 Page 38 of 79

Sargent & Lund Chicago	Y	E	S	T	I	M	T	E	W	0	R	K	S	H	E	E	т		Estima	Page: 9 te No: 1324	0-7X
Note: Extended	WORK	rounded up		next	tho		l dol	* * MATE	RIAL		r e Jipm Cost	ENT		MATE	ERIA		MNH	* * R E MINHR	B O R WAGE RATE	LABOR COST	TOTAL COS'
317	SCI	RAP VALUE	SEE 1	BASIS	;)														\$ BELOW	P.	
317.11	SCI	RAP VALUE C	F ST	EEL		2718	7 TN														
317.12	SCI	RAP VALUE C	F CO	PPER		60	O TN														
		SUB TOTAL	317.	1																	
		TOTAL 317	-																		

### OUCC Attachment CMA-5

Page 39 of 79

### Sargent & Lundy Chicago EST IMATE WORKSHE E т

Page: 10 Estimate No: 13240-7X

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY	UM	MATERIAL	ATERIA EQUIPMENT COST	L + + + MATERIAL COST	0.5001	<ul> <li>L</li> <li>MNHRS</li> </ul>	A B O R WAGE RATE	LABOR COST	TOTAL
353		ELECTRICAL SWITCHYARD										
353.1		NEW SWITCHYARD CONTROL HOUSE						п	NCL AC	ст. 311.	4	
353.2		CONTROL PANELS, RELAYS	1	LT	360000		360,000	650.000	650	50.70 ESSW	33,000	393,000
353.3		CABLE	1	LT	144000		144,000	7000.000	7000	50.70 ESSW	355,000	499,000
353,4		BUILDING ELECTRICAL SERVICE, LIGHTING, BATTERY, HVAC SERVICES AND GROUNDING	ĩ	LT	132000		132,000	1000.000	1000	50 70 ESSW	51,000	183,000
353.5		TESTING	1	LT				200.000	200	50_70 ESSW	10,000	10,000
		TOTAL 353					636,000		8.850		449,000	1,085,000

### Cause No. 45253 OUCC Attachment CMA-5 Page 40 of 79

5

Sargent & Lund Chicago	dy		E	S	т	I	M	A	т	E		W	0	R	K	s	H	E	E	т				Est	Page: 1 imate No: 1	
Note: Extended	d costs WORK PACKAGE	are round DESCRI		to	next	t h	ousa		dol UM	MA	9 TERIA RATE		EQU	T E JIPM COST	ENT		MAT		AL		MNHE			A B O WAGE RATE	LABOR	TOTAL
900		INDIRECT	EXPER	ISES	P[ ]					1		-					-									
900.1		CINERGY EXPENSES	INDI	RECT																					3,068,000	3,058,000
		TOTAL	900																						3,068,000	3,068,000
		TOTAL	DIREC	T L	INC	DIRE	CT C	COST	s							j	L,58	4,0	00		3	60,	884		30,971,000	32,555.000

Cause No. 45253 OUCC Attachment CMA-5 Page 41 of 79

PETITIONER'S EXHIBIT U-4 (AWW-4)

DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA CONCEPTUAL COST ESTIMATE PREPARED FOR CINERGY GIBSON - UNITS 1, 2, 3, 4 & 5 SARGENT & LUNDY ESTIMATE NO. 13242-7 PROJECT NO. 9940-001 March 12, 2002 REVIEWED BY: -APPROVED BY:

Cause No. 45253OUCC Attachment CMA-5Page 42 of 79

1 - 1

Estimate No: 13242-7

TABLE OF CONTENTS

Report	Page
Basis of Estimate	1
Summary	
Work Sheet Details	4

Cause No. 45253 OUCC Attachment CMA-5 Page 43 of 79

Sargent & Lundy Chicago

### BASIS OF ESTIMATE

CINERGY GIBSON - UNITS 1, 2, 3, 4 & 5 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 1 Estimate No: 13242-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 12MAR02

Price level: 2002

### Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT, DUCTS AND PIPING, DEMOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

### Technical Basis

SEE ASSUMPTIONS BELOW

### Assumptions

- ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION
- NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT FOR ASBESTOS REMOVAL AND DISPOSAL
- ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GRADE ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE, AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED
- THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, HOPPERS BELOW GRADE, OR THE ASH POND TO DISPOSE OF ALL DEBRIS
- THE ASH POND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON
- SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE LAKE IS NOT DEMOLISHED
- THE SWITCHYARD AND ITS CONTROL BUILDING WHICH IS LOCATED IN THE SWITCHYARD IS NOT DEMOLISHED
- ASSUME THE ASH POND AT TIME OF DEMOLITION IS 1240 ACRES
- DEMOLITION OF TWO FGD SYSTEMS
- NO WORK HAS BEEN INCLUDED FOR MODIFYING THE FGD WASTE AREAS
- BASED ON 40 HOUR WORKWEEK

### Commercial Basis

1. Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE:

- COPPER \$1400.00 PER TON - STEEL \$ 85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION, DISPOSAL, INSURANCE COSTS, OVERHEAD & PROFIT:

-	WRECKING CREW	\$ 70.30/hr
÷	ASBESTOS & PCB WORK	\$100.40/hr
-	EARTHWORK	\$139.27/hr
	SEEDING & MULCHING	\$ 42.23/hr
-	ELECTRICIAN	\$ 50.70/hr
÷.	CARPENTER	\$ 41.50/hr
-	LARPENTER	\$ 41.50/hr

3. Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

4. Productivity

AS THOSE APPLIED TO INDIANA

Cause No. 45253 OUCC Attachment CMA-5 Page 44 of 79

### Sargent & Lundy Chicago

### BASIS OF ESTIMATE

Page: 2 Estimate No: 13242-7

### Commercial Basis continued

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

6. Project Schedule

36 MONTHS DURATION

7. Indirect Expenses

CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST

8. Escalation Rates (See Cost Summary for rates)

NOT INCLUDED

- 9. <u>Sales/Use Taxes (See Cost Summary for rates)</u> NOT INCLUDED
- 10. Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

### Cause No. 45253 OUCC Attachment CMA-5 Page 45 of 79

### COST SUMMARY REPORT

CINERGY GIBSON - UNITS 1, 2, 3, 4 6 5 CONCEPTUAL COST ESTIMATE

DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

Page: 3 Estimate No: 13242-7 Project No: 9940-001 Prepared by KSZ/JK /GA

Estimate Date: 12MAR02

Price level: 2002

Sargent & Lundy

Chicago

ACCT.NO.	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		2,594,000	53,978,000	56,572,000
312	BOILER PLANT			35,184,000	35,184,000
31.4	TURBINE PLANT			2,490.000	2,490,000
316	MISCELLANEOUS POWER PLANT EQUIPMENT			409,000	409,000
317	SCRAP VALUE (SEE BASIS)				\$ BELCW
	TOTAL CONSTRUCTION COSTS		2,594,000	92,061,000	94,655,000
	INDIRECT EXPENSES ESCALATION SALES/USE TAX				9,465,500
	CONTINGENCY				26,030,000
	TOTAL PROJECT COST SCRAP				130,150,500 -11,716,000
	GRAND TOTAL COST				118,434,500
	and the second state of th	000¥ 000¥			

Labor 0.000%

Indirects 0.000% SALES/USE TAX RATES: Equipment 0.000% Material 0.000% CONTINGENCY RATES: Equipment 0.0% Material 25.0% Labor 25.0% Indirects 25.0%

Cause No. 45253 OUCC Attachment CMA-5 Page 46 of 79

### ESTIMATE WORKSHEET

CINERGY GIBSON - UNITS 1, 2, 3, 4 & 5 <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION DF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 4 Estimate No: 13242-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 12MAR02

Price level: 2002

Sargent & Lundy Chicago

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY	12		A T E R I . EQUIPMENT COST	MATERIAL COST	HNHR		A B O I WAGE RATE	LABOR COST	TOTAL
311		STRUCTURES AND IMPROVEMENTS - DEMOLITIO AND NODIFICATIONS	N									
311.1		SITE STRUCTURES DEMOLITION										
311.11		RAILROAD TRACKS	23000	LF				0.300	6900	70.30	485,000	485,000
311.12		PAVED SURFACES	93000	SY				0.180	16740	70.30	1,177,000	1,177,000
311.13		FENCES AND GATES	16000	£F.				0.040	640	70.30	45,000	45,000
311.14		FILL SITE AREAS WHERE REQUIRED AND ASH POND (2 FT CAPING)	5208E3	CY				0.025	130200	139.27	18,133,000	18,133,000
311.15		PLUG CIRCULATING WATER PIPE WITH SLURRY & PLACE CONCRETE AT ENDS		LS	900000		900,000	2750.000	2750	70.30	193,000	1,093,000
311.16		SEED & MULCH SITE INCLUDING TOPSOIL	1540	AC	1100.00		1,694,000	30.000	46200	42.23	1,951,000	3,645,000
		SUB TOTAL 311.1					2,594,000	20	03,430	1	21,984,000	24,578,000
311.2		OUTLYING BUILDINGS DEMOLITION										
311.23		WAREHOUSE	555000	CF				0.006	3330	70.30	234,000	234,000
311.27		CRIB HOUSE	1000E3	CF				0.006	6000	70.30	422,000	422,000
311.28		WATER TREATING BUILDING						11	NGL. AC	CT. 311	.3	
311.29		MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291		TANK FOUNDATIONS	1	LS				700.000	700	70.30	49,000	49,000
311.293		MISCELLANEOUS SMALL BUILDINGS	400000	CF				0.006	2400	70.30	169,000	169,000
311.298		TWO CAR THAW SHEDS	600000	CF				0.006	3600	70.30	253,000	253,000
		SUB TOTAL 311.29							6,700	1.0	471,000	471,000
	-	SUB TOTAL 311.2						- 7	16,030		1,127,000	1,127,000
311.3		MAIN POWER BLOCK DEMOLITION	1	LS				2	386875	70.30	27,197,000	27,197,000
311.31		BOILER ROOM						IN	ICL. AC	CT. 311	.3	
311.32		TURBINE ROOM						IN	ICL. AC	CT. 311	.3	

Cause No. 45253 OUCC Attachment CMA-5 Page 47 of 79

Sargent & Lundy Chicago

### ESTIMATE WORKSHEET

Page: 5 Estimate No: 13242-7

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY UM	MATERIAL	A T E R I A EQUIPMENT COST	MATERIAL	NNHR RATE MNHRS	A B O F WAGE RATE	LABOR COST	TOTAL
311.33		CONTROL HOUSE					INCL. AC	CT. 31	1./3	
311.34		CONVEYOR ROOM					INCL. AC	CT. 31	1.3	
311.35		ELEVATOR AREA					INCL. AC	CT. 31	1.3	
311.36		TURBINE PEDESTALS					INCL. AC	CT. 31	1.3	
		SUB TOTAL 311.3					386,875	1	27, 197, 000	27,197,000
311.6		DEMOLITION OF FGD SYSTEM	4							
311.61		FGD BUILDINGS	5162E3 CF				0.006 30973	70.30	2,177,000	2,177,000
311.62		FGD EQUIPMENT	514 TN				3.000 1542	70.30	108,000	108,000
311.63		FGD TANKS	777 TN				3.000 2331	70.30	164,000	164,000
311.64		FGD SCRUBBER VESSELS	1076 TN				4.000 4304	70.30	303,000	303,000
311.65		FGD DUCTWORK	650 TN				4.000 2600	70.30	183,000	183,000
311.66		FGD PIPING	421 TH				1.000 421	70.30	30,000	30,000
311.67		FGD THICKNERS	4014 CY				2.500 10035	70.30	705,000	705,000
		SUB TOTAL 311.6					52,206	t	3,670,000	3,670,000
		TOTAL 311				2,594,000	658,541	11	53,978,000	56,572,000

