CLEAN AIR COUNCIL

ENVIRONMENTAL INTEGRITY PROJECT

CLEAN AIR TASK FORCE

SIERRA CLUB

Proposed Title V Operating Permit No. 23-00004
(renewal of operating permit)

Covanta Delaware Valley, L.P.
10 Highland Avenue
Chester, PA 19013

Pennsylvania Department of Environmental Protection

October 4, 2021

Written Comments by
Clean Air Council, Environmental Integrity Project, Clean Air Task Force, and Sierra Club

Via email: RA-EPSEROAQPUBCOM@pa.gov

Clean Air Council ("the Council"), Environmental Integrity Project ("EIP"), Clean Air Task Force, and Sierra Club (collectively, "Commenters") appreciate the opportunity to submit these comments to the Department of Environmental Protection ("the Department") regarding the proposed Title V operating permit renewal for Covanta Delaware Valley, L.P. ("the Applicant") for its trash incinerator located at 10 Highland Avenue in Chester City, Pennsylvania ("the Facility" or "the Incinerator").

The Council is a non-profit environmental health organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania, 19103. The Council has been working to protect everyone's right to a clean environment for over 50 years. The Council has members throughout the Commonwealth who support its mission.

The Environmental Integrity Project ("EIP") is a national nonprofit organization headquartered at 1000 Vermont Avenue NW, Suite 1100, Washington, D.C. 20005, and with staff in Pittsburgh and Philadelphia. EIP is dedicated to advocating for more effective

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environmental laws and better enforcement. EIP has three goals: (1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; (2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and (3) to help local communities obtain the protection of environmental laws.

Clean Air Task Force is a national and international nonprofit organization headquartered in Boston, Massachusetts, that works for a world where the energy needs of all people are met without damaging the atmosphere or harming public health and the environment. We leverage expertise in law, policy, science, and engineering to press for a future in which energy needs can be met in a way that is financially, socially, and environmentally sustainable.

Sierra Club is the oldest and largest grassroots environmental organization in the United States, with nearly 780,000 members nationally. Sierra Club is a nonprofit, membership organization incorporated in California, with its national headquarters located in Oakland. Sierra Club's mission is to explore, enjoy, and protect the wild places of the Earth; to practice and promote the responsible use of the Earth's resources and ecosystems; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.

The Department published a notice of the proposed permit setting a 30-day public comment period ending on Saturday, October 2, 2021. *See* 51 Pa. B. 5279-5280 (August 21, 2021). The comments reference sections of the application, the proposed permit, and the supporting review memorandum. As of October 3, 2021, these documents are located on the Department's website:

1. Information Sheet: Covanta Delaware Valley (comment deadline on October 4, 2021),
2. Title V Operating Permit Renewal Application,
3. Draft Title V Operating Permit,
4. Draft Review Memo,
5. Public Comment Period Flier, and
6. Press Release September 3, 2021.

See PA Department of Environmental Protection, Covanta Delaware Valley, https://www.dep.pa.gov/About/Regional/SoutheastRegion/Community%20Information/Pages/Covanta.aspx.

Index to Comments

Background

I. The Department should address environmental injustice in this permit application.

1. Chester is an Environmental Justice community.

2. Chester has suffered a disproportionate burden of air pollution from local industrial facilities.

3. Chester has a well-documented history of disproportionately high rates of respiratory and other health problems, especially asthma.

II. The Department has legal authority to address environmental injustice in the context of this permit.

Argument

I. The Department should abandon the notion that it "must" grant an application for a Title V Operating Permit that meets minimum requirements.

1. The law does not compel the Department to approve an application for an operating permit.

2. The Department's policy that it must grant an application that meets all applicable regulatory and statutory requirements is unlawful as a matter of law.

II. The Department should disapprove the permit application in the absence of any analysis that it will not cause "Air Pollution" as defined in state law and regulation.

1. Federally-enforceable state regulations require the Department to disapprove an application for an operating permit if it determines that the source "is likely to cause air pollution."

2. The Department should disapprove the application because the Applicant and the Department have not performed any analysis whether the Facility will harm human health.

3. The Department should disapprove the application because the Applicant and the Department have not performed any analysis whether the Facility unreasonably interferes with the comfortable enjoyment of life and property.

4. The Department's responsibilities under 25 Pa. Code 127.402 and 127.422 to deny permits to facilities that will cause "Air Pollution" may form the basis for a petition for objection to the Environmental Protection Agency.

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III. The terms of the Draft Permit are insufficient to meet applicable legal requirements and/or to protect public health and the environment.

1. The federal Title V regulations require the Department to revise the Draft Permit to identify the origin of and authority for each term or condition therein.

2. Federal law requires that the Department revise the Draft Permit and the Draft Review Memo to identify federal regulations to which the Municipal Waste Combustor Units are subject.

3. The Department should revise the Draft Permit to require more frequent monitoring to assure compliance with the hourly limit for Particulate Matter and the Department should require use of a Continuous Emissions Monitoring System (PM CEMS) for this purpose.

4. The Department Should revise the Draft Permit to include a Compliance Assurance Monitoring plan for the hourly PM and SO2 limits.

5. The Department should revise the Draft Permit to provide for a permit reopener to incorporate the new NOx limit issued per the Department's current rulemaking within 60 days of EPA's approval of that limit.

6. To address particular harm from the Facility, the Department should impose requirements more stringent than federal regulations, including emissions monitoring for dioxins.

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Table of Attachments

Attachment 1 -- PA Department of Environmental Protection, Air Emission Report for Sulfur Dioxide (SO_2) for Delaware County (2019)

Attachment 2 -- PA Department of Environmental Protection, Air Emission Report for Nitrogen Oxides (NO_x) for Delaware County (2019)

Attachment 3 -- PA Department of Environmental Protection, Air Emission Report for Fine Particulates ($PM_{2.5}$) for Delaware County (2019)

Attachment 4 -- PA Department of Environmental Protection, Air Emission Report for Coarse Particulates (PM_{10}) for Delaware County (2019)

Attachment 5 -- PA Department of Environmental Protection, Air Emission Report for Particulate Matter (Condensable) for Delaware County (2019)

Attachment 6 -- PA Department of Environmental Protection, Air Emission Report for Hydrochloric Acid for Delaware County (2019)

Attachment 7 -- PA Department of Environmental Protection, Air Emission Report for Nickel for Delaware County (2019)

Attachment 8 -- PA Department of Environmental Protection, Air Emission Report for Mercury for Delaware County (2019)

Attachment 9 -- PA Department of Environmental Protection, Air Emission Report for Lead for Delaware County (2019)

Attachment 10 -- PA Department of Environmental Protection, Air Emission Report for Arsenic for Delaware County (2019)

Attachment 11 -- PA Department of Environmental Protection, Air Emission Report for Chromium for Delaware County (2019)

Attachment 12 -- PA Department of Environmental Protection, Air Emission Report for Cadmium for Delaware County (2019)

Attachment 13 -- Letter from Department of Environmental Resources, dated November 16, 1995

Attachment 14 -- PA Department of Environmental Protection, Policy for Implementing the Department of Environmental Protection Permit Review Process and Permit Decision Guarantee (November 2, 2012)

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Attachment 15 --	PA Department of Environmental Protection, Policy for Permit Coordination (November 2, 2012)
Attachment 16 --	PA Department of Environmental Protection, Permit Review Process and Permit Decision Guarantee Policy Comment/Response Document (November 2, 2012)
Attachment 17 --	Memo from Xiaoyin Sun, Engineering Specialist, New Source Review Section, the Department, to James Rebarchak, Regional Manager, Air Quality, the Department (May 26, 2011)
Attachment 18 --	European Commission, Commission Implementing Decision (EU) 2019/2010 of 12 November 2019 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration,
Attachment 19 --	European Commission, JRC Science for Policy Report, Best Available Techniques (BAT) Reference Document for Waste Incineration (2019)

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Comments

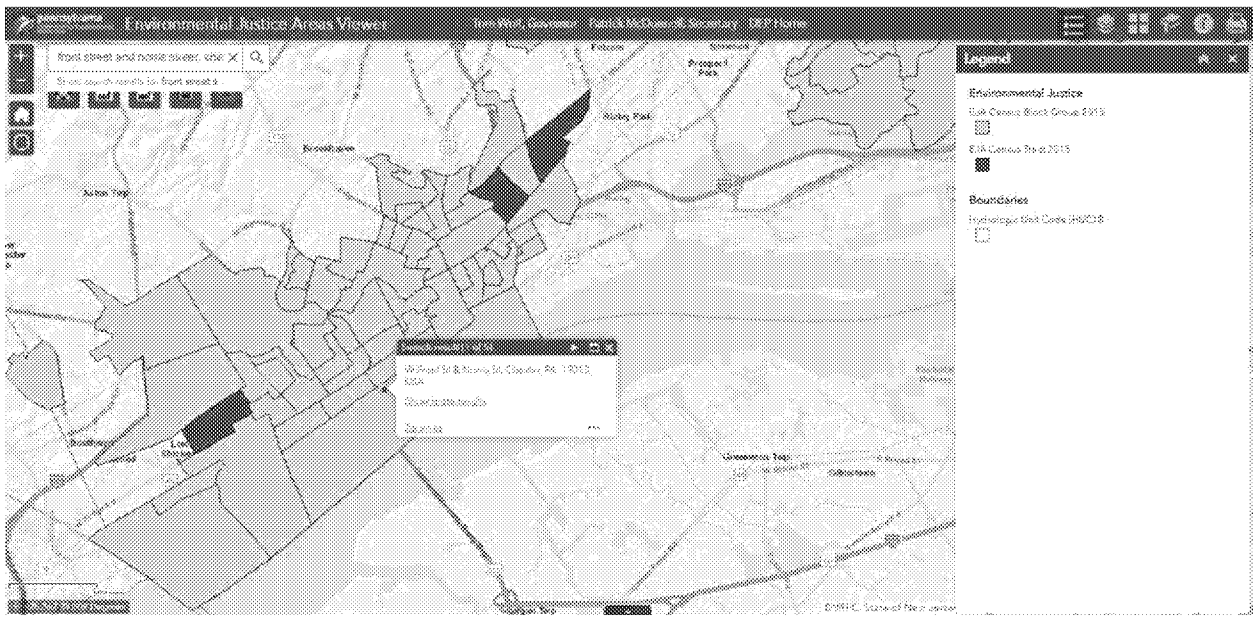
Background

I. The Department should address environmental injustice in this permit application.

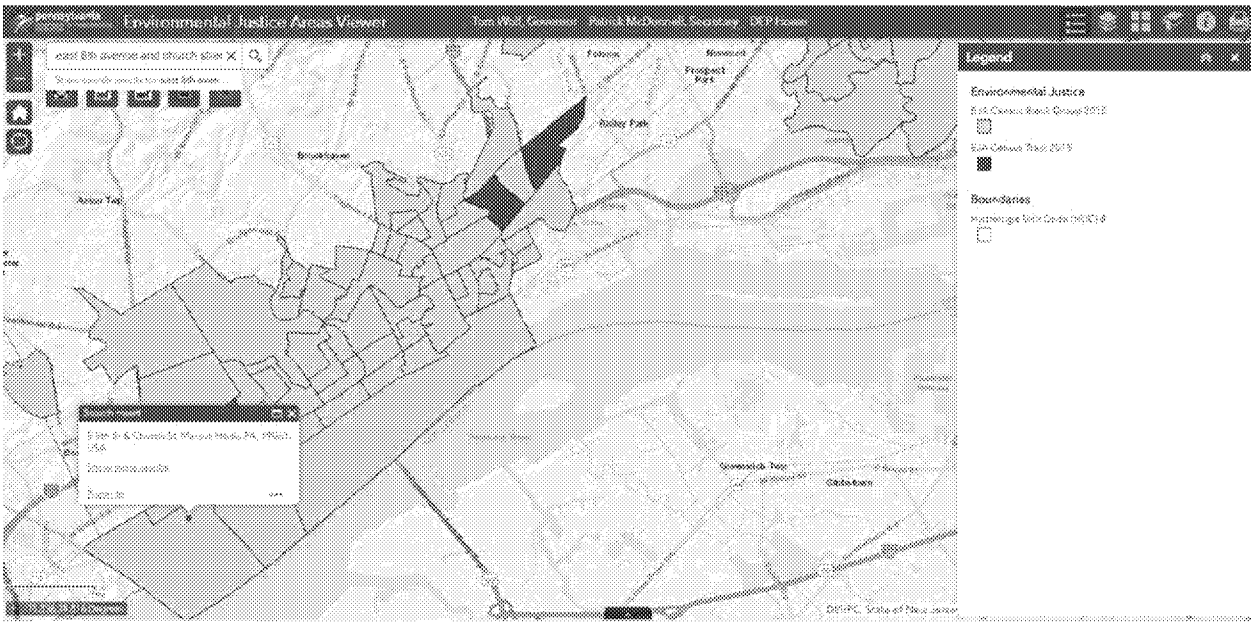
When considering the approval of the application for a Title V permit, the Department should consider the fact that Chester is an Environmental Justice area. People in the community have long suffered from more than their fair share of harmful air pollution in the form of criteria pollutants and hazardous air pollutants. This is a particular problem because people in the Chester community and in Delaware County suffer from a high incidence of asthma and other health issues.

1. Chester is an Environmental Justice community.

The City of Chester is located in the middle of Environmental Justice Area Census Tract 2015 (the light pink area in the map below, with the location of the Chester monitor identified):



Pennsylvania Department of Environmental Protection, Environmental Justice Areas Viewer. The following is the same map identifying the position of the Marcus Hook monitor:



See id.

The pink shading means that 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as a non-white minority:

> How does DEP identify Environmental Justice (EJ) areas?
>
> For the purposes of the DEP Environmental Justice Public Participation Policy, ***DEP defines an EJ Area as any census tract where 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as a non-white minority***, based on data from the U.S. Census Bureau and the federal guidelines for poverty. EJ Areas are mapped on DEP's EJ Areas Viewer at dep.pa.gov/EJViewer.

Pennsylvania Department of Environmental Protection, PA Environmental Justice Areas (bold italics added for emphasis). The Department acknowledges that the Covanta incinerator is located in an Environmental Justice area. *See* Draft Review Memo at 1.

2. Chester has suffered a disproportionate burden of air pollution from local industrial facilities.

The people in and around the City of Chester have already suffered a long history of bearing a disproportionate burden of polluting facilities. *See* WITF, Justice in Chester, (PBS affiliate, aired: 06/21/18) (26:46). Notably, incinerators and commercial waste facilities have

played a large role in this history. *See id.* at 5:10-9:31 (Westinghouse trash-to-steam incinerator), 9:32-10:45 (seven permits for commercial waste facilities in Delaware County issued by Department between 1986 and 1996, five of them in Chester), 16:23-18:16 (Thermal Pure medical waste treatment facility), 18:16-20:10 (permit application of Soil Remediation Services for contaminated soil incineration facility, ultimately denied in the middle of litigation challenge). The repeated approval of these facilities has created an alarming cluster of large sources of sulfur dioxide, nitrogen oxides, particulate matter, and hazardous air pollutants in Chester and its immediate surroundings.

Sulfur Dioxide

To illustrate, there are significant emissions of sulfur dioxide from a number of sources in this community near the Delaware River. At over 142 tons per year, the Facility is the second-largest emitter of sulfuric acid in the county:

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY
Air Emission Report

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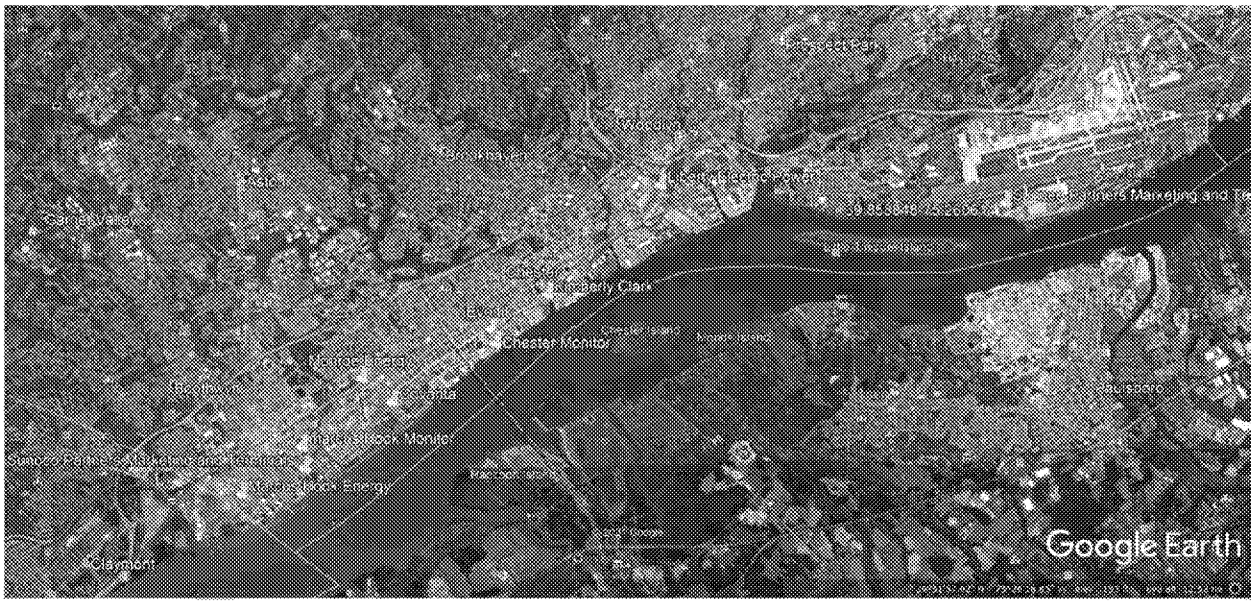
Year: 2019 | County: Delaware | DEP Regi...: All | NAICS: All | NAICS Category: All | Municipality: All | Client Name: All | Facility Type: All | Source Type: All | Pollutant: SOX

