

Mike Ewall, Esq.
Executive Director
Energy Justice Network
215-436-9511
mike@energyjustice.net

July 6, 2021

Blake Adams
Manager
Office of Waste Diversion
DC Department of Public Works
202-359-2996
blake.adams@dc.gov

Dear Mr. Adams:

I write you on behalf of Energy Justice Network and the co-signed organizations below to express serious concern about the process and substance of the “Waste-to-Energy (sic) vs. Landfill Study” that DPW has hired CDM Smith to conduct.

We are concerned about DPW’s lack of transparency in this process, as well as the presence of predictable and substantial biases in the proposed study that weigh it in favor of incineration.

Of the various substantive biases, the three that rise to the top are:

- 1) the incorrect assumption that fossil fuels are displaced by electricity generated at the Covanta Fairfax trash incinerator or the two landfills to be studied, when all three facilities market their energy into Tier 1 of Maryland’s Renewable Portfolio Standard, where they cannot be replaced by fossil fuels if they were to stop operating, but would most likely be replaced by wind power,
- 2) the plan to ignore about half of the greenhouse gas emissions from incineration based on outdated scientific assumptions regarding biogenic carbon,
- 3) the reliance on a flawed risk assessment approach.

Concerns about Process

First, a little history. DC residents have been objecting to the city’s use of incineration for over a decade. Their voices were ignored in the development of the first Sustainable DC plan when, in 2011, DPW staff filtered anti-incineration comments out of the process and held up DC’s use of incineration, falsely claiming that it reduces GHG emissions.

In 2015, DPW issued an RFP that was rigged so that only one facility could bid: the Covanta Fairfax incinerator in Lorton.¹ They were the only bidder and a new contract with Covanta was signed for 5 years plus two 3-year renewal options, over the [objections](#) of 21 environmental, business, health, and civil rights organizations, including NAACP, Empower DC, Breathe DC, and the American Lung

¹ The RFP allowed only established trash incinerators within 50 miles of DC’s transfer stations to qualify. There are four facilities in that area: Wheelabrator in Baltimore, and Covanta’s facilities in Montgomery County (Dickerson), Alexandria, and Fairfax (Lorton). Montgomery County’s is the only one in a white community and it’s known that they do not accept out-of-county trash, so the RFP was rigged (in violation of Title VI of the Civil Rights Act) so that only trash incinerators in communities of color could qualify. DPW staff would have known that the only one with sufficient capacity to bid was the only one that did bid: Covanta Fairfax.

Association. Prior to this, according to DPW, [all 14 bids](#) that came in in 2004 and 2009 showed that landfilling was the cheaper option, but the 2015 RFP did not allow landfills to bid.

On February 2, 2017, a [massive fire](#) at the incinerator consumed three stories of trash that burned uncontrolled for nearly two weeks, shutting Covanta down until the end of that year. The fire impacted a densely populated suburban neighborhood adjacent to Covanta and two of the three landfills in Lorton. That neighborhood is the 12th most diverse in the nation. While canvassing two days into the fire, I spoke with several residents, including a panicked parent with an asthmatic daughter who had nowhere else to take her to be safe. Instead of any real assistance to the community, local and state officials [lied](#) to them and said that “there is no concern regarding air quality at the fire as it is ordinary household trash that is burning.” Never mind that burning “ordinary household trash” usually entails using four pollution control devices and that the incinerator also burns industrial waste.

In the wake of this fire, while DC was using southeastern Virginia landfills instead, Energy Justice Network hired economist and solid waste consultant, Dr. Jeffrey Morris with Sound Resource Management Group, to conduct a life cycle assessment of DC’s waste options, comparing Covanta Fairfax to the four southeastern Virginia landfills most commonly used by DC (including the two landfills proposed to be studied again by CDM Smith). Dr. Morris is the author of the [Measuring Environmental Benefits Calculator \(MEBCalc™\)](#) – the most comprehensive life cycle assessment software we’ve aware of for evaluating the health and environmental impacts of solid waste systems. Evaluating for nine criteria, including global warming, toxic pollution, and nitrogen oxide emissions, the evaluation proved that burning the District’s waste at Covanta is far worse than trucking waste 3-6 times as far to landfills. We presented these conclusions to then DPW Director Chris Shorter and Office of Waste Diversion staff (yourself included) on July 27, 2017. DPW did not follow up or do anything to act on this new information.

