TV FER/EIS Emissions Report (201895) for 2010
Miami University
1409090081
April 18, 2011

2010 Emissions Summary Report : 201895

Oct 11 2011, 10:43:12

- Report Data

Report Category: TV

Submitted Date: 04/18/2011

Approved Date 04/26/2011

Reporting Year: 2010

Reporting State Approved

- Reports Included

FER: X ES: EIS: X

- Facility Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0.	12.3142	12.3142	TONs
SO2 - Sulfur Dioxide	SO2	X	0.	384.253	384.253	TONs
NOx - Nitrogen Oxides	NOX	X	0.	87.648	87.648	TONs
Organic Compounds	OC	X	0.	0.843215	0.843215	TONs
Pb - Lead	7439921	X	0.	0.152984	0.152984	TONs
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0.	21.8654	21.8654	TONs
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0.	14.6834	14.6834	TONs
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0.	9.25436	9.25436	TONs
VOC - Volatile Organic Compounds	VOC		0.	0.7198	0.7198	TONs
Ammonia	NH3		0.	0.084881	0.084881	TONs
CO - Carbon Monoxide	CO		0.	69.5641	69.5641	TONs
Total of Chargable Pollutants					494.763	TONS

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Acenaphthene	83329	0.	2.02833E-08	2.02833E-08	TONs
Acenaphthylene	208968	0.	2.02833E-08	2.02833E-08	TONs

Acetaldehyde	75070	0.	4.71023E-04	4.71023E-04	TONs
Acrolein	107028	0.	4.05666E-04	4.05666E-04	TONs
Anthracene	120127	0.	2.70444E-08	2.70444E-08	TONs
Arsenic	7440382	0.	7.63036E-05	7.63036E-05	TONs
Benz[A]Anthracene	56553	0.	2.02833E-08	2.02833E-08	TONs
Benzene	71432	0.	4.73277E-05	4.73277E-05	TONs
Benzo[A]Pyrene	50328	0.	1.35222E-08	1.35222E-08	TONs
Benzo[B]Fluoranthene	205992	0.	2.02833E-08	2.02833E-08	TONs
Benzo[G,H,I,]Perylene	191242	0.	1.35222E-08	1.35222E-08	TONs
Benzo[K]Fluoranthene	207089	0.	2.02833E-08	2.02833E-08	TONs
Beryllium	7440417	0.	4.67206E-08	4.67206E-08	TONs
Cadmium	7440439	0.	1.4539E-05	1.4539E-05	TONs
Chromium	7440473	0.	1.09015E-05	1.09015E-05	TONs
Chrysene	218019	0.	2.02833E-08	2.02833E-08	TONs
Cobalt	7440484	0.	6.54088E-07	6.54088E-07	TONs
Dibenzo[A,H]Anthracene	53703	0.	1.35222E-08	1.35222E-08	TONs
Dimethylbenz[A]Anthracene, 7,12-	57976	0.	1.80296E-07	1.80296E-07	TONs
Fluoranthene	206440	0.	6.7611E-08	6.7611E-08	TONs
Fluorene	86737	0.	6.31036E-08	6.31036E-08	TONs
Formaldehyde	50000	0.	0.0445775	0.0445775	TONs
Hexane, N-	110543	0.	0.0405666	0.0405666	TONs
Hydrochloric Acid (Hydrogen Chloride)	7647010	0.	0.67674	0.67674	TONs
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	0.	1.69185	1.69185	TONs
Indeno[1,2,3-C,D]Pyrene	193395	0.	2.02833E-08	2.02833E-08	TONs
MN - Manganese	7439965	0.	2.95897E-06	2.95897E-06	TONs
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	0.	9.02701E-05	9.02701E-05	TONs
Methylcholanthrene, 3-	56495	0.	2.02833E-08	2.02833E-08	TONs
Methylnaphthalene, 2-	91576	0.	5.40888E-07	5.40888E-07	TONs
Naphthalene	91203	0.	1.37476E-05	1.37476E-05	TONs
Nickel	7440020	0.	0.00131409	0.00131409	TONs
Phenanthrene	85018	0.	3.83129E-07	3.83129E-07	TONs

Polycyclic Organic Matter	246	0.	0.0100993	0.0100993	TONs
Pyrene	129000	0.	1.12685E-07	1.12685E-07	TONs
Selenium	7782492	0.	9.34412E-08	9.34412E-08	TONs
Toluene	108883	0.	7.66258E-05	7.66258E-05	TONs

- **Attachments**

Description	Type	Public Document	Trade Seceret Document	Trade secret Justification
P001 & P002 Emissions Information	Calculations	x		

- **Notes**

User Name	Date	Note

Emission Units Without Detailed Emissions

Oct 11 2011, 10:43:13

Emission Unit	Why Excluded	Company Equipment ID
B013	Less Than Reporting Requirement	Boiler #5
G001	Less Than Reporting Requirement	Tank #1 & #2
G002	Exemption Status = Permit Exempt	Tank #3 & #4
G003	Less Than Reporting Requirement	Tank #5 & #6
G004	Exemption Status = Permit Exempt	Tank #7 & #8
K001	Less Than Reporting Requirement	Paint Booth
N024	Exemption Status = Permit Exempt	Incinerator #1
P003	Exemption Status = Permit Exempt	Alumni Hall Em. gen.
P005	Exemption Status = Permit Exempt	Hoyt Hall #1
P006	Exemption Status = Permit Exempt	Hughes Hall #1
P007	Exemption Status = Permit Exempt	Hughes Hall #2
P009	Exemption Status = Permit Exempt	Peabody Hall
P010	Exemption Status = Permit Exempt	Phillips Hall
P011	Exemption Status = Permit Exempt	Public Safety
P012	Exemption Status = Permit Exempt	Portable Generator
P013	Exemption Status = Permit Exempt	Robertson Hall

P014	Exemption Status = Permit Exempt	Rec Sports Center
P015	Exemption Status = Permit Exempt	Shriver Center
P018	Exemption Status = Permit Exempt	Upham Hall
P019	Exemption Status = Permit Exempt	Yager Stadium
P020	Exemption Status = Permit Exempt	Goggin Ice Arena
P021	Exemption Status = Permit Exempt	Psych. Building EGen
P022	Exemption Status = Permit Exempt	Hoyt #2
P023	Exemption Status = Permit Exempt	Cole Service Bldg.
P024	Exemption Status = Permit Exempt	McGuffey Hall
P025	Exemption Status = Permit Exempt	SEAS Engg. Bldg.
P026	Exemption Status = Permit Exempt	
P028	Exemption Status = Permit Exempt	Steam Plant #1
P029	Exemption Status = Permit Exempt	Steam Plant #2
P030	Exemption Status = Permit Exempt	B-School Em. Genset
P031	Less Than Reporting Requirement	Campus Ave. Bldg. Emergency generator
P032	Less Than Reporting Requirement	Cole Service Building Emergency Generator
W001	Less Than Reporting Requirement	WASTE OIL HEATER
Z001	Exemption Status = Permit Exempt	Boiler #5
Z002	Exemption Status = Permit Exempt	Portable Boiler
Z003	Exemption Status = Permit Exempt	Tank #9
Z004	Exemption Status = Permit Exempt	Tank #10 & #11
Z005	Exemption Status = Permit Exempt	Coal Pile
Z006	Less Than Reporting Requirement	Paint Booth
Z007	Exemption Status = Permit Exempt	Boiler #5
Z008	Exemption Status = Permit Exempt	Hughes Lab-Fume Hoods
Z009	Exemption Status = Permit Exempt	Pearson Hall-Fume Hoods
Z010	Exemption Status = Permit Exempt	Boyd Hall-Fume Hoods
Z011	Exemption Status = Permit Exempt	Shideler Hall-Fume Hoods
Z012	Exemption Status = Permit Exempt	Kreger Hall-Fume Hoods
Z013	Exemption Status = Permit Exempt	Gaskill Hall-Fume Hoods
Z014	Exemption Status = Permit Exempt	McGuffey Hall-Fume Hoods