County	Municipality	Facility Name	NAICS Desc	Source Type	Pollutant	Emissions Results Tons
Delaware	Chester	KIMBERLY CLARK PA, LLC - CHESTER OFFICE	Paper (except Newsprint) Mills	Combustion Unit	SOX	605.31000
Delaware	Chester	COVANTA DELAWARE VALLEY, L.P. (CEDAY)	Solid Waste Combustors and Incinerators	Incinerator	SOX	123.19000
Delaware	Marcus Hook	SUNOCO PA REFINERY	Petroleum Refineries	Process	SOX	96.13000
Delaware	Marcus Hook	MARCUS HOOK ENERGY CENTER	Fossil Fuel Electric Power Generation	Process	SOX	9.00000
Delaware	Eddystone	EXCELON GENERATION COLEDYNE	Fossil Fuel Electric Power Generation	Process	SOX	8.00000
Delaware	Marcus Hook	SUNY MARCUS HOOK TRD COMPLEX	Other Warehousing and Storage	Combustion Unit	SOX	6.43000
Delaware	Tinicum	MONROE ENERGY, LLC TRAINER	Petroleum Refineries	Combustion Unit	SOX	5.80000
Delaware	Chester	SUNOCO CHEMICALS	Synthetic Dye and Pigment Manufacturing	Process	SOX	3.70000
Delaware	Tinicum	SUNOCO PIPELINE LP - TINICUM STATION	Pipeline Transportation of Refined Petroleum Products	Combustion Unit	SOX	1.84000
Delaware	Marcus Hook	SUNY MARCUS HOOK TRD COMPLEX	Other Warehousing and Storage	Process	SOX	1.74000
Delaware	Chester	CONTINENTAL CARBON	Other Basic Inorganic Chemical Manufacturing	Process	SOX	0.64000
Delaware	Chester	DELAWARE COUNTY REGIONAL WASTEWATER	Sewage Treatment Facilities	Incinerator	SOX	0.55000
Delaware	Tinicum	TRIGON SCHUYLKILL PA, LLC - PN 30	Crushed and Broken Granite Mining and Quarrying	Process	SOX	0.48000
Delaware	Marcus Hook	ACME TOMPKINS COMPANY	Soft Drink, Flavoring Syrup, and Canning	Combustion Unit	SOX	0.44000
Delaware	Upper Darby	CROZER-CHESTER MEDICAL CENTER - M	General Medical and Surgical Hospitals	Combustion Unit	SOX	0.44000
Delaware	Eddystone	EXCELON GENERATION COLEDYNE	Fossil Fuel Electric Power Generation	Combustion Unit	SOX	0.24000
Delaware	Eddystone	EDDYSTONE MARINE & RAIL TERM CORP	Petroleum Bulk Stations and Terminals	Air Pollution Control Device	SOX	0.23000
Delaware	Swarthmore	SWARTHMORE COLLEGE - ENERGY CENTER	Colleges, Universities, and Professional Schools	Combustion Unit	SOX	0.14000
Delaware	Tinicum	SUNOCO PIPELINE LP - TINICUM STATION	Pipeline Transportation of Refined Petroleum Products	Process	SOX	0.11000
Delaware	Radnor	VILLANOVA UNIVERSITY CAMPUS	Colleges, Universities, and Professional Schools	Process	SOX	0.10000
Delaware	Upper Darby	DELAWARE CNTY MEM HOSP DREXEL HL	General Medical and Surgical Hospitals	Combustion Unit	SOX	0.11000
Delaware	Chester	KIMBERLY CLARK PA, LLC - CHESTER OFFICE	Paper (except Newsprint) Mills	Process	SOX	0.10000
Delaware	Middletown	RIVER VIEW HOSPITAL - PAVILION	General Medical and Surgical Hospitals	Process	SOX	0.08000
Delaware	Swarthmore	SWARTHMORE COLLEGE - ENERGY CENTER	Colleges, Universities, and Professional Schools	Process	SOX	0.08000
Delaware	Marcus Hook	SUNY MARCUS HOOK TRD COMPLEX	Other Warehousing and Storage	Air Pollution Control Device	SOX	0.09000
Delaware	Upper Darby	CROZER-CHESTER MEDICAL CENTER	General Medical and Surgical Hospitals	Combustion Unit	SOX	0.06000
Delaware	Newtown	SAP AMER INC NEWTOWN SQUARE FAC	Custom Computer Programming Services	Combustion Unit	SOX	0.06000
Delaware	Radnor	VILLANOVA UNIVERSITY CAMPUS	Colleges, Universities, and Professional Schools	Combustion Unit	SOX	0.05000
Delaware	Tinicum	UNITED PARCEL SVC INC PHILADELPHIA HUB	Scheduled Freight Air Transportation	Combustion Unit	SOX	0.04000
Delaware	Chester	PQ LITHOCHEM	Other Basic Inorganic Chemical Manufacturing	Combustion Unit	SOX	0.04000
Delaware	Chester	EXELON GENERATING STA CHESTER	Fossil Fuel Electric Power Generation	Process	SOX	0.01000
Delaware	Middletown	DELAWARE CNTY FAIR ACRES COMPLEX	Services for the Elderly and Persons with Disabilities	Combustion Unit	SOX	0.02000
Delaware	Eddystone	EXELON GENERATION COLEDYSTONE	Fossil Fuel Electric Power Generation	Process	SOX	0.02000
Delaware	Chester	WEST ROCK - ACTON	Corrugated and Solid Fiber Box Manufacturing	Combustion Unit	SOX	0.02000
Delaware	Newtown	SAP AMER INC NEWTOWN SQUARE FAC	Custom Computer Programming Services	Process	SOX	0.01000
Delaware	Trainer	FLOWCO FUR CO PORTRAILER PLT	All Other Plastics Product Manufacturing	Air Pollution Control Device	SOX	0.01000
Delaware	Upper Darby	DELAWARE CNTY MEM HOSP DREXEL HL	General Medical and Surgical Hospitals	Process	SOX	0.00000
Delaware	Chester	SUNOCO CHEMICALS	Synthetic Dye and Pigment Manufacturing	Combustion Unit	SOX	0.01000
Delaware	Middletown	RIVER VIEW HOSPITAL - TRUE	General Medical and Surgical Hospitals	Combustion Unit	SOX	0.01000
Delaware	Marcus Hook	SHARPLAN AMER INC MARCUS HOOK	Plastics Material and Resin Manufacturing	Process	SOX	0.01000
Delaware	Marcus Hook	SHARPLAN AMER INC MARCUS HOOK	Plastics Material and Resin Manufacturing	Combustion Unit	SOX	0.01000
Delaware	Tinicum	PYRITHE SYS REFINERY LLC CHEMTREX	Colleges, Universities, and Professional Schools	Combustion Unit	SOX	0.01000
Delaware	Chester	FRIEDRICH CORPORATE SQ	Conventional Institutions	Combustion Unit	SOX	0.01000
Delaware	Chester	FRIEDRICH CORPORATE SQ	Conventional Institutions	Process	SOX	0.01000
Delaware	Chester	[illegible]	[illegible]	[illegible]	SOX	[illegible]

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 1 -- PA Department of Environmental Protection, Air Emissions Report for Sulfur Dioxide in Delaware County (2019) (downloaded). The nearby facilities of Kimberly Clark (over 605 tpy), Monroe Energy (over 96 tpy), and Marcus Hook Energy (over 9 tpy) are ranked first, third, and fourth. (While some sources provide multiple entries for emissions, this is not material to this summary of relative rankings).

Based on the coordinates listed in the chart above, all of these facilities (except for the Sunoco Partners and Marketing Terminals facility near the airport) are located near the Marcus Hook monitor and the Chester monitor, neither of which has sensors for sulfur dioxide:



Source: Google Earth (prepared by Clean Air Council based on coordinates provided by Department of Environmental Protection's Air Emissions Report).

Nitrogen Oxides

At over 1,030 tons per year, the Facility is the largest emitter of nitrogen oxides, which are a precursor to ozone smog, in the county:

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY
Air Emission Report

23-SEP-21 04:00 AM
Last Refresh Time

Year: 2019 | County: Delaware | DEP Regi...: All | NAICS: All | NAICS Category: All | Municipality: All | Client Name: All | Facility Type: All | Source Type: All | Pollutant: NOX

County	Municipality	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Actlbs Total
Delaware	Chester	[illegible]	Solid Waste Combustors and Incinerators	Incinerator	NOX	[illegible]
Delaware	Trainer	MARCUS HOOK ENERGY LP	Petroleum Refineries	Process	NOX	[illegible]
Delaware	Marcus Hook	MARCUS HOOK ENERGY LP-TOO MW	Fossil Fuel Electric Power Generation	Process	NOX	[illegible]
Delaware	Chester	[illegible]	Other Basic Inorganic Chemical Manufacturing	Process	NOX	[illegible]
Delaware	Chester	KIMBERLY CLARK PA LLC CHESTER CRR	Paper (except Newsprint) Mills	Combustion Unit	NOX	[illegible]
Delaware	Eddystone	LIBERTY ELEC POWER LLC EDDYSTONE	Fossil Fuel Electric Power Generation	Process	NOX	[illegible]
Delaware	Chester	DELAWARE COUNTY REGIONAL WATER QUALITY CONTROL AUTHORITY	Sewage Treatment Facilities	Incinerator	NOX	[illegible]
Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Combustion Unit	NOX	[illegible]
Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Air Pollution Control Device	NOX	[illegible]
Delaware	Chester	KIMBERLY CLARK PA LLC CHESTER CRR	Paper (except Newsprint) Mills	Process	NOX	[illegible]
Delaware	Upland	[illegible]	General Medical and Surgical Hospitals	Combustion Unit	NOX	[illegible]
Delaware	Trainer	MONROE ENERGY TRAINER	Petroleum Refineries	Combustion Unit	NOX	[illegible]
Delaware	Radnor	VILLANOVA UNIVERSITY CAMPUS	Colleges, Universities, and Professional Schools	Combustion Unit	NOX	[illegible]
Delaware	Chester	SYCOR CORP CHESTER	Synthetic Dye and Pigment Manufacturing	Process	NOX	[illegible]
Delaware	Marcus Hook	ALAN MCKIM MARCUS HOOK	Gas Fuels, Residual Lubricant, and Petroleum	Combustion Unit	NOX	[illegible]
Delaware	Eddystone	EXELON GENERATION COMP EDDYSTONE	Fossil Fuel Electric Power Generation	Combustion Unit	NOX	[illegible]
Delaware	Marcus Hook	SUNOCO INC (R&M) MARCUS HOOK	Plastics Material and Resin Manufacturing	Process	NOX	[illegible]
Delaware	Folcroft	SOCIETY HILL PHILADELPHIA FAPAO	Aircraft Manufacturing	Combustion Unit	NOX	[illegible]
Delaware	Eddystone	EDDYSTONE MARINE & RAILTERM COLP	Petroleum Bulk Stations and Terminals	Air Pollution Control Device	NOX	[illegible]
Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Process	NOX	[illegible]
Delaware	Middletown	PENNSYLVANIA DEPT OF CORRECTIONS	Services to the Elderly and Persons with Disabil	Combustion Unit	NOX	[illegible]
Delaware	Eddystone	EXELON GENERATION COMP EDDYSTONE	Fossil Fuel Electric Power Generation	Process	NOX	[illegible]
Delaware	Haverford	HAVERFORD COLLEGE HFD	Colleges, Universities, and Professional Schools	Combustion Unit	NOX	[illegible]
Delaware	Trainer	CONSOLIDUM CORP TRAINER PLT	All Other Plastics Product Manufacturing	Process	NOX	[illegible]
Delaware	Tinicum	UNITED PARCEL SVC INC PHILA AIR HUB	Scheduled Freight Air Transportation	Combustion Unit	NOX	[illegible]
Delaware	Middletown	RIDDLE MEM HOSP BALT PIKE	General Medical and Surgical Hospitals	Combustion Unit	NOX	[illegible]
Delaware	Chester	WEST ROCK HASTON	Corrugated and Solid Fiber Box Manufacturing	Combustion Unit	NOX	[illegible]
Delaware	Swarthmore	SWARTHMORE COLLEGE SWARTHMORE	Colleges, Universities, and Professional Schools	Combustion Unit	NOX	[illegible]
Delaware	Marcus Hook	BRASKEM AMER INC MARCUS HOOK	Plastics Material and Resin Manufacturing	Combustion Unit	NOX	[illegible]
Delaware	Upper Darby	DELAWARE CNTY MEM HOSP DREXEL HI...	General Medical and Surgical Hospitals	Combustion Unit	NOX	[illegible]
Delaware	Thornbury	PA STATE SYS OF HIGHER ED CHEYNEY ...	Colleges, Universities, and Professional Schools	Combustion Unit	NOX	[illegible]
Delaware	Thornbury	HANSON AGGREGATES PA LLC GLEN M...	Crushed and Broken Granite Mining and Quarrying	Process	NOX	[illegible]
Delaware	Trainer	CONSOLIDUM CORP TRAINER PLT	All Other Plastics Product Manufacturing	Air Pollution Control Device	NOX	[illegible]
Delaware	Radnor	VILLANOVA UNIVERSITY CAMPUS	Colleges, Universities, and Professional Schools	Process	NOX	[illegible]
Delaware	Swarthmore	SWARTHMORE COLLEGE SWARTHMORE	Colleges, Universities, and Professional Schools	Process	NOX	[illegible]
Delaware	Newtown	SAP AMER INC NEWTOWN SQUARE FAC	Custom Computer Programming Services	Combustion Unit	NOX	[illegible]
Delaware	Middletown	RIDDLE MEM HOSP BALT PIKE	General Medical and Surgical Hospitals	Process	NOX	[illegible]
Delaware	Chester	EXELON GENERATING STA CHESTER	Fossil Fuel Electric Power Generation	Process	NOX	[illegible]
Delaware	Folcroft	PROVIDENCE MED TAYLOR HOSPITAL	General Medical and Surgical Hospitals	Combustion Unit	NOX	[illegible]
Delaware	Chester	[illegible]	Other Basic Inorganic Chemical Manufacturing	Combustion Unit	NOX	[illegible]
Delaware	Tinicum	[illegible]	Electric Transmission and Distribution	Combustion Unit	NOX	[illegible]
Delaware	Chester	[illegible]	Custom Compounding of Purchased Resins	Air Pollution Control Device	NOX	[illegible]
Delaware	Trainer	CONSOLIDUM CORP TRAINER PLT	All Other Plastics Product Manufacturing	Combustion Unit	NOX	[illegible]
Delaware	Folcroft	SOCIETY HILL PHILADELPHIA FAPAO	Aircraft Manufacturing	Process	NOX	[illegible]
Delaware	Marcus Hook	MARCUS HOOK ENERGY LP MARCUS HOOK	Fossil Fuel Electric Power Generation	Process	NOX	[illegible]

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 2 -- PA Department of Environmental Protection, Air Emission Report for Nitrogen Oxides (NO_x) for Delaware County (2019) (downloaded). The nearby facilities of Monroe Energy (over 736 tpy), and Marcus Hook Energy (over 212 tpy), PQ, LLC (over 183 tpy), and Kimberly Clark (over 164 tpy), are ranked second, third, and fourth, and fifth. (While some sources provide multiple entries for emissions, this is not material to this summary of relative rankings).

Fine Particulates (PM2.5)

At over 47 tons per year, the Facility is the second-largest emitter of fine particulates (PM2.5) in the county:

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY
Air Emission Report

23-SEP-21 04.00 AM
Last Refresh Time

Year: 2019 | County: Delaware | DEP Reg...: All | NAICS: All | NAICS Category: All | Municipality: All | Client Name: All | Facility Type: All | Source Type: All | Pollutant: PM2.5

Year	County	Municipality	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Amt in Tons
2019	Delaware	Trainer	MONROE ENERGY LLC TRAINER	Petroleum Refineries	Process	PM2.5	113.7000
2019	Delaware	Chester	NOVOLA DELAWARE VALLEY LP CHESTER	Solid Waste Combustors and Incinerators	Incinerator	PM2.5	21.0000
2019	Delaware	Chester	KIMBERLY CLARK PA LLC CHESTER OFFI	Paper (except Newsprint) Mills	Combustion Unit	PM2.5	23.9300
2019	Delaware	Marcus Hook	MARCUS HOOK ENERGY LP MARCUS	Fossil Fuel Electric Power Generation	Process	PM2.5	18.0000
2019	Delaware	Chester	PQ LLC CHESTER	Other Basic Inorganic Chemical Manufacturing	Process	PM2.5	14.0700
2019	Delaware	Trainer	MONROE ENERGY LLC TRAINER	Petroleum Refineries	Combustion Unit	PM2.5	12.4000
2019	Delaware	Marcus Hook	PLAINS MARKETING LP MARCUS HOOK	Soil Water, Research Lumber, and Plastics	Combustion Unit	PM2.5	8.0400
2019	Delaware	Chester	KIMBERLY CLARK PA LLC CHESTER OFFI	Paper (except Newsprint) Mills	Process	PM2.5	7.4200
2019	Delaware	Edgmont	LIBERTY ELEC POWER LLC EDGMOUNT	Fossil Fuel Electric Power Generation	Process	PM2.5	6.0000
2019	Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Process	PM2.5	5.3700
2019	Delaware	Chester	DELAWARE CNTY REG WATER CONTROL	Sewage Treatment Facilities	Incinerator	PM2.5	5.3600
2019	Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Combustion Unit	PM2.5	2.2700
2019	Delaware	Ridley	BOEING CO FINLAY RIDLEY PARK PA PAC	Aircraft Manufacturing	Combustion Unit	PM2.5	1.5000
2019	Delaware	Upland	CROZER CHESTER MEDICAL CENTER	General Medical and Surgical Hospitals	Combustion Unit	PM2.5	1.0000
2019	Delaware	Thornbury	HANSON AGGREGATES PA INC HELLAM	Crushed and Broken Granite Mining and Quarrying	Process	PM2.5	0.9100
2019	Delaware	Haverford	HAVERFORD COLLEGE HAVERFORD	Colleges, Universities, and Professional Schools	Combustion Unit	PM2.5	0.8000
2019	Delaware	Edgmont	EDGMONT GENERATION CORP EDGMONT	Fossil Fuel Electric Power Generation	Combustion Unit	PM2.5	0.5400
2019	Delaware	Middletown	MIDDLETOWN HOSPITAL INC	General Medical and Surgical Hospitals	Combustion Unit	PM2.5	0.2300
2019	Delaware	Upper Darby	DELAWARE CNTY MEM HOSPITAL INC D	General Medical and Surgical Hospitals	Combustion Unit	PM2.5	0.1400
2019	Delaware	Edgmont	EDGMONT MARINE & RAIL TERMINAL	Petroleum Bulk Stations and Terminals	Air Pollution Control Device	PM2.5	0.1300
2019	Delaware	Chester	PA DEPT OF CORRECTIONS SCI	Correctional Institutions	Combustion Unit	PM2.5	0.1100
2019	Delaware	Newtown	SAP AMERICA INC NEWTOWN SQUARE PAO	Custom Computer Programming Services	Combustion Unit	PM2.5	0.1000
2019	Delaware	Middletown	CONTINENTAL HOSPITAL INC	General Medical and Surgical Hospitals	Combustion Unit	PM2.5	0.1000
2019	Delaware	Ridley Park	CROZER CHESTER MEDICAL CTR HOSPITAL	General Medical and Surgical Hospitals	Process	PM2.5	0.1000
2019	Delaware	Chester	PQ LLC CHESTER	Other Basic Inorganic Chemical Manufacturing	Combustion Unit	PM2.5	0.1000
2019	Delaware	Chester	ECGMA CORP CHESTER	Synthetic Dye and Pigment Manufacturing	Process	PM2.5	0.0700
2019	Delaware	Thornbury	PE STATE SYS OF HIGHER EDUCATIONS	Colleges, Universities, and Professional Schools	Combustion Unit	PM2.5	0.0400
2019	Delaware	Edgmont	EDGMONT GENERATION CORP EDGMONT	Fossil Fuel Electric Power Generation	Process	PM2.5	0.0300
2019	Delaware	Ridley	BOEING CO FINLAY RIDLEY PARK PA PAC	Aircraft Manufacturing	Process	PM2.5	0.0200
2019	Delaware	Upper Darby	DELAWARE CNTY MEM HOSPITAL INC D	General Medical and Surgical Hospitals	Process	PM2.5	0.0000
2019	Delaware	Chester	STELLA GENERATING STA CHESTER	Fossil Fuel Electric Power Generation	Process	PM2.5	0.0100
2019	Delaware	Chester	PA DEPT OF CORRECTIONS SCI	Correctional Institutions	Process	PM2.5	0.0100
2019	Delaware	Marcus Hook	MARCUS HOOK SITE MARCUS HOOK	Fossil Fuel Electric Power Generation	Process	PM2.5	0.0100
2019	Delaware	Ridley Park	CROZER CHESTER MEDICAL CENTER	General Medical and Surgical Hospitals	Process	PM2.5	0.0100
2019	Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Air Pollution Control Device	PM2.5	0.00030
2019	Delaware	Thornbury	PE STATE SYS OF HIGHER EDUCATIONS	Colleges, Universities, and Professional Schools	Process	PM2.5	0.002

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 3 -- PA Department of Environmental Protection, Air Emission Report for Fine Particulates ($PM_{2.5}$) for Delaware County (2019) (downloaded). The nearby facilities of Monroe Energy (over 113 tpy), Kimberly Clark (over 24 tpy), Marcus Hook Energy (over 18 tpy), and PQ, LLC (over 14 tpy) are ranked first, third, and fourth, and fifth. (While some sources provide multiple entries for emissions, this is not material to this summary of relative rankings).

