AES-01
AIR EMISSION STATEMENT CERTIFICATION
State Form 52052 (3-05)
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM - Office of Air Quality
Technical Support and Modeling Section - Mail Code 61-51
100 N. Senate Avenue
Indianapolis, IN 46204-2251
Telephone: (317) 233-0178 or
Toll Free: 1-800-451-6027 x30178 (within Indiana)
http://www.emissions.IN.gov/

Instructions:
- *This is a required form for each air emission statement as well as any modifications.*
- *The certification supplied with a source's permit may be used in lieu of this form*
- *"Responsible Official" has the same meaning as defined in 326 IAC (34), and is usually designated in the General Information section of the permit.*

Part A: Contact Information

Part A is intended to provide basic information about the company submitting an Air Emission Statement and information on the Air Emission Statement preparer in case there is a question about the report.

1. Company Name:	Duke Energy Indiana LLC Cayuga Generating Station	**2.** Source ID:	1816500001
3. Mailing Address:			
City:	State:	ZIP Code:	
4. Name of Emission Statement Preparer:	Patrick	Coughlin	
5. Title of Emission Statement Preparer *(optional)*:	Env. Specialist		
6. Telephone Number:	(317)-838-2108	**7.** Facsimile Number: *(optional)*:	
8. Electronic Mail Address *(optional)*:	patrick.coughlin@duke-energy.com		

Part B: Emissions Summary

Part B is intended to aid in the review of data and to collect information about billable hazardous air pollutants

Emissions Statement Pollutants (Plant Wide)	Tons Emitted
Ammonia	4.2683
Carbon Monoxide (CO)	597.5768
Condensable Particulate Matter (PM-CON)	526.6250
Filterable Particulate Matter <10 Microns (PM10-FIL)	99.6570
Lead (PB)	0.0005
Nitrogen Dioxide (NO2)	4600.0633
Primary PM2.5, Filterable Portion Only	66.8519
Sulfur Dioxide (SO2)	2425.5072
Volatile Organic Compounds (VOC)	63.4061

Part 70 Permit Billable Hazardous Air Pollutants (Plant Wide)	Tons Emitted
Hydrochloric Acid (CAS# 7647010)	39.3400
Hydrofluoric Acid (CAS# 7664393)	3.5700
Mercury and Mercury Compounds (CAS#7439976 and TRI ID N458)	0.0145

Recieved
JUN 24 2024
State of Indiana

Part C: Signature of Responsible Official

I hereby certify that the information in this emission statement is accurate based on reasonable estimates using data available to the prepares and on a reasonable inquiry into records and persons responsible for the operation of the source, and is true, accurate, and complete.

Andy Leininger	GM III Cayuga Generating Station
Name of Responsible Official *(typed or printed)*	Title of Responsible Official
Andy Leininger	6/20/2024
Signature of Responsible Official	Date *(month, day, year)*

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Facility Emissions Overview

Pollutant	Pollutant Description	Emissions (Tons)
NH3	Ammonia	0.6963
CO	Carbon Monoxide	513.5503
7439921	Lead	0.0005
NOX	Nitrogen Oxides	4600.1623
PM-CON	Primary PM Condensible Only (All Less Than 1 Micron)	521.8028
PM10-FIL	Primary PM10, Filterable Portion Only	97.7482
PM25-FIL	Primary PM2.5, Filterable Portion Only	64.9431
SO2	Sulfur Dioxide	2424.9045
VOC	Volatile Organic Compounds	61.2964

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 001		**Group Description:** BOILER 1 PC DB	
Percent Quarterly Throughput			
Winter: 30	**Spring:** 29	**Summer:** 20	**Fall:** 21
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 6935
Process ID: 01		**Process Description:** BOILER 1 PC DB PULV COAL	
SCC:	10100212	**Stack:**	1
	Electric Generation	**Description:**	BOILER 1 PC DB
	Bituminous/Subbituminous Coal	**Stack Type:**	Vertical
	Pulverized Coal: Dry Bottom (Tangential) (Bituminous Coal)	**Height:**	500
Heat Content:	22.08	**Diameter:**	19.5
Sulfur Content:	2.91	**Temperature:**	290
Ash Content:	8.89	**Velocity:**	90
Throughput:	986480 Tons	**Gas Flow:**	1618000
Material:	Bituminous Coal	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	99.8	63.9
PM25-FIL	Engineering Judgement	0	99.2	45.9
7439921	Engineering Judgement	0	99.9	0.0000
7647010	Engineering Judgement	0	98.6	20.69
7664393	Engineering Judgement	0	98.6	1.89
CO	EPA Emission Factor	0.5	0	246.62
NH3	EPA Emission Factor	0.00057	0	0.2787
VOC	EPA Emission Factor	0.06	0	29.5944
PM-CON	State/Local Emission Factor	0.52	0	256.4848
NOX	CEMS - Continuous Emission Monitoring System	0	0	2658.23
SO2	CEMS - Continuous Emission Monitoring System	0	0	1150.9
7439976	CEMS - Continuous Emission Monitoring System	0	0	0.0082