Z015	Exemption Status = Permit Exempt	King Library-Fume Hoods
Z016	Exemption Status = Permit Exempt	Garage Parts Washer
Z018	Exemption Status = Permit Exempt	Art Building Emergency Generator
Z019	Exemption Status = Permit Exempt	Bachelor Hall Emergency Generator
Z021	Exemption Status = Permit Exempt	CAB Emergency Generator
Z022	Exemption Status = Permit Exempt	CPA Emergency Generator
Z023	Exemption Status = Permit Exempt	Emerson Hall Emergency Generator
Z024	Exemption Status = Permit Exempt	Flower Hall Emergency Generator
Z025	Exemption Status = Permit Exempt	Gaskill Hall Emergency Generator
Z027	Exemption Status = Permit Exempt	Hahne Hall Emergency Generator
Z028	Exemption Status = Permit Exempt	Hall Auditorium Emergency Generator
Z029	Exemption Status = Permit Exempt	Havighurst Hall Emergency Generator
Z030	Exemption Status = Permit Exempt	Hepburn Hall Emergency Generator
Z031	Exemption Status = Permit Exempt	Hiestand Hall Emergency Generator
Z033	Exemption Status = Permit Exempt	HSC Emergency Generator
Z036	Exemption Status = Permit Exempt	Irvin Hall Emergency Generator
Z037	Exemption Status = Permit Exempt	King Library Emergency Generator
Z038	Exemption Status = Permit Exempt	Marcum Conference Center Emergency Generator
Z039	Exemption Status = Permit Exempt	Millett Hall Emergency Generator
Z040	Exemption Status = Permit Exempt	Morris Hall Emergency Generator
Z041	Exemption Status = Permit Exempt	Ogden Hall Emergency Generator
Z043	Exemption Status = Permit Exempt	Pearson Hall Emergency Generator
Z048	Exemption Status = Permit Exempt	Richard Hall Emergency Generator
Z051	Exemption Status = Permit Exempt	SADC Emergency Generator
Z052	Exemption Status = Permit Exempt	Satellite Farm Emergency Generator
Z055	Exemption Status = Permit Exempt	Station #2 Emergency Generator
Z056	Exemption Status = Permit Exempt	Main Steam Plant #1 Emergency Generator
Z058	Exemption Status = Permit Exempt	Swing Hall Emergency Generator
Z059	Exemption Status = Permit Exempt	Symmes Hall Emergency Generator
Z060	Exemption Status = Permit Exempt	Tappan Hall Emergency Generator
Z062	Exemption Status = Permit Exempt	Wells Hall Emergency Generator

Z063	Exemption Status = Permit Exempt	Williams Hall Emergency Generator
Z065	Exemption Status = De minimis	Hiestand Hall Art Kilns
Z066	Exemption Status = Permit Exempt	Psychology Building - Fume Hoods
Z067	Exemption Status = Permit Exempt	Benton Hall - Fume Hoods
Z068	Exemption Status = Permit Exempt	Culler Hall - Fume Hoods
Z069	Exemption Status = Permit Exempt	Hiestand Hall - Fume Hoods
Z070	Exemption Status = Permit Exempt	Hazardous Waste Storage Building - Fume Hoods
Z071	Exemption Status = Permit Exempt	Upham Hall - Fume Hoods

Report Pollutant Summary: Total Emissions (Tons)

Unit	SCC Id	PM-CON	SO2	NOX	OC	7439921	PM-FIL	PM10-FIL	PM25-FIL	VOC	NH3	CO
B010	**1-03-006-02**	0.0841605	0.009	1.477	0.162415	7.4E-06	0.028054	0.0280535	0.0280535	0.081	0.0072	1.24
B010	**1-03-002-07**	0.1555	4.925	1.08	0.0072	7.3E-05	0.278	0.186	0.117	0.0072	8.1E-05	0.864
B010	**1-03-005-01**											
B011	**1-03-002-07**	5.21	163.51	36.18	0.241	0.066	9.3	6.23	3.91	0.241	0.003	28.94
B011	**1-03-006-02**											
B012	**1-03-002-07**	6.82	215.8	47.332	0.3156	0.0869	12.17	8.15	5.11	0.3156	0.0036	37.87
B012	**1-03-006-02**											
B014	**1-03-005-01**											
B014	**1-03-006-01**	0.044	0.005	0.78	0.085	4E-06	0.015	0.015	0.015	0.043	0.004	0.65
P001	**2-01-002-02**	2E-04	0.0019	0.32	0.014	0.	0.03233	0.03233	0.03233	0.014	0.029	3E-05
P002	**2-01-002-02**	3E-04	0.0025	0.479	0.018	0.	0.041975	0.041975	0.041975	0.018	0.038	4.8E-05
Total		12.3142	384.253	87.648	0.843215	0.152984	21.8654	14.6834	9.25436	0.7198	0.084881	69.5641

Emission Unit Summary: B010

Oct 11 2011, 10:43:13

Emissions Unit ID: B010

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0.	0.23966	0.23966	TONs	
SO2 - Sulfur Dioxide	SO2	X	0.	4.934	4.934	TONs	
NOx - Nitrogen Oxides	NOX	X	0.	2.557	2.557	TONs	
Organic Compounds	OC	X	0.	0.169615	0.169615	TONs	
Pb - Lead	7439921	X	0.	8.04E-05	8.04E-05	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0.	0.306054	0.306054	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0.	0.214054	0.214054	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0.	0.145054	0.145054	TONs	
VOC - Volatile Organic Compounds	VOC		0.	0.0882	0.0882	TONs	
Ammonia	NH3		0.	0.007281	0.007281	TONs	
CO - Carbon Monoxide	CO		0.	2.104	2.104	TONs	
Total of Chargable Pollutants					7.96675	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Acenaphthene	83329	0.	1.32885E-08	1.32885E-08	TONs
Acenaphthylene	208968	0.	1.32885E-08	1.32885E-08	TONs
Acetaldehyde	75070	0.	3.08588E-04	3.08588E-04	TONs
Acrolein	107028	0.	2.6577E-04	2.6577E-04	TONs
Anthracene	120127	0.	1.7718E-08	1.7718E-08	TONs
Arsenic	7440382	0.	9.57247E-07	9.57247E-07	TONs

Benz[A]Anthracene	56553	0.	1.32885E-08	1.32885E-08	TONs
Benzene	71432	0.	3.10065E-05	3.10065E-05	TONs
Benzo[A]Pyrene	50328	0.	8.859E-09	8.859E-09	TONs
Benzo[B]Fluoranthene	205992	0.	1.32885E-08	1.32885E-08	TONs
Benzo[G,H,I,]Perylene	191242	0.	8.859E-09	8.859E-09	TONs
Benzo[K]Fluoranthene	207089	0.	1.32885E-08	1.32885E-08	TONs
Beryllium	7440417	0.	8.859E-11	8.859E-11	TONs
Cadmium	7440439	0.	9.25068E-08	9.25068E-08	TONs
Chromium	7440473	0.	2.0671E-08	2.0671E-08	TONs
Chrysene	218019	0.	1.32885E-08	1.32885E-08	TONs
Cobalt	7440484	0.	1.24026E-09	1.24026E-09	TONs
Dibenzo[A,H]Anthracene	53703	0.	8.859E-09	8.859E-09	TONs
Dimethylbenz[A]Anthracene, 7,12-	57976	0.	1.1812E-07	1.1812E-07	TONs
Fluoranthene	206440	0.	4.4295E-08	4.4295E-08	TONs
Fluorene	86737	0.	4.1342E-08	4.1342E-08	TONs
Formaldehyde	50000	0.	0.00165493	0.00165493	TONs
Hexane, N-	110543	0.	0.026577	0.026577	TONs
Hydrochloric Acid (Hydrogen Chloride)	7647010	0.	0.00864	0.00864	TONs
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	0.	0.0216	0.0216	TONs
Indeno[1,2,3-C,D]Pyrene	193395	0.	1.32885E-08	1.32885E-08	TONs
MN - Manganese	7439965	0.	5.6107E-09	5.6107E-09	TONs
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	0.	3.8389E-06	3.8389E-06	TONs
Methylcholanthrene, 3-	56495	0.	1.32885E-08	1.32885E-08	TONs
Methylnaphthalene, 2-	91576	0.	3.5436E-07	3.5436E-07	TONs
Naphthalene	91203	0.	9.00665E-06	9.00665E-06	TONs
Nickel	7440020	0.	3.10065E-08	3.10065E-08	TONs
Phenanthrene	85018	0.	2.51005E-07	2.51005E-07	TONs
Polycyclic Organic Matter	246	0.	1.38333E-04	1.38333E-04	TONs
Pyrene	129000	0.	7.3825E-08	7.3825E-08	TONs
Selenium	7782492	0.	1.7718E-10	1.7718E-10	TONs
Toluene	108883	0.	5.0201E-05	5.0201E-05	TONs

