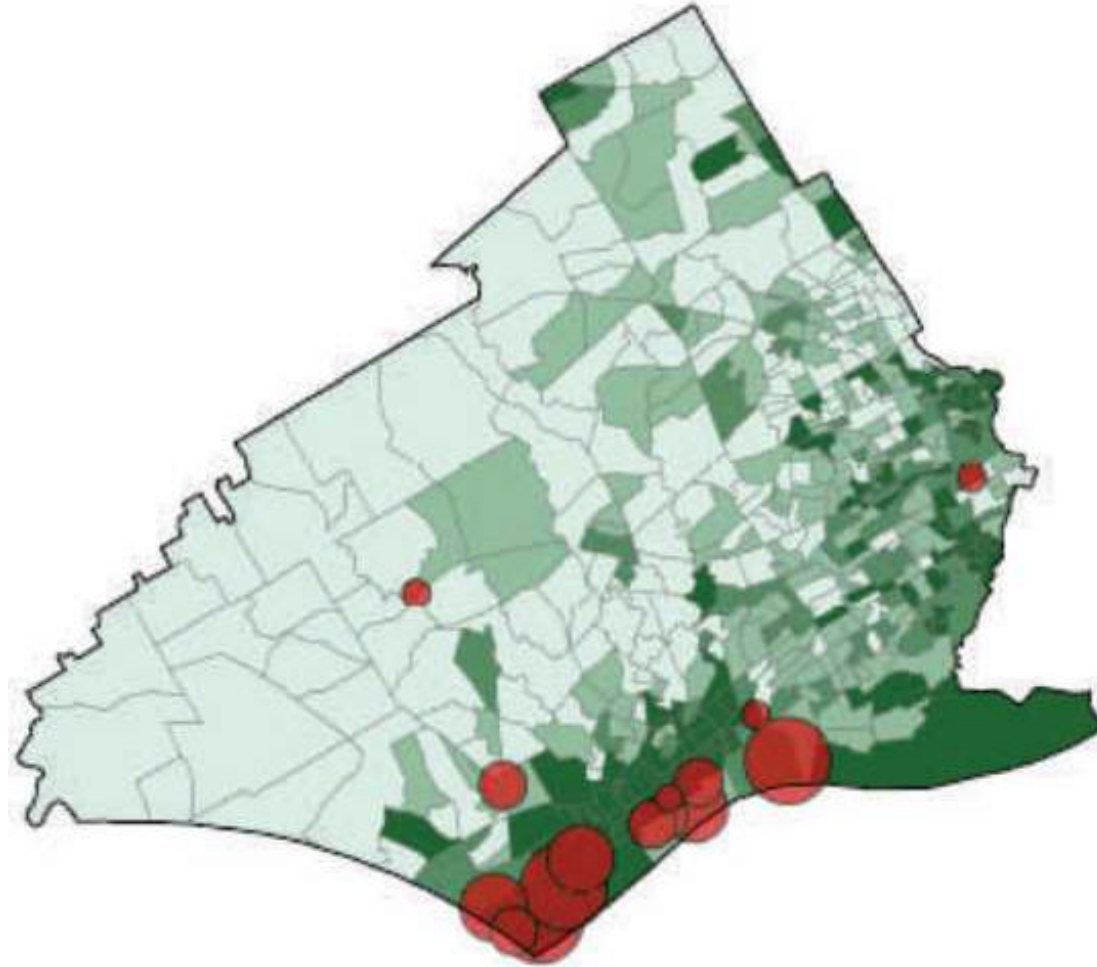


Environmental Injustice in Delaware County, PA



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ActionPA.org

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What is Environmental Racism?

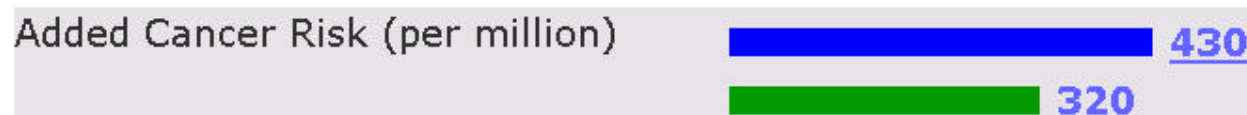
- Communities of color are more heavily targeted for hazardous industries than poor communities are.
- Doesn't need to be intentional to have a discriminatory effect