Coarse Particulates (PM10)

At over 50 tons per year, the Facility is the third-largest emitter of coarse particulates (PM10) in the county:

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Air Emission Report

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Year: 2019 | County: Delaware | DEP Regi...: All | NAICS: All | NAICS Category: All | Municipality: All | Client Name: All | Facility Type: All | Source Type: All | Pollutant: PM10

Rank	County	Municipality	Facility Name	NAICS Desc	Source Type	Pollutant	Emissions (Metric Tons)
1	Delaware	Trainer	MYLAN EP ENERGY LLC TRAINER	Petroleum Refineries	Process	PM10	128.46000
2	Delaware	Eddystone	EDISON GENERATING COMPANY LLC	Fossil Fuel Electric Power Generation	Process	PM10	68.10000
3	Delaware	Chester	COVANTA DELAWARE VALLEY LP DELAWARE	Solid Waste Combustors and Incinerators	Processor	PM10	60.50470
4	Delaware	Chester	KIMBERLY-CLARK PA LLC CHESTER OPP	Sanitary Paper Product Manufacturing Mills	Combustion Unit	PM10	24.31000
5	Delaware	Marcus Hook	MARCUS HOOK ENERGY LP MARCUS HOOK	Fossil Fuel Electric Power Generation	Process	PM10	23.80000
6	Delaware	Chester	PQ LLC CHESTER	Other Basic Inorganic Chemical Manufacturing	Process	PM10	16.40000
7	Delaware	Trainer	MYLAN EP ENERGY LLC TRAINER	Petroleum Refineries	Combustion Unit	PM10	15.46000
8	Delaware	Marcus Hook	BRASKEM AMER INC MARCUS HOOK	Plastics Material and Resin Manufacturing	Process	PM10	1.80000
9	Delaware	Chester	EVONIK CORP CHESTER	Synthetic Dye and Pigment Manufacturing	Process	PM10	9.82750
10	Delaware	Marcus Hook	SUNOCO PARTNERS MKT & TERM LP PHILADELPHIA	Pipeline Transportation of Refined Petroleum Products	Combustion Unit	PM10	9.57200
11	Delaware	Thornbury	HANSON AGGREGATES PA INC DELAWARE	Crushed and Broken Granite Mining and Quarrying	Process	PM10	9.56170
12	Delaware	Chester	KIMBERLY-CLARK PA LLC CHESTER OPP	Paper (except Newsprint) Mills	Process	PM10	8.70000
13	Delaware	Chester	COVANTA DELAWARE VALLEY LP DELAWARE	Solid Waste Combustors and Incinerators	Process	PM10	8.44000
14	Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Process	PM10	7.35000
15	Delaware	Chester	DELAWARE COUNTY REGIONAL WATER QUALITY CONTROL	Sewage Treatment Facilities	Combustion Unit	PM10	5.98110
16	Delaware	Marcus Hook	SPMT MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Combustion Unit	PM10	5.27000
17	Delaware	Ridley	BOEING CO PHILADELPHIA RIDLEY PARK RD FAC	Aircraft Manufacturing	Combustion Unit	PM10	1.81000
18	Delaware	Aldan	CROZER-CHESTER MED CENTER M	General Medical and Surgical Hospitals	Combustion Unit	PM10	1.66474
19	Delaware	Chester	EVONIK CORP CHESTER	Synthetic Dye and Pigment Manufacturing	Combustion Unit	PM10	0.43000
20	Delaware	Eddystone	EDISON GENERATING COMPANY LLC	Fossil Fuel Electric Power Generation	Combustion Unit	PM10	0.40410
21	Delaware	Haverford	HAVERFORD COLLEGE HAVERFORD	Colleges, Universities, and Professional Schools	Combustion Unit	PM10	0.70000
22	Delaware	Chester	SMARTCO CHESTER TWP	Cement Manufacturing of Portland Plants	Process	PM10	0.26042
23	Delaware	Eddystone	EDISON GENERATING COMPANY LLC	Fossil Fuel Electric Power Generation	Process	PM10	0.23540
24	Delaware	Middletown	RIDDLE MEM HOSP REHAB PK E	General Medical and Surgical Hospitals	Combustion Unit	PM10	0.16500
25	Delaware	Chester	WEST ROLLINSTON	Corrugated and Solid Fiber Box Manufacturing	Combustion Unit	PM10	0.21100
26	Delaware	Marcus Hook	BRASKEM AMER INC MARCUS HOOK	Plastics Material and Resin Manufacturing	Combustion Unit	PM10	0.19700
27	Delaware	Upper Darby	DELAWARE CNTY MEM HOSP DREXEL HI	General Medical and Surgical Hospitals	Combustion Unit	PM10	0.18280
28	Delaware	Tinicum	UNITED PARCEL SVC WILMHLA AIR HUB	Scheduled Freight Air Transportation	Combustion Unit	PM10	0.16270
29	Delaware	Swarthmore	SWARTHMORE COLLEGE SWARTHMORE	Colleges, Universities, and Professional Schools	Combustion Unit	PM10	0.15110
30	Delaware	Middletown	DELAWARE CNTY FAIR ACRES COMPLEX	Services for the Elderly and Persons with Disabilities	Combustion Unit	PM10	0.15120
31	Delaware	Eddystone	EDDYSTONE MARINE & RAIL TERM CORP	Petroleum Bulk Stations and Terminals	Air Pollution Control Device	PM10	0.14010
32	Delaware	Tinicum	SUNOCO PARTNERS MKT & TERM LP PT	Pipeline Transportation of Refined Petroleum Products	Combustion Unit	PM10	0.13000
33	Delaware	Chester	EDISON GENERATING STA CHESTER	Fossil Fuel Electric Power Generation	Process	PM10	0.12400
34	Delaware	Newtown	SOLAMER INDUSTRY DOWN SOLAMER FAC	Custom Computer Programming Services	Combustion Unit	PM10	0.12000
35	Delaware	Trainer	CONSOLIDATED CONTAINER PT	All Other Plastics Product Manufacturing	Air Pollution Control Device	PM10	0.12000
36	Delaware	Chester	SUNOCO CORPORATION PA	Unclassified Industries	Combustion Unit	PM10	0.11000
37	Delaware	Trainer	CONSOLIDATED CONTAINER PT	All Other Plastics Product Manufacturing	Process	PM10	0.11000
38	Delaware	Middletown	RIDDLE MEM HOSP REHAB PK E	General Medical and Surgical Hospitals	Process	PM10	0.10560
39	Delaware	Swarthmore	SWARTHMORE COLLEGE SWARTHMORE	Colleges, Universities, and Professional Schools	Process	PM10	0.10510
40	Delaware	Ridley Park	CROSPEDY CONSTRUCTION HOSPITAL	General Medical and Surgical Hospitals	Combustion Unit	PM10	0.10480
41	Delaware	Chester	PQ LLC CHESTER	Other Basic Inorganic Chemical Manufacturing	Combustion Unit	PM10	0.10000
42	Delaware	Radnor	VILLANOVA UNIV MAIN CAMPUS	Colleges, Universities, and Professional Schools	Process	PM10	0.10000
43	Delaware	Thornbury	SLT LANDFILL OF NORTHEAST PENNSYLVANIA	Colleges, Universities, and Professional Schools	Combustion Unit	PM10	0.09370
44	Delaware	Trainer	CONSOLIDATED CONTAINER PT	All Other Plastics Product Manufacturing	Combustion Unit	PM10	0.09000
45	Delaware	Marcus Hook	SUNOCO CORPORATION PA	Petroleum Refineries	Process	PM10	0.08400

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 4 -- PA Department of Environmental Protection, Air Emission Report for Coarse Particulates (PM_{10}) for Delaware County (2019) (downloaded). The nearby facilities of Monroe Energy (over 128 tpy), Kimberly Clark (over 24 tpy), Marcus Hook Energy (over 23 tpy), and PQ, LLC (over 16 tpy) are ranked first, fourth, fifth, and sixth. (While some sources provide multiple entries for emissions, this is not material to this summary of relative rankings).

Particulate Matter (Condensable)

At over 43 tons per year, the Facility is the second-largest emitter of particulate matter (condensable) in the county:

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Air Emission Report

23-SEP-21 04.00 AM
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Year: 2019
County: Delaware
DEP Regi...: All
NAICS: All
NAICS Category: All
Municipality: All
Client Name: All
Facility Type: All
Source Type: All
Pollutant: Particulate Matter, Conden...

Municipality	Facility Name	NAICS Desc	Source Type	Pollutant	Emitted Actlte Tons
Trainer	HOVENSA ENERGY LLC TRAINER	Petroleum Refineries	Process	Particulate Matter, Condensable	32.11000
Eddystone	LIBERTY ELEC POWER LLC EDDYSTONE	Fossil Fuel Electric Power Generation	Process	Particulate Matter, Condensable	45.51000
Chester	COVANTA DELAWARE VALLEY PHILADEL	Solid Waste Combustors and Incinerators	Incinerator	Particulate Matter, Condensable	41.00000
Marcus Hook	MARCUS HOOK ENERGY LP TRI MIN	Fossil Fuel Electric Power Generation	Process	Particulate Matter, Condensable	24.10000
Trainer	HOVENSA ENERGY LLC TRAINER	Petroleum Refineries	Combustion Unit	Particulate Matter, Condensable	13.10000
Chester	KIMBERLY CLARK NATIONAL CHESTER OPR	Paper (except Newsprint) Mills	Combustion Unit	Particulate Matter, Condensable	8.95000
Marcus Hook	SPOT MARCUS HOOK INC COVERLEX	Other Plastics Packaging and Sheetage	Combustion Unit	Particulate Matter, Condensable	2.11000
Chester	DELAWARE CITY REF INC DELCO TANK	Petroleum Bulk Stations and Terminals	Combustion Unit	Particulate Matter, Condensable	1.07100
Chester	KIMBERLY CLARK NAT CHESTER OPR	Paper (except Newsprint) Mills	Process	Particulate Matter, Condensable	1.00000
Ridley	BOEING CO PHILADELPHIA RIDLEY PARK PA FAC	Aircraft Manufacturing	Combustion Unit	Particulate Matter, Condensable	1.14000
Thornbury	HANSON AGGREGATES PA LLC DELAWARE	Crushed and Broken Granite Mining and Quarrying	Process	Particulate Matter, Condensable	0.97000
Eddystone	EDDYSTONE GENERATING STATION	Fossil Fuel Electric Power Generation	Combustion Unit	Particulate Matter, Condensable	0.87100
Upland	PROSPECT PRESBYTERIAN CHESTER H	General Medical and Surgical Hospitals	Combustion Unit	Particulate Matter, Condensable	0.76100
Marcus Hook	SUN MARCUS HOOK LLC	Petroleum Refineries	Combustion Unit	Particulate Matter, Condensable	0.74100
Middletown	BRANDYWINE VALLEY SDA	General Medical and Surgical Hospitals	Combustion Unit	Particulate Matter, Condensable	0.17800
Upper Darby	DELAWARE CITY MEM HOSP/RESEL HI	General Medical and Surgical Hospitals	Combustion Unit	Particulate Matter, Condensable	0.14500
Thornbury	PA STATE SYS OF HIGHER ED/CHEYNEY	Colleges, Universities, and Professional Schools	Combustion Unit	Particulate Matter, Condensable	0.14000
Eddystone	EDDYSTONE MARINE & RAIL TERM CORP	Petroleum Bulk Stations and Terminals	Air Pollution Control Device	Particulate Matter, Condensable	0.06100
Newtown	SPLINTER INDUSTRIES NEWTOWN SQUARE FAC	Custom Computer Programming Services	Combustion Unit	Particulate Matter, Condensable	0.06100
Eddystone	EDISON GENERATING STATION EDDYSTONE	Fossil Fuel Electric Power Generation	Process	Particulate Matter, Condensable	0.05100
Ridley Park	PROSPECT PRESBYTERIAN HOSPITAL	General Medical and Surgical Hospitals	Combustion Unit	Particulate Matter, Condensable	0.05000
Chester	EDISON GENERATING STA CHESTER	Fossil Fuel Electric Power Generation	Process	Particulate Matter, Condensable	0.04000
Marcus Hook	MARCUS HOOK ENERGY LP TRI MIN	Fossil Fuel Electric Power Generation	Process	Particulate Matter, Condensable	0.03000
Ridley	BOEING CO PHILADELPHIA RIDLEY PARK PA FAC	Aircraft Manufacturing	Process	Particulate Matter, Condensable	0.03000
Upper Chichester	SUNOCO PARTNERS MKT & TERM LP TRI	Petroleum Bulk Stations and Terminals	Process	Particulate Matter, Condensable	0.02000
Upper Darby	DELAWARE CITY MEM HOSP/RESEL HI	General Medical and Surgical Hospitals	Process	Particulate Matter, Condensable	0.02000
Middletown	BRANDYWINE VALLEY SDA	General Medical and Surgical Hospitals	Process	Particulate Matter, Condensable	0.01100
Ridley Park	PROSPECT PRESBYTERIAN HOSPITAL	General Medical and Surgical Hospitals	Process	Particulate Matter, Condensable	0.01000
Thornbury	PA STATE SYS OF HIGHER ED/CHEYNEY ...	Colleges, Universities, and Professional Schools	Process	Particulate Matter, Condensable	0.00100

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 5 -- PA Department of Environmental Protection, Air Emission Report for Particulate Matter (Condensable) for Delaware County (2019) (downloaded). The nearby facilities of Monroe Energy (over 59 tpy), Marcus Hook Energy (over 24 tpy), Kimberly Clark (over 8 tpy), are ranked first, fourth, and fifth. (While some sources provide multiple entries for emissions, this is not material to this summary of relative rankings).

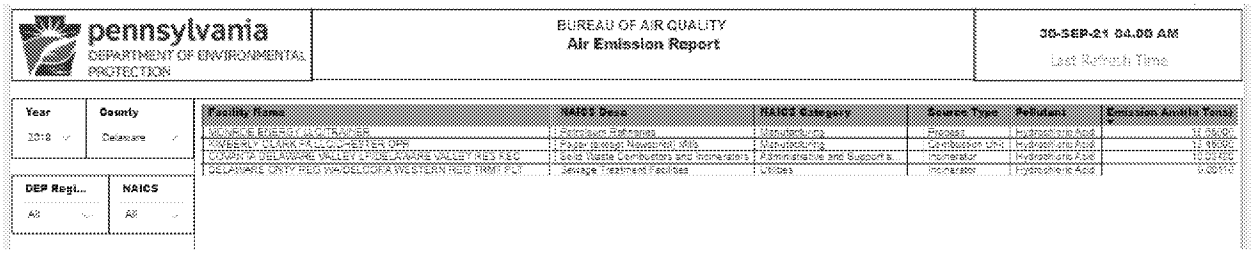
Hydrochloric Acid

There is a similar story with hazardous air pollutants.

Controlled exposures of people with asthma have shown irritation and restriction of the airways from exposure to hydrogen chloride. *See* Fine JM, Gordon T, Thompson JE, Sheppard D, The role of titratable acidity in acid aerosol-induced bronchoconstriction. 135 Am. Rev. Respiratory Disease 826 (1987). Other studies have shown this and other acid gases to irritate eyes, nasal passages and the lungs. U.S. Environmental Protection Agency ("EPA"), Health

Effects Notebook for Hazardous Air Pollutants: https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants (hereinafter, EPA HAPs Notebook).

At over 10 tons per year, the Facility is the third-largest emitter of hydrochloric acid in the county:

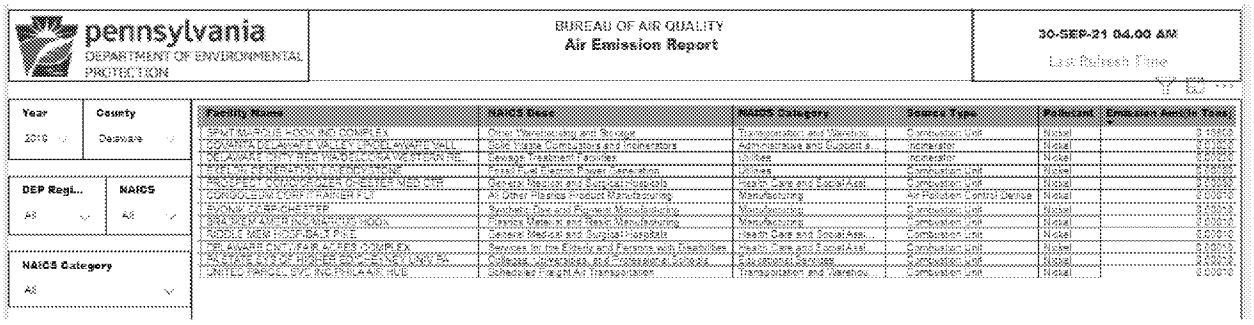


See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 6 -- PA Department of Environmental Protection, Air Emission Report for Hydrochloric Acid for Delaware County (2019) (downloaded). The nearby facilities of Monroe Energy (18 tpy), and Kimberly Clark (13 tpy), are ranked first and second. Hydrochloric acid gas is strongly corrosive, and causes respiratory irritation even in healthy breathers.