• OUCC Attachment CMA-5

Page 48 of 79

Sargent & Lundy Chicago

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Page: 6 Estimate No: 13242-7

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	OTY		COST	MATERIAL	MNHR		A B O B WAGE RATE	LABOR COST	TOTAL
312		BOILER PLANT									
312.11		REMOVAL OF ALL ASBESTOS	1	LT				78960	100.00	7,896,000	7,896,000
312.12		BOILERS AND EQUIPMENT	26093	TN			4.000	104372	70.30	7,337,000	7,337,000
		SUB TOTAL 312.1					1	83,332	1	15,233,000	15,233,000
312.21		CONCRETE CHIMNEY REMOVAL	4	EA			8000.000	32000	70.30	2,250,000	2,250,000
312.22		DRAFT EQUIPMENT	1737	TN			4.000	6948	70.30	488,000	488,000
312.24		FLUES AND DUCTS	6398	TN			4.000	25592	70.30	1,799,000	1,799,000
312.25		PRECIPITATORS	6045	TN			4.000	24180	70.30	1,700,000	1,700,000
		SUB TOTAL 312.2					1	88,720		6,237,000	6,237,000
312.31		WATER SUPPLY AND PURIFICATION EQUIPMENT	1100	TN			3.000	3300	70.30	232,000	232,000
312.41		PULVERIZED FUEL EQUIPMENT	3384	TH			3.000	10152	70.30	714,000	714,000
312.44		DEMOLISH COAL HANDLING STRUCTURES									
312.441		CONVEYORS INCLUDING TRUSSES, BENTS, EQUIPMENT	2814	TN			3.000	8442	70.30	593,000	593,000
312.442		BUILDINGS AND TOWERS	700	TN			3.000	2100	70.30	148,000	148,000
312.443		FOUNDATIONS	1400	CY			1.500	2100	70.30	148,000	148,000
312.444		CAR DUMPER	300	TN			3.000	900	70.30	63,000	63,000
		SUB TOTAL 312.44					- 1	13,542		952,000	952,000
		SUB TOTAL 312.4						23,694	1	1,666,000	1,666,000
312.51		ASH HANDLING EQUIPMENT	620	TN			3.000	1860	70.30	131,000	131,000
312.71		HEAVY WALL PIPING	1	LT			4500.000	4500	70.30	316,000	316,000
312.8		SCR RETROFIT									
312.801		DUCTWORK	10500	TN			4.000	42000	70.30	2,953,000	2,953,000
312.802		SUPPORT STEEL	20200	TN			4.000	80800	70.30	5,680,000	5,680,000
312.803		GALLERIES	1039	TN			4.000	4156	70.30	292,000	292,000
312.804		EQUIPMENT	2100	TN			4.000	8400	70.30	591,000	591,000
312.805		ELECTRICAL	4	LS			7500.000	7500	70.30	527,000	527,000
312.806		FOUNDATIONS	2500	CY			1.500	3750	70.30	264,000	264,000
312.807		CATALYST	3778	TN			4,000	15112	70.30	1,062,000	1,062,000

Cause No. 45253 OUCC Attachment CMA-5 Page 49 of 79

Sargent & Lu Chicago	ndy	E	s	T	I	M	A	т	E	P	0	R	ĸ	S	H	E	E	T		Estim	Page: 7 ate No: 13	242-7
Note: Extend	WORK PACKAGE	re rounded up	to	next	th			dol	MAT	ERIAL	EQ	T E DUIPN COST	ENT		MAT	# * ERI			* * * L MNHR RATE MNHRS	A B O R WAGE RATE	* * * LABOR COST	TOTA
		SUB TOTAL 3	112.	80									-	-					161,718	1	1,369,000	11,369,00
-		SUB TOTAL	512.	8		-			-										161,718	1	1,369,000	11,369,00
		TOTAL 312																	467,124	3	5,184,000	35, 184,000

# Cause No. 45253 OUCC Attachment CMA-5 Page 50 of 79

Sargent & Lu Chicago	ndy	E	S	Т	I	M	A	т	E	P	1 0	R	R	s	H	E	E	T		Est	Page: 8 Imate No: 13	242-7
Note: Extend	ed costs	are rounded up	to	next	t th	ous	and	dol		d,	2.2	3.5	e î	Ξ.		34						
ACCOUNT NO.	WORK PACKAGE	DESCRIPTION					OT	r um	NATER	IAL	EC	T E UIPH COST	ENT		MAT	TERI COST	AL	MNHR RATE		A B O F WAGE RATE	LABOR COST	TOTAL
314		TURBINE PLANT																				
314.11		TURBINE GENERA	TOR	UNI	TS		3948	TN										4.000	15792	70.30	1,110,000	1,110,000
314.111		GENERATORS																IN	CL. AC	T. 314.	.11	
		SUB TOTAL 3	14.	11															15,792		1,110,000	1,110,000
		SUB TOTAL 3	14.	1															15,792	-	1,110,000	1,110,000
314.21		CONDENSERS					3886	TN										4.000	15544	70.30	1,093,000	1,093,000
314.26		CIRCULATING WAT	TER	PUN	IPS		561	TN										3.000	1683	70.30	118,000	118,000
· · ·		SUB TOTAL 3	14.3	2															17,227		1,211,000	1,211,000
314.71		HEAVY WALL PIP	ING				14	LT									2	400.000	2400	70.30	169,000	169,000
		TOTAL 314									-							1	35,419		2,490,000	2,490,000

### Cause No. 45253 OUCC Attachment CMA-5 Page 51 of 79

Sargent & Lundy Chicago	E	S	1	r I	. 1	1 2	¥. '	T	E	W	0	R	K	g	F	1 ]	S	E	T			Estim	Page: 9 wate No: 132	42-7
Note: Extended costs WORK ACCOUNT NO. PACKAGE		to	ne)	kt ti	hou		b b		AFS * * * MATERI, RATE	AL		T E UIPP COST	ENT			* TEF			MNHI		5	A B O R WAGE RATE	LABOR COST	TOTAL
316	MISCELLANEOUS EQUIPMENT	POW	ER	PLA	NT																			
316.11	MISCELLANEOUS EQUIPMENT	POW	ÆR	PLA	NT	12	52	TN											3.00	375	56	70.30	264,000	264,000
316.111	TURBINE ROOM C	RAN	E																- ij	NCL. /	ACC	T. 316.1	1	
	SUB TOTAL 3	\$16.	11							_										3,75	56		264,000	264,000
316.12	TANKS					1	89	TN											3.00	56	57	70.30	40,000	40,000
316.13	PIPING AND HAN	GER	s				1	LT										11	1500.00	0 150	00	70.30	105,000	105,000
	SUB TOTAL 3	\$16.	1																	5,82	23		409,000	409,000
	TOTAL 316		-			_			_											5,82	23		409,000	409,000

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Cause No. 45253 OUCC Attachment CMA-5 Page 52 of 79

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Sargent & Lundy Chicago		E	S	т	I	M	A	T	E	W	OR	K	S	H	E	E	T	Estima	Page: 10 te No: 1324	2-7
Note: Extended co WOR ACCOUNT NO. PACI	ĸ			next	th		L,	UN			A T E EQUIP COS	MENT		MAT	erial OST		* * * L MNHR RATE MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
317	SCRAP VAL	UE (	SEE	BASI	S)										-			\$ BELOW	r.	
317.11	SCRAP VAL	UE O	F ST	EEL		97	642	TN												
317.12	SCRAP VAL	UE OI	F CO	PPER	e.	2	440	TN												
	SUB TO	TAL 3	317.	1																
	TOTAL	317		-												_				

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Sargent & Lundy Chicago		E	s	т	I	M	A	т	E		W	0	R	ĸ	S	H	E	E	т				Est	ima	Page: te No:		5242-7	
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900	INDIRECT	EXPEN	SES																					-				
900.1	CINERGY EXPENSES	INDIR	ECT																					9	,465,5	500	9,465,	500
	TOTAL	900																					_	9	465,5	500	9,465,	500
	TOTAL	DIREC	T &	IND	IRE	CT (	COST	S							- 1	2,5	94,0	000	1	1,	166,	907	1.1	101	,526,5	500	104,120,	500

OUCC Attachment CMA-5
 Page 54 of 79

DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

CONCEPTUAL COST ESTIMATE

PREPARED FOR

CINERGY EDWARDSPORT - UNITS 6, 7 & 8

SARGENT & LUNDY

ESTIMATE NO. 13225-7 PROJECT NO. 9940-001 March 22, 2002

REVIEWED BY:\_ APPROVED BY :

Cause No. 45253 OUCC Attachment CMA-5 Page 55 of 79

Estimate No: 13225-7

TABLE OF CONTENTS

Report

Page

Basis of E	stimate.	.,	k	6	è.		ă,	ģ.	à		i,	á	÷	ŝ	ù,		1
Summary	*******	ι.		ġ.			÷.	÷.	24		-	ŝ	i.	Ŕ	ž		3
Work Sheet	Details	ι.		÷	•	 5		ž	è	•		ŝ	ŝ	ŝ	×	ς.	4

### Cause No. 45253 OUCC Attachment CMA-5 Page 56 of 79

Sargent & Lundy Chicago

### BASIS of ESTIMATE

CINERGY EDWARDSPORT - UNITS 6, 7 & B <u>CONCEPTUAL COST ESTIMATE</u> DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 1 Estimate No: 13225-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

### Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT, DUCTS AND PIPING, DEMOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

### Technical Basis

SEE ASSUMPTIONS BELOW

### Assumptions

- = ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION
- NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT FOR ASBESTOS REMOVAL AND DISPOSAL
- ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GRADE ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE. AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED
- THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, HOPPERS BELOW GRADE, DR THE ASH POND TO DISPOSE OF ALL DEBRIS
- THE ASH POND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE SWITCHYARD AND ITS CONTROL BUILDING WHICH IS LOCATED IN THE SWITCHYARD IS NOT DEMOLISHED
- BASED ON 40 HOUR WORKWEEK

### Commercial Basis

1. Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE :

- COPPER \$1400.00 PER TON - STEEL \$ 85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION. DISPOSAL, INSURANCE COSTS, OVERHEAD & PROFIT:

- WRECKING CREW	\$ 70 30/hr
- ASBESTOS & PCB WORK	\$100.40/hr
- EARTHWORK	\$139_22/hr
- SEEDING & MULCHING	\$ 42.23/hr
- ELECTRICIAN	\$ 50.70/hr
- CARPENTER	\$ 41.50/hr

3. Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

4. Productivity

AS THOSE APPLIED TO INDIANA

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

### Cause No. 45253 OUCC Attachment CMA-5 Page 57 of 79

Sargent & Lundy Chicago

1.4

### BASIS OF ESTIMATE

Page: 2 Estimate No: 13225-7

### Commercial Basis continued

6. Project Schedule

36 MONTHS DURATION

7. Indirect Expenses

CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST

8 Escalation Rates (See Cost Summary for rates)

NOT INCLUDED

- Sales/Use Taxes (See Cost Summary for rates) NOT INCLUDED
- 10 Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

### Cause No. 45253 OUCC Attachment CMA-5

Page 58 of 79

Sargent & Lundy Chicago

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### COST SUMMARY REPORT

CINERGY

EDWARDSPORT - UNITS 6, 7 & 8

CONCEPTUAL COST ESTIMATE DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES.