- **Processes**
  - **Process & Emissions Detail**

Name: B010-1-03-006-02

Source Classification Code (SCC): 1-03-006-02

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day: 24

Days Per Week: 7

Weeks Per Year: 15

Hours Per Year: 2424

Winter (Dec - Feb)%: 75

Spring (March-May)%: 11

Summer (June-Aug)%: 0

Fall (Sept-Nov)%: 14

Material	Material Action	Throughput	X Units
Natural Gas	Burned	29.530	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg	1000	Gas Heat Content (Btu/Cubic Feet)

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		factor:OEPA (auto calculate)	0	5.7	0.	0.0841605	0.0841605	TONs	
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	0.009	0.009	TONs	Using AP-42 Table 1.4-2. Emission Factor = 0.6 lb/mmcf of gas. (0.6 x 29.530)/2000 = 0.009 tons SO2/year.
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	1.477	1.477	TONs	AP-42 (Table 1.4-1) Emission Rate (Natural Gas) for uncontrolled unit = 100 lb.NOx/mmcf. (100 x 29.530)/2000= 1.477 tons/year
Organic	OC	X	factor:OEP	0	11	0.	0.162415	0.162415	TONs	

Compounds			A (auto calculate)							
Pb - Lead	7439921	X	emissions: ENG. JUDGEMENT			0	0.0000074	7.4E-06	TONs	FIRE database Emission Factor for Lead = 0.0005 lb/mmcf. Lead emissions = 29.530 x 0.0005/2000 = 0.0000074 tons/yr.
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	emissions: ENG. JUDGEMENT			0	0.028054	0.028054	TONs	FIRE database Emission Factor for PM filterable = 1.9 lb/mmcf. (1.9*29.530)/2000 =0.028 tons/yr.
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		factor:OEPA (auto calculate)	0	1.9	0.	0.0280535	0.0280535	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		factor:OEPA (auto calculate)	0	1.9	0.	0.0280535	0.0280535	TONs	
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	0.081	0.081	TONs	Using Emission Factor for total VOC emissions from natural gas combustion in boilers AP-42 Table 1.4-2. Emission Factor = 5.5 lb/mmcf of gas. (5.5 x 29.530)/2000 = 0.081 tons VOC/year.
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.0072	0.0072	TONs	FIRE database Emission Factor for Ammonia = 0.49 lb/mmcf natural gas. (29.530 x 0.49)/2000 = 0.0072 tons/yr.
CO - Carbon Monoxide	CO		emissions: ENG. JUDGEMENT			0	1.24	1.24	TONs	FIRE database Emission Factor for CO = 84 lb/mmcf. (84*29.530)/2000 = 1.24 tons/year.
Total of Chargable Pollutants								1.67648	TONS	

-

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

- **Process Emissions**

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Acenaphthene	83329	factor:OEPA (auto	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	

		calculate)							
Acenaphthylene	208968	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Acetaldehyde	75070	factor:OEPA (auto calculate)	0	0.0209	0.	3.08588E-04	3.08588E-04	TONs	
Acrolein	107028	factor:OEPA (auto calculate)	0	0.018	0.	2.6577E-04	2.6577E-04	TONs	
Anthracene	120127	factor:OEPA (auto calculate)	0	1.2E-06	0.	1.7718E-08	1.7718E-08	TONs	
Arsenic	7440382	factor:OEPA (auto calculate)	0	2E-04	0.	2.953E-09	2.953E-09	TONs	
Benz[A]Anthracene	56553	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Benzene	71432	factor:OEPA (auto calculate)	0	0.0021	0.	3.10065E-05	3.10065E-05	TONs	
Benzo[A]Pyrene	50328	factor:OEPA (auto calculate)	0	6E-07	0.	8.859E-09	8.859E-09	TONs	
Benzo[B]Fluoranthene	205992	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Benzo[G,H,I,]Perylene	191242	factor:OEPA (auto calculate)	0	6E-07	0.	8.859E-09	8.859E-09	TONs	
Benzo[K]Fluoranthene	207089	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Beryllium	7440417	factor:OEPA (auto calculate)	0	6E-06	0.	8.859E-11	8.859E-11	TONs	
Cadmium	7440439	factor:OEPA (auto calculate)	0	0.0011	0.	1.62415E-08	1.62415E-08	TONs	
Chromium	7440473	factor:OEPA (auto	0	0.0014	0.	2.0671E-08	2.0671E-08	TONs	

		calculate)							
Chrysene	218019	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Cobalt	7440484	factor:OEPA (auto calculate)	0	8.4E-05	0.	1.24026E-09	1.24026E-09	TONs	
Dibenzo[A,H]Anthracene	53703	factor:OEPA (auto calculate)	0	6E-07	0.	8.859E-09	8.859E-09	TONs	
Dimethylbenz[A]Anthracene, 7,12-	57976	factor:OEPA (auto calculate)	0	8E-06	0.	1.1812E-07	1.1812E-07	TONs	
Fluoranthene	206440	factor:OEPA (auto calculate)	0	3E-06	0.	4.4295E-08	4.4295E-08	TONs	
Fluorene	86737	factor:OEPA (auto calculate)	0	2.8E-06	0.	4.1342E-08	4.1342E-08	TONs	
Formaldehyde	50000	factor:OEPA (auto calculate)	0	0.075	0.	0.00110738	0.00110738	TONs	
Hexane, N-	110543	factor:OEPA (auto calculate)	0	1.8	0.	0.026577	0.026577	TONs	
Indeno[1,2,3-C,D]Pyrene	193395	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
MN - Manganese	7439965	factor:OEPA (auto calculate)	0	3.8E-04	0.	5.6107E-09	5.6107E-09	TONs	
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	factor:OEPA (auto calculate)	0	2.6E-04	0.	3.8389E-06	3.8389E-06	TONs	
Methylcholanthrene, 3-	56495	factor:OEPA (auto calculate)	0	9E-07	0.	1.32885E-08	1.32885E-08	TONs	
Methylnaphthalene, 2-	91576	factor:OEPA (auto calculate)	0	2.4E-05	0.	3.5436E-07	3.5436E-07	TONs	

Naphthalene	91203	factor:OEPA (auto calculate)	0	6.1E-04	0.	9.00665E-06	9.00665E-06	TONs	
Nickel	7440020	factor:OEPA (auto calculate)	0	0.0021	0.	3.10065E-08	3.10065E-08	TONs	
Phenanthrene	85018	factor:OEPA (auto calculate)	0	1.7E-05	0.	2.51005E-07	2.51005E-07	TONs	
Polycyclic Organic Matter	246	factor:OEPA (auto calculate)	0	6.49E-04	0.	9.58248E-06	9.58248E-06	TONs	
Pyrene	129000	factor:OEPA (auto calculate)	0	5E-06	0.	7.3825E-08	7.3825E-08	TONs	
Selenium	7782492	factor:OEPA (auto calculate)	0	1.2E-05	0.	1.7718E-10	1.7718E-10	TONs	
Toluene	108883	factor:OEPA (auto calculate)	0	0.0034	0.	5.0201E-05	5.0201E-05	TONs	