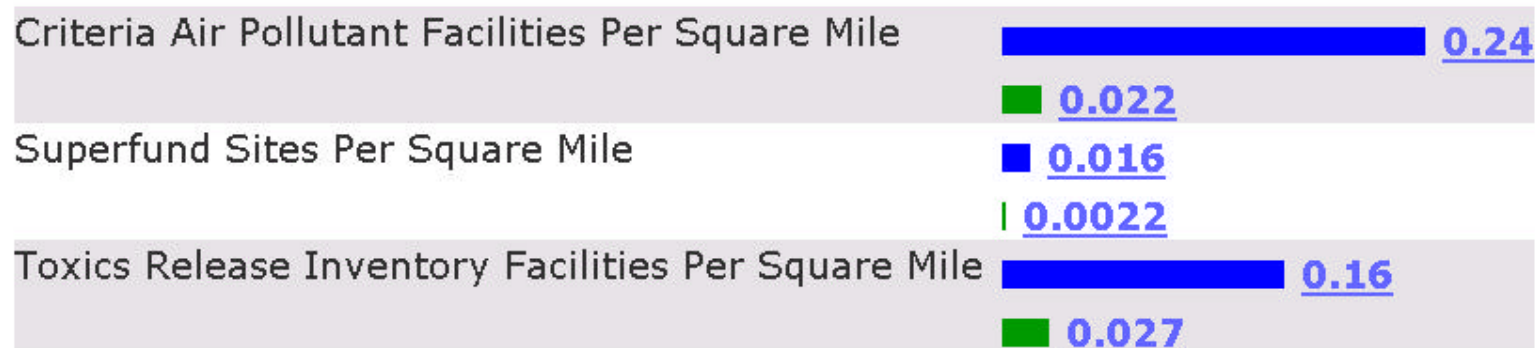
• Environmental Hazards: DELAWARE County Compared with State of PENNSYLVANIA

- DELAWARE County
- State of PENNSYLVANIA

Cancer Risks from Hazardous Air Pollutants



Density of Pollution Sources







Race is most deciding factor

Race is more correlated with distribution of toxic pollution in Delaware County than income, poverty, childhood poverty, education, job classification or home ownership.

- [Distribution of Environmental Burdens in DELAWARE County](#)

DISTRIBUTION OF BURDENS BY RACE/ETHNICITY

<u>Releases of Toxic Chemicals</u>	(indicator of chemical releases)	Ratio
People of Color	 54000	3.00
Whites	 18000	
<u>Facilities Emitting Criteria Air Pollutants</u>	(facilities per square mile)	Ratio
People of Color	 13	5.91
Whites	 2.2	

What is Environmental Justice?

- Environmental Justice is the movement's response to environmental racism
- Principles of Environmental Justice developed at the First National People of Color Environmental Leadership Summit in 1991
- NOT the same as “environmental equity”
 - Environmental equity = “Poison people equally”
 - Environmental justice = “Stop poisoning people!”

www.ejnet.org/ej/

Moving up the River in Delco...

- Sun Oil Refinery (Marcus Hook)
- FPL Energy gas-fired power plant (Marcus Hook)
- ConocoPhillips Oil Refinery (Trainer)
- DELCORA sewage sludge incinerator (Chester)
- Abbonizio concrete and aggregate facility (Chester)
- Covanta trash incinerator (Chester)
- Kimberly Clark Tissue Corporation paper mill (Chester)
- SCI Chester (state prison) (Chester)
- Harrah's Casino (Chester)
- Liberty Electric gas-fired power plant (Eddystone)
- Exelon Eddystone coal power plant (Eddystone)
- Philadelphia Airport
- Plus... eight major chemical facilities plus waste handling facilities and toxic waste sites (mostly Chester)

Chester Health Crisis

- Highest percentage of low-weight births in the state
- Mortality (death) rate and lung cancer rates that are 60% higher than the rest of Delaware County
- Highest childrens' blood-lead levels in the state (60% of kids are over the “safe” limit)



Community Organizing in Chester

1992-2001: Chester Residents Concerned for Quality Living (CRCQL or 'circle') led by Zulene Mayfield

1996-1999: Campus Coalition Concerning Chester (C-4)