On March 8, 2018, in City Council’s Committee on Transportation and the Environment held a budget hearing on DPW’s budget. In that hearing, then DPW Director Chris Shorter promised two things: an environmental and fiscal analysis of landfills vs. incinerators, and a request for information (RFI) solicitation that will include landfills, to see whether it’s still true that landfilling is cheaper.² Both promises were not acted on until this year, after Councilmember Cheh pushed DPW in late 2020.

On February 13, 2020, I filed a FOIA request with DPW that included a request for the documents related to the promised study and solicitation. In the late (and still incomplete) response I received on October 14, 2020, DPW stated that “A study was promised but our office never got further than drafting the scope of work for a bid. A solicitation was never issued.” The only responsive document provided in the FOIA response was a 2018 RFP from Fairfax County that DPW staff crudely marked up in red ink on what to keep or not when crafting one for DC.

On November 19, 2020, I wrote to congratulate you on your new position and to ask about the status of the life cycle analysis promised in 2018. To your credit, you responded the same day, asking me to resend the 2017 analysis and stating that “I think an individual meeting between yourself and our team could make sense but perhaps after we get some time to review your materials.” Sadly, your response was quickly buried in my email and I did not notice it until now.

² This was specified in DPW’s 3/8/2018 Performance Oversight Hearing available at http://dc.granicus.com/MediaPlayer.php?view_id=2&clip_id=4415 (view discussion around 3:25 – 3:30 minutes) and is mentioned as being in the FY19 work plan, according to the answer to question 65 in the 2019 Performance Oversight Questions (<https://dccouncil.us/wp-content/uploads/2019/02/dpw.pdf>).

During DPW's 1/27/2021 Environmental Stakeholder Meeting, you gave an update that included that there was already a scope of work for the study, informed by "15 or so" people including DOEE staff and academic, and that a contractor was chosen. The author of the 2017 life cycle analysis was not notified of the opportunity to bid, nor was he consulted in the development of the scope of work. When asked who the contractor is, who the people are who designed the scope of work, or to see the scope of work, RFP, or bids, you were unwilling to share any info at that time, stating "we will not commit to allowing input into the scope of work in that study." You admitted that the process was "fast-tracked" (2.5 years after it was promised to city council) and attributed that to pressure from this group and to get it in for this fiscal year so that it's funded.

While I admitted missed your invitation to share info and meet with your team, the overall lack of transparency felt disturbing. That you stated there was "nothing to influence at this stage" feels strange now – after six months of silence – that we're being given one week to provide comments over a holiday. You had also stated that "the scope of work is tight" and that it "has no bias" and that "if there are major issues when the study comes out, we can discuss and revisit that."

I'm glad that we now have opportunity to comment on the scope of work before the study is coming out, and hope that these critical comments will be taken seriously, without rushing the process to satisfy any timeline pressures.

Concerns about Substantive Design of the Study

This study is biased from the start. Before even getting into the substance of the Methodology Plan, there are two indications of bias.

First, DPW's description of it as a "Waste-to-Energy vs. Landfill Study" includes use of the incineration industry's public relations term, "waste-to-energy." Scientifically, there is no such thing as "waste-to-energy" in this context. Matter cannot be turned into energy without a nuclear reaction, and thankfully, that's not what happens with trash incinerators. Waste is actually turned into toxic ash and harmful air pollution, while a small fraction of the energy in the waste is recovered in the process. The legal term for Covanta Fairfax is a municipal waste combustor, which EPA has stated multiple times in writing is synonymous with the common term "incinerator." There's nothing special about the fact that Covanta produces small amounts of electricity, as all commercial trash incinerators in the U.S. do.