- Process & Emissions Detail

Name: B010-1-03-002-07

Source Classification Code (SCC): 1-03-002-07

- Material Information, Annual Average Operating Schedule & Throughput Percent

Schedule Trade Secret:

Hours Per Day: 24

Days Per Week: 7

Weeks Per Year: 2

Hours Per Year: 56

Winter (Dec - Feb)%: 0

Spring (March-May)%: 100

Summer (June-Aug)%: 0

Fall (Sept-Nov)%: 0

Material	Material Action	Throughput	X Units
Bituminous/Subbituminous Coal	Burned	288	TONs

Variable	Amount	Meaning

HCs	13580	Solid Heat Content (Btu/Lb)
S	.8767	% Sulfur content by weight

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: STACK TEST			0	0.1555	0.1555	TONs	Condensible PM = 0.04 lb/mmBTU EF x Heat content x coal/ 1000,000 = PM condnesible = 0.04 x 13,580 /1000,000 = 0.00054 tons PM (cond)/ton of coal.
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	4.925	4.925	TONs	SO2 Emissions Rate = (1.9 x 0.009 x 1,000,000)/13580 = 1.259 lb/MMBTU. (1.259 x 13580)/1,000,000 = 0.0171 tons SO2/ ton of coal.
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	1.08	1.08	TONs	FIRE database Emission Factor for Nitrogen oxides = 7.5 lb/ton of coal. (7.5 x 288)/2000 = 1.08 tons NOx/yr.
Organic Compounds	OC	X	emissions: ENG. JUDGEMENT			0	0.0072	0.0072	TONs	FIRE database Emission Factor for Organic Carbon = 0.05 lb/ton of coal.(0.05 x 288)/2000 = 0.0072 tons OC/yr.
Pb - Lead	7439921	X	emissions: ENG. JUDGEMENT			0	0.000073	7.3E-05	TONs	FIRE database Emission Factor for Lead = 0.000507 lb/ton of coal. (0.000507 x 288)/2000 = 0.0000 tons/yr.
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	emissions: ENG. JUDGEMENT			0	0.278	0.278	TONs	EF from Stack test = 0.071 which is filterable PM. PM filt. = 0.071 x 13580 x 288/1,000,000 = 0.278 tons.
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		emissions: ENG. JUDGEMENT			0	0.186	0.186	TONs	Using FIRE database calculate ratio of uncontrolled PM<10 to filterable PM = 0.67. EF from Stack test = 0.071 (taking mean of 3 boilers) so filterable PM<10 = 0.071 x 0.67 = 0.0476 lb/MMBTU. PM<10 filt. = 0.0476 x 13580 x 288/1,000,000 = 0.186 tons
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		emissions: ENG. JUDGEMENT			0	0.117	0.117	TONs	Using FIRE database calculate ratio of uncontrolled PM<2.5 to filterable PM = 0.42. EF from Stack test = 0.071 so filterable PM<2.5 = 0.071 x 0.42 = 0.0298 lb/MMBTU. PM<2.5 filt. = 0.0298 x 13580 x 288/1,000,000 = 0.117 tons.
VOC - Volatile	VOC		emissions:			0	0.0072	0.0072	TONs	Since VOC cannot be greater than OC, the same emissions

Organic Compounds			ENG. JUDGEMENT							factor was used for both.
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.000081	8.1E-05	TONs	FIRE database Emission Factor for Ammonia = 0.565 lb/ 1000 tons of coal.(0.565 x 0.288)/2000 = 0.000081 tons NH3/yr.
CO - Carbon Monoxide	CO		emissions: ENG. JUDGEMENT			0	0.864	0.864	TONs	FIRE database Emission Factor for CO = 6 lb/ ton of coal. (6 x 288)/2000 = 0.864 tons CO/yr.
Total of Chargable Pollutants								6.29027	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Process Emissions

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Arsenic	7440382	factor:OEPA (auto calculate)	0	0.00662704	0.	9.54294E-07	9.54294E-07	TONs	
Cadmium	7440439	factor:OEPA (auto calculate)	0	5.2962E-04	0.	7.62653E-08	7.62653E-08	TONs	
Formaldehyde	50000	factor:OEPA (auto calculate)	0	0.0038024	0.	5.47546E-04	5.47546E-04	TONs	
Hydrochloric Acid (Hydrogen Chloride)	7647010	factor:OEPA (auto calculate)	0	1.2	0.	0.00864	0.00864	TONs	
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	factor:OEPA (auto calculate)	0	0.15	0.	0.0216	0.0216	TONs	
Polycyclic Organic Matter	246	factor:OEPA (auto calculate)	0	8.94107E-04	0.	1.28751E-04	1.28751E-04	TONs	

- Process & Emissions Detail

Name: B010-1-03-005-01

Source Classification Code (SCC): 1-03-005-01

- Material Information, Annual Average Operating Schedule & Throughput Percent

Schedule Trade Secret:

Hours Per Day: 0

Days Per Week: 0

Weeks Per Year: 0

Hours Per Year: 0

Winter (Dec - Feb)%: 25

Spring (March-May)%: 25

Summer (June-Aug)%: 25

Fall (Sept-Nov)%: 25

Material	Material Action	Throughput	X Units
Distillate Oil	Burned	0	1000 GALLONS

Variable	Amount	Meaning
HCl		Liquid Heat Content (Btu/gallons)
S		% Sulfur content by weight

- Process Emissions

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Total of Chargable Pollutants								0.	TONS	

Emission Unit Summary: B011

Oct 11 2011, 10:43:13

Emissions Unit ID: B011

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0	5.21	5.21	TONs	
SO2 - Sulfur Dioxide	SO2	X	0	163.51	163.51	TONs	X
NOx - Nitrogen Oxides	NOX	X	0	36.18	36.18	TONs	
Organic Compounds	OC	X	0	.241	0.241	TONs	
Pb - Lead	7439921	X	0	0.066	0.066	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0	9.30	9.3	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0	6.23	6.23	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0	3.91	3.91	TONs	
VOC - Volatile Organic Compounds	VOC		0	.241	0.241	TONs	
Ammonia	NH3		0	0.003	0.003	TONs	
CO - Carbon Monoxide	CO		0	28.94	28.94	TONs	
Total of Chargable Pollutants					209.297	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Arsenic	7440382	0.	3.19688E-05	3.19688E-05	TONs
Cadmium	7440439	0.	2.55489E-06	2.55489E-06	TONs
Formaldehyde	50000	0.	0.0183428	0.0183428	TONs
Hydrochloric Acid (Hydrogen Chloride)	7647010	0.	0.28944	0.28944	TONs
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	0.	0.7236	0.7236	TONs
Polycyclic Organic Matter	246	0.	0.00431317	0.00431317	TONs

- **Processes**
  - **Process & Emissions Detail**

Name: B011-1-03-002-07

Source Classification Code (SCC): 1-03-002-07

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day: 24

Days Per Week: 7

Weeks Per Year: 31

Hours Per Year: 5160

Winter (Dec - Feb)%: 42

Spring (March-May)%: 7

Summer (June-Aug)%: 25

Fall (Sept-Nov)%: 26

Material	Material Action	Throughput	X Units
Bituminous/Subbituminous Coal	Burned	9648	TONs

Variable	Amount	Meaning
HCs	13580	Solid Heat Content (Btu/Lb)
S	.8767	% Sulfur content by weight