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Process ID: 02		**Process Description:** IGNITION OIL - BLR 1 PC	
SCC:	10100501	**Stack:**	1
	Electric Generation	**Description:**	BOILER 1 PC DB
	Distillate Oil	**Stack Type:**	Vertical
	Grades 1 and 2 Oil	**Height:**	500
Heat Content:	137	**Diameter:**	19.5
Sulfur Content:	0.01	**Temperature:**	290
Ash Content:	0	**Velocity:**	90
Throughput:	138.818 1000 Gallons	**Gas Flow:**	1618000
Material:	Distillate Oil (No. 1 & 2)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	0	0
PM25-FIL	Engineering Judgement	0	0	0
7439921	Engineering Judgement	0	0	0.0004
CO	EPA Emission Factor	5	0	0.3470
NH3	EPA Emission Factor	0.8	0	0.0555
PM-CON	EPA Emission Factor	1.3	0	0.0902
VOC	EPA Emission Factor	0.2	0	0.0139
NOX	CEMS - Continuous Emission Monitoring System	0	0	0
SO2	CEMS - Continuous Emission Monitoring System	0	0	0
7439976	CEMS - Continuous Emission Monitoring System	0	0	0

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 002		**Group Description:** BOILER 2 PC DB	
Percent Quarterly Throughput			
Winter: 27	**Spring:** 15	**Summer:** 34	**Fall:** 24
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 6245
Process ID: 01		**Process Description:** BOILER 2 PC DB PULV COAL	
SCC:	10100212	**Stack:**	2
	Electric Generation	**Description:**	BOILER 2 PC DB
	Bituminous/Subbituminous Coal	**Stack Type:**	Vertical
	Pulverized Coal: Dry Bottom (Tangential) (Bituminous Coal)	**Height:**	500
Heat Content:	22.41	**Diameter:**	19.5
Sulfur Content:	2.95	**Temperature:**	290
Ash Content:	8.93	**Velocity:**	90
Throughput:	1017530 Tons	**Gas Flow:**	1618000
Material:	Bituminous Coal	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
7664393	Engineering Judgement	0	98.1	1.68
CO	EPA Emission Factor	0.5	0	254.3825
NH3	EPA Emission Factor	0.00057	0	0.2875
VOC	EPA Emission Factor	0.06	0	30.5259
PM-CON	State/Local Emission Factor	0.52	0	264.5578
NOX	CEMS - Continuous Emission Monitoring System	0	83	1924.5
SO2	CEMS - Continuous Emission Monitoring System	0	98.1	1273.207
7439976	CEMS - Continuous Emission Monitoring System	0	0	0.0063
PM10-FIL	Engineering Judgement	0	99.4	21.42
PM25-FIL	Engineering Judgement	0	97.7	15.39
7439921	Engineering Judgement	0	99.9	0.0000
7647010	Engineering Judgement	0	98.1	18.65

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Process ID: 02		**Process Description:** BOILER 2 IGNITION OIL	
SCC:	10100501	**Stack:**	2
	Electric Generation	**Description:**	BOILER 2 PC DB
	Distillate Oil	**Stack Type:**	Vertical
	Grades 1 and 2 Oil	**Height:**	500
Heat Content:	137	**Diameter:**	19.5
Sulfur Content:	0.01	**Temperature:**	290
Ash Content:	0	**Velocity:**	90
Throughput:	168.42 1000 Gallons	**Gas Flow:**	1618000
Material:	Distillate Oil (No. 1 & 2)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	0	0
PM25-FIL	Engineering Judgement	0	0	0
7439921	Engineering Judgement	0	0	0.0001
CO	EPA Emission Factor	5	0	0.4210
NH3	EPA Emission Factor	0.8	0	0.0674
PM-CON	EPA Emission Factor	1.3	0	0.1095
VOC	EPA Emission Factor	0.2	0	0.0168
NOX	CEMS - Continuous Emission Monitoring System	0	0	0
SO2	CEMS - Continuous Emission Monitoring System	0	0	0
7439976	CEMS - Continuous Emission Monitoring System	0	0	0