Nickel

Nickel is a known human carcinogen, and inhalation exposures to certain nickel compounds at lower levels cause adverse respiratory effects. *Id.*

At 0.03 tons per year (60 pounds), the Facility is the second-largest emitter of nickel in Delaware County:



See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 7 -- PA Department of Environmental Protection, Air Emission Report for Nickel for Delaware County (2019) (downloaded). The nearby facilities of SPMT/Marcus Hook Industrial Complex (0.168 tpy or 336 pounds), and DELCORA (0.00220 tpy or 4.4 pounds), are ranked first and third.

Mercury

Mercury emissions can concentrate as methylmercury in fresh and saltwater fish tissue, where they bioaccumulate. Human exposure to mercury most commonly occurs through the

injection of contaminated fish, which are found in all U.S. waterbodies. Consumption of mercury contaminated fish by women of childbearing age can lead to serious neurological disorders in their children, as can consumption of mercury contaminated fish by children whose brains are still developing. Mercury exposure through the consumption of contaminated fish has also been linked with adult neurological issues and with cardiovascular health impacts. This issue is of particular concern in communities in which subsistence fishing occurs, which include communities of lower incomes, as wild caught fish is an inexpensive source of animal proteins. The Delaware River and Chester Creek are covered by current Pennsylvania fish advisories for mercury contamination. *See* Department of Environmental Protection, Commonwealth of Pennsylvania Fish Consumption Advisories, August 26, 2021; .*See also* EPA, HAPs Notebook, Mercury Compounds.

At 0.01650 tons per year (33 pounds), the Facility is the largest emitter of mercury in Delaware County:

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Air Emission Report

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Year: 2018 | County: Delaware | DEP Regi...: All | NAICS: 48

Client Name	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Amount Tons
CHAMPIN A DELAWARE VALLEY LP	CHAMPIN A DELAWARE VALLEY LP DELAWARE VALLEY F&S FAC	Solid Waste Combustors and Incinerators	Incinerator	Mercury	0.01650
MONROE ENERGY LLC	MONROE ENERGY LLC TRAINER	Petroleum Refineries	Process	Mercury	0.01000
DELCORA	DELAWARE CNTY REG WAD/DELCORA WESTERN REG TRMT PLT	Sewage Treatment Facilities	Incinerator	Mercury	0.00800

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 8 -- PA Department of Environmental Protection, Air Emission Report for The nearby facilities of Monroe Energy (0.01000 tpy or 20 pounds) and DELCORA (0.00800 tpy or 16 pounds) are ranked second and third.

Lead

Air emissions of lead are linked to adverse effects on the blood, as well as the nervous, immune, renal and cardiovascular systems. Early childhood and prenatal exposures are associated with slowed cognitive development, learning deficits and other negative health effects. EPA HAPS Notebook, Lead Compounds.

At 0.01240 tons per year (24.8 pounds), the Facility is the third-largest emitter of lead in Delaware County:

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Air Emission Report

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Last Refresh Time

Year: 2018 | County: Delaware | DEP Regi...: All | NAICS: 48

Client Name	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Amount Tons
SUNOCO LLC	SUNOCO LOGISTICS FUELS	Petroleum Refineries	Process	Lead	0.01240
SUNOCO PARTNERS MKT & TERM LP	SUNOCO PARTNERS MKT AND TERM LP	Other Warehousing and Storage	Combustion Unit	Lead	0.01240
CHAMPIN A DELAWARE VALLEY LP	CHAMPIN A DELAWARE VALLEY LP DELAWARE VALLEY F...	Solid Waste Combustors and Incinerators	Incinerator	Lead	0.01240
CONSTELLATION POWER	CONSTELLATION POWER CONNECTICUT INC	Fossil Fuel Electric Power Generation	Combustion Unit	Lead	0.01000
DELCORA	DELAWARE CNTY REG WAD/DELCORA WESTERN REG T...	Sewage Treatment Facilities	Incinerator	Lead	0.00800
EVELON GENERATION CO LLC	EVELON GENERATING ENT CHESTER	Fossil Fuel Electric Power Generation	Process	Lead	0.00600
HANSON AGGREGATES PA LLC	HANSON AGGREGATES PA LLC CHESTER SLAG QUARRY	Crushed and Broken Granite Mining and ...	Process	Lead	0.00400
PROSPECT COMC LLC	PROSPECT COMC CROZER CHESTER MED CTR	General Medical and Surgical Hospitals	Combustion Unit	Lead	0.00000

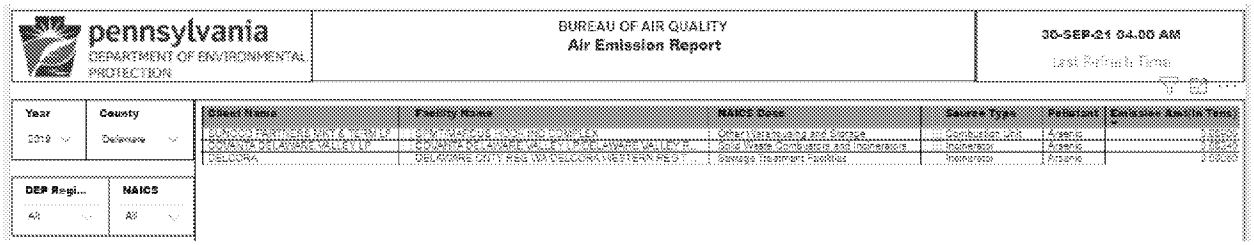
See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 9 -- PA Department of Environmental Protection, Air Emission Report for Lead for Delaware

County (2019) (downloaded). The nearby facilities of Sunoco, LLC (0.02590 tpy or 51 pounds), SPMT/Marcus Hook Industrial Complex (0.01400 tpy or 28 pounds), Kimberly Clark (0.00300 tpy or 6 pounds), and DELCORA (0.00020 tpy or 0.4 pounds) are ranked first, second, fourth, and fifth.

Arsenic

"Acute (short-term), high-level inhalation exposure to inorganic arsenic has resulted in respiratory effects (cough, dyspnea, chest pain), gastrointestinal effects (nausea, diarrhea, abdominal pain), and central and peripheral nervous system effects. Chronic (long-term) inhalation exposure to inorganic arsenic in humans is associated with skin, cardiovascular, and neurological effects." EPA HAPs Notebook, Arsenic.

At 0.00240 tons per year (4.8 pounds), the Facility is the second-largest emitter of arsenic in Delaware County:



See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 10 -- PA Department of Environmental Protection, Air Emission Report for Arsenic for Delaware County (2019) (downloaded). The nearby facilities of SPMT/Marcus Hook Industrial Complex (0.00900 tpy or 18 pounds) and DELCORA (0.00060 tpy or 1.2 pounds) are ranked first and third.

Chromium

Inhalation exposure to chromium compounds has been linked to a variety of adverse health consequences, including "[s]hortness of breath, coughing, and wheezing were reported from a case of acute exposure to chromium (VI), while perforations and ulcerations of the septum, bronchitis, decreased pulmonary function, pneumonia, and other respiratory effects have been noted from chronic exposure. [Additionally, h]uman studies have clearly established that inhaled chromium (VI) is a human carcinogen, resulting in an increased risk of lung cancer. Animal studies have shown chromium (VI) to cause lung tumors via inhalation exposure." EPA HAPs Notebook, Chromium Compounds.

At 0.00170 tons per year (3.4 pounds), the Facility is the second-largest emitter of chromium in Delaware County:

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Air Emission Report

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Last Refresh Time

Year: 2019 | County: Delaware | DEP Regi...: All | NAICS: All

Client Name	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Amt (In Tons)
SUNOCO PARTNERS MKT & TERM LP	SPMT/MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Combustion Unit	Cadmium	0.01300
COVANTA DELAWARE VALLEY LP	COVANTA DELAWARE VALLEY LP/DELAWARE VALLEY R...	Solid Waste Combustors and Incinerators	Incinerator	Cadmium	0.00100
DELCORA	DELAWARE CNTY REG WA/DELCORA WESTERN REG T...	Sewage Treatment Facilities	Incinerator	Cadmium	0.00030
EXELON GENERATION CO LLC	EXELON GENERATION CO/EDDYSTONE	Fossil Fuel Electric Power Generation	Combustion Unit	Cadmium	0.00030
PROSPECT COMC LLC	PROSPECT COMC/CROZER CHESTER MED CTR	General Medical and Surgical Hospitals	Combustion Unit	Cadmium	0.00030
CONGOLEUM CORP	CONGOLEUM CORP/TRAINER PLT	All Other Plastics Product Manufacturing	Air Pollution Cont...	Cadmium	0.00010
DELAWARE CNTY	DELAWARE CNTY/FAIR ACRES COMPLEX	Services for the Elderly and Persons with...	Combustion Unit	Cadmium	0.00010

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 11 -- PA Department of Environmental Protection, Air Emission Report for Chromium for Delaware County (2019) (downloaded). The nearby facilities of SPMT/Marcus Hook Industrial Complex (0.05000 tpy or 100 pounds) and DELCORA (0.00030 tpy or 0.6 pounds) are ranked first and third.

Cadmium

The U.S. EPA notes that the incineration of municipal waste is one of the main sources of cadmium in the air, and that "acute (short-term) effects of cadmium in humans through inhalation exposure consist mainly of effects on the lung, such as pulmonary irritation. Chronic (long-term) inhalation or oral exposure to cadmium leads to a build-up of cadmium in the kidneys that can cause kidney disease." EPA HAPs Notebook, Cadmium Compounds.

At 0.00100 tons per year (2 pounds), the Facility is the second-largest emitter of cadmium in Delaware County:

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Air Emission Report

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Last Refresh Time

Year: 2019 | County: Delaware | DEP Regi...: All | NAICS: All

Client Name	Facility Name	NAICS Desc	Source Type	Pollutant	Emission Amt (In Tons)
SUNOCO PARTNERS MKT & TERM LP	SPMT/MARCUS HOOK IND COMPLEX	Other Warehousing and Storage	Combustion Unit	Cadmium	0.01300
COVANTA DELAWARE VALLEY LP	COVANTA DELAWARE VALLEY LP/DELAWARE VALLEY R...	Solid Waste Combustors and Incinerators	Incinerator	Cadmium	0.00100
EXELON GENERATION CO LLC	EXELON GENERATION CO/EDDYSTONE	Fossil Fuel Electric Power Generation	Combustion Unit	Cadmium	0.00030
PROSPECT COMC LLC	PROSPECT COMC/CROZER CHESTER MED CTR	General Medical and Surgical Hospitals	Combustion Unit	Cadmium	0.00030

See PA Department of Environmental Protection, Air Emissions Report; *see also* Attachment 12 -- PA Department of Environmental Protection, Air Emission Report for Cadmium for Delaware County (2019) (downloaded). The nearby facility of SPMT/Marcus Hook Industrial Complex (0.01300 tpy or 26 pounds) is ranked first.

The Department is jointly responsible for these problems because it is the government agency that issued the air permits and solid waste permits for these facilities. As discussed in the following section, the people who live among this cluster of polluting sources suffer from significantly elevated rates of asthma and other cardio-respiratory diseases.

3. Chester has a well-documented history of disproportionately high rates of respiratory and other health problems, especially asthma.

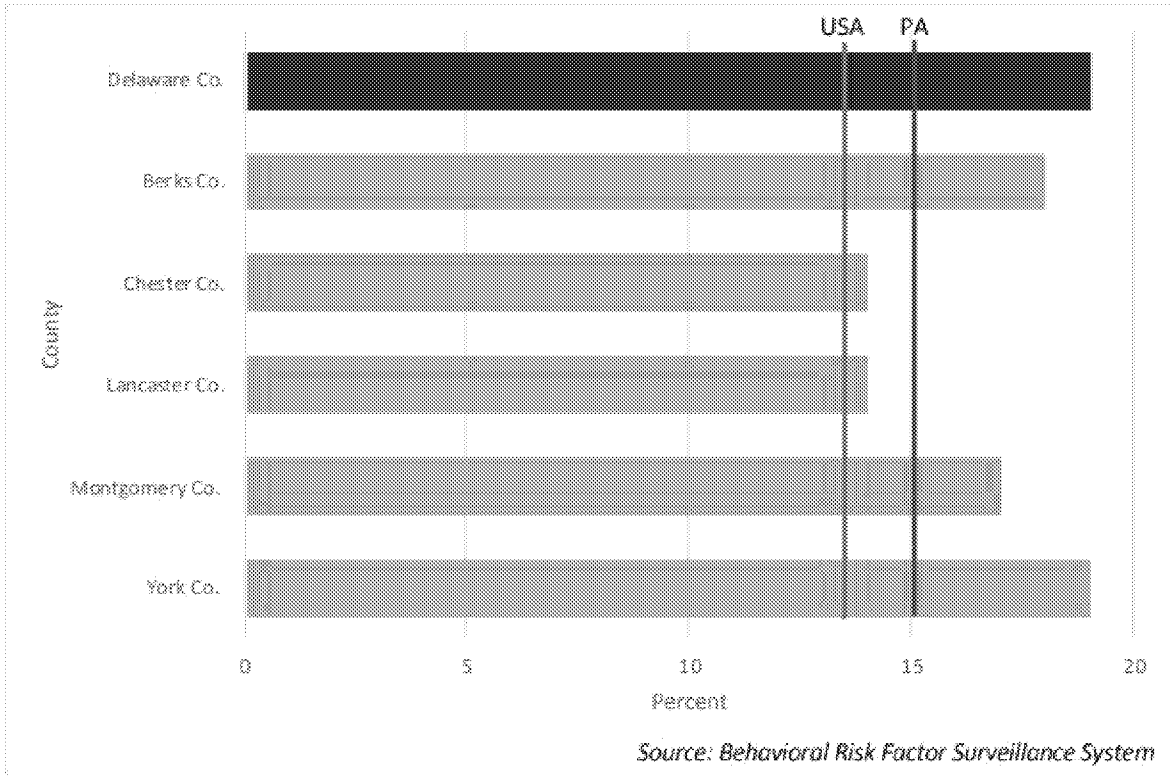
Chester has a well-documented history of both significant pollution clustering and a high incidence of respiratory and other health issues. In the 1990s, the U.S. EPA partnered with the Department on an environmental risk assessment of Chester because of the clustering of

industrial sources in proximity to residences and in reaction to communications from residents concerned about their health and environment; this assessment produced numerous findings about health problems suffered by Chester residents that were attributable to various polluting sources in the area. *See* EPA, Chester (PA) Environmental Risk Study, https://www.epa.gov/environmentaljustice/chester-pa-environmental-risk-study.

One of the primary conclusions of this study was that "emissions from facilities in and around Chester provide a large component of the cancer and non-cancer risk to the citizens of Chester." *See* EPA, Chester Environmental Risk Study Summary Report at 3, https://www.epa.gov/sites/default/files/2016-03/documents/chesterenvironmentalriskstudysummaryreport6-1995.pdf ("EPA Risk Study"). This risk assessment was finalized in June of 1995, only a few months before DEP issued the Facility its first air and waste permits despite public opposition. Despite this warning, more polluting sources were allowed to come to Chester.

The problem of elevated asthma rates in Delaware County is well-documented. Compared with the rest of Pennsylvania, the people in Delaware County suffer from an elevated incidence of asthma. In 2017, 19% of adults in Delaware County had asthma, which is higher than the national rate (13.5%) and the statewide rate (15%). This is also higher than the rates for most neighboring counties in Pennsylvania (between 14% and 18%), with the exception of York County, also at 19%:

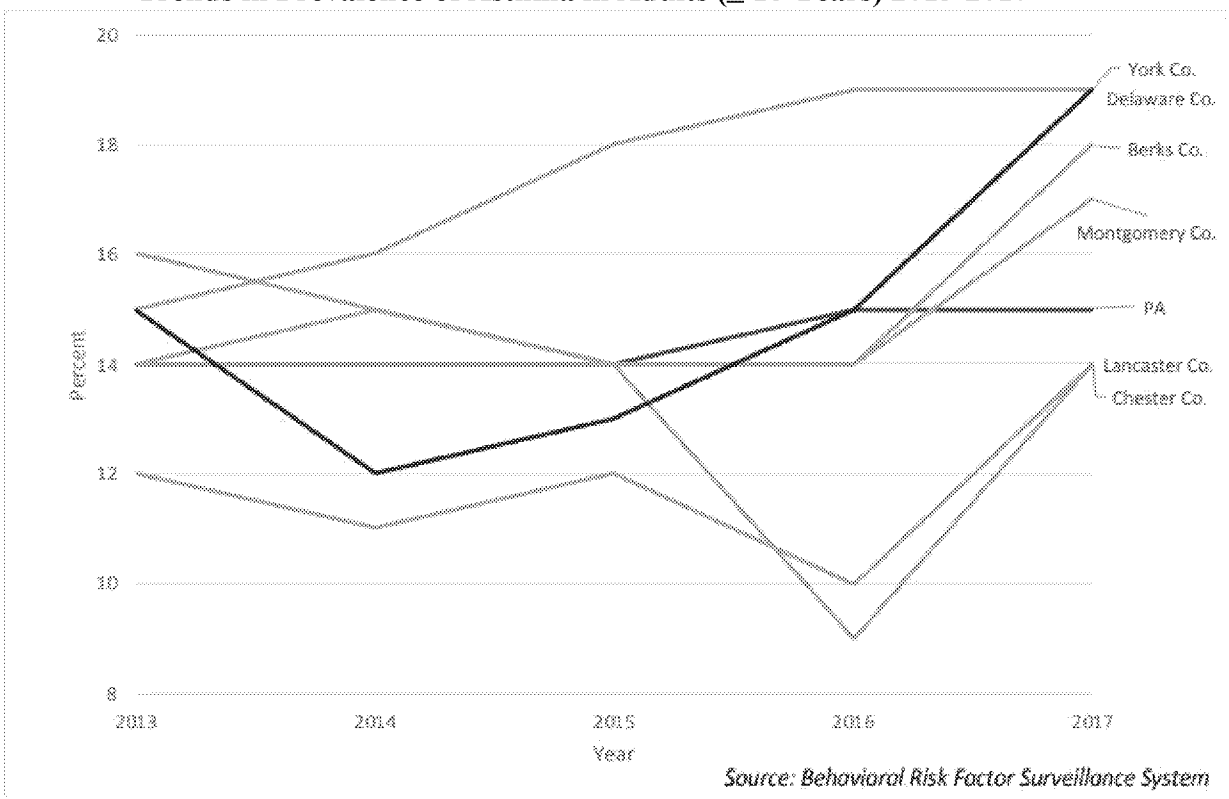
Percent of Adults Ever (≥ 18 Years) Ever Told They Have Asthma, 2017



Final Report: Examination of Health and Public Health Service Delivery in Delaware County, Pennsylvania (July 20, 2020) (Prepared by the Johns Hopkins Bloomberg School of Public Health, under contract with the Delaware County Council), pages 99-100, https://www.delcopa.gov/pdf/JHSPHDelawareCountyFinalReport_July2020REV.pdf.