2001-2003: Laborers International Union Local 413

2005-present: Chester Environmental Partnership

2007-present: Delco Alliance for Environmental Justice

Victories in Chester

- 1995: ThermalPure medical waste autoclave closed down
- 1996: Soil Remediation Systems contaminated soil “burner” defeated
- 1997: Crozer-Chester Medical Center medical waste incinerator closed
- 1997: Pet crematorium proposal defeated
- 1997: Delaware State stops sending waste to Chester incinerator
- 1997: Cherokee Biotechnology’s contaminated soil plant defeated
- 1997: DELCORA sludge incinerator lawsuit won
- 1997: Environmental racism lawsuit victory (later set aside)
- 1998: Ogborne construction/demolition waste transfer station defeated
- 2002: Kimberly-Clark tire burning plan denied
- 2005: Clean Metal incinerator ash plant closes

Toxic Air and Water Pollution

Major sources NOT included in the Toxic Release Inventory (TRI) data include:

- Covanta trash incinerator (Chester)
- DELCORA sewage sludge incinerator (Chester)
- Liberty Electric gas-fired power plant (Eddystone)
- FPL Energy gas-fired power plant (Marcus Hook)

Data also doesn't include dioxin emissions and many other toxic pollutants.



Cancer-Causing Air and Water Pollution

Facility Name	City	Pounds Of Benzene-Equivalents
Exelon Generating Co. Eddystone Generating Station	Eddystone	13,000,000
Sunoco Inc. R & M Marcus Hook Refinery	Marcus Hook	56,000
Conocophillips Co. Trainer Refinery	Trainer	9,700
Rhodia Inc.	Marcus Hook	4,000
Kimberly-Clark Pennsylvania L.L.C.	Chester	1,000
Alloy Surfaces Co. Inc.	Chester	700
Sunoco-Twin Oaks Terminal	Aston	580
Northrop Grumman Poly Scientific	Springfield	83
Bayer Polymers L.L.C.	Newtown Square	64
Hydrol Chemical Co.	Yeadon	11



Cancer-Causing Air and Water Pollution

Chemical Name	Cancer Risk Scores (Pounds of benzene-equivalents)
Arsenic (Organic Or Inorganic Compounds)	13,000,000
Chromium Compounds	98,000
Ethylene Oxide	41,000
Nickel Compounds	37,000
Lead Compounds	34,000
Benzene	14,000
Nickel	5,600
Lead	1,300
Methyl Tert-Butyl Ether	170
Propylene Oxide	64
Formaldehyde	11

From 1988 to 2002, total cancer risk scores have increased 39%.

Pollution Causing Non-Cancer Diseases

Facility Name	City	Pounds of Toluene-equivalents
Exelon Generating Co. Eddystone Generating Station	Eddystone	1,300,000,000
Sunoco Inc. R & M Marcus Hook Refy.	Marcus Hook	270,000,000
Kimberly-Clark Pennsylvania L.L.C.	Chester	240,000,000
Conocophillips Co. Trainer Refy.	Trainer	45,000,000
Sunoco-Twin Oaks Terminal	Aston	28,000,000
Crown Fndy. Co. West Philadelphia Bronze	Chester	3,400,000
Northrop Grumman Poly Scientific	Springfield	1,700,000
Alloy Surfaces Co. Inc.	Chester	790,000
Congoleum Corp.	Trainer	47,000
Rhodia Inc.	Marcus Hook	21,000
Sentry Paint Techs. Inc.	Darby	9,200
Hydrol Chemical Co.	Yeadon	8,600
Bayer Polymers L.L.C.	Newtown Square	7,400
Stoney Creek Techs. L.L.C.	Trainer	3,200
Degussa Corp.	Chester	1,500
Epsilon Prods. Co. L.L.C.	Marcus Hook	1,500
Boeing Integrated Defense Sys. Group Rototcraft	Ridley Park	410
Norquay Tech. Inc.	Chester	140
Community Light & Sound Inc.	Chester	130
Esschem Inc.	Linwood	3