The choice of CDM Smith is also a concern, given their relationship with the incinerator industry. They're a regular at incinerator industry conferences and trade shows. They boast that they've [helped build](#) the only new trash incinerator in the U.S. in 20 years and the new incinerator in [Dublin, Ireland](#), and have helped with the expansion of the [Hillsborough, Florida](#) incinerator. While their [work with landfills](#) seems to be focused on closing and redeveloping them, they paint an optimistic picture of the future of trash incineration, hoping to serve that market. Ironically, their [pro-incineration webpage](#) implicitly admits that there is no future for the industry in the U.S. by admitting that the future is in the rare facility expansions that get permitted, not in construction of new facilities, which is all but impossible now. It also states that there are 77 "waste-to-energy" facilities in the U.S., which must have been written five years ago, as we're now down to 71 and the numbers keep falling with another planning to close next summer, and several more likely to be closed or sold by Covanta in the near future. While CDM Smith hopes to get more contracts to expand or monetize the incinerators that remain, it's likely that they'd prefer to be issuing a public report that touts how incinerators are environmentally favorable compared to the landfills they work to close.

Assumption of Fossil Fuel Displacement

One of the main flaws in this study design is stated on pages 3-4, where it states that the Virginia energy grid mix will be used to calculate the GHG emissions offset from power generation for the three scenarios.

All three facilities – Covanta Fairfax, King George Landfill, and King & Queen Landfill – sell renewable energy credits (RECs) into the Maryland Renewable Portfolio Standard (RPS) market.³ Because of this fact, no displacement of fossil fuels can be assumed. If any of these three facilities stopped generating electricity, Maryland electricity suppliers would be required to meet their RPS obligations with other Tier 1 renewable resources. Now that black liquor burning at paper mills has been removed from the Maryland RPS, the next cheapest (and most available) option to fill the gap is wind power.

Since incinerators produce more power than landfill gas burning operations, studies that assume displacement of fossil fuels – as does EPA’s WARM model that CDM Smith plans to use – skew the results in favor of incineration. Even where it’s credible to assume that some fossil fuels are being displaced, the use of a state’s average energy mix is inappropriate, as energy flows within a regional multi-state grid, and it’s not the average power that is displaced, but the energy sources most likely to be turned on or off (or up or down) to meet the marginal demand – which is more often natural gas than coal.

Ignoring Biogenic Carbon

The other major way in which the WARM model is biased in favor of incineration is that it assumes that roughly half of the GHG emissions from trash incineration do not count because they came from burning “biogenic” material – paper, food scraps, yard waste, and other material that grew from the ground. This biomass “carbon neutrality” argument has been scientifically debunked for over a decade. This carbon is real and has an effect on the climate. To not count it because “trees regrow” is a form of double counting, as climate models already account for new plant and tree growth, and to discount the actual smokestack emissions is improper. Rather than belabor this complex topic in this memo, please see the excerpted five pages from our recent [Beyond Incineration](#) report for Montgomery County, Maryland attached. That, and our older [Biomass Incineration and Climate](#) writeup walk through the climate science around this matter.

CDM Smith’s plan to ignore biogenic carbon is made obvious by their intended use of the WARM model, and by the discussion on page 4 of the Methodology Plan about how power generation will be broken out based on biogenic vs. fossil fractions of the municipal waste stream. It’s also curious to see CDM Smith state that all landfill gas is generated from biogenic materials and will have a carbon intensity value. As the attached paper points out, it should be noted that EPA’s WARM model holds landfills and incinerators to different standards. WARM uses a carbon accounting method that counts methane emissions from landfills but fails to count biogenic emissions from incineration of organic materials.

³ See reported facilities in the annual Renewable Energy Portfolio Standard Reports at <http://www.psc.state.md.us/commission-reports/>. Maryland is the only state where trash incineration competes with wind power in Tier I of a tiered RPS law. Covanta seeks out this market for this fact, since the RECs are worth far more than in other states. Covanta Fairfax is also barred from selling RECs into the New Jersey RPS program – the most popular RPS market for incinerator RECs within the PJM grid – because Covanta’s home state finds this facility to be too polluting to meet their standards. Sources available upon request.

Risk assessment is the wrong approach

CDM Smith's proposal centers on doing a health risk assessment. William Ruckelshaus, the first administrator of the U.S. Environmental Protection Agency, said in 1984, "We should remember that risk assessment data can be like the captured spy: If you torture it long enough, it will tell you anything you want to know."

Risk assessment has long been as much about politics as science. It is widely used to generate studies that say that any pollution source will not cause enough harm to be above "acceptable" levels. These "acceptable" levels, such as causing cancer in one random person among one million people, are assumed to be acceptable – even when the reality is far worse because of structural flaws in the assessment process.