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

Page: 3 Estimate No: 13225-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

ACCT.NO.	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		278,000	5,093,000	5,371.000
312	BOILER PLANT			3,798,000	3,798,000
314	TURBINE PLANT			408,000	408,000
316	MISCELLANEOUS POWER PLANT EQUIPMENT			65,000	65,000
317	SCRAP VALUE (SEE BASIS)				\$ BELOW
	TOTAL CONSTRUCTION COSTS		278,000	9,364,000	9,642,000
	INDIRECT EXPENSES ESCALATION				964,200
	SALES/USE TAX CONTINGENCY				2,652,000
	TOTAL PROJECT COST				13,258,200 -882,003
	GRAND TOTAL COST				12,376,200
	Material 0.	000% 000%			

Labor 0.000%

Indirects 0.000% SALES/USE TAX RATES: Equipment 0.000% Material 0.000%

CONTINGENCY RATES: Equipment 0.0% Material 25.0% Labor 25.0% Indirects 25.0%

### Cause No. 45253 OUCC Attachment CMA-5 Page 59 of 79

Sargent & Lundy Chicago

4

### ESTIMATE WORKSHEET

CINERGY EDWARDSPORT - UNITS 6, 7 & 8

CONCEPTUAL COST ESTIMATE

DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA Page: 4 Estimate No: 13225-7 Project No: 9940-001 Prepared by: KS2/JK /GA

Estimate Date: 22MAR02

Price level: 2002

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	OTY			A T E R I A EQUIPMENT COST	MATERIAL	MNHR	MNHRS	A B O R WAGE RATE	LABOR COST	TOTAL
311		STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS	ł									
311.1		SITE STRUCTURES DEMOLITION										
311.11		RAILROAD TRACKS	10000	LF				0.300	3000	70.30	211,000	211,000
311.12		PAVED SURFACES	20000	SY				0-180	3600	70.30	253,000	253.000
311.13		FENCES AND GATES	7000	LF				0.040	280	70.30	20,000	20,000
311.14		FILL SITE AREAS WHERE REQUIRED AND ASH POND 12 FT CAPING)	500000	CY				0.025	12500	139.27	1,741,000	1,741,000
311.15		PLUG CIRCULATING WATER PIPE WITH SLURRY & PLACE CONCRETE AT ENDS	ı	LS	80000		80,000	2820.000	2820	70.30	198,000	278,000
311.16		SEED & MULCH SITE INCLUDING TOPSOIL	180	AC	1100.00		198,000	30.000	5400	42.23	228,000	426,000
		SUB TOTAL 311.1					278,000		27,600		2,651,000	2,929,000
111.2		OUTLYING BUILDINGS DEMOLITION										
311.21		MISCELLANEOUS STRUCTURES	201650	CF				0.006	1210	70.30	85,000	85,000
311.27		CRIB HOUSE	105000	CF				0.006	630	70.30	44,000	44,000
311.29		MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291		TANK FOUNDATIONS	1	LS				400.000	400	70.30	28,000	28,000
		SUB TOTAL 311.29							400	1	28,000	28,000
		SUB TOTAL 311 2							2,240		157,000	157,000
311,3		MAIN POWER BLOCK DEMOLITION	1	LS					32500	70.30	2,285,000	2,285,000
311.31		BOILER ROOM						It	ICL. AC	ст. этт	. 3	
311.33		CONTROL HOUSE						II	ICL. AC	ст. 311	. 3	
J11.34		CONVEYOR ROOM						I	ICL. AC	ст. 311	τ.	
311,35		ELEVATOR AREA						T	ICL. AC	ст 311	.3	
311,36		TURBINE PEDESTALS							BURIED	IN PLA	CE	

	Cause No.	45253 tachment Cl	\ <i>T</i> \	5																		
÷	Page 60 of		VIA-	-3																		
Fargent & L Chicago			E	s	т	I	м	A	т	E	W		R	ĸ	s	н	E	E	т	Esti	Page: 5 mate No: 13	225-7
Note: Exten	ded costs a WORK PACKAGE	DESCRIPTI		to r	next	th	oùsa		dol.	* • MATE	RIAL	EC		R I MENT		MAT	* * ERIJ	AL	MNHR RATE MNHRS	B O R WAGE RATE	LABOR COST	TOTAL
		SUB TOTA	L 3	11.3	3		-	2.1									-		32,500	-	2,285,000	2,285,000
		TOTAL 31	1		-	-					-					27	8.00	00	62,340		5,093,000	5,371,000

OUCC Attachment CMA-5

Page 61 of 79

argent & Lundy Chicago

### ESTIMATE WORKSHEET

### Page 6 Estimate No. 13225-7

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY		MATERIAL RATE	A T E R I EQUIPMENT COST	A L * * * MATERIAL COST	MNHR RATE	<ul> <li>L</li> <li>MNHRS</li> </ul>	A B O R WAGE RATE	LABOR COST	TOTAL
312		BOILER PLANT										
312.11		REMOVAL OF ALL ASBESTOS INSULATION	1	LT					13160	100.40	1,321,000	1,321,000
312.12		BOILERS AND EQUIPMENT	4349	TN				4.000	17396	70.30	1.223,000	1,223,000
		SUB TOTAL 312.1						1	30,556		2,544,000	2,544,000
312.22		DRAFT EQUIPMENT	290	TN				4.000	1160	70-30	82,000	82,000
312.24		FLUES AND DUCTS	726	TN				4,000	2904	70.30	204,000	204,000
312.25		PRECIPITATORS	470	TN				4.000	1880	70.30	132,000	132,000
312,26		REMOVAL OF STEEL STACKS	1	EA				5000.000	5000	70.30	352,000	352,000
		SUB TOTAL 312.2							10.944	1	770,000	770,000
312.31		WATER SUPPLY AND PURIFICATION EQUIPMENT	183	TN				3.000	549	70.30	39,000	39,000
312.41		PULVERIZED FUEL EQUIPMENT	564	TN				3.000	1692	70.30	119,000	119,000
312.44		DEMOLISH COAL HANDLING STRUCTURES										
312.441		CONVEYORS INCLUDING TRUSSES, BENTS, EQUIPMENT	469	TN				3.000	1407	70.30	99.000	99,000
312.442		BUILDINGS AND TOWERS	500	TN				3.000	1500	70 30	105.000	105,000
312.443		FOUNDATIONS	550	СХ				1.500	825	70.30	58,000	58,000
(		SUB TOTAL 312.44							3,732		262.000	262,000
		SUB TOTAL 312.4							5,424		361,000	381,000
312.51		ASH HANDLING EQUIPMENT	103	TN				3,000	309	70 30	22,000	22,000
112 71	·	HEAVY WALL PIPING	ì	LT				600.000	600	70.30	42,000	42,000
	•	TOTAL 312							48,382	1	3,798,000	3,798,000

OUCC Attachment CMA-5 Page 62 of 79

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Note: Extende	WORK PACKAGE	are rounded			ne	xt	the	ous		dol Y UM	M	IS * * ATERIJ RATE		EQI	T E DIPM	ENT		MA	TER	IAL		MINH RAT			L A	A B O F WAGE RATE		LABOR COST	TOTAL COST
314		TURBINE PL	ANT		-	-	-																						
314,11		TURBINE GE	NER	OTA	RL	NIT	s		65	8 Th	4											4.00	0	26	32	70.30		185.000	185,000
314.111		GENERATORS																					I	NCL	D	IN 314	.11	· · · · · · · · · · · · · · · · · · ·	
314,111		SUB TOT		314	. 13	1	-	-			-		-	_										2,6	32			185,000	185,000
		SUB TOT	-	-	-	-	-				-				-	-	-	-					3	2,6	32			185.000	185,000
		CONDENSERS			00				64	8 T	N											4.00	οġ	25	92	70 30	<u>.</u>	182,000	182,000
314.21		CIRCULATIN		ATE	R	PUM	PS		9	4 T	N											3.0	00	1	282	70.30	3	20,000	20,000
314.26		1.1.1.1.1.1.1.1	-		-	-	-				-		-	_		-		-	-	-			1	2,1	874			202,000	202,000
		SUB TOT								15												100.0	οa		300	70.30	0	21,000	21,000
114.71		HEAVY WALL	P	1911	NG	_		_	_	1 1	T		_	_		_		_		-	-				1.1	30-2	-	408,000	408,000
		TOTAL	314																		_	_	_	2,	806		-	1001000	

OUCC Attachment CMA-5

Page 63 of 79

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• Sargent & Lu Chicago	indy		E	s	т	I	м	A	т	E	W	0	R	ĸ	s	H	E	E	Т				Escim	Page: 8 Mate No: 132	225-7
Note: Extend	led costs WORK PACKAGE	are rounded u		o n	ext	th	ous		dol.	* * MAT		EQU	E I PM OST	ENT	AI	MAT	eri teri	AL		MINHR			A B O R WAGE RATE	LABOR COST	TOTAL
316		MISCELLANEOU EQUIPMENT	S P	OWE	R P	LAN	T																		
316.11		MISCELLANEOU EQUIPMENT	S P	OWE	R P	LAN	T	209	TN											3.000	6	27	70.30	44,000	44,000
316.111		TURBINE ROOM	CR	ANE																	INCL	D	IN 316 1	1	
		SUB TOTAL	. 31	6 1	1																6	27		44,000	44.000
316.12		TANKS						33	TN										13	3.000	( ) (	93	70.30	7,000	7.000
316.13		PIPING AND H	ANG	ERS	;			1	LT.	2									20	0.000	2	00	70.30	14,000	14,000
		SUB TOTAL	31	6.1								-									9	20		65.000	65,000
		TOTAL 316		-	-												-				9	20	1	65,00C	65,000

## Cause No. 45253 OUCC Attachment CMA-5 Page 64 of 79

Sargent & Lundy Chicago		E	S !	r	I	M	A	т	E	¥	4	0 1	R	K	S	H	E	E	T			Estima	Page: 9 te No: 13	225-7
Note: Extended costs WORK ACCOUNT NO. PACKAGE	are rounded u DESCRIPTIO		o ne	xt 1	tho			doll UM	* * MATE	RIAL		A T EQUI CO	PME			MAT	eria Ost			* * * L MNHR RATE MNHRS	1	B O R WAGE RATE	+ + + LABOR COST	TOT
317	SCRAP VALUE	(SE	E BA	SIS	)						-						-	-	-		1	S BELOW	6	
317.11	SCRAP VALUE	OF	STEE	L		9	224	TN																
(17 22	SCRAP VALUE	OF	COPP	ER			70	TN																
	SUB TOTAL	. 31	7.1																					
	TOTAL 317	e																						

### Cause No. 45253 OUCC Attachment CMA-5

Page 65 of 79

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Note: Extended cos WORK ACCOUNT NO. PACKA			nd d QTY		MATERIAL		A T E EQUIP COS	MEN		MAT	TERI			MNHR RATE	MNHR		A B O R WAGE RATE	LABOR COST	TOTAL
900	INDIRECT EXPENSES																		
900.1	CINERGY INDIRECT EXPENSES																	964,200	964,20
	TOTAL 900																	964,200	964,200
<del>(</del> )	TOTAL DIRECT & INI	IRECT C	OST	s						2	78.0	00		1	17,44	B	1	10,328,200	10,606,200