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: ENG. JUDGEMENT			0	5.21	5.21	TONs	Emission factor for PMtotal = (EF from Stack Test) +(EF for condensible PM from FIRE database) = 0.111 EF from Stack test = PM filterable = 0.071 lb/mmBTU Condensible PM = 0.04 lb/mmBTU EF x Heat content x coal/ 1000,000 = PM condnesible = 0.04 x 13,580 /1000,000 = 0.00054 tons PM (cond)/ton of coal.
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	163.51	163.51	TONs	SO2 Emission Rate = 1.248 lb/mmBTU. SO2 = (1.248 x 13580 x 9648)/1,000,000 = 163.51 tons/yr.
NOx - Nitrogen	NOX	X	emissions:			0	36.18	36.18	TONs	AP-42 (Table 1.1-1) Emission Rate (Coal) = 7.5 lb NOx/ton

Oxides			ENG. JUDGEMENT							coal. Therefore (9648 x 7.5)/2000 = 36.18 tons/yr.
Organic Compounds	OC	X	emissions: ENG. JUDGEMENT			0	.241	0.241	TONs	FIRE database Emission Factor for OC = 0.05 lb/ton. (0.05*9648)/2000 = 0.241 tons.
Pb - Lead	7439921	X	emissions: ENG. JUDGEMENT			0	0.066	0.066	TONs	FIRE 6.24 Emission Factor = 0.000507 lb/MMBTU. Lead emissions = 9648 x 0.000507x13580/1000000 = 0.066 tons.
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	emissions: ENG. JUDGEMENT			0	9.30	9.3	TONs	EF from Stack test = PM filterable = 0.071 lb/mmBTU =0.071 lb/mmBTU * 13580 BTU/lb * 9648 tons/1000000 BTU/mmBTU PM total filterable = 9.30 tons
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		emissions: ENG. JUDGEMENT			0	6.23	6.23	TONs	EF from FIRE for uncontrolled PM<10 = 6 EF from FIRE for filterable PM = 9 Ratio of uncontrolled : filterable = 6/9 = 0.67 lb/MMBTU EF from Stack Test = 0.071 so EF for filterable PM<10 = 0.04757 lb/MMBTU PM<10 filterable = 0.04757 * 13580 * 9648/1,000,000 = 6.23 tons.
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		emissions: ENG. JUDGEMENT			0	3.91	3.91	TONs	EF from FIRE for uncontrolled PM<2.5 = 3.8 EF from FIRE for filterable PM = 9 Ratio for uncontrolled : filterable = 3.8/9 = 0.42 lb/MMBTU EF for filterable PM<2.5 = 0.71 x 0.42 = 0.02982 lb/mmBTU PM<2.5 filterable =0.02982 lb/mmBTU * 13580 BTU/lb * 9648 tons/1000000 BTU/mmBTU = 3.91 tons.
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	.241	0.241	TONs	Since VOC cannot be greater than OC, the same emissions factor was used for both.
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.003	0.003	TONs	FIRE database Emission Factor = 0.565 lb NH3/1000 tons of coal. (0.565 x 9.648/2000) = 0.003 tons NH3/year
CO - Carbon Monoxide	CO		emissions: ENG. JUDGEMENT			0	28.94	28.94	TONs	FIRE database Emission Factor for CO = 6 lb/ton. (6*9648)/2000 = 28.94 tons.
Total of Chargable Pollutants								209.297	TONS	

-

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio

EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

- **Process Emissions**

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Arsenic	7440382	factor:OEPA (auto calculate)	0	0.00662704	0.	3.19688E-05	3.19688E-05	TONs	
Cadmium	7440439	factor:OEPA (auto calculate)	0	5.2962E-04	0.	2.55489E-06	2.55489E-06	TONs	
Formaldehyde	50000	factor:OEPA (auto calculate)	0	0.0038024	0.	0.0183428	0.0183428	TONs	
Hydrochloric Acid (Hydrogen Chloride)	7647010	factor:OEPA (auto calculate)	0	1.2	0.	0.28944	0.28944	TONs	
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	factor:OEPA (auto calculate)	0	0.15	0.	0.7236	0.7236	TONs	
Polycyclic Organic Matter	246	factor:OEPA (auto calculate)	0	8.94107E-04	0.	0.00431317	0.00431317	TONs	

- **Process & Emissions Detail**

Name: B011-1-03-006-02

Source Classification Code (SCC): 1-03-006-02

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day: 0

Days Per Week: 0

Weeks Per Year: 0

Hours Per Year: 0

Winter (Dec - Feb)%: 25

Spring (March-May)%: 25

Summer (June-Aug)%: 25

Fall (Sept-Nov)%: 25

Material	Material Action	Throughput	X Units
Natural Gas	Burned	0	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg		Gas Heat Content (Btu/Cubic Feet)

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Total of Chargable Pollutants								0.	TONS	

Emission Unit Summary: B012

Oct 11 2011, 10:43:13

Emissions Unit ID: B012

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0	6.82	6.82	TONs	
SO2 - Sulfur Dioxide	SO2	X	0	215.80	215.8	TONs	X
NOx - Nitrogen Oxides	NOX	X	0	47.332	47.332	TONs	
Organic Compounds	OC	X	0	0.3156	0.3156	TONs	
Pb - Lead	7439921	X	0	0.0869	0.0869	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0	12.17	12.17	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0	8.15	8.15	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0	5.11	5.11	TONs	
VOC - Volatile Organic Compounds	VOC		0	0.3156	0.3156	TONs	
Ammonia	NH3		0	0.0036	0.0036	TONs	
CO - Carbon Monoxide	CO		0	37.87	37.87	TONs	
Total of Chargable Pollutants					275.705	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Arsenic	7440382	0.	4.18232E-05	4.18232E-05	TONs
Cadmium	7440439	0.	3.34243E-06	3.34243E-06	TONs
Formaldehyde	50000	0.	0.0239969	0.0239969	TONs
Hydrochloric Acid (Hydrogen Chloride)	7647010	0.	0.37866	0.37866	TONs
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	0.	0.94665	0.94665	TONs
Polycyclic Organic Matter	246	0.	0.00564271	0.00564271	TONs

- **Processes**
  - **Process & Emissions Detail**

Name: B012-1-03-002-07

Source Classification Code (SCC): 1-03-002-07

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day: 24

Days Per Week: 7

Weeks Per Year: 40

Hours Per Year: 6576

Winter (Dec - Feb)%: 33

Spring (March-May)%: 27

Summer (June-Aug)%: 15

Fall (Sept-Nov)%: 25

Material	Material Action	Throughput	X Units
Bituminous/Subbituminous Coal	Burned	12622	TONs

Variable	Amount	Meaning
HCs	13580	Solid Heat Content (Btu/Lb)
S	0.8767	% Sulfur content by weight

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: STACK TEST			0	6.82	6.82	TONs	Emission factor for PMtotal = (EF from Stack Test) +(EF for condensible PM from FIRE database) = 0.111 EF from Stack test = PM filterable = 0.071 lb/mmBTU Condensible PM = 0.04 lb/mmBTU EF x Heat content x coal/ 1000,000 = PM condnesible = 0.04 x 13,580 /1000,000 = 0.00054 tons PM (cond)/ton of coal.
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	215.80	215.8	TONs	ER = (1,000,000 x S (sulfur content not in %) x 1.9)/Heat value in BTU. = 1,000,000 x 0.009 x 1.9/13,580 = 1.259 lb.(SO2)/mmBTU. Total SO2 Emissions = ER x Total Heat Generated = (1.259 x