Risk assessment fails to account for the complexity of systems and tends to look at one chemical at a time (as CDM Smith plans to). There are now over 400,000 chemicals in industrial use – many of which end up in our landfills and incinerators. Only a tiny fraction of them have been adequately characterized for cancer and non-cancer effects. In reality, we're exposed to combinations of many pollutants at once, but the science on chemical combinations barely exists for any combination of just two chemicals. Those that do exist sometimes find that when combining impacts of just two chemicals, they can interact in such a way that $2 + 2 = 7$, causing greater health impacts than the sum of the harms from separate exposures. For many chemicals, the "acceptable" exposure limits are not routinely updated with the latest science, but are based on a history of workplace exposure studies, which are typically studying healthy adult white male workers. The workers made unhealthy enough tend not to be working anymore, biasing the studies. In real life, people are exposed to a cocktail of pollutants. Women are often more affected by toxic chemical exposures, as are children, fetuses, the elderly, and those with compromised immune systems

There is no risk assessment science that can handle the complexity of multiple, additive, cumulative, and synergistic impacts on a diverse population. However, risk assessment that looks at one chemical at a time through these limited lenses, can easily mask impacts by finding that no single chemical will reach a person's lungs in such an amount as to (by itself) cause a health impact.

One glaring mistake in CDM Smith's methodology is the unsupported assumption that inhalation is the only exposure pathway worth studying and that "pathways other than inhalation... are assumed to result in little to negligible exposure" (p.7). This method has been used many times over the years to massively downplay the impact of incinerator pollution.

When it comes to fat-soluble toxic pollutants like dioxins, furans, PCBs, and PAHs, the greatest exposures are often from eating meat and dairy products, not inhalation. The same is true for mercury exposure once mercury is converted by microbes in wet environments into fat-soluble methylmercury, which is why so much mercury exposure is from consuming fish.

Dioxins and furans are the most toxic chemicals known to science. They are so toxic that EPA ranks the worst of them as 10,000 times more toxic than the second most toxic chemical, 28,000 times as toxic as PCBs, and 140,000 times as toxic as mercury.⁴ Dioxins travel very far⁵ and are fat-soluble, causing them

⁴ Risk-Screening Environmental Indicators, U.S. Environmental Protection Agency. www.epa.gov/rsei

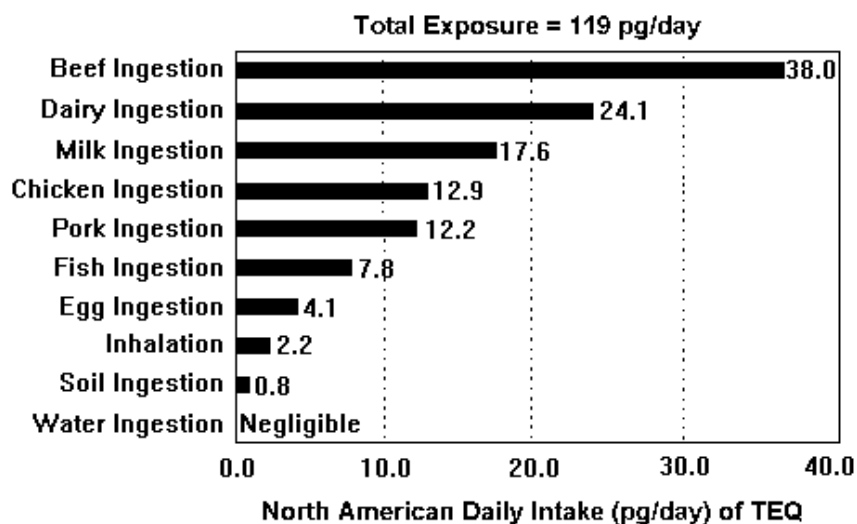
⁵ Commoner, et. al, "Long-Range Air Transport of Dioxin from North American Sources to Ecologically Vulnerable Receptors in Nunavut, Arctic Canada," September 2000. www3.cec.org/islandora/en/item/2196-long-range-air-transport-dioxin-from-north-american-sources-ecologically-vulnerable

to quickly bioaccumulate in the food chain.⁶ Ninety-three percent of people's exposure to dioxins comes from eating meat and dairy.⁷

In May 1992, chemistry professor, Dr. Paul Connett, wrote: "Today it is accepted that the route of exposure from incinerator emissions for inhalation accounts for less than 2% of risk, whereas 98% of the risk is from the uptake in the food chains." Connett co-authored a study of dioxin exposure from incinerators in Pennsylvania published in *Chemosphere* in 1987.⁸

To illustrate, Connett provided supporting evidence to show that it would take a person 14 years breathing the air next to a grazing cow to put as much dioxin into the person's body from breathing as the cow will ingest in one day of eating grass (and the dioxin that has settled on it's surface over time). This is the starting point for bioaccumulation that puts meat- and dairy-eating humans – and breastfeeding infants even moreso – on the top of the food chain.