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 003		**Group Description:** CT NG OR OIL (CT4)	
Percent Quarterly Throughput			
Winter: 20	**Spring:** 21	**Summer:** 40	**Fall:** 19
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 244
Process ID: 01		**Process Description:** NG POWER TURBINES	
SCC:	20100201	**Stack:**	3
	Electric Generation	**Description:**	POWER TURBINES
	Natural Gas	**Stack Type:**	Vertical
	Turbine	**Height:**	80
Heat Content:	1	**Diameter:**	15
Sulfur Content:	0	**Temperature:**	992
Ash Content:	0	**Velocity:**	176
Throughput:	223.249 Million Cubic Feet	**Gas Flow:**	1902800
Material:	Natural Gas	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	EPA Emission Factor	1.9	0	0.2121
PM25-FIL	EPA Emission Factor	1.9	0	0.2121
PM-CON	EPA Emission Factor	4.8	0	0.5358
SO2	EPA Emission Factor	0.6	0	0.0670
VOC	EPA Emission Factor	2.1	0	0.2344
CO	State/Local Emission Factor	83.64	0	9.3363
NOX	CEMS - Continuous Emission Monitoring System	0	0	6.1

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Process ID: 02		**Process Description:** POWER TURBINES (OIL)	
SCC:	20100101	**Stack:**	3
	Electric Generation	**Description:**	POWER TURBINES
	Distillate Oil (Diesel)	**Stack Type:**	Vertical
	Turbine	**Height:**	80
Heat Content:	137	**Diameter:**	15
Sulfur Content:	0	**Temperature:**	992
Ash Content:	0	**Velocity:**	176
Throughput:	25.7187 1000 Gallons	**Gas Flow:**	1902800
Material:	Distillate Oil (Diesel)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
NOX	Engineering Judgement	0	0	0
CO	EPA Emission Factor	0.4587	0	0.0059
PM10-FIL	EPA Emission Factor	0.57	0	0.0073
PM25-FIL	EPA Emission Factor	0.54	0	0.0069
PM-CON	EPA Emission Factor	1	0	0.0129
VOC	EPA Emission Factor	0.06	0	0.0008
7439921	EPA Emission Factor	0.002	0	0.0000
7439976	EPA Emission Factor	0.00017	0	0.0000
SO2	State/Local Emission Factor	0	0	0

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 004		**Group Description:** POWER TURBINE OIL 3A	
Percent Quarterly Throughput			
Winter: 17	**Spring:** 52	**Summer:** 11	**Fall:** 20
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 35
Process ID: 01		**Process Description:** POWER TURBINE OIL	
SCC:	20100102	**Stack:**	6
	Electric Generation	**Description:**	POWER TURBINE
	Distillate Oil (Diesel)	**Stack Type:**	Vertical
	Reciprocating	**Height:**	21
Heat Content:	137	**Diameter:**	3
Sulfur Content:	0	**Temperature:**	670
Ash Content:	0	**Velocity:**	56.12
Throughput:	8.7 1000 Gallons	**Gas Flow:**	23800
Material:	Distillate Oil (Diesel)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
CO	EPA Emission Factor	130	0	0.5655
NOX	EPA Emission Factor	604	0	2.6274
PM10-FIL	EPA Emission Factor	14	0	0.0609
PM25-FIL	EPA Emission Factor	14	0	0.0609
SO2	EPA Emission Factor	39.7	0	0.1727
VOC	EPA Emission Factor	49.3	0	0.2145

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 005		**Group Description:** POWER TURBINE OIL 3B	
Percent Quarterly Throughput			
Winter: 10	**Spring:** 34	**Summer:** 42	**Fall:** 14
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 210
Process ID: 01		**Process Description:** POWER TURBINE OIL	
SCC:	20100102	**Stack:**	6
	Electric Generation	**Description:**	POWER TURBINE
	Distillate Oil (Diesel)	**Stack Type:**	Vertical
	Reciprocating	**Height:**	21
Heat Content:	137	**Diameter:**	3
Sulfur Content:	0	**Temperature:**	670
Ash Content:	0	**Velocity:**	56.12
Throughput:	9.4 1000 Gallons	**Gas Flow:**	23800
Material:	Distillate Oil (Diesel)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
CO	EPA Emission Factor	130	0	0.611
NOX	EPA Emission Factor	604	0	2.8388
PM10-FIL	EPA Emission Factor	14	0	0.0658
PM25-FIL	EPA Emission Factor	14	0	0.0658
SO2	EPA Emission Factor	39.7	0	0.1866
VOC	EPA Emission Factor	49.3	0	0.2317