										12622 x 13580)/1000000 = 215.80 tons SO2
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	47.332	47.332	TONs	Emission rate (coal) = 7.5 lb.NOx/ton coal [AP-42 (Table 1.4-2)]. (12622 x 7.5/2000) = 47.332 tons/yr.
Organic Compounds	OC	X	emissions: ENG. JUDGEMENT			0	0.3156	0.3156	TONs	FIRE database Emission Factor for OC = 0.05 lb/ton of coal. (0.05* 12622)/2000 = 0.3156 tons/year.
Pb - Lead	7439921	X	emissions: ENG. JUDGEMENT			0	0.0869	0.0869	TONs	FIRE database Emission Factor for Lead = 0.000507 lb/MMBTU. (0.000507*12622*13580)/1000000 = 0.0869 tons/yr.
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	emissions: STACK TEST			0	12.17	12.17	TONs	Stack test, based on F-factor, average emission rate was 0.071 lb/mmBTU. PM emission factor = 0.071 lb/mmBTU Heat Content = 13580 BTU/lb(coal). Total coal usage = 12622 tons PM = (0.071 x 13580 x 12622)/1,000,000 = 12.17 tons PM/yr.
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		emissions: STACK TEST			0	8.15	8.15	TONs	EF from FIRE for uncontrolled PM<10 = 6 EF from FIRE for filterable PM = 9 Ratio of uncontrolled : filterable = 6/9 = 0.67 lb/MMBTU EF from Stack Test = 0.071 so EF for filterable PM<10 = 0.67 * 0.071 = 0.04757 lb/MMBTU (0.04757 x 12622 x 13580) / 1,000,000 = 8.15 tons PM<10/yr.
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		emissions: STACK TEST			0	5.11	5.11	TONs	EF from FIRE for uncontrolled PM<2.5 = 3.8 EF from FIRE for filterable PM = 9 Ratio for uncontrolled : filterable = 3.8/9 = 0.42 lb/MMBTU EF for filterable PM<2.5 = 0.71 x 0.42 = 0.02982 lb/mmBTU PM<2.5 filterable =0.02982 lb/mmBTU * 13580 BTU/lb * 12622 tons/1000000 BTU/mmBTU = 5.11 tons.
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	0.3156	0.3156	TONs	Since VOC cannot be greater than OC, the same emissions factor was used for both.
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.0036	0.0036	TONs	FIRE database Emission Factor for NH3 = 0.565 lb NH3/1000 tons of coal. (0.565 x 12.622) / 2000 = 0.0036 tons NH3/year
CO - Carbon Monoxide	CO		emissions: ENG. JUDGEMENT			0	37.87	37.87	TONs	FIRE database Emission Factor for CO = 6 lb/ton of coal burnt. (6 * 12622)/2000 = 37.87 tons of CO/year.
Total of Chargable Pollutants								275.705	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Process Emissions

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Arsenic	7440382	factor:OEPA (auto calculate)	0	0.00662704	0.	4.18232E-05	4.18232E-05	TONs	
Cadmium	7440439	factor:OEPA (auto calculate)	0	5.2962E-04	0.	3.34243E-06	3.34243E-06	TONs	
Formaldehyde	50000	factor:OEPA (auto calculate)	0	0.0038024	0.	0.0239969	0.0239969	TONs	
Hydrochloric Acid (Hydrogen Chloride)	7647010	factor:OEPA (auto calculate)	0	1.2	0.	0.37866	0.37866	TONs	
Hydrogen Fluoride (Hydrofluoric Acid)	7664393	factor:OEPA (auto calculate)	0	0.15	0.	0.94665	0.94665	TONs	
Polycyclic Organic Matter	246	factor:OEPA (auto calculate)	0	8.94107E-04	0.	0.00564271	0.00564271	TONs	

Process & Emissions Detail

Name: B012-1-03-006-02

Source Classification Code (SCC): 1-03-006-02

Material Information, Annual Average Operating Schedule & Throughput Percent

Schedule Trade Secret:

Hours Per Day: 0

Days Per Week: 0

Winter (Dec - Feb)%: 25

Spring (March-May)%: 25

Weeks Per Year: 0 Summer (June-Aug)%: 25

Hours Per Year: 0 Fall (Sept-Nov)%: 25

Material	Material Action	Throughput	X Units
Natural Gas	Burned	0	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg		Gas Heat Content (Btu/Cubic Feet)

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Total of Chargable Pollutants								0.	TONS	

Emission Unit Summary: B014

Oct 11 2011, 10:43:13

Emissions Unit ID: B014

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0	0.044	0.044	TONs	
SO2 - Sulfur Dioxide	SO2	X	0	0.005	0.005	TONs	
NOx - Nitrogen Oxides	NOX	X	0	0.78	0.78	TONs	
Organic Compounds	OC	X	0	0.085	0.085	TONs	
Pb - Lead	7439921	X	0	0.000004	4E-06	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0	0.015	0.015	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0	0.015	0.015	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0	0.015	0.015	TONs	
VOC - Volatile Organic Compounds	VOC		0	0.043	0.043	TONs	
Ammonia	NH3		0	.004	0.004	TONs	
CO - Carbon Monoxide	CO		0	0.65	0.65	TONs	
Total of Chargable Pollutants					0.885004	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Acenaphthene	83329	0.	6.9948E-09	6.9948E-09	TONs
Acenaphthylene	208968	0.	6.9948E-09	6.9948E-09	TONs
Acetaldehyde	75070	0.	1.62435E-04	1.62435E-04	TONs
Acrolein	107028	0.	1.39896E-04	1.39896E-04	TONs
Anthracene	120127	0.	9.3264E-09	9.3264E-09	TONs
Arsenic	7440382	0.	1.5544E-06	1.5544E-06	TONs

Benz[A]Anthracene	56553	0.	6.9948E-09	6.9948E-09	TONs
Benzene	71432	0.	1.63212E-05	1.63212E-05	TONs
Benzo[A]Pyrene	50328	0.	4.6632E-09	4.6632E-09	TONs
Benzo[B]Fluoranthene	205992	0.	6.9948E-09	6.9948E-09	TONs
Benzo[G,H,I,]Perylene	191242	0.	4.6632E-09	4.6632E-09	TONs
Benzo[K]Fluoranthene	207089	0.	6.9948E-09	6.9948E-09	TONs
Beryllium	7440417	0.	4.6632E-08	4.6632E-08	TONs
Cadmium	7440439	0.	8.5492E-06	8.5492E-06	TONs
Chromium	7440473	0.	1.08808E-05	1.08808E-05	TONs
Chrysene	218019	0.	6.9948E-09	6.9948E-09	TONs
Cobalt	7440484	0.	6.52848E-07	6.52848E-07	TONs
Dibenzo[A,H]Anthracene	53703	0.	4.6632E-09	4.6632E-09	TONs
Dimethylbenz[A]Anthracene, 7,12-	57976	0.	6.2176E-08	6.2176E-08	TONs
Fluoranthene	206440	0.	2.3316E-08	2.3316E-08	TONs
Fluorene	86737	0.	2.17616E-08	2.17616E-08	TONs
Formaldehyde	50000	0.	5.829E-04	5.829E-04	TONs
Hexane, N-	110543	0.	0.0139896	0.0139896	TONs
Indeno[1,2,3-C,D]Pyrene	193395	0.	6.9948E-09	6.9948E-09	TONs
MN - Manganese	7439965	0.	2.95336E-06	2.95336E-06	TONs
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	0.	2.02072E-06	2.02072E-06	TONs
Methylcholanthrene, 3-	56495	0.	6.9948E-09	6.9948E-09	TONs
Methylnaphthalene, 2-	91576	0.	1.86528E-07	1.86528E-07	TONs
Naphthalene	91203	0.	4.74092E-06	4.74092E-06	TONs
Nickel	7440020	0.	1.63212E-05	1.63212E-05	TONs
Phenanthrene	85018	0.	1.32124E-07	1.32124E-07	TONs
Polycyclic Organic Matter	246	0.	5.04403E-06	5.04403E-06	TONs
Pyrene	129000	0.	3.886E-08	3.886E-08	TONs
Selenium	7782492	0.	9.3264E-08	9.3264E-08	TONs
Toluene	108883	0.	2.64248E-05	2.64248E-05	TONs