The following chart is from EPA's 1994 draft dioxin reassessment (final report never completed).⁹ It shows where a person eating a typical North American diet will get their dioxin exposure. Inhalation pales in comparison to meat and dairy consumption, yet CDM Smith wants to assume inhalation is the only pathway worth studying because others are negligible.



This is not new information. It has been established for decades. Either CDM Smith is unfit to do a proper risk assessment because they do not understand the basics of exposure to fat-soluble toxic chemicals, or they are deliberately ignoring the most toxic pollutants that come out of incinerators.

All told, the question is not "will the emissions be enough to hurt someone" using flawed risk assessment methods and ensuring that no one pollutant will hit too many people at "unacceptable" thresholds, but "which waste management method is more polluting and will put more people in the path of harm."

⁶ Dioxin Homepage. www.ejnet.org/dioxin

⁷ "Exposure and Human Health Reassessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and Related Compounds," National Academy of Sciences, December 2003, Pt 1, Vol 2, Chap 4, Table 4-30 on p. 4-110. cfpub.epa.gov/ncea/iris_drafts/dioxin/nas-review/

⁸ Connett, P., Webster, T., "An estimation of the relative human exposure to 2,3,7,8-TCDD emissions via inhalation and ingestion of cow's milk," *Chemosphere*, 16, Nos 8/9, 2079-2084, 1987.

⁹ Chart from EPA Dioxin Reassessment Summary 4/94 - Vol. 1, p. 37 (Figure II-5. Background TEQ exposures for North America by pathway)

CDM Smith mentions that their risk assessment will only address “significant contaminants.” Other evaluation methods, like the life cycle assessment Sound Resource Management Group did of the same facilities in 2017 using the MEBCalc model, can look at all of the contaminants at once. Using EPA’s TRACI database to provide toxicity weightings to each chemical, the toxic impacts were able to be standardized and looked at in total, rather than seeing if any one of a few “significant” chemicals rise to a level that is deemed “unacceptable.” The MEBCalc model similarly standardizes other pollutants for their impacts, including carcinogenicity, respiratory impacts, and cardiovascular impacts.

Other questions and concerns about CDM Smith’s proposed methodology

General:

- 1) Process-wide, all input data, the model itself, its calculations, and output data must be made public. Before starting the study, we must come to agreement on major assumptions, particularly the biogenic carbon and fossil fuel offset matters.
- 2) Will ash disposal impacts be quantified? Ash has a higher surface area and contains toxic combustion byproducts – all of which are more available to the environment, both to impact groundwater and to blow in the air. Incinerator ash is more capable of blowing off of trucks and off of the tops of landfills when used as daily cover material.

DC’s contract with Covanta Fairfax encourages the use of incinerator ash as alternative daily cover on pages 4, 25, and 27. As Maryland’s Department of the Environment found in Baltimore, incinerator ash was blowing off of the top of the landfill when used as daily cover material, and the state ordered the city to stop using it in this manner.¹⁰

- 3) Will dioxins be evaluated? After all, these are the most toxic pollutants known to science, and primarily are released from combustion sources, more so incinerators than landfill gas burners. A European study of dioxins tested with continuous samplers found that actual dioxin emissions are 32-52 times higher than what we think they are in the United States when we rely on a single six-hour annual test.¹¹ Another study, from the Netherlands, found that continuous sampling revealed dioxin levels to be 460 to at least 1,290 times higher than the typical six-hour stack test.¹² Given this, some adjustment will need to be made to estimate actual emissions in the absence of full-time testing.
- 4) What is the assumed landfill methane oxidation rate? This is the amount of methane that would be leaking from the landfill uncaptured, but which is converted to CO₂ through natural processes as it escapes. The Environmental Protection Agency has assumed a default 10% methane oxidation rate, but emerging research shows that oxidation can range from 10 to 35%.¹³

¹⁰ Maryland Department of the Environment memo to Baltimore City Department of Public Works, June 30, 2010. www.cleanairbmore.org/uploads/Quarantine-Road-Ash-Letter.pdf See comments on pages 2-3 for how this was a problem in Baltimore.