Cause No. 45253 OUCC Attachment CMA-5 Page 66 of 79

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PETITIONER'S EXHIBIT U-6 (AWW-6)

### DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

CONCEPTUAL COST ESTIMATE

PREPARED FOR

CINERGY NOBLESVILLE - UNITS 1 & 2

SARGENT & LUNDY

ESTIMATE NO. 13224-7 PROJECT NO. 9940-001 March 22, 2002

REVIEWED BY: APPROVED BY:

Cause No. 45253 OUCC Attachment CMA-5 Page 67 of 79

Estimate No: 13224-7

TABLE OF CONTENTS

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Page

Basis	of	Es	tin	nat	e			i	i.	ŝ	÷	Ļ	į,	į,	÷			į,	i,	4				1
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#### Cause No. 45253 OUCC Attachment CMA-5 Page 68 of 79

Sargent & Lundy Chicago

#### BASIS of ES IMA Т т E

CINERGY

NOBLESVILLE - UNITS 1 & 2 CONCEPTUAL COST ESTIMATE DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES, AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

Page: 1 Estimate No: 13224-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR07

Price level: 2002

Scope

REMOVAL OF ASBESTOS INSULATION, DISMANTLING AND REMOVAL OF ALL EQUIPMENT, DUCTS AND PIPING, DEMOLITION AND REMOVAL OF ALL PLANT RELATED STRUCTURES EXCEPT AS NOTED IN THE ASSUMPTIONS

#### Technical Basis

SEE ASSUMPTIONS BELOW

#### Assumptions

- ALL COAL, FUEL OIL, AND CHEMICALS WILL BE CONSUMED PRIOR TO DEMOLITION
- NO EXTRAORDINARY ENVIROMENTAL COSTS FOR DEMOLITION HAVE BEEN INCLUDED EXCEPT FOR ASBESTOS REMOVAL AND DISPOSAL
- ITEMS BURIED IN THE GROUND ARE LEFT IN PLACE
- ALL ABOVE GROUND ITEMS AT THE SITE ARE DEMOLISHED AND DISPOSED OF ON SITE,
- AND HAVE NO SCRAP VALUE UNLESS INDICATED OTHERWISE IN THE ESTIMATE
- TRANSPORTATION OF SCRAP MATERIAL TO A PROCESSOR IS NOT INCLUDED - THERE WILL BE SUFFICIENT VOLUME IN BASEMENTS, HOPPERS BELOW GRADE, OR THE ASH
- POND TO DISPOSE OF ALL DEBRIS
- THE ASH FOND ONLY NEEDS TO BE PUMPED DRY AND TWO FEET OF SOIL COVER FROM ON SITE PLACED OVER THE DEBRIS AND/OR ASH IN THE ASH POND AND SEEDED
- ALL SOIL BORROW MATERIAL IS FROM ON SITE
- THE SWITCHYARD IS NOT DEMOLISHED
- A NEW SWITCHYARD CONTROL BUILDING, EQUIPMENT, AND CABLES HAVE BEEN INCLUDED TO REPLACE THE EXISTING SWITCHYARD CONTROL BUILDING WHICH IS DEMOLISHED
- MAIN RAILROAD TRACK IS NOT DEMOLISHED
- BASED ON 40 HOUR WORK WEEK
- THE VALUE USED FOR THE DEMOLITION WORK TO BE DONE IN CONJUNCTION WITH THE REPOWERING \$2,750,000 IS ASSUMED TO INCLUDE THE FOLLOWING:
- 1. PRECIPITATORS, STACKS, DUCTWORK, STRUCTURAL STEEL AND GALLERRIES ON THE TOP OF THE BOILERS BLDG.
- 2. COAL CONVEYORS AND CRUSHER HOUSE
- 3. ASH SILOS

THE VALUE OF THE SCRAP IS INCLUDED IN THIS DEMOLITION COST

#### Commercial Basis

1: Equipment/Material Cost

THE QUOTED PRICES FOR METAL SCRAP VALUES ARE:

- COPPER \$1400.00 PER TON - STEEL \$85.00 PER TON

2. Labor Wage Rates

THE FOLLOWING VALUES INCLUDE WAGES, DEMOLITION EQUIPMENT, ON-SITE TRANSPORTATION, DISPOSAL, INSURANCE COSTS, AND OVERHEAD & PROFIT:

-	WRECKING CREW	\$ 70.30/hr
ς.	ASBESTOS & PCB WORK	\$100,40/hr
÷	EARTHWORK	\$139,27/hr
-	SEEDING & MULCHING	\$ 42.23/hr
÷	ELECTRICIAN	\$ 50,70/hr
-	CARPENTER	\$ 52.39/hr

3. Labor Crews

S & L STANDARD FOR THIS TYPE OF WORK

Page 69 of 79

Sargent & Lundy Chicago

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# BASIS OF ESTIMATE

Page: 2 Estimate No: 13224-7

#### Commercial Basis continued

4. Productivity

AS THOSE APPLIED TO INDIANA

5. Quantity Sources

BASED ON S & L GENERAL ARRANGEMENT DRAWINGS AND SITE VISIT

5. Project Schedule

24 MONTHS DURATION

7 Indirect Expenses

CINERGY INDIRECT EXPENSES - 10% OF TOTAL DIRECT CONSTRUCTION COST

- 8. Escalation Rates (See Cost Summary for rates) NOT INCLUDED
- 9. <u>Sales/Use Taxes (See Cost Summary for rates)</u> NOT INCLUDED
- 10 Contingency (See Cost Summary for rates)

SEE COST SUMMARY FOR RATES

#### Cause No. 45253 OUCC Attachment CMA-5 Page 70 of 79

Sargent & Lundy Chicago

#### COST SUMMARY REPORT

CINERGY NOBLESVILLE - UNITS 1 4 2

CONCEPTUAL COST ESTIMATE DEMOLITION OF "POWER BLOCK" EQUIPMENT AND FACILITIES,

AND SITE FACILITIES OUTSIDE THE POWER BLOCK AREA

Page: 3 Estimate No: 13224-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

ACCT . NO	DESCRIPTION	TOTAL EQUIPMENT COST	TOTAL MATERIAL COST	TOTAL LABOR COST	TOTAL COST
311	STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS		241,000	1,844,000	2,085,000
312	BOILER PLANT			3,227,000	3,227,000
314	TURBINE PLANT			2,752,000	2,752,000
316	MISCELLANEOUS POWER PLANT EQUIPMENT			67,000	67,000
317	SCRAP VALUE (SEE BASIS)				\$ BELOW
353	ELECTRICAL SWITCHYARD		524.000	332,000	856,000
354	DEMOLITION IN CONJUNCTION WITH REPOWERING			-2,750,000	+2,750,000
-	TOTAL CONSTRUCTION COSTS		765,000	5,472,000	6,237,000
	INDIRECT EXPENSES ESCALATION SALES/USE TAX CONTINGENCY				896,000 1,783,000
	TOTAL PROJECT COST				
	AFUDC				8,916,000 -1,362,000
	GRAND TOTAL COST				7,554,000
	Material 0.0	0.000% Material			

 $\mathbf{D} = 71 + 670$ 

Page 71 of 79

Sargent & Lundy Chicago

#### ESTIMATE WORKSHEET

CINERGY NOBLESVILLE - UNITS 1 & 2

CONCEPTUAL COST ESTIMATE DEMOLITION OF \*POWER BLOCK" EQUIPMENT AND FACILITIES,

AND SITE PACILITIES OUTSIDE THE POWER BLOCK AREA

Page: 4 Estimate No: 13224-7 Project No: 9940-001 Prepared by: KSZ/JK /GA

Estimate Date: 22MAR02

Price level: 2002

Note: Extended costs are rounded up to next thousand dollars

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY L			A T E R I A EQUIPMENT COST	MATERIAL COST	MNHR RATE	* L	A B O R WAGE RATE	LABOR COST	TOTAL
311		STRUCTURES AND IMPROVEMENTS - DEMOLITION AND MODIFICATIONS										
311,1		SITE STRUCTURES DEMOLITION										
311.11		RAILROAD TRACKS	5000 L	SF.				0,300	1500	70.30	105,000	105.000
311.12		PAVED SURFACES	28000 S	SY				0.180	5040	70.30	354,000	354,000
311.13		FENCES AND GATES	6000 L	F				0.040	240	70.30	17,000	17.000
311,14		FILL SITE AREAS WHERE REQUIRED AND ASH POND (2 FT CAPING)	42000 C	Υ				0,025	1050	139.27	146,000	146,000
311.15		PLUG CIRCULATING WATER PIPE WITH SLURRY 6 PLACE CONCRETE AT ENDS	1 1	s	120000		150.000	4000.000	4000	70,30	281,000	401,000
311,16		SEED & MULCH SITE INCLUDING TOPSOIL	100 A	IC.	1100.00		110,000	30.000	3000	42,23	127,000	237,000
		SUB TOTAL 311 1	-				230,000	· — a	14,830		1,030,000	1,260.000
311.2		OUTLYING BUILDINGS DEMOLITION										
311.21		MISCELLANEOUS STRUCTURES	23000 C	CF				0.006	138	70.30	10,000	10,000
311.23		WAREHOUSE	170000 C	F				0.006	1020	70.30	72,000	72,000
311,29		MISCELLANEOUS EQUIPMENT PADS AND SITE BUILDINGS										
311.291		TANK FOUNDATIONS	I L	S				300.000	300	70.30	21,000	21,000
311.292		LOADING DOCKS	215 0	Y				2.500	538	70.30	35,000	38,000
311.296		ASH TANK HOUSE	54000 C	F				0 006	324	70.30	23,000	23,000
		SUB TOTAL 311,29							1,162		82,000	82,000
		SUB TOTAL 311.2							2,320		164,000	164,000
311.3		MAIN POWER BLOCK DEMOLITION	i L	s					9000	70.30	633,000	633,000
311.31		BOILER ROOM						IN	CL. AC	CT 311	3	
311.32		TURBINE ROOM						It	ICL, AC	CT 311	, 3	
311.31		CONTROL HOUSE						It	CL. AC	CT. 311	3	

# Cause No. 45253

OUCC Attachment CMA-5

Page 72 of 79 ÷

#### ESTIMATE WORKSHEET Sargent & Lundy Page: 5 Chicago Estimate No: 13224-7 Note: Extended costs are rounded up to next thousand dollars ... .... . . . MATERIAL ... LABOR MATERIAL EQUIPMENT MATERIAL MNHR WAGE LABOR TOTAL WORK OTY UM RATE COST COST RATE MNHRS RATE COST ACCOUNT NO. PACKAGE DESCRIPTION COST INCL. ACCT. 311.3 311.34 CONVEYOR ROOM INCL. ACCT. 311.3 311.35 ELEVATOR AREA BURIED IN PLACE 311.36 TURBINE PEDESTALS 633,000 633.000 SUB TOTAL 311.3 9,000 1 LS 11000 11,000 400.000 400 41.50 28,000 311.4 NEW SWITCHYARD CONTROL 17,000 CARP BUILDING 15'X15'X12'H TOTAL 311