- **Processes**

- **Process & Emissions Detail**

Name: B014-1-03-005-01

Source Classification Code (SCC): 1-03-005-01

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day: 0

Days Per Week: 0

Weeks Per Year: 0

Hours Per Year: 0

Winter (Dec - Feb)%: 25

Spring (March-May)%: 25

Summer (June-Aug)%: 25

Fall (Sept-Nov)%: 25

Material	Material Action	Throughput	X Units
Distillate Oil	Burned	0	1000 GALLONS

Variable	Amount	Meaning
HCl		Liquid Heat Content (Btu/gallons)
S		% Sulfur content by weight

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Total of Chargable Pollutants								0.	TONS	

- **Process & Emissions Detail**

Name: B014-1-03-006-01

Source Classification Code (SCC): 1-03-006-01

- **Material Information, Annual Average Operating Schedule & Throughput Percent**

Schedule Trade Secret:

Hours Per Day:	24	Winter (Dec - Feb)%:	25
Days Per Week:	7	Spring (March-May)%:	75
Weeks Per Year:	3	Summer (June-Aug)%:	0
Hours Per Year:	480	Fall (Sept-Nov)%:	0

Material	Material Action	Throughput	X Units
Natural Gas	Burned	15.544	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg	1000	Gas Heat Content (Btu/Cubic Feet)

- **Process Emissions**

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: ENG. JUDGEMENT			0	0.044	0.044	TONs	FIRE database Emission Factor for PM condensable = 5.7 lb/mmcf. (5.7* 15.544)/2000 = 0.044 tons/yr.
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	0.005	0.005	TONs	FIRE database Emission Factor for SO2 = 0.6 lb/mmcf. (0.6*15.544)/2000 = 0.005 tons/yr.
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	0.78	0.78	TONs	AP-42 (Table 1.4-1) Emission Rate for natural gas = 100 lb. NOx/mmcf = 100 x 15.544/ 2000 = 0.78 tons NOx/year
Organic Compounds	OC	X	emissions: ENG. JUDGEMENT			0	0.085	0.085	TONs	FIRE database Emission Factor for TOC = 11 lb/mmcf. (11* 15.544)/2000 =0.085 tons/yr.
Pb - Lead	7439921	X	emissions: ENG. JUDGEMENT			0	0.000004	4E-06	TONs	FIRE database Emission Factor = 0.0005 lb/mmcf. (0.0005*15.544)/2000 = 0.000004 lb/yr.
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	emissions: ENG. JUDGEMENT			0	0.015	0.015	TONs	FIRE database Emission Factor for PM filterable = 1.9 lb/mmcf. (1.9*15.544)/2000 =0.015 tons/yr.
PM10 (Filt) - Primary PM10,	PM10-FIL		emissions: ENG.			0	0.015	0.015	TONs	

Filterable Portion Only			JUDGEMENT							
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		emissions: ENG. JUDGEMENT			0	0.015	0.015	TONs	
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	0.043	0.043	TONs	FIRE database Emission Factor for VOC = 5.5 lb/mmcf. (5.5* 15.544)/2000 = 0.043 tons/yr.
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	.004	0.004	TONs	FIRE database Emission Factor = 0.49 lb NH3/mmcf natural gas. (0.49 x 15.544) / 2000 = .004 tons NH3/year
CO - Carbon Monoxide	CO		emissions: ENG. JUDGEMENT			0	0.65	0.65	TONs	FIRE database Emission Factor for CO = 84 lb/mmcf. (84*15.544)/2000 = 0.65 tons/year.
Total of Chargable Pollutants								0.885004	TONS	

-

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

- **Process Emissions**

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Acenaphthene	83329	factor:OEPA (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Acenaphthylene	208968	factor:OEPA (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Acetaldehyde	75070	factor:OEPA (auto calculate)	0	0.0209	0.	1.62435E-04	1.62435E-04	TONs	
Acrolein	107028	factor:OEPA (auto calculate)	0	0.018	0.	1.39896E-04	1.39896E-04	TONs	
Anthracene	120127	factor:OEP	0	1.2E-06	0.	9.3264E-09	9.3264E-09	TONs	

		A (auto calculate)							
Arsenic	7440382	factor:OEP A (auto calculate)	0	2E-04	0.	1.5544E-06	1.5544E-06	TONs	
Benz[A]Anthracene	56553	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Benzene	71432	factor:OEP A (auto calculate)	0	0.0021	0.	1.63212E-05	1.63212E-05	TONs	
Benzo[A]Pyrene	50328	factor:OEP A (auto calculate)	0	6E-07	0.	4.6632E-09	4.6632E-09	TONs	
Benzo[B]Fluoranthene	205992	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Benzo[G,H,I,]Perylene	191242	factor:OEP A (auto calculate)	0	6E-07	0.	4.6632E-09	4.6632E-09	TONs	
Benzo[K]Fluoranthene	207089	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Beryllium	7440417	factor:OEP A (auto calculate)	0	6E-06	0.	4.6632E-08	4.6632E-08	TONs	
Cadmium	7440439	factor:OEP A (auto calculate)	0	0.0011	0.	8.5492E-06	8.5492E-06	TONs	
Chromium	7440473	factor:OEP A (auto calculate)	0	0.0014	0.	1.08808E-05	1.08808E-05	TONs	
Chrysene	218019	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Cobalt	7440484	factor:OEP A (auto calculate)	0	8.4E-05	0.	6.52848E-07	6.52848E-07	TONs	
Dibenzo[A,H]Anthracene	53703	factor:OEP A (auto calculate)	0	6E-07	0.	4.6632E-09	4.6632E-09	TONs	
Dimethylbenz[A]	57976	factor:OEP	0	8E-06	0.	6.2176E-08	6.2176E-08	TONs	

Anthracene, 7,12-		A (auto calculate)							
Fluoranthene	206440	factor:OEP A (auto calculate)	0	3E-06	0.	2.3316E-08	2.3316E-08	TONs	
Fluorene	86737	factor:OEP A (auto calculate)	0	2.8E-06	0.	2.17616E-08	2.17616E-08	TONs	
Formaldehyde	50000	factor:OEP A (auto calculate)	0	0.075	0.	5.829E-04	5.829E-04	TONs	
Hexane, N-	110543	factor:OEP A (auto calculate)	0	1.8	0.	0.0139896	0.0139896	TONs	
Indeno[1,2,3-C,D]Pyrene	193395	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
MN - Manganese	7439965	factor:OEP A (auto calculate)	0	3.8E-04	0.	2.95336E-06	2.95336E-06	TONs	
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	factor:OEP A (auto calculate)	0	2.6E-04	0.	2.02072E-06	2.02072E-06	TONs	
Methylcholanthrene, 3-	56495	factor:OEP A (auto calculate)	0	9E-07	0.	6.9948E-09	6.9948E-09	TONs	
Methylnaphthalene, 2-	91576	factor:OEP A (auto calculate)	0	2.4E-05	0.	1.86528E-07	1.86528E-07	TONs	
Naphthalene	91203	factor:OEP A (auto calculate)	0	6.1E-04	0.	4.74092E-06	4.74092E-06	TONs	
Nickel	7440020	factor:OEP A (auto calculate)	0	0.0021	0.	1.63212E-05	1.63212E-05	TONs	
Phenanthrene	85018	factor:OEP A (auto calculate)	0	1.7E-05	0.	1.32124E-07	1.32124E-07	TONs	
Polycyclic Organic Matter	246	factor:OEP A (auto	0	6.49E-04	0.	5.04403E-06	5.04403E-06	TONs	

		calculate)							
Pyrene	129000	factor:OEPA (auto calculate)	0	5E-06	0.	3.886E-08	3.886E-08	TONs	
Selenium	7782492	factor:OEPA (auto calculate)	0	1.2E-05	0.	9.3264E-08	9.3264E-08	TONs	
Toluene	108883	factor:OEPA (auto calculate)	0	0.0034	0.	2.64248E-05	2.64248E-05	TONs	