¹¹ De Fré R, Wevers M. “Underestimation in dioxin emission inventories,” *Organohalogen Compounds*, 36: 17–20. www.ejnet.org/toxics/cems/1998_DeFre_OrgComp98_Underest_Dioxin_Em_Inv_Amesa.pdf

¹² Zero Waste Europe & ToxicoWatch, “Hidden emissions: A story from the Netherlands (Case Study),” November 2018. www.zerowasteurope.eu/wp-content/uploads/2018/11/NetherlandsCS-FNL.pdf

¹³ Arlene Karidis, “What Landfill Operators Should Know About Methane Oxidation,” *Waste 360*, Dec 11, 2020. www.waste360.com/landfill/what-landfill-operators-should-know-about-methane-oxidation

Page 1:

- 5) Why 100,000 tons/year? Shouldn't the evaluation be done in terms of impact per ton of waste disposed, or use the higher amount that DC actually tends to generate?
- 6) The term "sustainable energy generation" is used, apparently to refer to burning landfill gas or trash. There is nothing sustainable about either source of energy generation, and this biased language has no place in an objective study.

Page 3:

- 7) Annual emissions from Covanta will be compared to 20-year emissions from landfills. Presumably this means that 20 years of Covanta emissions will be compared to 20 years of landfill emissions? If not, this needs to be made more clear.
- 8) In the discussion between CDM Smith and DPW on 6/10/2021, it was decided that emission calculations and modeling inputs/results will not be sent to Virginia DEQ for review. Why is that and how was this decided? Please provide any notes or recordings of this meeting.

Page 4:

For reference in the next two questions:

Methane's Global Warming Potential (number of times worse than CO2)

Over 100 years	Over 20 years	Source
21	72	U.S. EPA (operating on the scientific understanding from the 1990s; archive of EPA page using this old figure as recently as April 13, 2015)
25		U.S. EPA's new regulations , proposed April 2013, effective Jan. 1, 2014 (see Table 2) (based on 2007 IPCC data) EPA is knowingly using this outdated GWP in its June 2016 Oil and Natural Gas Rule and its August 2016 Landfill Gas Rule simply "to be consistent with and comparable to key Agency emission quantification programs such as the Inventory of Greenhouse Gas Emissions and Sinks (GHG Inventory), and the Greenhouse Gas Reporting Program (GHGRP)." See footnotes 15 and 5 in these rules, respectively.
33	105	2009 NASA Scientists' research (abstract) (full paper)
34	86	International Panel on Climate Change Fifth Assessment Report, 2013 (see Table 8.7 on p714 in Chapter 8 of the report)

- 9) The WARM model uses very outdated global warming potentials, biasing the study in favor of landfills by underestimating the impacts of methane. The Methodology Plan states that CDM Smith will review the most recent WARM model in case it's finally updated to use the modern IPCC numbers from the 5th Assessment that has been out since 2014. EPA has deliberately been using outdated global warming potential (GWP) data for years. CDM Smith reports on these IPCC 4th Assessment numbers (25 and 298 for methane and nitrous oxide, respectively), citing EPA in 2020, as if there is anything current about this. EPA is still using IPCC's 4th Assessment figures from 2007. Even after the higher 5th Assessment numbers came out in 2014, EPA put out two methane rules in 2016 under President Obama's EPA that deliberately use old GWPs

that downplay methane's impact in order to stay harmonized with other EPA databases. CDM Smith should not use outdated science just because EPA is behind the times. If EPA does not update the WARM model before this study is done, CDM Smith must adjust the factors themselves or use a more credible model that can adjust for this, as MEBCalc did in its 2017 study of the same.

- 10) CDM Smith plans to look at 20-year impacts of landfills because their emissions come out over time, but seems to plan to use 100-year GWP figures instead of 20-year values. The 20-year impacts of methane are far greater (86 times that of CO₂ using the latest IPCC data). Please clarify which GWPs will be used – and if using 100-year impacts when we don't even have 20 years to avoid the worst impacts of global warming, please defend this choice.