This rate has increased since 2014, and its increase since 2016 has been dramatic. Although there was a decrease between 2013-2014, the percentage of adults in Delaware County who reported having asthma increased overall from 15% to 19% from 2013 to 2017:

Trends in Prevalence of Asthma in Adults (≥ 18 Years) 2013-2017



Id., pages 100-101.

The data for the City of Chester, where the Facility is directly located, is even more dire. An University of Pennsylvania analysis of 2010 data from Chester indicated the asthma rate in the city -- as well as rates of lung and ovarian cancer, mortality from heart disease, and mortality from cerebrovascular disease -- are extremely high, with 26.7% of adults and 38.5% of children suffering from asthma. *See* Chester, Center of Excellence in Environmental Toxicology, University of Pennsylvania, Perelman School of Medicine. https://ceet.upenn.edu/target-communities/chester/.

In 2010, the national lifetime prevalence of asthma was 12.7% for adults and 13.6% for children. CDC, 2010 National Health Interview Survey Data, https://www.cdc.gov/asthma/nhis/2010/table2-1.htm. The asthma rate among adults in Chester was therefore over twice the national average, and the rate among children was close to *three*

times the national average (38.5/13.6 = 2.83). Given the rising rates of asthma in Delaware County in the last decade, the situation in Chester may have only gotten worse. And asthma is not the only health issue noted in this data analysis, which also found that Chester residents are 24% more likely to develop lung cancer than other Pennsylvania residents, 25% more likely to die of heart disease than other Delaware County residents, and 50% more likely to die of cerebrovascular disease than other Delaware County residents.

These extreme rates of asthma and other serious health problems are alarming, and the likely contribution that contaminants from the Facility make to these rates should not be ignored. The link between particulate emissions and asthma rates as well as other serious respiratory illness has been well-known for decades. *See* Conrad G. Schneider, Clean Air Task Force, Dirty Air, Dirty Power Report. And the Applicant and the Department cannot pass blame from the Facility to others in the area when reviewing the permit: addressing environmental injustice requires the Department to recognize the contribution of each facility to the cumulative harm suffered by an environmental justice community and to act appropriately.

Now is the time for the Department to redress some of the injustice in this community. Approaching its review of the Facility with heightened care and scrutiny is a simple first step toward this goal.

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II. The Department has legal authority to address environmental injustice in the context of this permit.

Addressing permitting and regulation of facilities that combust solid waste, Section 129 of the Clean Air Act gives Department authority to include additional limitations or measures in a Title V Permit if those provisions are necessary to protect public health or the environment.

> Notwithstanding any other provision of this subsection, the Administrator or the State shall require the owner or operator of any unit to comply with emissions limitations or implement any other measures, if the Administrator or the State determines that emissions in the absence of such limitations or measures may reasonably be anticipated to endanger public health or the environment. The Administrator's determination under the preceding sentence is a discretionary decision.

Section 129 of the Clean Air Act, 42 U.S.C. §7429(e), (Permits).

Additionally, there is no field preemption of state and local authority under the Clean Air Act. To the contrary, the Clean Air Act recognizes that state and local governments may enforce their own (more stringent) requirements:

> §7416. Retention of State authority
>
> Except as otherwise provided in sections 1857c–10(c), (e), and (f) (as in effect before August 7, 1977), 7543, 7545(c)(4), and 7573 of this title (preempting certain State regulation of moving sources) ***nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce*** (1) any standard or limitation respecting emissions of air pollutants ***or (2) any requirement respecting control or abatement of air pollution***; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 7411 or section 7412 of this title, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

See Section 116 of the Clean Air Act, 42 U.S.C. §7416 (bold italics added for emphasis). Similarly, there is no field preemption in the federal Title V regulations. *See* 40 C.F.R. part 70. There is no state law preemption for continuous emissions monitoring requirements. *See* Air Pollution Control Act, https://www.legis.state.pa.us/WU01/LI/LI/US/HTM/1959/0/0787..HTM.

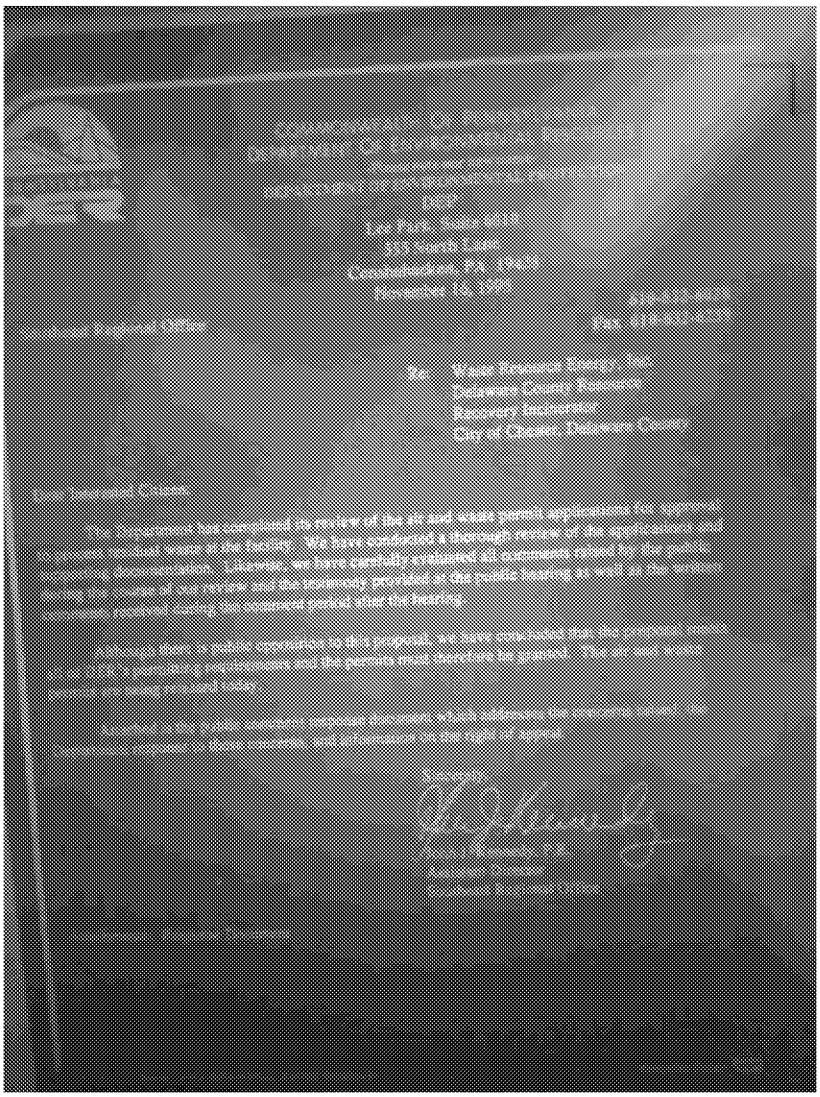
Taken together, these provisions grant the Department the authority to go beyond minimum requirements when making permitting decisions for the Incinerator under Title V of the Clean Air Act, whether in prescribing stricter emissions limits or monitoring requirements. Given the impact of the Facility on the surrounding environmental justice community and

downwind areas, the Department should use this authority to evaluate and impose more stringent permit conditions than those that are currently in the Draft Permit.

Argument

I. The Department should abandon the notion that it "must" grant an application for a Title V Operating Permit that meets minimum requirements.

Apparently, the Department believes that it is compelled to grant an application for an air permit if it meets bare requirements in the regulations. It stated this expressly in 1995 at the time of the application for the original Title V permit and a solid waste permit for the Facility, in the second paragraph of the following letter:



See Attachment 13 -- Letter from Department of Environmental Protection dated November 16, 1995 ("Although there is public opposition to this proposal, we have concluded that the proposal meets all of DER's permitting requirements and the permits must therefore be granted. The air and waste permits are being released today.").

But this assertion is not supported by the Clean Air Act, the Air Pollution Control Act, or regulations under these acts. In fact, the federal statute, along with the state law and regulations inherently give the Department discretion in air permitting, and do not mandate approval of a particular application.

This discretion is important because it materially affects the leverage of the Department to effectuate emissions reductions and protect public health through the air permitting process, which is particularly important in communities, like Chester, that are overburdened with pollution. The Department should substantiate its position on this issue. If the Department cannot substantiate this position (as the Council believes), the Department should abandon this policy position altogether.

1. The law does not compel the Department to approve an application for an operating permit.

Relevant provisions of Title V of the Clean Air Act do not compel the conclusion that the Department "must" approve the application for renewal of the Title V permit. *See* Sections 501-507 of the Clean Air Act, 42 U.S.C. §7661-7661f. Nor do the regulations compel this conclusion. *See* 40 C.F.R. part 70.

State law does not compel this conclusion, either. *See* Air Pollution Control Act, https://www.legis.state.pa.us/WU01/LI/LI/US/HTM/1959/0/0787..HTM. On the contrary, the state law frames the Department's power to approve permits as discretionary, as in 35 P.S. 4006.1 (b)(2), which states that "[a] permit *may* be issued . . . where the requirements of subsection (a) and this section have been met." (emphasis added). Importantly, this section of the Air Pollution Control Act uses "may" rather than "will" or "shall" - a commonly accepted indicator that a power is discretionary and not mandatory.

Other sections of the Air Pollution Control Act also do not compel the granting of permits. The Department may believe that this result is commanded by 35 P.S. 4008's statement that sources releasing pollutants in accordance with emissions standards and Department-issued permits are not violating the Act, but this reasoning is circular and this provision does nothing to mandate Department approvals or eliminate the discretion it is granted elsewhere. As will be explored further in the next section, the Act gives the Department specific authority to disapprove an application when a source would cause "air pollution" - even if the source would not otherwise violate the Act. *See* 35 P.S. 4006.1 (d) ("The [D]epartment may refuse . . . to issue a permit to any source that the [D]epartment determines is likely to cause air pollution *or* to violate this act") (emphasis added).

The state regulations also do not mandate permit approvals. *See* 25 Pa. Code, 127.501-127.543 (Subchapter G, Title V Operating Permits); *see also* 25 Pa. Code, 127.401-127.465 (Subchapter F, Operating Permit Requirements). Authority for the Department's position cannot be found in the regulations for plan approvals, either. *See* 25 Pa. Code, 127.11-127.52 (Subchapter B, Plan Approval Requirements). Just as with the statute, the state regulations give the Department discretion by providing that "[a] permit *may be issued* to an applicant . . . when the requirements of this article . . . have been met." 25 Pa. Code 127.402.

The closest authority that could be found that mandates action is a requirement to publish notice of intent to grant a plan approval (not a Title V operating permit) in the Pennsylvania Bulletin. *See* §127.44(a) ("The Department will publish in the Pennsylvania Bulletin a notice of receipt and intent to issue for each plan approval application, except plan approval applications subject to the notice requirements of subsection (b)."). But even as to plan approvals, this does not state that the Department must grant a plan approval, nor does it say that the Department must grant an application if it meets regulatory requirements. *See id.* It is obvious from the structure of Section 127.44 that the Department can take other action on plan approvals, in which case it will need to follow the process outlined in 127.44(b) (regarding preparing a notice "of action to be taken") instead of (a). And in any event, these sections are inapplicable to operating permits.

If the Department's position is based on the assumption that disapproving an application would be unlawful "discrimination," such an assumption would be misplaced. Discrimination against individuals based on race and ethnicity is not the same thing as discrimination between different industrial facilities based on distinctions between their operations, the nature and extent of the air pollution load in the airshed, or the effects of that air pollution on public health and the environment. Unlike the standard of "strict scrutiny" applied to allegations of race discrimination, the applicable standard for any constitutional law claim by an industrial facility under the equal protection clause of the Fifth Amendment of the U.S. Constitution would be "minimal rationality." *See Williamson v. Lee Optical, Inc.,* 348 U.S. 483 (1955), https://supreme.justia.com/cases/federal/us/348/483/.

If the Department's position is based simply on a fear of being sued by regulated industry, the position is circular and it makes the issuance of permits without rigorous terms and conditions a self-fulfilling prophecy. The Department should not approve permit applications because of a misplaced sense of obligation, especially when scrutinizing sources in environmental justice communities as here. The reflexive approval of permits in this area is the reason so many polluting sources are clustered in this environmental justice community in the first place, and allowing business as usual will only continue the cycle of injustice.

2. The Department's policy that it must grant an application that meets all applicable regulatory and statutory requirements is unlawful as a matter of law.

The Permit Decision Guarantee Policy does not compel the opposite result - and it cannot do so, as a matter of law. *See* PA Department of Environmental Protection, Permit Decision Guarantee (website). The Executive Order directing the Department to develop a policy on the processing of permit applications does not require the Department to approve permits, merely to develop a plan for making decisions on a short timeline. *See* Executive Order 2012-11, Permit Decision Guarantee for the Department of Environmental Protection (July 24, 2012).

The policy document itself is not a regulation and does not have the force of law sufficient to legally bind the Department to approve an application, and it even states so:

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DISCLAIMER The policies and procedures outlined in this guidance document are intended to supplement existing requirements. ***Nothing in the policies or procedures shall affect regulatory requirements***.
The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give these guidelines that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

See Attachment 14 -- PA Department of Environmental Protection, Office of Program Integration, Policy for Implementing the Department of Environmental Protection (Department) Permit Review Process and Permit Decision Guarantee, ii (November 2, 2012) ("Permit Decision Guarantee").

There is language in the guidance document that might suggest that permits must be approved, but the language still begs the question whether the application is approvable under the applicable program:

> Approval
>
> ***Applications that*** are complete and ***adequately demonstrate that they meet all applicable regulatory and statutory requirements*** with no remaining deficiencies ***will be approved in accordance with the applicable program procedures***.

See id. at 13 (bold italics added for emphasis).

This mandatory language is repeated in a second guidance document. *See* Attachment 15 -- PA Department of Environmental Protection, Office of Program Integration, Policy for Permit Coordination (November 2, 2012), page 3, ("Applications that are complete and adequately demonstrate that all applicable regulatory and statutory requirements are met, and with no remaining deficiencies will be approved in accordance with the applicable program procedures"). The second guidance document contains a similar disclaimer. *See id.* at 2 ("The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.").

As a matter of law, the language in the Permit Decision Guarantee stating that the Department must grant a permit so long as it meets applicable statutory and regulatory requirements is invalid under the "binding norm" doctrine. *See Eastwood Nursing &*

Rehabilitation Center v. Department of Public Welfare, 910 A.2d 134, 142 (Pa. Cmwlth. 2006). In that case, the Commonwealth Court invalidated this policy of the Department of Public Welfare to reject applications to be an enrolled Medicaid Assistance (MA) provider of nursing facility services:

> *The Department's Policy Regarding Enrollment and Expansion of Nursing Facilities*
>
> In light of the foregoing discussion, the Department adopts the following policy with respect to the enrollment of new nursing facility providers and the continued participation of current nursing facility providers:
>
> • The Department will exercise its discretion under 55 Pa. Code § 1101.42(a) to reject an application of a currently unenrolled nursing facility to become an enrolled MA provider of nursing facility services.
>
> • The Department will exercise its discretion under 55 Pa. Code § 1101.77(b)(1) to terminate the enrollment of a provider that undertakes to increase the number of beds at its nursing facility.
>
> • The Department will grant exceptions to its general policy when the Department finds that it is in the best interests of the Commonwealth and the MA Program to permit the enrollment of a new nursing facility provider or the expansion of an existing nursing facility provider.
>
> This policy applies to any applicant seeking to enroll as an MA nursing facility provider or to any provider proposing to expand its existing number of certified beds. The policy does not automatically grandfather projects with approved CONs or letters of nonreviewability, whether already constructed, under development, or simply still in the planning stage, but requires the projects to receive an exception to enroll or expand. The policy also does not permit any unilateral incremental expansions by enrolled nursing facility providers, but requires the providers to seek an exception to expand.

See 28 Pa. B. 139 (January 10, 1998) (orange highlighting added for emphasis). The Court held that the plain language of this statement created a binding norm despite the Department of Public Welfare's use of the word "discretion." *See Eastwood Nursing & Rehabilitation Center*, 910 A.2d at 146. Because the policy requiring the *rejection* of applications created an unlawful "binding norm" in the nursing home case, so does the Department's policy of requiring the *approval* of an air permit application under the Permit Decision Guarantee.

The Department of Public Welfare's offering of exceptions to its policy was not sufficient to salvage the policy from being an unlawful "binding norm." *See id.* at 146 ("the Department has determined that expansion of beds is not in its best interests, and that it will consider only exceptions to this general rule"). Even with exceptions, a binding policy would be a regulation that must be promulgated under the Commonwealth Documents Law.

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Additional precedents support the conclusion that the mandatory approval language in the Permit Decision Guarantee creates an unlawful "binding norm." *See Transportation Services v. Underground Storage Tank Indemnification Board,* 67 A.3d 142, 154 (Pa. Cmwlth. 2013) (holding that policy was an unlawful "binding norm" when it required the owners of storage tanks to continue paying certain fees until they were permanently closed, a requirement not found in the relevant statutes or regulations); *Department of Environmental Resources v. Rushton Mining Co.*, 591 A.2d 1168, 1174 (Pa. Cmwlth. 1991) (holding that the Department of Environmental Resources created an unlawful "binding norm" when it issued policy guidance that precluded the Department's personnel from exercising discretion in varying the terms of mining permits on a case by case basis). In short, an agency cannot implement a policy that has the binding effect of a regulation.

But the Department intended the opposite result in its statement in the Permit Decision Guarantee. The Department made this clear in the response to comment document after the publication of the guidance document:

> 52. Comment: This paragraph states that applications meeting all regulatory and statutory requirements "will be approved." ***This statement ties DEP's hands***. Therefore, ***we suggest replacing that paragraph with one that preserves DEP's discretion to deny a permit, or condition its issuance on terms and conditions that would protect environmental quality, human health and safety***, or the long-term economic health of the area affected by permit related activities. (68)
>
> Response: ***If an application meets all regulatory and statutory requirements***, it will, by definition, protect environmental quality, human health and safety. Therefore, ***it will be approved***.

See Attachment 16 -- PA Department of Environmental Protection, Permit Review Process and Permit Decision Guarantee Policy Comment/Response Document (November 2, 2012), page 95 (bold italics added for emphasis).

The Department should clarify whether it may deviate from its policy that it is required to approve an air permit if statutory and regulatory requirements are met. If it believes it cannot deviate from this policy, then the Department is enforcing an unlawful, unpromulgated regulation under the "binding norm" standard, which would subject it to legal challenge. If it believes it can deviate from this policy, then the assertion that the Department is required to approve an air permit if statutory and regulatory requirements are met is legally incorrect. Either way, the Department is in an untenable legal position.