Emission Unit Summary: P001

Oct 11 2011, 10:43:13

Emissions Unit ID: P001

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0	0.0002	2E-04	TONs	
SO2 - Sulfur Dioxide	SO2	X	0	0.0019	0.0019	TONs	
NOx - Nitrogen Oxides	NOX	X	0	0.320	0.32	TONs	
Organic Compounds	OC	X	0	0.014	0.014	TONs	
Pb - Lead	7439921	X	0	0	0.	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0.	0.03233	0.03233	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0.	0.03233	0.03233	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0.	0.03233	0.03233	TONs	
VOC - Volatile Organic Compounds	VOC		0	0.014	0.014	TONs	
Ammonia	NH3		0	0.029	0.029	TONs	
CO - Carbon Monoxide	CO		0	0.00003	3E-05	TONs	
Total of Chargable Pollutants					0.36823	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	0.	3.67269E-05	3.67269E-05	TONs
Nickel	7440020	0.	5.64643E-04	5.64643E-04	TONs

- Processes

- Process & Emissions Detail

Name: P001-17

Source Classification Code (SCC): 2-01-002-02

- Material Information, Annual Average Operating Schedule & Throughput Percent

Schedule Trade Secret:

Hours Per Day: 4

Days Per Week: 1

Weeks Per Year: 51

Hours Per Year: 211

Winter (Dec - Feb)%: 66

Spring (March-May)%: 7

Summer (June-Aug)%: 15

Fall (Sept-Nov)%: 12

Material	Material Action	Throughput	X Units
Natural Gas	Burned	6.466	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg	1000	Gas Heat Content (Btu/Cubic Feet)

- Process Emissions

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: ENG. JUDGEMENT			0	0.0002	2E-04	TONs	
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	0.0019	0.0019	TONs	
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	0.320	0.32	TONs	
Organic Compounds	OC	X	emissions: STACK TEST			0	0.014	0.014	TONs	
Pb - Lead	7439921	X	emissions:			0	0	0.	TONs	

			ENG. JUDGEMENT							
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	factor:OEPA (auto calculate)	0	10	0.	0.03233	0.03233	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		factor:OEPA (auto calculate)	0	10	0.	0.03233	0.03233	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		factor:OEPA (auto calculate)	0	10	0.	0.03233	0.03233	TONs	
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	0.014	0.014	TONs	
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.029	0.029	TONs	Emission factor 9.1 lb/mmCF
CO - Carbon Monoxide	CO		emissions: STACK TEST			0	0.00003	3E-05	TONs	Emission Factor for CO = 0.002848 lb/MMBTU. Emissions of CO = (6.466 x 1000 x 0.002848)/2000 = 0.0092 tons. Stack test shows CO removal efficiency = 99.6%. 0.0092 x 0.004 = 0.00003 tons CO/yr.
Total of Chargable Pollutants								0.36823	TONS	

-

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

- **Process Emissions**

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	factor:OEPA (auto calculate)	0	0.01136	0.	3.67269E-05	3.67269E-05	TONs	

Nickel	7440020	factor:OEPA (auto calculate)	0	0.17465	0.	5.64643E-04	5.64643E-04	TONs	

Emission Unit Summary: P002

Oct 11 2011, 10:43:13

Emissions Unit ID: P002

Detailed Reporting

DAPC Description:

- Unit Emissions

Pollutant	Code	$	Fugitive Amount	Stack Amount	Total	Units	QA+
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		0	0.0003	3E-04	TONs	
SO2 - Sulfur Dioxide	SO2	X	0	0.0025	0.0025	TONs	
NOx - Nitrogen Oxides	NOX	X	0	0.479	0.479	TONs	
Organic Compounds	OC	X	0	0.018	0.018	TONs	
Pb - Lead	7439921	X	0	0	0.	TONs	
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	0.	0.041975	0.041975	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		0.	0.041975	0.041975	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		0.	0.041975	0.041975	TONs	
VOC - Volatile Organic Compounds	VOC		0	0.018	0.018	TONs	
Ammonia	NH3		0	0.038	0.038	TONs	
CO - Carbon Monoxide	CO		0	0.000048	4.8E-05	TONs	
Total of Chargable Pollutants					0.541475	TONS	

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

Pollutant	Code	Fugitive Amount	Stack Amount	Total	Units
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	0.	4.76836E-05	4.76836E-05	TONs
Nickel	7440020	0.	7.33093E-04	7.33093E-04	TONs

- Processes

- Process & Emissions Detail

Name: P002-18

Source Classification Code (SCC): 2-01-002-02

- Material Information, Annual Average Operating Schedule & Throughput Percent

Schedule Trade Secret:

Hours Per Day: 4

Days Per Week: 1

Weeks Per Year: 51

Hours Per Year: 258

Winter (Dec - Feb)%: 62

Spring (March-May)%: 18

Summer (June-Aug)%: 11

Fall (Sept-Nov)%: 9

Material	Material Action	Throughput	X Units
Natural Gas	Burned	8.395	MILLION CUBIC FEET

Variable	Amount	Meaning
HCg	1000	Gas Heat Content (Btu/Cubic Feet)

- Process Emissions

Pollutant	Code	$	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
PE (Cond) - Primary PM Condensible Portion Only (All Less than 1 Micron)	PM-CON		emissions: ENG. JUDGEMENT			0	0.0003	3E-04	TONs	
SO2 - Sulfur Dioxide	SO2	X	emissions: ENG. JUDGEMENT			0	0.0025	0.0025	TONs	
NOx - Nitrogen Oxides	NOX	X	emissions: ENG. JUDGEMENT			0	0.479	0.479	TONs	
Organic Compounds	OC	X	emissions: STACK TEST			0	0.018	0.018	TONs	
Pb - Lead	7439921	X	emissions:			0	0	0.	TONs	

			ENG. JUDGEMENT							
PE (Filt) - Primary PM, Filterable Portion Only	PM-FIL	X	factor:OEPA (auto calculate)	0	10	0.	0.041975	0.041975	TONs	
PM10 (Filt) - Primary PM10, Filterable Portion Only	PM10-FIL		factor:OEPA (auto calculate)	0	10	0.	0.041975	0.041975	TONs	
PM2.5 (FILT) - Primary PM2.5, Filterable Portion Only	PM25-FIL		factor:OEPA (auto calculate)	0	10	0.	0.041975	0.041975	TONs	
VOC - Volatile Organic Compounds	VOC		emissions: ENG. JUDGEMENT			0	0.018	0.018	TONs	
Ammonia	NH3		emissions: ENG. JUDGEMENT			0	0.038	0.038	TONs	Emission factor 9.1 lb/mmCF
CO - Carbon Monoxide	CO		emissions: STACK TEST			0	0.000048	4.8E-05	TONs	Emission Factor for CO = 0.002848 lb/MMBTU. Emissions of CO = (8.395 x 1000 x 0.002848)/2000 = 0.0120 tons. Stack test shows the catalyst has 99.6% removal efficiency. 0.0120 x 0.004 = 0.000048 tons CO/yr.
Total of Chargable Pollutants								0.541475	TONS	

-

The following Hazardous Air Pollutant information was developed using Ohio EPA-generated hazardous air pollutant emission calculations. The values may be provided to USEPA by Ohio EPA as part of Ohio EPA's federal grant commitments. You may modify these Ohio EPA-generated hazardous air pollutant emission calculations, at the process level, if you have more accurate information. There is no certification of these values as part of the emissions report submission.

- **Process Emissions**

Pollutant	Code	Method Used	Hours UnCont.	UnCont. Factor (LBS/X)	Fugitive Amount	Stack Amount	Total	Units	Explanation
Mercury, as HG; Alkyl & Aryl CMPNDS; Elemental & Inorganic Forms	7439976	factor:OEPA (auto calculate)	0	0.01136	0.	4.76836E-05	4.76836E-05	TONs	

Nickel	7440020	factor:OEPA (auto calculate)	0	0.17465	0.	7.33093E-04	7.33093E-04	TONs	