241,000 26,550 1,844,000 2,085,000

Page 73 of 79

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		the seconded in the next them	and do	11.000							6-
ACCOUNT NO.	WORK	are rounded up to next thou DESCRIPTION		* * * · · ·	A T E R I EQUIPMENT COST	A L MATERIAL COST			A B O R WAGE RATE	LABOR COST	TOTA COS
312		BOILER PLANT									
312.11		REMOVAL OF ALL ASBESTOS INSULATION	1 L	r				9240	100.40	928,000	928,00
312.12		BOILERS AND EQUIPMENT	3053 T	N			4.000	12212	70.30	859,000	859.00
		SUB TOTAL 312.1						21,452		1,787,000	1,787.00
312.22		DRAFT EQUIPMENT	203 T	N			4.000	812	70.30	57,000	57.00
312.24		FLUES AND DUCTS	510 T	N			4.000	2040	70.30	143.000	143,00
312.25		PRECIPITATORS	330 T	N			4.000	1320	70.30	93.000	93.00
312-26		REMOVAL OF STEEL STACKS	3 E	A			3750.000	11250	70.30	791,000	791,00
		SUB TOTAL 312.2	-					15,422		1,084,000	1,084,00
312,31		WATER SUPPLY AND PURIFICATION EQUIPMENT	129 T	N			3.000	387	70.30	27,000	27,00
312.41		PULVERIZED FUEL EQUIPMENT	396 T	и			3.000	1188	70.30	84,000	84.00
312 44		DEMOLISH COAL HANDLING STRUCTURES									
312 441		CONVEYORS INCLUDING TRUSSES, BENTS, & EQUIPMENT	329 T	N.			3.000	987	70.30	69,000	69,00
312.442		BUILDINGS AND TOWERS	400 1	N			3.000	1200	70.30	84,000	84,00
312.443		FOUNDATIONS	400 C	Y			1,500	600	70.30	42,000	42,00
		SUB TOTAL 312.44						2,787	1	195,000	195,00
		SUB TOTAL 312.4						3,975		279,000	279,00
312.51		ASH HANDLING EQUIPMENT	73 T	N			3.000	219	70.30	15,000	15,00
312.71		HEAVY WALL PIPING	1 1	т			500,000	500	70.30	35,000	35,00
		TOTAL 312						41,955		3,227,000	3,227,00

Page 74 of 79

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Sargent & Lundy

Chicago

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# ESTIMATE WORKSHEET

#### Page: 7 Estimate No: 13224-7

	WORK			A T E R I EQUIPMENT	A L * * * * MATERIAL	MNHR		A B O I WAGE	LABOR	TOTAL
ACCOUNT NO. P		QTY UM		COST	COST		MNHRS	RATE	COST	COST
314	TURBINE PLANT									
314.11	TURBINE GENERATOR UNITS	462 TN				4.000	1848	70.30	130,000	130,000
314 . 111	GENERATORS		_				INCL'D	IN 314	11	
	SUB TOTAL 314.11						1,848	-	130,000	130,000
	SUB TOTAL 314,1	100					1,848		130.000	130,000
314.21	CONDENSERS	455 TN				4.000	1820	70.30	128,000	128,000
314.26	CIRCULATING WATER PUMPS	66 TN				3.000	198	70.30	14.000	14,000
	SUB TOTAL 314.2						2,018		142,000	142,000
314.3	REPOWERING PLANT									
314.301	COMBUSTION TURBINE (3 EACH @ 420 TN)	1260 TN				4.000	5040	70.30	354,000	354,000
314.302	HRSGS	5700 TN				4.000	22800	70.30	1,603,000	1,603,000
314.303	CONDENSER	100				4 500	400	70.30	28,000	28,000
314.304	MISC PUMPS	190 TN				4 000	760	70.30	53.000	53,000
314.305	MISC MECH EQUIP	50 TN				4.000	200	70.30	14,000	14,000
314.306	COOLING TOWER (NEW)	45 TN				4.000	180	70.30	13.000	13.000
314.307	COOLING TOWER BASIN	30 CY				1.500	45	70.30	3,000	3,000
314.308	BUILDINGS	1 LS							250,000	250,000
314.309	FANS	80 TN				4.000	320	70.30	22,000	22,000
100	SUB TOTAL 314.30						29,745		2,340,000	2,340,000
314.310	TANKS						INCL'D	IN 316	12	
	SUB TOTAL 314.3						29,745		2,340,000	2,340,000
314.71	HEAVY WALL PIPING (TURBINE PLANT)	1 LT				270.000	270	70.30	19.000	19,000
314.81	HEAVY WALL PIPING (REPOWERING PLANT)	1 LT				300.000	300	70.30	21,000	21,000
314.T41	COOLING TOWER DEMOLITION (DEDUCTED IN ACCT. 354)	400 TN				2.000	800	70.30	56,000	56,000
314.T42	BASIN DEMOLITION (DEDUCTED IN ACCT 354)	250 CY				2,500	625	70.30	44,000	44,000
	SUB TOTAL 314.T4						1,425		100,000	100,000
	SUB TOTAL 314 T						1,425	-	100,000	100,000
	TOTAL 314					-	35,606	-	2,752,000	2,752,000

Page 75 of 79

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316		MISCELLANEOU EQUIPMENT	SI	POWI	ER. I	PLAN	T		1																					
316.11		MISCELLANEOU. EQUIPMENT	S 1	POWI	ER I	PLAN	T	14	47 T	N												3.00	00	44	41	70.30		31,00	Ó	31,0
316.111		TURBINE ROOM	CI	RANI	E																		1	INCL	'D	IN 316.	11			
		SUB TOTAL	3	16.3	11																			4	41			31,00	Ó	31,0
316.12		TANKS						12	12 7	'N												э, о	00	3	36	70.30		24,00	Ō	24,0
316.13		PIPING AND H	AN	JER	s				11	л											ì	70,00	00	17	70	70.30		12,00	0	12.0
_		SUB TOTAL	3	16.3	1					~														9	47			67,00	G	67,0
		TOTAL 316	8							-														94	47	·		57,00	0	67,0

TOTAL COST

31,000

31,000 24,000 12,000 67,000 67,000

# Cause No. 45253

# OUCC Attachment CMA-5

Page 76 of 79

Sargent & Lundy Chicago		E	S	т	I	M	A	T	E	W	0	R	K	S	н	E	E	Т		Estima	Page: 9 ate No: 13224	1-7
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	ORK							1.1	MATERIA		EQU					TERI		MINHR		AGE	LABOR	TOTAL
ACCOUNT NO. PA	CKAGE DESCRIP	FION				1	QTY	UM	RATE		c	OST			C	COST		RATE MNHR	SF	LATE	COST	COST
317	SCRAP VAL	JE (	SEE	BASI	(S)														\$	BELO	4)	
317.11	SCRAP VAL	JE O	F ST	EEL		13	870	TN														
317.12	SCRAP VAL	JE O	F CC	PPER	ł		125	TN														
	SUB TO	TAL	317.	1																		
	TOTAL	317	-					_														

#### Cause No. 45253

• OUCC Attachment CMA-5

Page 77 of 79

# Sargent & Lundy ESTIMATE WORKSHEET

#### Page: 10 Estimate No: 13224-7

Note: Extended costs are rounded up to next thousand dollars

ACCOUNT NO.	WORK PACKAGE	DESCRIPTION	QTY I		MATERIAL RATE	ATERIA EQUIPMENT COST	L MATERIAL COST		MNHR	• L MNHRS	A B O I WAGE RATE	LABOR COST	TOTAL. COST
353		ELECTRICAL SWITCHYARD											
353.1		NEW SWITCHYARD CONTROL HOUSE							11	ICL. AC	ст. 311		
353,2		CONTROL PANELS, RELAYS	11	LT	240000		240,000	500	. 000	500	50,70	25,000	265.000
353.3		CABLE	11	LT	100000		100,000	5000	. 000	5000	50.70	254,000	354,000
353.4		BUILDING ELECTRICAL SERVICE, LIGHTING, BATTERY, HVAC SERVICES & GROUNDING	ĭ I	LT	84000		84,000	600	.000	600	50,70	30,000	114.000
353 , 5		TESTING	1 I	т				200	000	200	50.70	10,000	10,000
353.6		ELECTRICAL FOR REPOWERING	11	т	100000		100,000	250	.000	250	50.70	13,000	113,000
		TOTAL 353					524,000		-	6,550		332,000	856,000

ACCOUNT NO.						-		LT															2,750,000	-2,750.00
Note: Extend	WORK WORK	are rounded up DESCRIPTION		next	, сп		QTY		MATERI	AL	EQ	I E JIPM COST	ENT	AL	MATI	ERIA OST			MNHE	* MINI	L J IRS	N B C R WAGE RATE	LABOR COST	TOTA
• Sargent & Lu Chicago		100	E S			-	A	2		W	0	R	ĸ	s	H	E	E	T				Estin	Page: 11 mate No: 13	
	OUCC A Page 78 d	o. 45253 ttachment CM of 79	[A-5																					

JO	uuse No. 45253 UCC Attachment C ge 79 of 79	MA-:	5																								
- Sargent & Lund Chicago	ly	E	S	т	IÞ	A	т	E	W	0	R	ĸ	s	н	E	E	т					Est	imat	Page te No		24-7	
	d costs are rounded WORK PACKAGE DESCRIP		o ne	xt	thou		dol YUM	MATER	TAL	EQ	T E UIPN COST	ENT	AI	MAT	TERI COST			* MNH RAT				B O I WAGE RATE			BOR		TOTAL COST
900	INDIRECT	EXPENS	SES																								
900.1	CINERGY EXPENSES DEMOLITIO REPOWERIN	N DONI	DING		IB.		1 LT																	896,	000	89	96,000
	TOTAL	900	-				-																	896.	000	8	96,000
	TOTAL		T & :	IND	IRECT	CO2	STS	-				-		7	65,0	00			111	1,60	8		6	,368,	000	7.1	33,000

Cause No. 45253 OUCC Attachment CMA-6 Page 1 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.1

# **Request:**

Has Duke Energy Indiana filed any insurance claims with general or environmental liability insurers to seek compensation for the closure and remediation of its ash impoundments or other Coal Combustion Residuals (CCR) units? If the answer is no, please explain why not.

# **Response:**

Yes, Duke Energy Indiana filed a claim with OIC Run-Off Limited (formerly The Orion Insurance Company plc) and The London and Overseas Insurance Company Limited (formerly The London and Overseas Insurance Company plc) (collectively "OIC") Amending Scheme of Arrangement regarding Duke Energy Indiana's legal obligation to remediate coal ash located at the former Dresser site. In addition, Duke Energy Indiana preserved its rights vis-à-vis its other historic liability insurers by providing, in August 2016, a notice of circumstances that may give rise to a claim in the future regarding Duke Energy Indiana's potential CCR liabilities.

Cause No. 45253 OUCC Attachment CMA-6 Page 2 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.2

# **Request:**

If DEI has filed any insurance claims for compensation of ash closures and remediation, has it received any such compensation?

a. If yes, please provide the total amount of compensation, and indicate when the company received such settlement(s).

# **Response:**

Yes, Duke Energy Indiana received a partial payment of \$23,037.84 from OIC in April of 2019. Duke Energy Indiana expects OIC to make additional payments for a total payment by OIC of \$235,658.88. This amount could be "topped up" in the future if the OIC Scheme determines to increase its current 72% payout amount.