The Department should abandon its position that it must approve an air permit that meets statutory and regulatory requirements, and it should consider the cumulative nature of air pollution. The environmental injustice in Chester demonstrates why the Department should not abdicate its discretion in favor of routinely approving permits. As discussed in the Background above, there is significant clustering of industrial sources of air pollution along the Delaware

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River near the Facility, whose combination may create unsafe levels of pollutants even if each facility meets minimum requirements. The Department should not view the permit application in a vacuum, but should consider the entire airshed when reviewing this permit application.

II. The Department should disapprove the permit application in the absence of any analysis that it will not cause "air pollution" as defined in state law and regulation.

Despite a prohibition on "air pollution" in the regulations and a regulation requiring the disapproval of an operating permit application where it would cause "air pollution," there is no discussion of these requirements in the application for the permit renewal or in the Department's review memorandum. In the absence of any analysis, the Department should disapprove the application under *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

1. Federally-enforceable state regulations require the Department to disapprove an application for an operating permit if it determines that the source "is likely to cause air pollution."

State regulations prohibit any person from causing air pollution:

> §121.7. Prohibition of air pollution.
>
> No person may permit air pollution as that term is defined in the act.

25 Pa. Code §121.7. The Pennsylvania Air Pollution Control Act defines "air pollution" as follows:

> "Air pollution." ***The presence in the outdoor atmosphere of any form of contaminant***, including, but not limited to, the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic, hazardous or radioactive substances, waste or any other matter in such place, manner or concentration inimical or which may be inimical to the public health, safety or welfare ***or which is or may be injurious to human, plant or animal life or to property or which unreasonably interferes with the comfortable enjoyment of life or property***.

Act of Jan. 8, (1960) 1959, P.L. 2119, No. 787, Section 3, codified at 35 P.S. §4003.

State regulations carry over this definition verbatim. 25 Pa. Code §121.1. Additionally, Section 121.7's prohibition is included in most if not all Title V permits, including the current draft permit. *See* Draft Permit, Section B. Condition #002.

In addition to this prohibition for facilities, the Department may grant an application for an air permit only if will not cause "air pollution":

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> ***A permit may be issued . . . when the requirements of this article relating to operating requirements have been met and there has been performed upon the source a test or evaluation which satisfies the Department that the air contamination source will not*** discharge into the outdoor atmosphere an air contaminant at a rate in excess of that permitted by applicable regulations under this article, or in violation of a performance or emission standard or other requirements established by the EPA or the Department for the source, ***and will not cause air pollution.***"

25 Pa. Code §127.402 (bold italics added for emphasis added). It is significant that the question whether a facility will cause "air pollution" is a question that is separate from whether it will comply with emissions limitations or other standards. *See id.*

Furthermore, the state regulations actually require the Department to disapprove an application for an operating permit if it determines that the source "is likely to cause air pollution":

> §127.422. Denial of permits.
>
> ***The Department will deny or refuse to revise or renew an operating permit to a source*** to which one or more of the following applies:
>
> (1) ***The Department has determined it is likely to cause air pollution or*** to violate the act, the Clean Air Act or the regulations thereunder applicable to the source.
>
> ....

25 Pa. Code §127.422 (bold italics added for emphasis). The use of "or" to distinguish "air pollution" from violations of the law clearly shows that "caus[ing] air pollution" is not synonymous with violation of air quality laws. Again, whether the Facility will cause "air pollution" is a question separate from whether it will "violate the act."

All of these requirements, the prohibition on causing air pollution, and the definition of air pollution are incorporated into the approved state implementation plan:

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(1) EPA-APPROVED PENNSYLVANIA REGULATIONS AND STATUTES

State citation	Title/subject	State effective date	EPA approval date	Additional explanation/ § 52.2063 citation
Title 25—Environmental Protection Article III—Air Resources				
Chapter 121—General Provisions				
Section 121.1	Definitions	4/12/14	8/1/16, 81 FR 50359	Adds definitions for the terms "condensable particulate matter" and "filterable particulate matter."
Section 121.1	Definitions	4/3/16	5/4/19, 84 FR 20291	Revises the following definitions: "CEMS—Continuous emission monitoring system," "Major NOx emitting facility," "Major VOC emitting facility," and "Stationary internal combustion engine or stationary reciprocating internal combustion engine." Adds new definitions for the following terms: "Process heater," "Refinery gas," "Regenerative cycle combustion turbine," "Simple cycle combustion turbine," and "Stationary combustion turbine."
Section 121.2	Purpose	3/20/72	5/31/72, 37 FR 10842	(c)(1).
Section 121.3	Applicability	3/20/72	5/31/72, 37 FR 10842	(c)(1).
Section 121.4	Regional Organization of the Department.	5/23/92	12/22/94, 59 FR 65971	(c)(94).
Section 121.7	Prohibition of Air Pollution	3/20/72	5/31/72, 37 FR 10842	(c)(1).
Section 121.8	Compliance responsibilities	8/13/77	12/17/79, 44 FR 73031	(c)(21); correction published 8/22/80 (45 FR 56060).
Section 121.9	Circumvention	3/20/72	5/31/72, 37 FR 10842	(c)(1).
Section 121.10	Existing orders	3/20/72	5/31/72, 37 FR 10842	(c)(1).
Section 121.11	Severability clause	3/20/72	5/31/72, 37 FR 10842	(c)(1); no longer in PA DEP rules.
Subchapter F—Operating Permit Requirements				
General				
Section 127.401	Scope	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.402	General provisions	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.403	Permitting of sources operating lawfully without a permit.	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.404	Compliance schedule for repermitting	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Review of Applications				
Section 127.421	Review of Applications	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.422	Denial of permits	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.423	Notice of basis for certain operating permit decisions.	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.424	Public notice	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.425	Contents of notice	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.426	Filing protests	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.427	Consideration of protest	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.428	Conferences and hearings	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.429	Conference or hearing procedure	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.430	Conference or hearing record	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).
Section 127.431	Operating permit disposition	11/26/94	7/30/96, 61 FR 39597	(c)(110)(i)(C).

See 40 C.F.R. §52.2020(c)(1) (EPA-Approved Pennsylvania Regulations and Statutes).

2. The Department should disapprove the application because the Applicant and the Department have not performed any analysis whether the Facility will harm human health.

There is no discussion of these regulatory requirements in the application or in the review memorandum. In the absence of any analysis of whether the Facility will harm human health, the Department should disapprove the application. *See Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), Slip Opinion, page 32 ("EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change. Its action was therefore "arbitrary, capricious, … or otherwise not in accordance with law." 42 U.S.C. §7607(d)(9)(A).").

As discussed above, the Facility emits many contaminants known to cause serious harms to human health, including large amounts of the air toxics mercury, cadmium, chromium, nickel, and acid gases, and fine particulate matter, as described above. The harms caused by exposures to these pollutants include neurological disorders, cancers, serious respiratory and cardiovascular illnesses, and even premature death. *See* EPA, Regulatory Impacts Analysis for the Final Mercury and Air Toxics Standards, EPA-452/R-11-011 (Dec. 2011) at Chapter 4 (discussing benefits of reducing air emissions of mercury, cadmium, chromium, nickel, and acid gases, among other air toxics); Douglas W. Dockery, et al., "An Association Between Air Pollution and Mortality in Six U.S. Cities," 329 N.E.J. Med. 1753 (1993). The Facility is located close to many residences and other sensitive receptors of pollution in an environmental justice community with high rates of health problems such as asthma.

In addition, Chester residents commented about health problems they believe may be linked to the Facility, as well as odors and noise attributable to the Facility, at the September 22, 2021, public meeting regarding the proposed permit. Other commenters pointed to Chester's extremely high asthma rate, cancer rate, and infant mortality rate (which is nearly 3 times the state average). Given these alarming statistics and comments, the Department should have required proof that the Facility's emissions are not injuring human health or interfering with the comfortable enjoyment of life and property for residents surrounding the Facility, under 25 Pa. Code §127.402. In doing so, it should have been attentive to the reality of cumulative impacts of multiple sources in and around Chester, as summarized in the Background of these Comments. But it did not do this.

In the Background to these Comments, we describe the well-documented history of both significant pollution clustering and the high incidence of health issues in Chester. As noted there, only months before the Department issued the Facility's first operating permit, the EPA concluded that "emissions from facilities in and around Chester provide a large component of the cancer and non-cancer risk to the citizens of Chester." EPA Risk Study at 3. The Facility's emissions include significant amounts of several contaminants such as mercury, dioxin, nitrogen oxides, sulfur dioxide, fine particulates, and others that may have only worsened the health problems in Chester. The Department should begin to remedy historical harm to the community by requiring real assurances from the Applicant that its emissions do not harm residents.

An obvious area where the Facility may be harming human health is with NOx emissions, for which this facility has no control technology. It is well-accepted by the EPA and the scientific community that continued exposure to certain NOx species such as NO_2 can contribute to the development of asthma. *See* EPA, Basic Information about NO_2, https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects. Additionally, NOx is a precursor to ozone, exposure to which also has significant respiratory health impacts, even on those with no underlying conditions. *See, e.g.*, D.M. Spektor, et al., "Effects of Single and Multiday Ozone Exposures on Respiratory Function in Active Normal Children," 55 Envtl. Res. 107 (1991). As detailed above, Delaware County residents are significantly more likely to suffer from asthma than other Pennsylvania residents, and the asthma rate in the county is increasing. The rates in Chester, immediately surrounding the Facility, are even more dire than the rest of the County, with over a quarter of adults and close to 40% of children suffering from asthma.

See Chester, Center of Excellence in Environmental Toxicology, University of Pennsylvania, Perelman School of Medicine. https://ceet.upenn.edu/target-communities/chester/.

These extreme rates of asthma and the known contribution of NOx and other pollutants emitted by the Facility to asthma should give the Department pause. The likely contribution that contaminants from the Facility make to these rates should not be ignored or assumed insignificant simply because there are other polluting sources in the area. On the contrary, because public health in Chester is so dire and the number of polluting sources is so concentrated, the Department should require the Applicant to show that its emissions are not contributing to this public health crisis. If the Facility's emissions are harming life by contributing to the asthma crisis in Chester, this harm to human life is a basis for refusing a permit renewal. 25 Pa. Code §127.422. Using its power to protect the lives of this environmental justice community is an active way the Department can begin to restore environmental justice in Pennsylvania.

3. The Department should disapprove the application because the Applicant and the Department have not performed any analysis whether the Facility unreasonably interferes with the comfortable enjoyment of life and property.

In the absence of any analysis of whether the Facility unreasonably interferes with the comfortable enjoyment of life and property, the Department should disapprove the application. *See Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), Slip Opinion, page 32.

The Facility is located close to Chester residences, and is just a few miles from multiple elementary school facilities (Marcus Hook Elementary and the Chester Community Charter School). In addition to the risk of health harms to these sensitive receptors of toxins, this proximity presents a risk of interference with the use of property. If the Facility's emissions interfere with the comfortable enjoyment of life and property, this would require the disapproval of the application. *See* 25 Pa. Code §§121.1, 127.422.

Some Chester residents have indicated that fumes and odors from the Facility and noise and dust from trucks going to and from the Facility have caused residents to leave nearby homes, and continue to prevent nearby residents from using the outside of their properties or from opening their windows. *See* David DeMarco, Chester is Rising Podcast, https://rss.com/podcasts/chesterisrising/ (for an example of specific information about the impact of the air quality on neighbors of the Facility, *see* Episode 1 (June 30, 2021), around 11:38 to 13:00). Even if the Facility were to operate within prescribed emissions limitations, it could still interfere with comfortable enjoyment of property and compel the disapproval of the application.

The Department has provided no analysis that approving the application will not create air pollution. Given the tremendous amount of data on air emissions in and around the Chester community, the adverse public health impacts in the community, the Department should have required a rigorous analysis whether the Facility will create "air pollution" within the meaning of the state regulations, and denied the application if it did. Because it is unreasonable to approve the application in the absence of this analysis, the Department should disapprove the application.

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4. **The Department's responsibilities under 25 Pa. Code 127.402 and 127.422 to disapprove applications from facilities that will cause "Air Pollution" may form the basis for a petition for objection to the Environmental Protection Agency.**

Because they are part of the EPA-approved State Implementation Plan for Pennsylvania, Section 127.402 and Section 127.422 provide a basis for the Environmental Protection Agency ("the Agency" or "EPA") to object to the proposed Title V operating permit. Because there are significant environmental justice concerns about this facility, the Agency would provide "[f]ocused attention" to the requirements of the permit:

> EPA acknowledges that ***the immediate area around the USS-GCW*** [U.S. Steel Corporation Granite City Works Facility] ***facility is home to a high density of low-income and minority populations and a concentration of industrial activity***, and thus raises potential environmental justice concerns. ***Focused attention*** to the adequacy of monitoring and other compliance assurance [*15] provisions ***is warranted in this context***.

See In re U.S. Steel Corp.-Granite City Works, Order Granting in Part and Denying in Part Petition for Objection to Permit (December 3, 2012), page 7 of 27, *also available at* 2012 EPA CAA Title V Lexis 10*, at *14–15 (bold italics for emphasis). President Biden's Administration has also made Environmental Justice and public health priorities for federal agencies since his first day in office. *See, e.g.*, Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, (January 20, 2021).

EPA must object if it determines that a Title V permit is not in compliance with the requirements of the Clean Air Act. Section 505(a) of the Clean Air Act, 42 U.S.C. §7661d(b)(2) *See* 40 C.F.R. §70.8(c) (the EPA Administrator "will object to the issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements").

For purposes of this rule, Section 127.402 and Section 127.422 qualify as "applicable requirements" because they have been incorporated into the Pennsylvania state implementation plan:

> *Applicable requirement* ***means all of the following as they apply to emissions units in a part 70 source*** (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance but have future-effective compliance dates):
>
> (1) ***Any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the Act that implements the relevant requirements of the Act***, including any revisions to that plan promulgated in part 52 of this chapter;

....

See 40 C.F.R. §70.2 (bold italics added for emphasis).

For an objection alleging a flaw in procedures leading to the issuance of a permit, EPA considers whether the alleged flaw may have resulted in a deficiency in the permit:

> ***In determining whether an objection is warranted for alleged flaws in the procedures leading up to permit issuance, U.S. EPA considers whether a Petitioner has demonstrated that the alleged flaws resulted in, or may have resulted in, a deficiency in the permit's content***. See section 505(b)(2) of the Act, 42 U.S.C. §7661d(b)(2), (requiring an objection "if the petitioner demonstrates . . . that the permit is not in compliance with the requirements of this Act . . . ."). Here, IEPA did not consider Onyx's compliance history and alleged failure to submit a compliance certification as required by 40 C.F.R. §70.5(c)(8)-(9). ***IEPA's failure to consider this information may have resulted in flaws in the proposed title V permit. For this reason, the petition is granted on this issue***. IEPA must require Onyx to submit a current compliance certification. If Onyx cannot certify compliance with all applicable requirements, IEPA must include in the title V permit a compliance schedule designed to bring Onyx into compliance. 40 C.F.R. §§70.5(c)(8)(iii)(C) and 70.6(c)(3).

See In re CF&I Steel Co. at *19–20 (bold italics added for emphasis). In that decision, the Administrator partially granted the petition for objections, because the flaw "may have resulted in flaws in the proposed title V permit."

Similarly, the EPA should grant a petition for objections to the proposed Title V permit for Covanta based on the failure of the applicant and the Department to perform any analysis of the applicability of Section 127.402 and Section 127.422 in the application or in the review memorandum.

The decision of the Administrator rejecting an objection grounded in Section 121.7 in response to one petition for objections is distinguishable and not controlling. *See In the Matter of EME Homer City Generation LP Indiana County, Pennsylvania*, Order Granting in Part and Denying in Part Three Petitions for Objection to Permits, (July 30, 2014), pages 10-19 (Claim 1), 26-28 (Claim 5), 29-31 (Claim 6), 33 (Claim 8), 39 (Claim 10), *also available at* 2014 EPA CAA Title V LEXIS 4. There are several reasons for this.

First, that matter involved an effort by petitioners to request the development and inclusion of an emissions limitation in a permit under the premise that an exceedance of the national ambient air quality standard is equivalent to "air pollution" under Section 121.1. *See id.* at 10, 12-13, 16 ("imposition of the emission limits sought by Petitioners is outside the scope of

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PaDEP's interpretation of its SIP-rule" (Claim 1), 26 (Claim 5), 31 (Claim 6), 39 (Claim 10). That effort ran counter to the notion that the national ambient air quality standard is generally not directly applicable to facilities, as well as the notion that there is a separate state implementation plan process for memorializing emissions limitations that will effectuate attainment of the national ambient air quality standard at a monitoring site. *See id.* at 13-15. That is not the situation here.

Second, commenters here submit that the permit should be denied under Section 127.402 and Section 127.422 in the absence of any analysis that the Facility will not cause "air pollution," in light of the longstanding failure to install controls for nitrogen oxides, the aggregation of a number of other industrial facilities in the community, and their concentration in an environmental justice community. In the *Homer City* petition, the petitioners made a solely substantive argument that Section 121.7 required immediate adoption of a NAAQS limit into a permit, whereas here we argue that it is the Department's procedural responsibility under Section 127.402 to determine individually whether a source will violate the Air Pollution Control Act *and* whether it will harm human life or interfere with the use of property despite meeting minimum, general requirements of the act.

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III. The terms of the Draft Permit are insufficient to meet applicable legal requirements and/or to protect public health and the environment.

The Draft Permit currently fails to set forth terms and conditions that meet the requirements of the federal Clean Air Act and implementing regulations as discussed in more detail below. Steps that the Department can take to cure these deficiencies or otherwise improve the Draft Permit to further protect public health and the environment are explained in the sections that follow.

1. The federal Title V regulations require the Department to revise the Draft Permit to identify the origin of and authority for each term or condition therein.

EPA's Title V regulations require that the Department revise the Draft Permit to insert information about the origin of the requirements therein, particularly for the municipal waste combustors.

A Title V permit "shall specify and reference the origin of and authority for each term or condition, and identify any difference in form as compared to the applicable requirement upon which the term or condition is based." 40 C.F.R. §70.6(a)(1)(ii). The Draft Permit currently attributes all or almost all of the conditions applicable to the municipal waste combustors, which are set forth in Section E (Source Group Restrictions) to 25 Pa. Code §127.512. Draft Permit at 44-55. This section relates to Title V permitting in Pennsylvania generally, but it does not constitute the origin of or authority for any permit term or requirement.

As discussed in more detail below, the origin of many of the Draft Permit conditions for the municipal waste combustors is federal regulations under 40 C.F.R. Subpart 60, but the Department appears to be avoiding acknowledging which sets of regulations these are.

