

How polluting is the trash incinerator in Montgomery County?

The “Montgomery County Resource Recovery Facility” in Dickerson, Maryland is a county-owned trash incinerator operated by Covanta, the nation’s largest trash incineration corporation. It’s the #1 industrial air polluter in Montgomery County. On top of their routine air pollution, they’ve had more uncontrolled waste pile fires requiring an off-site emergency response than any other incinerator in Covanta’s 40-plant U.S. fleet, despite being the newest.

The latest available data from EPA’s National Emissions Inventory shows that Covanta’s Dickerson incinerator released:

Pollutant (in pounds except CO ₂ e)	2014	2017	Health Effects
Global Warming Pollution (in tons of CO ₂ equivalents)	611,773	629,162	Extreme weather, disease, crop damage, species extinction
Nitrogen Oxides	853,428	883,419	triggers asthma attacks, chronic respiratory disease and stroke
Hydrochloric Acid	159,184	116,405	irritates eyes, skin, and nose, damages lungs
Sulfur Dioxide	139,809	205,058	triggers asthma attacks; chronic respiratory and heart diseases; stroke
Carbon Monoxide	120,321	77,996	headaches and dizziness; increases lifetime risk of heart disease
Particulate Matter	102,091	58,792	heart attacks, stroke, irregular heartbeat, aggravated asthma, decreased lung function, difficulty breathing
Fine Particulate Matter	98,760	53,393	same as above, but worse, get deep into lungs and into blood stream
Volatile Organic Compounds	4,387	3,864	eye, nose and throat irritation, headaches, loss of coordination and nausea, liver, kidney and central nervous system damage, cancer
Ammonia	3,588	3,633	nose and throat irritation
Formaldehyde	124	120	eyes, skin, and nose irritation; increases lifetime risk of cancer
Beryllium	76	0.2	lung cancer; harms liver, kidneys, heart, nerves and lymphatic system
Lead	58	42	damages nervous system and kidneys, lowers IQ, increases likelihood of antisocial behavior
Mercury	24	17	damage to nervous, digestive, and immune systems, lowers IQ
Hexachlorobenzene	12	11	liver, kidney, and thyroid cancers
Chromium (VI)	4	4	lung cancer, shortness of breath, coughing, and wheezing
Cadmium	2	4	kidney disease; lung cancer
Arsenic	2	3	lung, skin, bladder, and liver cancers; irritation of the skin and mucous membranes and effects in the brain and nervous system

To put the smaller numbers in perspective, mercury is one of the toxic pollutants for which there is no known safe level of exposure. Lead and dioxins also have no “safe” level, and dioxins are the most toxic chemicals known to science, and incinerators are a major source (but good data is lacking). The incinerator reported releasing 24 lbs of mercury into the air in 2014, not counting that which gets into the air and water via the ash. A highly cited Minnesota study found that if approximately one gram of mercury (the amount in a single fever thermometer) is deposited to a 20-acre lake each year from the atmosphere, this small amount, over time, can contaminate the fish in that lake to the point where they should not be eaten.¹ 24 pounds of mercury equals 10,886 grams. That means the incinerator, in a typical year, is releasing enough mercury sufficient to keep nearly 11,000 20-acre lakes so contaminated that the fish are not safe to eat.

But what about buildings and mobile sources? Aren’t they a bigger source of pollution to worry about?

Yes, for some pollutants, the fossil fuels burned to heat buildings or move vehicles are the largest share of pollution compared to industry. However, the incinerator is the largest polluter of all industrial sources, and is a big share of the total even when compared to everything (vehicles, buildings, etc.). The incinerator is responsible for 10% of the county’s total global warming pollution, 99.5% of the cancer-causing hexachlorobenzene, 95% of the hydrochloric acid, 64% of the chromium (VI), 40% of the mercury, 24% of the cadmium, 16% of the sulfur dioxide, 12% of the lead, 5% of the arsenic, and 3% of the nitrogen oxide pollution in the county.

¹ “One Gram of Mercury Can Contaminate a Twenty Acre Lake: An Clarification of This Commonly Cited Statistic,” Summary Prepared by Interstate Mercury Education and Reduction Clearinghouse, 2004. www.newmoa.org/prevention/mercury/mercurylake.pdf