Pollution Causing Non-Cancer Diseases

Chemical Name	Noncancer Risk Scores (Pounds of toluene-equivalents)
Mercury Compounds	720,000,000
Lead Compounds	710,000,000
Mercury	260,000,000
Arsenic (Organic Or Inorganic Compounds)	69,000,000
Nickel Compounds	42,000,000
Lead	26,000,000
Copper Compounds	13,000,000
Nickel	6,300,000
Copper	3,400,000
Antimony Compounds	3,300,000
Antimony	2,800,000
Chromium Compounds	2,400,000
Hydrochloric Acid	1,600,000
Manganese Compounds	840,000
Barium Compounds	820,000
Zinc Compounds	440,000
Ethylene Oxide	220,000
Naphthalene	160,000
Benzene	110,000
Ammonia	110,000
Toluene	59,000
1,2,4-Trimethylbenzene	39,000
Formaldehyde	8,600
Propylene Oxide	7,400
Xylene (Mixed Isomers)	4,800
Methanol	3,400
Propylene	2,900
Methyl Tert-Butyl Ether	1,200
Methyl Ethyl Ketone	770
Phenol	610
Ethylbenzene	310
Sec-Butyl Alcohol	280
N-Hexane	270
Cumene	260
Cyclohexane	150
Styrene	130
Methyl Methacrylate	3
Ethylene Glycol	1

From 1988 to 2002, total noncancer risk scores have increased 1,745%.

Covanta Trash Incinerator

- Dioxin reported from ConocoPhillips Refinery, Exelon's Eddystone coal plant and Kimberly-Clark paper mill: **3.9 grams**
- Dioxin from trash incinerator: **39 grams**
- Mercury from all TRI-reporting facilities in Delco: **163 pounds**
- Portion of these 163 pounds attributable to Eddystone coal plant: **107 pounds**
- Mercury from trash incinerator: **144 pounds**



Covanta Trash Incinerator

- 34% of waste is from NJ and NY
- 33% is from Philadelphia
- 31% is from Delaware County
- Amount of industrial waste burned is increasing; all is from Philadelphia or out-of-state
- Burns 73% of Delaware County's municipal waste
- Amount of Delaware County waste sent to incinerator = amount of ash coming out
- Ash sent to Delaware County Solid Waste Authority's landfill... in Berks County



Electricity Production in Delaware County

Company	Plant Name	City	Burners	MW	Energy Source	Initial Year of Operation
Covanta	Covanta	Chester	6	90	Municipal & Residual Waste	1991
Kimberly-Clark Corp	Chester Operations	Chester	5	67	Waste Coal & Petroleum Coke	1986
NEO Chester Gen LLC	Crozer Chester Medical Center	Chester	3	3	Natural Gas & Fuel Oil	1988
Exelon Generation Co LLC	Eddystone Generating Station	Eddystone	8	1569	Coal & Refined Fuel Oil	1960
N. American Energy Svcs Co.	Liberty Electric Power Plant	Eddystone	3	614	Natural Gas	2002
FPL Energy MH50 LP	Marcus Hook Refinery Cogen	Marcus Hook	1	51	Natural Gas	1987
FPL Energy Marcus Hook LP	FPL Energy Marcus Hook LP	Marcus Hook	4	836	Natural Gas	2004



Natural Gas Power Plant Development

- 50-70 natural gas power plants planned in PA since late 1990s
- 21 were built; most were defeated or withdrawn
- Delaware County received 2nd largest amount of power plant capacity (1,400 MW) – near Chester
- Proposals in whiter / wealthier areas saw serious opposition and were defeated

Power Plants Stopped	
Lancaster	6
Montgomery	4
Philadelphia	2
Chester	1
York	1
Northampton	1
Dauphin	1
Delaware	0

Oil Refining in PA

Corporation	City	County	Barrels/day
Sun Refining & Marketing Sun Co, Inc.	Philadelphia	Philadelphia	315,000
ConocoPhillips	Marcus Hook	Delaware	175,000
United Refining, Inc.	Trainer	Delaware	172,000
American Refining Group, Inc.	Warren	Warren	65,000
	Bradford	McKean	10,000



Air pollution expert who works on refineries in Texas: “without reservation, [Marcus Hook/Trainer] is the worst site he's seen in 30 years”

Marcus Hook EAC: “we didn't used to know what's going on, but now they tell us everything”

Water Fluoridation in Chester

- Chester Water Authority is only fluoridated water system in Delaware County
- Fluoridated water increases absorption of lead, especially in black and Hispanic populations
- Chester children already suffer from excessive lead poisoning
- Lead poisoning affects ability to learn and alters brain chemistry, leading in increases in violent behavior and affinity for cocaine addiction

www.ActionPA.org/fluoride/ej.html

The Latest Threat...



“Environmentally Friendly Tire recycling to Petroleum”

...would be the world’s largest tire incinerator, using a pyrolysis / gasification system to process 1,200 – 2,400 tons of tires/day

For more information...

www.ejnet.org/chester/

www.ejnet.org/ej/

www.ActionPA.org