In addition, some of the Draft Permit conditions must derive from the original New Source Review (Prevention of Significant Deterioration and Nonattainment New Source Review) approvals, but it is impossible to tell which conditions those are. In particular, the hourly VOC limit set forth in Section E, #003, includes language that indicates its origin may be as a synthetic minor limit used to avoid New Source review. Specifically, that section states:

> This emissions cap does not provide any relief from obtaining a plan approval for any future physical change or change in the method of operation of any of the combustors. Future applicability determinations must consider the baseline actual emissions of the emissions units and not the cap. The latter is true even if the company does not request a change in the compliance cap. Furthermore, by accepting this cap and agreeing to consider the six combustors as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve all six combustors, e.g. should major NSR/PSD be triggered for any one

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> combustor or process change, BACT/LAER is required for all six combustors.

Draft Permit at 45.

As discussed in more detail below, understanding the origin of the limits helps the public to understand whether a Compliance Assurance Monitoring Plan is necessary, among other things. By failing to identify the source of this limit and others, the Department prevents the public from determining the significance of the limits and from conducting a fully-informed review of the Draft Permit.

EPA has clearly mandated that the Department must identify the origin of and authority for permit conditions in its Title V permits. *See* 40 C.F.R. §70.6(a)(1)(ii). These regulations require that the Department revise the Draft Permit to do so for each condition therein, including but not limited to those applicable to the municipal waste combustor units.

2. Federal law requires that the Department revise the Draft Permit and the Draft Review Memo to identify federal regulations to which the Municipal Waste Combustor Units are subject.

The federal Clean Air Act and implementing regulations require that the Department revise the Draft Permit and the Draft Review Memo to address the applicability of the federal New Source Performance Standards ("NSPS") and Emission Guidelines for Large Municipal Waste Combustors under 40 C.F.R. Part 60 to the Facility.

Title V permits must assure compliance with all applicable requirements, 42 U.S.C. §7661c(a),(c), and NSPS and Emissions Guidelines are applicable requirements. Further, as discussed above, the Draft Permit must "specify and reference the origin of and authority for each term or condition." 40 C.F.R. §70.6(a)(1)(ii). None of the emission limits for the municipal waste combustors in the Draft Permit are identified as deriving from regulations issued under 40 C.F.R. Part 60.

In addition, as currently written, the Draft Review Memo indicates that the Department's position is that no NSPS or Emission Guidelines apply to the municipal waste combustors, which cannot be the case. *See* Draft Review Memo at 6; Draft Permit at 44-55. Indeed, as discussed below in more detail, a 2011 Department memo expressly states that the Facility is subject to 40 C.F.R. Part 60 Subpart Cb.

In addition, the fact that Pennsylvania's regulations incorporate federal NSPS and Emissions Guidelines by reference in their entirety make it even more important the Department clearly identify in permit materials which federal regulations apply. The Draft Permit and the Draft Review Memo do not meet federal requirements so long as they fail to identify which set

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of requirements under 40 C.F.R. Part 60 the municipal waste combustor units are subject. *See* 42 U.S.C. §7661c(a),(c); 40 C.F.R. §70.6(a)(1)(ii).

A. The Municipal Waste Combustors are subject to the regulations at 40 C.F.R. Part 60 Subpart Eb if they were modified after certain dates

The Department states in the Review Memo that the combustors at the Covanta facility "are **NOT** subject to [the NSPS] set forth at 40 CFR 60 Subpart Eb as they are [sic] commenced before 1996." Draft Review Memo at 6 (emphasis in original). The regulations at Subpart Eb were finalized in 2006 in a rulemaking that updated Emission Guidelines for existing facilities and established NSPS for new facilities, using different dates: November 20, 1997 for dioxin and December 19, 2005 for most other pollutants. The NSPS at Subpart Eb establish several emissions limits for municipal waste combustors that are lower than the limits currently in the Draft Permit. A comparison between the Draft permit limits and the most stringent NSPS limits in Subpart Eb is shown in Table 1 below.

Table 1: Comparison of Draft Permit Limits v. Limits in 40 C.F.R. Part 60 Subpart Eb

Pollutant	**Proposed Permit Limits**	**40 C.F.R. Part 60 Subpart Eb**
Dioxin/furan	30 ng/dscm (total mass) @ 7% O2[1]	13 ng/dscm (total mass) @ 7% O2[2]
Lead	166 mcg/dscm @ 7% O2[3]	140 mcg/dscm @ 7% O2[4]
Particulate matter	25 mcg/dscm @ 7% O2[5]	20 mcg/dscm @ 7% O2[6]
Cadmium	15.8 mcg/dscm @ 7% O2	10 mcg/dscm @ 7% O2[7]

The Department's statement that the Covanta facility is not subject to these limits because it commenced construction before 1996 is not a complete assessment of the issue. The provisions of Subpart Eb apply to a facility on which construction was commenced before 1996 if that facility is modified or reconstruction after the applicable dates for each provision (Nov.

[1] Draft Permit at 46 (Section E, #007).
[2] 40 C.F.R. §60.52(c)(1). Facilities that commenced construction, reconstruction, or modification between June 19, 1996 and November 20, 1997 were allowed an extra 3 years to achieve compliance with the lower 13 ng limit. *Id.*
[3] Limits for lead and cadmium are in the Draft Permit at 45 (Section E, #005).
[4] 40 C.F.R. §60.52b(a)(4)(ii). This limit is for facilities that commenced construction, modification, or reconstruction after December 19, 2005. *Id.*
[5] Draft Permit at 46 (Section E, #010).
[6] 40 C.F.R. §60.52(a)(1)(ii). This limit is for facilities that commenced construction, modification, or reconstruction after December 19, 2005. *Id.*
[7] 40 C.F.R. §60.52(a)(3)(ii). This limit is for facilities that commenced construction, modification, or reconstruction after December 19, 2005. *Id.*

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20, 1997 for dioxin/furan and December 20, 2005 for lead, cadmium, and PM). For applicability purposes, modification is defined below:

> ***Modification*** or modified municipal waste combustor unit ***means a municipal waste combustor unit to which changes have been made after June 19, 1996 if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit*** (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; ***or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111***. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100–percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.

40 C.F.R. §60.51b (emphasis added). Further, if the NSPS at Subpart Eb were triggered by a recent modification, the standards would apply directly to the Facility without the need for the Department to implement them via the State Implementation Plan. 42 U.S.C. §7429(f)(1) (standards of performance and other requirements for new solid waste incineration units "shall be effective as of the date 6 months after the date of promulgation"); *see also* 42 U.S.C. §7411(b)(1)(B)("Standards of performance or revisions thereof shall become effective upon promulgation.")

Federal regulations require that the state permitting agencies respond in writing to significant public comments submitted on a Title V permit. *See* 40 C.F.R. § 70.8(a)(1). Commenters herein have raised the question of whether the Facility has been modified at a time that renders it subject to 40 C.F.R. Part 60 Subpart Eb. The federal Title V regulations require that the Department respond in writing and explain whether the Covanta facility has been modified at any time such that the provisions of Subpart Eb, which are more stringent and protective of human health and the environment than the current Draft Permit limits, have become applicable to the Facility. *See id.*

B. <u>If the Facility is Not Subject to Subpart Eb, Then it Is Certainly Subject to the Standards at 40 C.F.R. Part 60 Subpart Cb</u>

The Department states that the Covanta combustors "are **<u>NOT</u>** subject to 40 C.F.R. Part 60 Subparts [sic] Cb" (emphasis in original) because "[t]he facility opted to comply with the State Implementation Plan [("SIP)"] emission limitations and requirements." This is incorrect. The Clean Air Act and implementing regulations require that the Department explain in its response to comments how the current regulatory and SIP structure complies with the requirements of the Clean Air Act and renders Subpart Cb inapplicable to the Covanta facility or

revise the Draft Permit and Draft Review Memo to acknowledge that Subpart Cb is applicable to the Covanta facility. *See* 42 U.S.C. §7661c(a),(c); 40 C.F.R. §70.6(a)(1)(ii); 40 C.F.R. § 70.8(a)(1).

i. The Department's rationale is faulty

The limits and standards set forth in 40 C.F.R. Part 60 Subpart Cb were revised substantially in 2006. EPA explained the major 2006 updates as follows, though addition changes were also made:

> Relative to the 1995 emission guidelines for existing MWC units, the emission limits are revised for dioxin, cadmium, lead, mercury, and particulate matter. The nitrogen oxides emission limit for mass burn rotary waterwall type MWC units is also revised. Relative to the 1995 NSPS for new MWC units, the emission limits are revised for cadmium, lead, mercury, and particulate matter. For both the emission guidelines and NSPS, the compliance testing provisions have been revised to require increased data availability from continuous emissions monitoring systems (CEMS). The revisions require CEMS to generate at least 95 percent data availability on a calendar year basis and at least 90 percent data availability on a calendar quarter basis. The emission guidelines and NSPS have also been revised to allow the optional use of CEMS to monitor particulate matter and mercury.

EPA, Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors, 71 Fed. Reg. 27324, 27325 (May 10, 2006).[8]

The Department claims in the Draft Review Memo that the Applicant may comply with Pennsylvania's SIP in lieu of Subpart Cb, implying that Pennsylvania has an EPA-approved SIP that adequately incorporates the current provisions of Subpart Cb, including the 2006 revisions. Draft Review Memo at 6. The Department does not provide a citation to the section of its SIP with which the Applicant is purportedly opting to comply in lieu of Subpart Cb. The only citation that the Department provides in this section of the Review Memo to an EPA SIP approval at 40 C.F.R. §62.9640. This C.F.R. provision is also cited in the Draft Permit as the EPA's approval of Pennsylvania's state plan implementing 40 C.F.R. Part 60 Subpart Cb. Draft Permit at 55 (Section E, #021).[9] However, this EPA approval was issued in 2001. 71 Fed. Reg.

[8] Notably, the Commonwealth has not updated its Section 129/111(d) plan incorporating the 2006 updates to these provisions, as required by 40 C.F.R §60.39b(b).

[9] This is particularly problematic given the Permit Shield section of the Department's regulations, which states that "[c]ompliance with the conditions of the permit shall be deemed in compliance with applicable requirements as of the date of permit issuance, if … [t]he Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof." 25 Pa. Code § 127.516. The Draft Permit states,

27324. The 2001 EPA approval clearly does not constitute an approval of Emissions Guidelines promulgated five years later in 2006.

It is possible that the Department means to rely on a separate section of Pennsylvania's regulations as the relevant SIP provision. 25 Pa Code 122.3 states:

> Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources, promulgated in 40 CFR Part 60 (relating to standards of performance for new stationary sources) by the Administrator of the EPA under section 111 of the Clean Air Act (42 U.S.C.A. §7411) are adopted in their entirety by the Department and incorporated herein by reference.

However, if this is the section of the SIP to which the Department is referring, it is not clear how this is consistent with the statement that the Covanta combustors are not subject to Subpart Cb. Any applicable federal NSPS or Emission Guidelines would apply *through* this state regulation, but the state regulation does not apply *in lieu* of the federal rules. In addition, it does not appear that EPA has approved 25 Pa.§122.3[10] for the purposes of incorporating federal NSPS and/or Emission Guidelines for Large MWCs.[11]

Lastly and most importantly, if the Department is relying on a regulation that incorporates the NSPS and Emission Guidelines in their entirety without more specificity, it

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at the end of the section setting forth requirements for the municipal waste combustors: "Permit Shield in Effect." Draft Permit at 55.

[10] 40 C.F.R. Part 60 Subpart Cb is applicable regardless because, under Section 129 of the Clean Air Act, emissions guidelines for solid waste incineration units become effective no later than 5 years after their promulgation regardless of the status of the state plan. 42 U.S.C. §7429(f)(2). The preamble to EPA's 2006 updates to the NSPS and EGs states that "[t]he emission guidelines are not directly enforceable, but, rather, are implemented by State air pollution control agencies through sections 111(d)/129 State plans." 71 Fed. Reg. 27325. This statement directly conflicts with the Congressional directive set forth in statute that the requirements for existing units under CAA Sections 129 and 111 (which are the emission guidelines) "shall be effective . . . in no event later than 3 years after the State plan is approved or 5 years after the date such [federal requirements] are promulgated, whichever is earlier." Federal courts have held that, when preamble language conflicts with unambiguous statutory or regulatory text, the statute or regulation must control. *See, e.g., Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 569 (D.C. Cir. 2002) (citations omitted) (internal quotation marks omitted), *supplemented sub nom. In re Kagan*, 351 F.3d 1157 (D.C. Cir. 2003) (statutory and regulatory preambles can "contribute[] to a general understanding" of the law but are distinct from "operative" statutory and regulatory text, which has legal effect); *Barrick Goldstrike Mines, Inc. v. Whitman*, 260 F.Supp. 2d 28, 36 & n.6 (D.D.C. 2003) (holding that "the regulation must govern" when preamble language conflicts with the plain language of the regulation).

[11] It appears that 25 Pa Code 122.3 was approved by EPA. 85 Fed. Reg. 80624; *see* 40 C.F.R. §52.2020. However, it was approved by EPA as part of a rulemaking on Reasonably Available Control Technology requirements for ozone nonattainment and not as part of a determination that Pennsylvania has a SIP that adequately incorporates emissions guidelines and NSPS.

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places an even greater onus on the Department to clearly and correctly identify which set of regulations applies to individual facilities and to avoid erroneously stating that federal regulations are not applicable to a facility. Based on the regulatory analysis in the Draft Permit Review Memo, the Department's present position appears to be that the municipal waste combustors at the Covanta facility are not subject to any federal regulations. This cannot be the case.

ii. The Department has conceded that the Facility is subject to Subpart Cb

In addition, the Department has acknowledged that the Covanta facility is subject to 40 C.F.R. Part 60 Subpart Cb. In a May 26, 2011 memorandum, the Department stated that "the [Covanta F]acility is subject to 40 CFR 60 Subpart Cb" and then required that the mercury and dioxin limits be lowered in order to meet the 2006 revisions to Subpart Cb. Attachment 17 -- Memo from Xiaoyin Sun, Engineering Specialist, New Source Review Section, the Department, to James Rebarchak, Regional Manager, Air Quality, the Department at 5 (May 26, 2011). Further, the Department is relying on the applicability of federal regulations issued since 1990 to exempt the municipal waste combustor units from complying with Compliance Assurance Monitoring requirements. Draft Permit at 63 ('the Facility is not subject to [Compliance Assurance Monitoring], because the controlled sources either have applicable federal regulations that were proposed after November 15, 1990, or the emissions are monitored by CEMS.")[12].

EPA's regulations require the Department to provide a clear and supported explanation of which set of federal NSPS and/or Emission Guidelines apply to the Facility, *see* 40 C.F.R. §70.8(a)(1), and to revise the Draft Permit accordingly. *See* 40 C.F.R. §70.6(a)(1)(ii).

3. The Department should revise the Draft Permit to require more frequent monitoring to assure compliance with the hourly limit for Particulate Matter and the Department should require use of a Continuous Emissions Monitoring System (PM CEMS) for this purpose.

The Draft Permit does not require sufficiently frequent monitoring to assure compliance with the hourly PM limit as mandated by the federal Clean Air Act. The Department should revise the Draft Permit to supplement monitoring requirements for demonstrating compliance with this limit, and the Department should require a Continuous Emissions Monitoring Systems

[12] Conversely, in the Draft Review Memo, the Department states that "the combustors are NOT subject to the CAM requirements as they are subject to State Implementation Plan with emission limitations and/or standards as protective as the NSPS Subpart Cb requirements." Draft Review Memo at 7. This appears to be flatly wrong. If there is a provision in Pennsylvania's statute or regulations that sets forth its own set of limits that are at least as strong as protective as those in Subpart Cb, then the Department must provide the citation for those provisions. If the Department is relying on 25 Pa. Code 122.3, that section does not establish alternative requirements but rather incorporates the applicable federal regulations by reference. The Department must state what the applicable federal regulations are.

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(CEMS) for this purpose, especially as EPA has already approved PM CEMS for use on municipal waste combustors.

A. The frequency of monitoring must be reasonably related to averaging time to determine compliance with a limit.

The Clean Air Act states that Title V permits must include monitoring and reporting requirements sufficient to assure compliance with all applicable emission limits and standards. 42 U.S.C. §7661c(c). EPA's Title V permitting regulations require that:

> [w]here the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring . . [each permit must include] periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit . . . Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement.

40 C.F.R. §70.6(a)(3)(i)(B).

In 2008, the D.C. Circuit Court of Appeals vacated an EPA rule that would have prohibited the Maryland Department of the Environment and other state authorities from adding monitoring provisions to Title V permits if needed to "assure compliance." *See Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008). In doing so, the court specifically stated that Title V requires that a "monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a [Title V] permit unless and until it is supplemented by more rigorous standards." *Id.* at 677. In addition, the court acknowledged that the mere existence of periodic monitoring requirements may not be sufficient. *Id.* at 676–77. For example, the court noted that annual testing is unlikely to assure compliance with a daily emission limit. *Id.* at 675. In other words, the frequency of monitoring must have a reasonable relationship to the averaging time used to determine compliance.

Since then, EPA has found that annual stack testing alone is insufficient to assure compliance with an hourly limit. *In re Northeast Maryland Waste Disposal Authority*, Order on Petition No. III-2019-2, at 9, (Dec. 11, 2020) ("NMWDA Order"), available at https://www.epa.gov/sites/default/files/2020-12/documents/montgomery_response2019.pdf. In that order, EPA found that petitioners demonstrated that the annual stack testing required to demonstrate compliance with an hourly limit for hydrochloric acid (HCl) at Covanta's incinerator in Montgomery County, Maryland, was insufficient and that the additional monitoring measures cited by the permitting agency did not cure the deficiency. *Id.* In fact, in the NMWDA Order, the EPA strongly suggested that even monitoring on a 3-hour basis is likely inadequate to assure continuous compliance with an hourly standard. *Id.* at 10-11; note 10 ("use of a 3-hour block average, even if using a certified HCl CEMS, is likely inappropriate for demonstrating compliance with a 1-hour standard.")

B. Monitoring requirements are insufficient to assure compliance with the hourly PM limit.

The Draft Permit sets forth a limit of 5.8 lbs per hour for "total particulate matter (filterable PM) emissions" from each municipal waste combustor unit. Draft Permit at 46 (#010). It is not stated in the Draft Permit or the Draft Review Memo where this limit derives from, but it does not appear to be the federal NSPS or Emission Guidelines. With respect to compliance demonstration, the Draft Permit states that "compliance with [this limit and another] shall be based on the average of three (3) consecutive test runs performed annually and in accordance with Testing Requirements for this source." *Id.*

The Testing Requirements section of the Draft Permit, set forth in Section E, #015, states that "[if] the emissions of PM . . . from any one of the combustors equal to or exceed 80% of the emissions limitations, that combustor(s) shall be tested semiannually . . . [and that] [t]esting frequency can revert back to annually when the tested emissions are less than 80% of the emission limitations for a consecutive period of 24-months." Draft Permit at 49. However, neither annual nor semi-annual testing is sufficiently frequent to assure compliance with an hourly limit. *See Sierra Club v. EPA*, 536 F.3d at 676-77; NMWDA Order at 9-11.