Cause No. 45253 OUCC Attachment CMA-6 Page 3 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.3

# **Request:**

Is DEI currently involved in any legal disputes or proceedings with insurance companies regarding DEI's request for ash pond closure and remediation costs?

a. If affirmative, please provide the docket number; Court or jurisdiction in which the dispute is pending/was litigated; and the status of each dispute, including whether DEI or other Duke Energy entity was successful in the proceedings and the amount of recovery.

# **Objection:**

Duke Energy Indiana objects to this request as not reasonably calculated to lead to admissible evidence in this proceeding.

# **Response:**

Subject to and without waiving or limiting its objections, no.

Cause No. 45253 OUCC Attachment CMA-6 Page 4 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.4

# **Request:**

Does DEI expect to receive compensation from insurers for the additional costs of closing or remediating ash impoundments or other CCR units? If affirmative, please indicate the amount DEI expects to receive and the timeframe in which it expects it will receive it.

# **Response:**

Yes, please see Duke Energy Indiana's response to OUCC 23.2.

Cause No. 45253 OUCC Attachment CMA-6 Page 5 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.5

# **Request:**

Has DEI applied any insurance settlements or reimbursements that it has received to offset the costs for CCR unit closures provided in Mr. Thiemann's testimony? If so, please indicate the amount of the offset and provide documentation of any such offset.

# **Response:**

No.

Cause No. 45253 OUCC Attachment CMA-6 Page 6 of 6

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.6

# **Request:**

If DEI receives any insurance settlements or reimbursements for CCR unit closures in the future, does the company intend to use these funds to offset the costs it is requesting for CCR closures? Please indicate how the company would apply such an offset to the costs of the CCR unit closures provided in Mr. Thiemann's testimony if such reimbursement occurred outside of the test year.

# **Objection:**

Duke Energy Indiana objects to this request as calling for speculation.

# **Response:**

Subject to and without waiving or limiting its objections, Duke Energy Indiana responds as follows: See objection. Answering further and generally speaking, to the extent the Company receives insurance settlements or reimbursements for CCR unit closures, its intention is to apply such proceeds to CCR unit closures.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Page 1 of 12

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Bruno L. Pigott Commissioner

Eric J. Holcomb Governor

September 19, 2019

VIA CERTIFIED MAIL 7017 2400 0000 0752 0357

Duke Energy Indiana, LLC Attn: Owen R. Schwartz 1000 East Main Street Plainfield, Indiana 46168

Dear Mr. Schwartz:

Re: Request for Additional Information Primary Ash Settling Pond Closure/Post-Closure Plan Cayuga Generating Station Ash Pond System Vermillion County SW Program ID 83-UP-01

Pursuant to 329 IAC 10-9-1(c), IDEM has reviewed the closure/post-closure plan for Duke Cayuga Generating Station Ash Pond System. On February 15, 2019 (VFC #82698640), we received your response to our December 17, 2018 Request for Additional Information (VFC #82664512). Additional information and/or changes are needed before we can continue our review. Representatives of Duke Energy and IDEM also met to discuss the proposed closure activities at the facility on July 23, 2019.

1. Duke Energy has not demonstrated the proposed closure approach of leaving CCR in place for the Primary Ash Settling Pond controls, minimizes or eliminates, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere (40 CFR 257.102(d)(1)(i)). Submitted documentation for the proposed closure of the Primary Ash Settling Pond indicates CCR has been placed either in contact or potential contact with ground water, therefore providing a continuing source for releases of contaminants into the ground water. For purposes of this requirement, it is IDEM's position that "infiltration" can come from any direction, and it is not limited to liquids that pass through the final cover system. Specifically, it is IDEM's position that CCR placed at or below the water table constitutes "post-closure infiltration of liquids into the waste." Further, it is IDEM's position the phrase "releases of CCR, leachate, or contaminated run-off to the ground or surface waters" includes releases to the ground water.





- 2. In submitting your response to this additional information request in support of your closure method, please modify your current proposal to provide information on how the closure for Primary Ash Settling Pond will control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.
- 3. Update the closure and post-closure cost estimate in the document dated February 15, 2019 (VFC #82698640 pp. 153-167 of 224 and pp. 167-224), to reflect the expected expenses of any additional measures taken during closure to control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration and potential releases from CCR to the ground water.
- 4. Submit a revised Sheet 6 Site Existing Conditions Test Boring Locations located in the *Proposed Modification to Existing Closure and Post-Closure Plans* (C/PC Plan) dated December 16, 2016 (VFC #80399269). Redesignate in the legend by symbol and color which ground water monitoring wells pertain to each CCR and non-CCR unit. For the CCR units, label MW-100 and MW-101 as upgradient wells on the drawing to better define the system on Sheet 6.

Please provide three copies of your response. At least two copies should be on paper printed double sided. If possible, please submit one copy in Acrobat PDF format, either on a CD or DVD with the printed copy, or by e-mail to Anna Mishel at AMishel@idem.IN.gov. Please note any e-mail and its attachment(s) must total less than 20 MB in size. The date we receive the paper copies will be the receipt date for your response.

Enclosed is a signature and certification statement which must be submitted with each copy of your response; you may submit one signed original and three copies of this statement. One copy can be included as part of the PDF version.

Please mail paper copies and CDs/DVDs to:

Anna Mishel, Permit Manager Indiana Department of Environmental Management Solid Waste Permits IGCN 1101 100 North Senate Avenue Indianapolis, Indiana 46204-2251

Since our goal is to provide you with as timely a decision as possible, we request you provide the required information within 60 days from the date you receive this letter. If you believe you cannot submit the requested information within that time frame, please contact Anna Mishel to arrange a schedule for submitting the information. Public records for your facility are available in IDEM's Virtual File Cabinet at www.idem.in.gov/idem. Indiana Code (IC) and Indiana Administrative Code (IAC) references in this document can be reviewed at iga.IN.gov. IC references are under the "Laws" link; IAC references are under the "Publications" link.

If you have any questions, please contact Anna Mishel, the Permit Manager assigned this facility, by dialing (317) 233-6725 or by e-mail at AMishel@idem.IN.gov.

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Sincerely,

RebeccaEifer& priikan

Rebecca Eifert Joniskan, Chief Permits Branch Office of Land Quality

Enclosures: Certification Statement

Solid Waste Land Disposal Facilities Page 4 of 12 Signatures and Certification Statements for Requested Additional Information

329 IAC 10-11-3(d) requires that the signatory of a solid waste land disposal facility permit application and of other information requested by or on behalf of the Commissioner (including the supplemental information requested by our office for your solid waste land disposal facility permit application) sign the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that I am authorized to submit this information."

APPLICANT'S SIGNATURE

DATE

Cause No. 45253

OUCC Attachment CMA-7

APPLICANT'S NAME TYPED

Note: It is not necessary to submit this form if an equivalent signed certification statement is incorporated into your submittal.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Page 5 of 12

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> Bruno L. Pigott Commissioner

Eric J. Holcomb Governor

#### September 19, 2019

VIA CERTIFIED MAIL 7017 2400 0000 0752 0357

Duke Energy Indiana, LLC Attn: Owen R. Schwartz 1000 East Main Street Plainfield, Indiana 46168

Dear Mr. Schwartz:

Re: Request for Additional Information Primary Pond Closure/Post-Closure Plan Gallagher Generating Station Floyd County SW Program ID 22-UP-01

Pursuant to 329 IAC 10-9-1(c), IDEM has reviewed the closure/post-closure plan for Duke Gallagher Generating Station Primary Pond. On February 15, 2019 (VFC #82698641), we received your response to our December 17, 2018, Request for Additional Information (VFC #82664063). Additional information and/or changes are needed before we can continue our review. Representatives of Duke Energy and IDEM also met to discuss the proposed closure activities at the facility on July 23, 2019.

Duke Energy has not demonstrated the proposed closure that would leave CCR in place for the Primary Pond controls, minimizes, or eliminates, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere (40 CFR 257.102(d)(1)(i)). Submitted documentation for the proposed closure of Primary Pond indicates CCR is either in contact or potential contact with ground water, therefore, providing a continuing source for releases of contaminants into the ground water. For purposes of this requirement, it is IDEM's position that "infiltration" can come from any direction, and it is not limited to liquids that pass through the final cover system. Specifically, it is IDEM's position that CCR placed at or below the water table constitutes "post-closure infiltration of liquids into the waste." Further, it is IDEM's position the phrase "releases of CCR, leachate, or contaminated run-off to the ground or surface waters" includes releases to the ground water.



In submitting your response to this additional information request in support of your closure method, please modify your current proposal to provide information on how the closure for Primary Pond will control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.

Also, please update the closure and post-closure cost estimate in the document dated February 15, 2019 (VFC #82698641 pp. 151-156 of 157), to reflect the expected expenses of any additional measures taken during closure to control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration and potential releases from CCR to the ground water.

Please provide three copies of your response. At least two copies should be on paper printed double sided. If possible, please submit one copy in Acrobat PDF format, either on a CD or DVD with the printed copy, or by e-mail to AMishel@idem.IN.gov. Please note any e-mail and its attachment(s) must total less than 20 MB in size. The date we receive the paper copies will be the receipt date for your response.

Enclosed is a signature and certification statement which must be submitted with each copy of your response; you may submit one signed original and three copies of this statement. One copy can be included as part of the PDF version.

Please mail paper copies and CDs/DVDs to:

Anna Mishel, Permit Manager Indiana Department of Environmental Management Solid Waste Permits IGCN 1101 100 North Senate Avenue Indianapolis, Indiana 46204-2251

Since our goal is to provide you with as timely a decision as possible, we request you provide the required information within 60 days from the date you receive this letter. If you believe you cannot submit the requested information within that time frame, please contact Anna Mishel to arrange a schedule for submitting the information.

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If you have any questions, please contact Anna Mishel, the Permit Manager assigned this facility, by dialing (317) 233-6725 or by email at AMishel@idem.IN.gov.

Sincerely,

Rebecca Efert Jonisban

Rebecca Eifert Joniskan, Chief Permits Branch Office of Land Quality

Enclosures: Certification Statement

Solid Waste Land Disposal Facilities Page 8 of 12 Signatures and Certification Statements for Requested Additional Information

329 IAC 10-11-3(d) requires that the signatory of a solid waste land disposal facility permit application and of other information requested by or on behalf of the Commissioner (including the supplemental information requested by our office for your solid waste land disposal facility permit application) sign the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that I am authorized to submit this information."

APPLICANT'S SIGNATURE

DATE

Cause No. 45253

OUCC Attachment CMA-7

APPLICANT'S NAME TYPED

Note: It is not necessary to submit this form if an equivalent signed certification statement is incorporated into your submittal.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT Page 9 of 12

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Eric J. Holcomb Governor Bruno L. Pigott Commissioner

September 19, 2019

VIA CERTIFIED MAIL 7017 2400 0000 0752 0357

Duke Energy Indiana, LLC Attn: Owen R. Schwartz 1000 East Main Street Plainfield, Indiana 46168

Dear Mr. Schwartz:

Re: Request for Additional Information Ash Pond B Closure/Post-Closure Plan Wabash River Generating Station Vigo County SW Program ID 84-UP-09

Pursuant to 329 IAC 10-9-1(c), IDEM has reviewed the closure/post-closure plan for Wabash River Generating Station Ash Pond B. On February 15, 2019 (VFC #82698643), we received your response to our December 17, 2018 Request for Additional Information (VFC #82664516). Additional information and/or changes are needed before we can continue our review. Representatives of Duke Energy and IDEM also met to discuss the proposed closure activities at the facility on July 23, 2019.