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 006		**Group Description:** POWER TURBINE OIL 3C	
Percent Quarterly Throughput			
Winter: 15	**Spring:** 46	**Summer:** 12	**Fall:** 27
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 39
Process ID: 01		**Process Description:** POWER TURBINE OIL	
SCC:	20100102	**Stack:**	6
	Electric Generation	**Description:**	POWER TURBINE
	Distillate Oil (Diesel)	**Stack Type:**	Vertical
	Reciprocating	**Height:**	21
Heat Content:	137	**Diameter:**	3
Sulfur Content:	0	**Temperature:**	670
Ash Content:	0	**Velocity:**	56.12
Throughput:	9.8 1000 Gallons	**Gas Flow:**	23800
Material:	Distillate Oil (Diesel)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
CO	EPA Emission Factor	130	0	0.637
NOX	EPA Emission Factor	604	0	2.9596
PM10-FIL	EPA Emission Factor	14	0	0.0686
PM25-FIL	EPA Emission Factor	14	0	0.0686
SO2	EPA Emission Factor	39.7	0	0.1945
VOC	EPA Emission Factor	49.3	0	0.2416

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 007		**Group Description:** POWER TURBINE OIL 3D	
Percent Quarterly Throughput			
Winter: 16	**Spring:** 42	**Summer:** 13	**Fall:** 29
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 36
Process ID: 01		**Process Description:** POWER TURBINE OIL	
SCC:	20100102	**Stack:**	6
	Electric Generation	**Description:**	POWER TURBINE
	Distillate Oil (Diesel)	**Stack Type:**	Vertical
	Reciprocating	**Height:**	21
Heat Content:	137	**Diameter:**	3
Sulfur Content:	0	**Temperature:**	670
Ash Content:	0	**Velocity:**	56.12
Throughput:	8.9 1000 Gallons	**Gas Flow:**	23800
Material:	Distillate Oil (Diesel)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
CO	EPA Emission Factor	130	0	0.5785
NOX	EPA Emission Factor	604	0	2.6878
PM10-FIL	EPA Emission Factor	14	0	0.0623
PM25-FIL	EPA Emission Factor	14	0	0.0623
SO2	EPA Emission Factor	39.7	0	0.1767
VOC	EPA Emission Factor	49.3	0	0.2194

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 008		**Group Description:** ROADS - FUGITVE DUST	
Percent Quarterly Throughput			
Winter: 25	**Spring:** 25	**Summer:** 25	**Fall:** 25
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 8760
Process ID: 01		**Process Description:** Unpaved Roadways	
SCC:	30501039	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Coal Mining, Cleaning, and Material Handling (See 305310)	**Stack Type:**	Fugitive
	Hauling: Haul Trucks	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	20789 Miles	**Gas Flow:**	0
Material:	Vehicle	**Input/Output:**	Process Material Produced (Outut)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	0	1.19
PM25-FIL	Engineering Judgement	0	0	0.12

Process ID: 02		**Process Description:** Paved Roadways	
SCC:	30501039	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Coal Mining, Cleaning, and Material Handling (See 305310)	**Stack Type:**	Fugitive
	Hauling: Haul Trucks	**Height:**	0
Heat Content:	0	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	244129 Miles	**Gas Flow:**	0
Material:	Vehicle	**Input/Output:**	Process Material Produced (Outut)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	0	0.14
PM25-FIL	Engineering Judgement	0	0	0.04

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 009		**Group Description:** PILE - FUGITVE DUST	
Percent Quarterly Throughput			
Winter: 25	**Spring:** 25	**Summer:** 25	**Fall:** 25
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 8760
Process ID: 01		**Process Description:** COAL PILE	
SCC:	30501049	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Coal Mining, Cleaning, and Material Handling (See 305310)	**Stack Type:**	Fugitive
	Wind Erosion: Exposed Areas	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	19.2 Acre-Years	**Gas Flow:**	0
Material:	Exposed Area	**Input/Output:**	Process Material Existing

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	EPA Emission Factor	380	0	3.648
PM25-FIL	EPA Emission Factor	112	0	1.0752

Process ID: 02		**Process Description:** LIMESTONE PILE	
SCC:	30501049	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Coal Mining, Cleaning, and Material Handling (See 305310)	**Stack Type:**	Fugitive
	Wind Erosion: Exposed Areas	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	2.2 Acre-Years	**Gas Flow:**	0
Material:	Exposed Area	**Input/Output:**	Process Material Existing