In addition, the Draft Review Memo states that "flue gas temperature at baghouse inlet" is a parameter that is monitored continuously to verify PM removal efficiency. However, the Draft Permit does not state that this is a compliance demonstration method for the hourly PM limit or that an exceedance of the parametric value constitutes an exceedance of the hourly PM limit. *See* Draft Permit at 46 (Section E, #010); Draft Permit at 48 (Section E, #014(b)).

The Department should supplement the monitoring requirements in the Draft Permit in order to assure compliance with the hourly PM limit.

C. The Department should require PM CEMS for compliance demonstration purposes.

The Department ought to require the Applicant to use PM CEMs to demonstrate compliance with the hourly PM limit. PM CEMs has been approved by the EPA as an alternate method of demonstrating compliance with federal emission limits for PM. 40 C.F.R. §60.58b(a)(10). Notably, EPA allowed PM CEMS for compliance demonstration purposes in its most recent regulations for municipal waste combustors without requiring that performance specifications must first be issued, in contrast to other types of continuous monitors. *See* 71 Fed. Reg. 27326; 40 C.F.R. §60.58b(a)(10).

4. The Department should revise the Draft Permit to include a Compliance Assurance Monitoring plan for the hourly PM and SO2 limits.

The Draft Permit lacks a Compliance Assurance Monitoring Plan for emissions limits for which it appears that there ought to be one. The regulations governing Compliance Assurance Plans refer repeatedly to the origin of the emissions limit at issue, and, as discussed above in Argument Section III.1, the Department has failed to comply with its duty to identify

the origin of emissions limits for the municipal waste combustors. Thus, we are making best guesses about the applicability of the Compliance Assurance Plan, which appears to be necessary at least for the hourly mass PM and sulfur dioxide limits. It appears that the Department should revise the Draft Permit to include a Compliance Assurance Monitoring Plan.

A Compliance Assurance Monitoring Plan must be developed for a unit that meets all of the following criteria:

1. The emission unit is subject to a federally enforceable emission limit or standard;
2. The emission unit uses a control device to achieve compliance with any such emission limitation or standard; and
3. The emission unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this paragraph, "potential pre-control device emissions" shall have the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

40 C.F.R. §64.2(a).

A. Hourly Mass PM and SO2 limits

As discussed above, there is an hourly PM limit of 5.8 lbs/hr for each municipal waste combustor for which compliance is demonstrated based on annual or semi-annual stack testing. Draft Permit at 46. There is also an hourly sulfur dioxide (SO2) limit of 68.5 lbs/hr for each combustor unit. It appears likely that these limits meet all of the criteria necessary for implementation of a Compliance Assurance Monitoring Plan and are not subject to any of the exemptions. Therefore, if the Department does not require CEMs for compliance demonstration with these limits, it should require a Compliance Assurance Monitoring Plan.

If the hourly mass PM and SO2 limits are federally enforceable, then they meet the part of the test triggering the requirement to impose a Compliance Assurance Monitoring Plan. *See* 40 C.F.R. §64.2(a)(1). The Department should explain whether these limits are federally enforceable. The Facility uses a baghouse for PM removal and a dry scrubber for SO2 removal, Draft Review Memo at 3, and thus appears to meet the requirement that a control device is used to meet the limit. *See* 40 C.F.R. §64.2(a)(2). Lastly, it appears that the pre-control emissions for the units would be major for PM and SO2, satisfying the last piece of the test. *See* 40 C.F.R. §64.2(a)(b). Certainly the Facility is identified as a major source for both pollutants. Draft Review Memo at 2.

Finally, it does not appear that any of the following exemptions from the Compliance Assurance Monitoring Plan requirement apply to either limit:

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> (i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Clean Air Act.
> (ii) Stratospheric ozone protection requirements under title VI of the Clean Air Act.
> (iii) Acid Rain Program requirements pursuant to sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act.
> (iv) Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved or promulgated by the Administrator under the Act that allows for trading emissions within a source or between sources.
> (v) An emissions cap that meets the requirements specified in §70.4(b)(12) or §71.6(a)(13)(iii) of this chapter.
> (vi) Emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in §64.1

40 C.F.R. §64.2(b).

The Department should explain the origin of the hourly PM and SO2 limits, whether they meet the three criteria triggering the Compliance Assurance Monitoring Plan requirement, and whether any of the exemptions apply. The exemption for emissions limits for which the permit already specifies a continuous compliance determination method cannot be considered to apply:

> [c]ontinuous compliance determination method means a method, specified by the applicable standard or an applicable permit condition, which: (1) Is used to determine compliance with an emission limitation or standard on a continuous basis, consistent with the averaging period established for the emission limitation or standard; and (2) Provides data either in units of the standard or correlated directly with the compliance limit.

40 C.F.R. §64.1. Neither the stack-testing nor parametric monitoring provisions for PM meet this definition. For SO2, while CEMS is identified as the compliance demonstration method for the concentration-based limit of 29 ppmvd @ 7% oxygen, it is not identified as the compliance demonstration method for the hourly mass limit. *See* Draft Permit at 45. Thus, this exemption is also inapplicable to the hourly SO2 limit.

5. The Department should revise the Draft Permit to provide for a permit reopener to incorporate the new NOx limit issued per the Department's current rulemaking within 60 days of EPA's approval of that limit.

The Department should take action to require additional pollution controls for nitrogen oxides (NOx) emissions at the Facility and to set an associated emissions limit. We expect that the Department will do so via its current rulemaking process, described in more detail below. The Department should revise the Draft Permit to provide for a reopener to incorporate the new NOx limit as soon as possible.

Conspicuously absent from this facility are any controls for NOx, despite the fact that it has been in operation for approximately thirty years. NOx emissions were 1,030.6 tons in 2019 and rose to 1,167.9 tons in 2020. The Applicant itself has demonstrated the ability to install Selective Non-Catalytic Reduction in combination with a second type of pollution technology for several of its facilities in other states. Even this would fall short of the reductions that would be achieved through Selective Catalytic Reduction, which is the most effective type of NOx control. The residents living near the Incinerator deserve the additional protection afforded by controls for NOx.

In addition, while the boiler technology may allow the Facility to emit lower NOx concentration rates than are achieved at some other incinerators, the gains that might have been achieved by this with respect to mass emissions are entirely or almost entirely erased by the fact that there are six waste combustors at the Facility, which is about twice the number of boilers installed at most other incinerators.

The Draft Permit currently sets forth a NOx limit of 180 parts per million dry volume at 7% oxygen (hereinafter "ppm") on a 24-hour block arithmetic average. Draft Permit at 44 (Section E, #001). This limit derives from the Department's development of NOx limits for major sources under the provisions of the federal Clean Air Act relating to ozone nonattainment, which mandate a minimum of Reasonably Available Control Technology ("RACT") for NOx at such sources. *See, e.g.,* 42 U.S.C. §7511a; 25 Pa. Code 129.97(f). However, partly in recognition of the fact that 180 ppm is not an appropriate RACT limit, the Department has recently initiated a new RACT rulemaking process (for multiple source categories) and is proposing a presumptive limit of 150 ppm for municipal waste combustors. *See* 41 Pa.B. 4333.[13]

The NOx limit currently set forth in the Draft Permit, 180 ppm, is not an appropriate RACT limit, either as a presumptive limit for all municipal waste combustors in Pennsylvania or as a facility-specific limit for this Facility. There is a great deal of evidence that most municipal waste combustors can achieve lower NOx emission rates than this. Certainly, the Covanta Facility is already achieving emission rates far lower than this at each of its six waste combustor units. Further, the Applicant is conducting trials for the installation of Selective Non-Catalytic Reduction controls for NOx on the Facility,[14] which will likely contribute to a demonstration that RACT for the Facility is much lower than even the proposed 150 ppmv. The Council and EIP intend to submit more detailed comments on the RACT rulemaking explaining why the Department must set a much lower NOx limit for the Facility.

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[13] The Department acknowledges that several states have set NOx RACT limits of 150 ppm and even lower. for municipal waste combustor units. PA Department of Environmental Protection, Technical Support Document for Proposed Rulemaking, Environmental Quality Board, Additional RACT Requirements for Major Source of NOx AND VOCs for the 2015 Ozone NAAQS (RACT III) at 15.

[14] *See* Department Determination dated 7/15/21 in response to Request for Determination of Requirement For Plan Approval/Operating Permit (RFD) (finding that a plan approval is not needed for a trial run of Selective Catalytic Non-Reduction technology on unit 1 of the Facility for a period of less than 4 months).

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The Department must incorporate the final revised NOx limit for this Incinerator promulgated through the rulemaking into the Title V permit via a permit reopener within 18 months of when the limit becomes an applicable requirement under the federal Clean Air Act if certain conditions are met. 40 C.F.R. §70.7(f)(i); Draft Permit at 9 (Section B, #011).

However, the Department should not wait this long to incorporate a limit that, by this point, will already have been subjected to significant scrutiny. The Department should include an additional provision in the Draft Permit that it will commence the permit reopener to incorporate the new NOx limit within 60 days of its approval by the EPA.[15]

6. To address particular harm from the Facility, the Department should impose requirements more stringent than federal regulations, including rigorous emissions monitoring for mercury and dioxins.

While the Facility conducts continuous emissions monitoring for NOx, SO2, HCl, and opacity, it does not do this for mercury and dioxins. But technologies are available for improved emissions monitoring for both air pollutants. The Department should explore the use of such technologies at the Facility. State air permitting agencies like the Department have the discretion to impose more stringent requirements than federal requirements under the Clean Air Act.

The Department should look to the European Union for developments in emissions levels and monitoring of mercury and dioxins.

A. Mercury Emissions

In 2019, the European Union issued an Implementing Decision relating to controls and emissions monitoring for waste incinerators, including Best Available Techniques ("BAT"). *See* Attachment 18 -- European Commission, Commission Implementing Decision (EU) 2019/2010 of 12 November 2019 establishing the best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration, linked from European Commission, News, Publication of new EU environmental standards for the waste incineration sector (December 18, 2019); *see also* EU Science Hub, New EU environmental standards for waste incineration, December 4, 2019) (summarizing BAT conclusions)

The Implementing Decision set forth the following BAT-associated emissions levels for channelled mercury emissions (stack emissions) from the incineration of waste:

[15] This will allow the Department to comply with its duty to provide the permittee with 30 days notice before commencing the reopening. 40 C.F.R. §70.7(f)(3).

Table 8

BAT-associated emission levels (BAT-AELs) for channelled mercury emissions to air from the incineration of waste

(µg/Nm³)

Parameter	BAT-AEL (1)		Averaging period
	New plant	Existing plant	
Hg	< 5–20 (2)	< 5–20 (2)	Daily average or average over the sampling period
	1–10	1–10	Long-term sampling period

(1) Either the BAT-AEL for daily average or average over the sampling period or the BAT-AEL for long-term sampling period applies. The BAT-AEL for long-term sampling may apply in the case of plants incinerating waste with a proven low and stable mercury content (e.g. mono-streams of waste of a controlled composition).

(2) The lower end of the BAT-AEL ranges may be achieved when:

— incinerating wastes with a proven low and stable mercury content (e.g. mono-streams of waste of a controlled composition), or

— using specific techniques to prevent or reduce the occurrence of mercury peak emissions while incinerating non-hazardous waste.The higher end of the BAT-AEL ranges may be associated with the use of dry sorbent injection.

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As an indication, the half-hourly average mercury emission levels will generally be:

— < 15–40 µg/Nm³ for existing plants;

— < 15–35 µg/Nm³ for new plants.

The associated monitoring is in BAT 4.

See Attachment 18 -- Commission Implementing Decision (EU) 2019/2010, Figure 8, pages L 312/82-312/83. The emissions levels contemplate a daily averaging period and a long-term sampling period. *See id.*

The emissions levels for both new and existing facilities (5-20 ug/Nm^3) appear to be much more stringent than the requirements that would apply under the proposed permit for the Facility (50 ug/DSCM). *See* Proposed Permit, pages 57-60. (Although the denominator in the units is different (Nm^3 as opposed to DSCM), this is not expected to make much of a difference in comparing these emissions levels).

In addition, the Department should review the Best Available Techniques (BAT) Reference Document for waste incineration prepared in support of this Directive. *See* Attachment 19 -- European Commission, JRC Science for Policy Report, Best Available Techniques (BAT) Reference Document for Waste Incineration (2019), linked from JRC Publications Repository. That document identifies a number of control techniques for mercury. *See id.,* Section 2.5.6 (Techniques for the reduction of mercury emissions), pages 114-115, Section 4.5.6 (Techniques to reduce mercury emissions), pages 422-432, Section 5.1.5.2.5 (BAT Conclusions -- Emissions of mercury), pages 498-499. A general search for "mercury" in the document will provide more information.

Companies have developed technologies for improved emissions levels and emissions monitoring for mercury. *See e.g.,* Gasmet, WI BAT conclusions published – key findings in emissions monitoring (December 13, 2019) (identifying "Continuous Mercury Monitoring system").

B. Dioxin Emissions

The Implementing Decision also sets forth the following BAT-associated emissions levels for channelled dioxin emissions (stack emissions) from the incineration of waste:

Table 7

BAT-associated emission levels (BAT-AELs) for channelled emissions to air of TVOC, PCDD/F and dioxin-like PCBs from the incineration of waste

Parameter	Unit	BAT-AEL		Averaging period
		New plant	Existing plant	
TVOC	mg/Nm³	< 3–10	< 3–10	Daily average
PCDD/F (¹)	ng I-TEQ/Nm³	< 0,01–0,04	< 0,01–0,06	Average over the sampling period
		< 0,01–0,06	< 0,01–0,08	Long-term sampling period (²)
PCDD/F + dioxin-like PCBs (¹)	ng WHO-TEQ/Nm³	< 0,01–0,06	< 0,01–0,08	Average over the sampling period
		< 0,01–0,08	< 0,01–0,1	Long-term sampling period (²)

(¹) Either the BAT-AEL for PCDD/F or the BAT-AEL for PCDD/F + dioxin-like PCBs applies.
(²) The BAT-AEL does not apply if the emission levels are proven to be sufficiently stable.

The associated monitoring is in BAT 4.

See Commission Implementing Decision (EU) 2019/2010, Table 7, page L 312/81. As in the case of mercury, the emissions levels contemplate a daily averaging period and a long-term sampling period. *See id.*

For guidance on dioxin and dioxin-like compounds, the Department should review the Best Available Techniques (BAT) Reference Document for waste incineration. *See* Attachment 19 -- Best Available Techniques (BAT) Reference Document for Waste Incineration, Section 3.2.1 (Substances emitted to air), pages 151-152, Section 2.5.8 (Techniques for the reduction of emissions of organic carbon compounds), pages 116-119, Section 4.4.14 (Effective cleaning of the convection bundles), pages 370-372. A general search for "dioxin" in the document will provide more information.

Companies have developed technologies for improved emissions levels and emissions monitoring for dioxins. *See id.* (identifying "Continuous Dioxin Sampling system"); *see also* envea, Dioxins & Furans Permanent Sampler, Amesa-D ("Continuous dioxin and furan emission

monitoring by long-term sampling. TÜV and MCERTs certified, ETV EPA approved and in accordance with Standards EN 1948-1, CEN/TS 1948-5").

Federal regulations and case law have made clear that a permitting authority may supplement monitoring requirements in a Title V permit.[16] 40 C.F.R. §70.6(a)(3)(i)(B); *see Sierra Club,* 536 F.3d at 675-76 (citing approvingly two EPA rulings finding that federal regulations require "state and local permitting authorities to supplement inadequate monitoring requirements").

In addition, as discussed in detail in Background Section II above on the Department's authority to address environmental injustice in this permit, the Department may go beyond minimum requirements when making permitting decisions for this Incinerator under Title V of the Clean Air Act. Thus, the Department has the authority to include conditions requiring CEMS for dioxin and mercury, and the Department should revise the Draft Permit to include such conditions.

Thank you for your consideration of these comments.

Sincerely,

Joseph Otis Minott, Executive Director and Chief Counsel
Christopher D. Ahlers, Staff Attorney
Joseph A. Ingrao, Legal Fellow
Clean Air Council
135 S. 19th St., Suite 300
Philadelphia, PA 19103
Phone: (215) 567-4004 x116
joe_minott@cleanair.org
cahlers@cleanair.org

Leah Kelly, Senior Attorney
Environmental Integrity Project
1000 Vermont Avenue NW, Suite 1100
Washington, D.C. 20005
Phone: 202-263-448
lkelly@environmentalintegrity.org

Ann Brewster Weeks
Legal Director
Clean Air Task Force

[16] In some cases, a permitting agency is required to supplement monitoring requirements in a Title V permit.

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114 State Street, 6th Floor
Boston, MA 02109
Phone: 617.624.0234 ext. 158
Cell: 617.359.4077
aweeks@catf.us

Zachary M. Fabish
Senior Attorney
The Sierra Club
50 F Street NW, 8th Floor
Washington, D.C. 20001
Phone: (650) 388-8446
zachary.fabish@sierraclub.org

CC (*Via email*):

Charles Lee
Senior Policy Advisor for Environmental Justice
US Environmental Protection Agency Headquarters
Environmental Protection Agency
Mail Code 2201A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460
lee.charles@epa.gov

Reginald Harris
US EPA, Region 3 Environmental Justice Contact
1650 Arch St. (MC-3ECOO)
Philadelphia, PA 19103
harris.reggie@epa.gov
harris.reginald@epa.gov

Samantha Beers
Director
Office of Communities, Tribes, and Environmental Assessment
1650 Arch Street
Philadelphia, PA 19103
Beers.Samantha@epa.gov

Allison Acevedo, Esquire
Director Environmental Justice
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
alacevedo@pa.gov

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Janine Tulloch-Reid, P.E.
Environmental Engineer Manager
Facility Permitting Section
Air Quality
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
jtullochre@pa.gov

James Rebarchak
Regional Manager
Air Quality
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
jrebarchak@pa.gov

Jing Guo
Engineering Specialist
Facility Permitting Section
Air Quality
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
jguo@pa.gov

Dula, Justin
Environmental Justice Coordinator
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
jdula@pa.gov

Glass, Brian
Assistant Counsel
Office of Chief Counsel
PA Department of Environmental Protection
Southeast Regional Office
2 E. Main St. Norristown, PA 19401
briaglass@pa.gov

Jason Landau Goodman
Assistant Counsel
Office of Chief Counsel
PA Department of Environmental Protection
Southeast Regional Office

2 E. Main St. Norristown, PA 19401
jasogoodma@pa.gov

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