Duke Energy has not demonstrated the proposed closure approach of leaving CCR in place for the Ash Pond B controls, minimizes or eliminates, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere (40 CFR 257.102(d)(1)(i)). Submitted documentation for the proposed closure of Ash Pond B indicates CCR either in contact or potential contact with ground water, therefore, providing a continuing source for releases of contaminants into the ground water. For purposes of this requirement, it is IDEM's position that "infiltration" can come from any direction, and it is not limited to liquids that pass through the final cover system. Specifically, it is IDEM's position that CCR placed at or below the water table constitutes "post-closure infiltration of liquids into the waste." Further, it is IDEM's position the phrase "releases of CCR, leachate, or contaminated run-off to the ground or surface waters" includes releases to the ground water.

In submitting your response to this additional information request in support of your closure method, please modify your current proposal to provide information on how the closure for Ash Pond B will control, minimize, or eliminate, to the maximum extent



feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.

Also, please update the closure and post-closure cost estimate in the document dated February 15, 2019 (VFC #82698643), to reflect the expected expenses of any additional measures taken during closure to control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration and potential releases from CCR to the ground water.

Please provide four copies of your response. At least three copies should be on paper printed double sided. If possible, please submit one copy in Acrobat PDF format, either on a CD or DVD with the printed copy, or by e-mail to Anna Mishel at amishel@idem.IN.gov. Please note any e-mail and its attachment(s) must total less than 20 MB in size. The date we receive the paper copies will be the receipt date for your response.

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Please mail paper copies and CDs/DVDs to:

Anna Mishel, Permit Manager Indiana Department of Environmental Management Solid Waste Permits IGCN 1101 100 North Senate Avenue Indianapolis, Indiana 46204-2251

Since our goal is to provide you with as timely a decision as possible, we request you provide the required information within 60 days from the date you receive this letter. If you believe you cannot submit the requested information within that time frame, please contact Anna Mishel to arrange a schedule for submitting the information.

Public records for your facility are available in IDEM's Virtual File Cabinet at www.idem.in.gov/idem. Indiana Code (IC) and Indiana Administrative Code (IAC) references in this document can be reviewed at iga.IN.gov. IC references are under the "Laws" link; IAC references are under the "Publications" link.

If you have any questions, please contact Anna Mishel, the Permit Manager assigned this facility, by dialing (317) 233-6725 or by e-mail at AMishel@idem.IN.gov.

Sincerely,

RebeccaEifert Jonisban

Rebecca Eifert Joniskan, Chief Permits Branch Office of Land Quality

Enclosures: Certification Statement

# Solid Waste Land Disposal Facilities OUCC Attachment CMA-7 Page 12 of 12 Signatures and Certification Statements for Requested Additional Information

329 IAC 10-11-3(d) requires that the signatory of a solid waste land disposal facility permit application and of other information requested by or on behalf of the Commissioner (including the supplemental information requested by our office for your solid waste land disposal facility permit application) sign the following certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that I am authorized to submit this information."

APPLICANT'S SIGNATURE

DATE

Cause No. 4525

APPLICANT'S NAME TYPED

Note: It is not necessary to submit this form if an equivalent signed certification statement is incorporated into your submittal.

Cause No. 45253 OUCC Attachment CMA-8 Page 1 of 7

OUCC IURC Cause No. 45253 Data Request Set No. 23 Received: September 17, 2019

OUCC 23.7

# **Request:**

On pages 12-14 of his direct testimony, Mr. Mosley discusses the 316(a) and 316(b) rules and their costs.

- a. How long have DEI's generating facilities been subject to the requirements of the 316(a) rule?
- b. Were there any costs of studies, fisheries and aquatic sampling, and completion of 316(a) rule demonstration study reports for any of DEI's facilities included during the test year in Cause No. 42359? If affirmative, please provide this amount. If negative, please explain why not.
- c. When did DEI first start to incur costs due to the 316(a) rule?
- d. Did DEI request a CPCN for its activities to implement the 316(a) rule? Please list all Causes in which DEI has requested approval to recover costs related to the 316(a) rule, or explain why DEI did not seek a CPCN for these activities or projects.
- e. Please provide all documentation of the costs that DEI is incurring to comply with the 316(a) rule, including any engineering studies, reports detailing compliance activities, and detailed cost breakdowns.
- f. Please provide detailed cost information regarding all activities, studies, and equipment required for DEI's generating facilities under the 316 (b) rule. Please provide separate line item costs attributable to each activity, reporting requirement, and equipment required by the rule, and any supporting documentation verifying these costs.
- g. When do each of DEI's generating facilities' current NPDES permits expire?
- h. Do any of DEI's current NPDES permits for its generating facilities require activities or equipment to comply with the 316(b) Rule?
- i. When did DEI first incur costs in relation to the 316(b) Rule?
- j. Please provide all of the costs DEI has incurred due to compliance with the 316(b) Rule to date.
- k. Is DEI requesting any ratemaking treatment for costs incurred to comply with the 316(b) Rule prior to the test year? If affirmative, please explain the ratemaking

treatment it is requesting, and provide the amount it is seeking recovery for pretest-year 316(b) compliance.

1. What are the projected annual costs incurred due to the 316 (a) and 316 (b) rules for the 12 months ending December 31, 2020?

# **Objection:**

Duke Energy Indiana objects to this request as overbroad and unduly burdensome, particularly the portion of the request seeking "all documentation" and "detailed cost information regarding all activities . . . ." Duke Energy Indiana further objects to this request to the extent it seeks Duke Energy Indiana to perform a study or analysis it has not performed and to which it objects performing. Duke Energy Indiana also objects to subpart (b) of this request as not reasonably calculated to lead to admissible evidence in this proceeding.

# **Response:**

Subject to and without waiving or limiting its objections, Duke Energy Indiana responds as follows:

- a. Duke Energy Indiana's Cayuga, Wabash River, old Edwardsport, Gallagher and Noblesville generating stations have been required to comply with 316(a) since it was promulgated as part of the Clean Water Act in 1972. This has resulted in costs associated with aquatic sampling and the completion of various studies on the fisheries associated with each Station. More recently, Cayuga Station was required to submit a 316(a) demonstration study on January 16, 2018. The study is currently under review by IDEM. The demonstration study cost is what Duke Energy Indiana is requesting timely recovery of pursuant to the federal mandate statute, not the costs of the periodic aquatic sampling completed in the normal course of business (which are included in test period O&M). The proposed ratemaking treatment is described more fully in the response to subpart (d) below.
- b. See objection. Answering further, since Duke Energy Indiana has been performing the compliance activities discussed in the response to subpart (a) since the 1970s, it is reasonable to expect nominal O&M expenditures were included in the test year in Cause No. 42359.
- c. See response to OUCC 23.7(a) above.
- d. Duke Energy Indiana is requesting in this proceeding that the Commission determine that study costs and compliance projects related to 316(a), 316(b) and NPDES are federally mandated and allow timely recovery of 80% of the retail portion of the associated costs through its ECR rider proceedings and deferral of 20% the expenses pursuant to Indiana Code 8-1-8.4 as a regulatory asset with carrying costs at the weighted average cost of capital for recovery in a future rate case. Please see Mosley testimony at pg. 14, lines 9-13 and Graft Revised Direct Testimony at page 30, line 15 through page 31, line 2.

Answering further, the Company sought and was granted the authority in Cause No. 44418 to "defer and subsequently recover the retail jurisdictional portion of plan development, engineering, testing, and pre-construction costs associated with future environmental planning for compliance with air, *water, or waste* regulations via Rider 71 (or via Rider 62 to the extent such costs are related to a capital project)." See Petitioner's Exhibit F, the Direct Testimony of Christa Graft in Cause No. 44418 at pages 9-10 (emphasis added). See also the Commission's Order in Cause No. 44418 at page 17, which discussed Ms. Graft's testimony.

- e. See objection. Cayuga is the only currently operating Duke Energy Indiana station subject to the 316(a) rule. Please see Confidential Attachment OUCC 23.7-A, which is the Cayuga 316(a) demonstration study referenced in subpart (a). Please also see Attachment OUCC 23.7-B for additional detail on the costs incurred for the 316(a) demonstration study, which have been charged to FERC account 183 Preliminary Survey and Investigation Charges.
- f. See objection. See below for the status of 316(b) study submission and review. Please also see Attachment OUCC 23.7-C for additional detail on the costs incurred for the 316(b) studies through August 2019, which have been charged to FERC account 183 Preliminary Survey and Investigation Charges.

	316(b) report submittal date	Status
Cayuga	4/2020	Report development ongoing – scheduled for submittal by 4/30/2020
Gallagher	7/2019	IDEM review
Gibson	5/2019	IDEM review
Noblesville	12/2017	Permit reissued effective 7/01/2018 with limited conditions (determined that existing is BTA)

g.

Cayuga: 7/31/2023 Edwardsport IGCC: 3/31/2021 Gallagher: 9/30/2020 Henry County CT: 2/28/2023 Markland Hydro: 5/31/2023 Noblesville CC: 6/30/2023

h. Yes. Duke Energy Indiana is required by the 316(b) Rule to submit appropriate study reports, as prescribed in the Company's NPDES permits.

i. 2007.

- j. Please see the Company's response to OUCC 23.7(f), specifically Attachment OUCC 23.7-C.
- k. Please see the Company's response to OUCC 23.7(d). Please also see Attachments OUCC 23.7-B and OUCC 23.7-C for details of study costs incurred through August 2019. In addition to these amounts, the Company expects to spend an additional approximately \$200,000 through 2021 to continue and complete the 316(b) studies.
- 1. The 2020 forecast test period includes approximately \$30,000 in O&M for the periodic aquatic sampling completed in the normal course of business for compliance with 316(a) at Cayuga.

# Witness: James Michael Mosley / Christa L. Graft

# Cause No. 45253 OUCC Attachment CMA-8 Page 5 of 7

# Attachment OUCC 23.7-B

Project ID CB Project Long Descr CB Account ID CB Account Long Descr CB CY121279P Cayuga Study for 316 A Compliance 0183000 Prelim Survey & Investigation

Sum of Monetary Amount JD		Fiscal Year CMD				
Resource Type ID CB	Resource Type Long Descr CB	2016	2017	2018	2019	Grand Total
11000	Labor	2,235.53	3,217.68	1,057.02	158.48	6,668.71
18001	Unproductive Labor Allocated	358.88	624.50	171.77	(16.53)	1,138.62
18250	Allocated Payroll Tax	220.21	202.54	104.81	12.11	539.67
18350	Allocated Fringes & Non Union	634.48	700.91	326.36	37.97	1,699.72
18400	Incentives Allocated	266.04	441.86	141.30	16.32	865.52
19500	Service Company Overhead	590.14	812.46	259.50	42.70	1,704.80
31000	Direct Material Purchases	33,637.90	66,107.99	22,568.61		122,314.50
35000	Direct Mat/Purchases Accrual	-	-	-		-
69000	Consultant	31,966.14				31,966.14
69400	Turnkey Service Contract Labor	3.00				3.00
69500	Other Contracts			61.21		61.21
78000	Allocated S&E (Non-Labor)	1,443.82	2,148.87	680.14	66.95	4,339.78
Grand Total		71,356.14	74,256.81	25,370.72	318.00	171,301.67