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	EPA Emission Factor	380	0	0.418
PM25-FIL	EPA Emission Factor	112	0	0.1232

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 010		**Group Description:** MATERIAL HNDLG - FUGITIVE	
Percent Quarterly Throughput			
Winter: 25	**Spring:** 25	**Summer:** 25	**Fall:** 25
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 8760
Process ID: 01		**Process Description:** COAL HANDLING	
SCC:	30501044	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Coal Mining, Cleaning, and Material Handling (See 305310)	**Stack Type:**	Fugitive
	Train Loading: Coal	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	2004010 Tons	**Gas Flow:**	0
Material:	Coal	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	52.8	1.55
PM25-FIL	Engineering Judgement	0	52.8	0.23

Process ID: 02		**Process Description:** LIMESTONE HANDLING	
SCC:	30510405	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Bulk Materials Unloading Operation	**Stack Type:**	Fugitive
	Limestone	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	152416 Tons	**Gas Flow:**	0
Material:	Limestone	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Site-Specific Emission Factor	0.0303	0	2.3091
PM25-FIL	Site-Specific Emission Factor	0.0046	0	0.3506

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Process ID: 03		**Process Description:** GYPSUM HANDLING	
SCC:	30510199	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Bulk Materials Conveyors	**Stack Type:**	Fugitive
	Other Not Classified	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	258717 Tons	**Gas Flow:**	0
Material:	Material	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	50	1.97
PM25-FIL	Engineering Judgement	0	50	0.3

Process ID: 04		**Process Description:** DRYASH HANDLING	
SCC:	30510199	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Bulk Materials Conveyors	**Stack Type:**	Fugitive
	Other Not Classified	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	143219 Tons	**Gas Flow:**	0
Material:	Material	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM10-FIL	Engineering Judgement	0	99.9	0.69
PM25-FIL	Engineering Judgement	0	99.9	0.58

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Process ID: 05		**Process Description:** FIXATION	
SCC:	30599999	**Stack:**	0
	Mineral Products	**Description:**	No Stack Associated
	Other Not Defined	**Stack Type:**	Fugitive
	Specify in Comments Field	**Height:**	0
Heat Content:	1	**Diameter:**	0
Sulfur Content:	0	**Temperature:**	0
Ash Content:	0	**Velocity:**	0
Throughput:	258717 Tons	**Gas Flow:**	0
Material:	Material	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
PM25-FIL	Engineering Judgement	0	99.9	0.35
PM10-FIL	Engineering Judgement	0	99.9	0.006

Facility Emission Detail

Duke Energy Indiana LLC Cayuga Generati

Plant ID:1816500001 **Report for 2023**

Location: 3300 N SR 63,Cayuga,47928

NAICS: 221112 Fossil Fuel Electric Power Generation

Group ID: 011		**Group Description:** AUXILIARY BOILER	
Percent Quarterly Throughput			
Winter: 8	**Spring:** 3	**Summer:** 0	**Fall:** 89
Days Per Week: 7	**Weeks Per Year:** 52	**Hours Per Day:** 24	**Hours Per Year:** 302
Process ID: 01		**Process Description:** Fuel Oil	
SCC:	10300501	**Stack:**	8
	Commercial/Institutional	**Description:**	AUX - 1
	Distillate Oil	**Stack Type:**	Vertical
	Grades 1 and 2 Oil	**Height:**	239
Heat Content:	137	**Diameter:**	3.5
Sulfur Content:	0	**Temperature:**	400
Ash Content:	0	**Velocity:**	115.83
Throughput:	18.221 1000 Gallons	**Gas Flow:**	66865
Material:	Distillate Oil (No. 1 & 2)	**Input/Output:**	Process Material Used (Input)

Pollutant	Emission Method	Emission Factor	Overall Ctrl Efficiency	Emissions(Tons)
CO	EPA Emission Factor	5	0	0.0456
NH3	EPA Emission Factor	0.8	0	0.0073
PM25-FIL	EPA Emission Factor	0.83	0	0.0076
SO2	EPA Emission Factor	142	0	0
VOC	EPA Emission Factor	0.34	0	0.0031
7439976	EPA Emission Factor	0.00042	0	0.0000
PM10-FIL	State/Local Emission Factor	3.3	0	0.0301
NOX	EPA Emission Factor	24	0	0.2187
PM-CON	EPA Emission Factor	1.3	0	0.0118
7439921	EPA Emission Factor	0.00125	0	0.0000