#### Cause No. 45253 OUCC Attachment CMA-8 Page 6 of 7 Attachment OUCC 23.7-C

Duke Energy Indiana, LLC 316(b) Study Costs Inception to Date August 2019

Sum of Monetary Amount	JD				Fiscal Year CMD										
Sum of Monetary Amount . Funding Project ID PRD CCY01224	JD Project ID CB CCY01224P	Project Short Descr CB 316b Compliance	11000 18000 18001 18250 18350 18400 19500 28002 31000 35000 40000 40000 40001 41000 42000	B Resource Type Long Descr CB Labor Labor Labor Overhead Allocations Unproductive Labor Allocated Allocated Payroll Tax Allocated Fringes & Non Union Incentives Allocated Service Company Overhead Stores Loading Direct Material Purchases Direct Material Purchases Air Travel Expenses Air Travel Cost Meals and Entertainment (50%) Personal Vehicle Mileage Reimb	Fiscal Year CMD 2007	2008	2011	2012	2014 2,883.57 47.46 472.47 315.53 577.21 335.61 730.12 65.20 121.42 3.75 71.40	<b>2015</b> 4,897.19 58.70 748.04 467.06 1,375.65 564.53 1,230.07	2016 9,766.82 96.31 1,265.72 951.83 2,587.91 1,158.43 2,694.67 2.08 1,135.35 46.54 21.98 4.40	<b>2017</b> 5,351.85 39.17 862.00 507.38 1,417.42 594.89 1,351.34 29,474.02	2018 9,912.92 17.62 1,685.28 916.40 3,142.69 1,333.81 2,433.62 (29,474.02)	385.89 45.10 36.78 115.29 49.57 103.96 4,833.64	Grand Total 33,198.24 259.26 5,078.61 3,194.98 9,216.17 4,036.84 8,543.78 2.08 1,135.35 4,833.64 111.74 143.40 8.15 71.40
			69000	Consultant					31,761.82	28,928.67	51,301.87	219,985.85	312,905.45	225,264.78	870,148.44
			69400 78000	Turnkey Service Contract Labor Allocated S&E (Non-Labor)					2,060.70	5,289.94	6,058.24 14,118.09	11,790.22	20,899.84	376.80	6,058.24 54,535.59
	CCY01224P Tota	al	10000						39,446.26	43,559.85	,	271,374.14	,	231,211.81	1,000,575.91
	OCCY01224	316b Compliance	11000 18001 18250 18350 60004 99500	Labor Unproductive Labor Allocated Allocated Payroll Tax Allocated Fringes & Non Union Contract Services Plant Add/Closings/Reserve	1,361.73 299.58 102.13 646.82 147,846.83	95.98 19.21 7.20 33.11	96,952.00			·	·	ŗ	·	·	1,457.71 318.79 109.33 679.93 147,846.83 96,952.00
CCY01224 Total	OCCY01224 Tota	al			150,257.09 150,257.09	155.50 155.50	96,952.00 96,952.00		39,446.26	43,559.85	91,210.24	271,374.14	323,773.61	231,211.81	247,364.59 1,247,940.50
CGA01238	GAL316B	EPA Rule 316(b) Compliance	11000 18000 18001 18250 18350 18400 19500 40000 40000 40001 41000 69000 78000	Labor Labor Overhead Allocations Unproductive Labor Allocated Allocated Payroll Tax Allocated Fringes & Non Union Incentives Allocated Service Company Overhead Travel Expenses Air Travel Cost Meals and Entertainment (50%) Personal Vehicle Mileage Reimb Consultant Allocated S&E (Non-Labor)	100,207.03	100.00	50,502.00		1,161.60 19.20 190.12 130.87 183.62 135.18 294.13 55.19 3.75 71.40 14,159.79 892.29	1,342.05 20.21 205.55 128.47 379.60 154.77 337.20	1,237.04 12.28 164.27 120.22 331.03 147.14 341.31 16.29 7.70 1.54 28,453.64 1,710.55	586.00 4.54 94.57 55.43 154.97 64.18 147.97 3,201.48 1,343.47	1,069.71 1.93 181.64 99.30 338.77 143.91 262.62 37,112.61 2,282.67	91.48 12.05 8.84 27.70 11.91 24.65 27,758.90 75.02	5,487.88 58.16 848.20 543.13 1,415.69 657.09 1,407.88 71.48 7.70 5.29 71.40 158,641.53 7,867.66
	GAL316B Total								17,297.14	52,086.62	32,543.01	5,652.61	41,493.16	28,010.55	177,083.09
CGA01238 Total FHIN1241	CAY316B CAY316B Total	316B Rule Compliance Indiana	35000 69000	Direct Mat/Purchases Accrual Consultant					<b>17,297.14</b> - 7,223.92 <b>7,223.92</b>	<b>52,086.62</b> (0.00) 77,118.49 <b>77,118.49</b>	<b>32,543.01</b> 0.00 213,388.53 <b>213,388.53</b>	5,652.61 - -	<b>41,493.16</b> (0.00) <b>(0.00)</b>	28,010.55 - -	<b>177,083.09</b> 0.00 297,730.94 <b>297,730.94</b>
FHIN1241 Total	0100/00		44000	Labor					7,223.92	77,118.49	213,388.53	-	(0.00)	-	297,730.94
GBCM1241	GIB316B	U1-5 316B COMPLIANCE STUDY	11000 18000 18001 18250 18350 18400 19500 40000 40001 41000	Labor Labor Overhead Allocations Unproductive Labor Allocated Allocated Payroll Tax Allocated Fringes & Non Union Incentives Allocated Service Company Overhead Travel Expenses Air Travel Cost Meals and Entertainment (50%)					686.14 8.97 107.13 79.35 72.18 79.33 173.72 55.20 3.75	595.97 6.63 93.89 57.49 172.02 68.99 149.67	1,056.88 9.77 134.45 102.41 280.47 125.11 291.61 5.08 2.41 0.48	898.99 5.84 143.55 85.83 239.07 101.58 226.98	1,974.13 2.51 330.88 187.03 620.47 265.09 484.65	28.93 4.81 2.88 9.03 3.88 7.79	5,241.04 33.72 814.71 514.99 1,393.24 643.98 1,334.42 60.28 2.41 4.23

### Cause No. 45253 OUCC Attachment CMA-8 Page 7 of 7 Attachment OUCC 23.7-C

# Duke Energy Indiana, LLC 316(b) Study Costs Inception to Date August 2019

Sum of Monetary Amount JD					Fiscal Year CMD										
Funding Project ID PRD	Project ID CB	Project Short Descr CB		Resource Type Long Descr CB	2007	2008	2011	2012	2014	2015	2016	2017	2018	2019 (	Grand Total
			42000 69000	Personal Vehicle Mileage Reimb Consultant					71.40 5,313.11	14,988.11	3,947.89	5,169.27	68,742.59	39,607.86	71.40 137,768.83
			78000	Allocated S&E (Non-Labor)					562.51	616.91	1,425.70	1,818.19	3,252.44	58.59	7,734.34
	GIB316B Total								7,212.79	16,749.68	7,382.26	8,689.30	75,859.79	39,723.77	155,617.59
GBCM1241 Total									7,212.79	16,749.68	7,382.26	8,689.30	75,859.79	39,723.77	155,617.59
NBC01244	NOB316B	Noblesville 316B Study	11000	Labor					351.42	461.95	2,508.80	1,784.59	263.39		5,370.15
			18000	Labor Overhead Allocations					4.77	7.58	19.81	3.68	(4.65)		31.19
			18001	Unproductive Labor Allocated					55.54	70.35	(179.12)	340.69	(822.57)		(535.11)
			18250 18350	Allocated Payroll Tax Allocated Fringes & Non Union					39.20 57.26	44.28 131.14	215.98 486.13	118.43 397.39	(494.12) (1,538.72)		(76.23) (466.80)
			18400	Incentives Allocated					40.71	53.24	460.13 244.65	233.14	(1,536.72) (665.70)		(400.00) (93.96)
			19500	Service Company Overhead					88.98	116.16	692.19	450.65	(1,219.18)		128.80
			40000	Travel Expenses							5.04		(.,,		5.04
			40001	Air Travel Cost							2.39				2.39
			41000	Meals and Entertainment (50%)							0.47				0.47
			69000	Consultant					4,707.46	13,375.21	11,613.39	47,285.59	15,895.80		92,877.45
			78000	Allocated S&E (Non-Labor)					264.87	545.30	3,107.16	1,949.24	(10,088.34)		(4,221.77)
NBC01244 Total	NOB316B Total								5,610.21 5,610.21	14,805.21 14,805.21	18,716.89 18,716.89	52,563.40 52,563.40	1,325.91 1,325.91		93,021.62 93,021.62
	MGB00032	316B Compliance Study-River Intakes	18500	Expense Reimburse-Labor				(354.03)	5,010.21	14,005.21	10,710.09	52,565.40	1,325.91		(354.03)
	mobotoc		69400	Turnkey Service Contract Labor				29,000.00							29,000.00
			99840	Expense Reimbursements				(3,276.05)							(3,276.05)
	MGB00032 Total							25,369.92							25,369.92
	OCGA01238	EPA Rule 316 b Compliance	60004	Contract Services	15,500.00										15,500.00
			69100	Baseload Contract Labor	81,250.00										81,250.00
			99500	Plant Add/Closings/Reserve			187,429.13					0.070.00			187,429.13
	OCGA01238 Total		99810	Accounting Entry	96,750.00		187.429.13					6,679.96 <b>6,679.96</b>			6,679.96 <b>290,859.09</b>
OM75111 Total	000A01230 10tal				96,750.00		187,429.13	25,369,92				6,679.96			316,229.01
Grand Total					247,007.09	155.50	,	25,369.92	76,790.32	204,319.85	363,240.93	,	442,452.47	298,946.13	2,287,622.75

Cause No. 45253 OUCC Attachment CMA-9 Page 1 of 2

OUCC IURC Cause No. 45253 Data Request Set No. 35 Received: October 9, 2019

OUCC 35.6

# **Request:**

How often must Cayuga complete a demonstration study under 316(a) of the Clean Water Act? Is this a one-time expense, or will it occur every five years with the renewal of Cayuga's National Pollutant Discharge Elimination System (NPDES) permit?

### **Response:**

Historically Cayuga has not been required to complete a 316(a) demonstration on any kind of regular interval. At this time, it is unknown to Duke Energy Indiana if the Indiana Department of Environmental Management will require Cayuga to complete any additional 316(a) demonstration studies in the future. However, it is reasonable to assume that future required demonstration studies would be submitted with a NPDES permit renewal application.

### Witness: James Michael Mosley

Cause No. 45253 OUCC Attachment CMA-9 Page 2 of 2

OUCC IURC Cause No. 45253 Data Request Set No. 35 Received: October 9, 2019

OUCC 35.7

# **Request:**

Will the 316 (b) study costs be a one-time expense for each of DEI's generating facilities, or will they occur every five years with the renewal of facility NPDES permits?

# **Response:**

At this time, it is unknown to Duke Energy Indiana if Indiana Department of Environmental Management will require any of Duke Energy Indiana's generating facilities to complete any additional 316(b) related studies in the future on a set schedule. However, it is reasonable to assume that future required studies would be submitted with a NPDES permit renewal application.

# Witness: James Michael Mosley

# AFFIRMATION

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

7

Unites Malute

Cynthia M. Armstrong Senior Utility Analyst Indiana Office of Utility Consumer Counselor Cause No. 45253 Duke Energy Indiana, LLC

October 30, 2019 Date

#### CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing was served by electronic mail this 30<sup>th</sup> day of October to the following:

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