Page 5:

- 11) Vehicle collisions and fatality rates are significant enough to be studying? Emissions sources deemed insignificant on page 3 are to be left out of the study. How was it determined that traffic collisions are significant enough to be studying, and how will this be quantified in terms of health and environmental impacts?

Page 6:

- 12) CDM Smith filed a FOIA for the Covanta tipping fee. Save yourself some time. It's been on our website since 2015, here: <http://www.energyjustice.net/files/dc/2015-DC-Covanta-Lorton-Contract.pdf> The tip fee is \$34.64/ton for an estimated 202,000 tons/year (p.22). The contract's extension, covering 2021 is [here](#), and has a tipping fee of \$36.76/ton for an estimated 251,250 tons.
- 13) Why is CDM Smith planning to look at cost of disposal in a life cycle analysis? This is inappropriate and needs to be done in a context other than in an analysis of health and environmental impacts. The chart on page 6 says that CDM Smith will look at an *annual* hauling contract? To get a fair comparison, DPW needs to issue an RFP for long-term landfill use, so that the cheaper prices can be obtained. In 2017, when we surveyed the landfill managers at four southeastern Virginia landfills, including the two landfills to be studied here, all informed us that if offered a comparable 5-11 year contract as Covanta was granted, they can beat Covanta's price, even with the extra hauling distance. This matches what former DPW Director Howland said of the [past 14 bids](#) that came in when landfills were allowed to bid in 2004 and 2009. Page 6 also mentions that "the private hauler contract includes hauling rates to all facilities as well as tipping fees for the landfills...." What private hauler contract is this? Please provide a copy.

Pages 7-9:

- 14) Would the proposed risk assessment take into account the population impacted, displaying results in terms of the number of people harmed, recognizing that more are harmed by incineration not just because of larger releases of air pollutants, but because of the wider area impacted when the tall smokestack spreads that air pollution over a wider and far more populated area?

Pages 8:

- 15) In the toxicity assessment, it mentions looking at “chemical-specific toxicity criteria.” Does this mean that only one chemical is being evaluated at a time? Will any analysis using EPA’s RSEI or TRACI databases be done in order to weight all of the pollutants to provide a more comprehensive analysis?

Page 14:

- 16) In the Social Cost Analysis Methodology, it’s not clear whether chemicals will be weighted by their toxicity or other impacts or if all tons of a GHG are treated the same, and likewise, if all tons of a CAP or HAP are treated the same as one another as if their impacts do not vary. Please clarify.

Page 15:

- 17) The environmental justice analysis should look at a broader radius of impact for incineration, considering that pollution impacts are much wider than for landfills.
- 18) EPA’s Enviromapper is a rather crude tool and should not be the main tool used to find other pollution sources nearby. Please ensure that all three landfills surrounding the Lorton Valley neighborhood are evaluated as part of the environmental justice cluster that is Lorton, as well as the sewage sludge incinerator nearby, and the impact of it’s astounding amount of toxic lead emissions (over 400 lbs a year reported in 2013 through 2016). Use data from the National Emissions Inventory as well as the VA DEP annual inventory, and directly consult other relevant databases, like CERCLIS for Superfund sites.

Page 16:

- 19) Demographics and environmental condition of communities will only be examined within 3 km (1.86 mi) of facilities? Why this distance? EPA uses 3 miles in EJSCREEN, and impact zones of landfills and incinerators are not the same. Incinerator air pollution reaches a wide range. In fact, dioxins travel through a process of global distillation as far as the Arctic Circle, but clearly that would be unreasonable – about as unreasonable as assuming that Covanta Fairfax only impacts people within 3 km when, in fact, they’re the largest industrial air polluter within at least a 20-mile radius of Washington, DC. Some metric that takes into account the primary impact zone of the incinerator being larger than that of the landfills would be appropriate, and that zone should be larger than 3 km.

Page 17:

20) When discussing Clean Energy DC’s goal of increasing renewable energy, it must be noted that trash incineration is no longer an eligible source of “renewable energy” in DC since 2013. Landfill gas burning is, however, though we’d argue that it ought not be. See: <https://programs.dsireusa.org/system/program/detail/303>

Page 18:

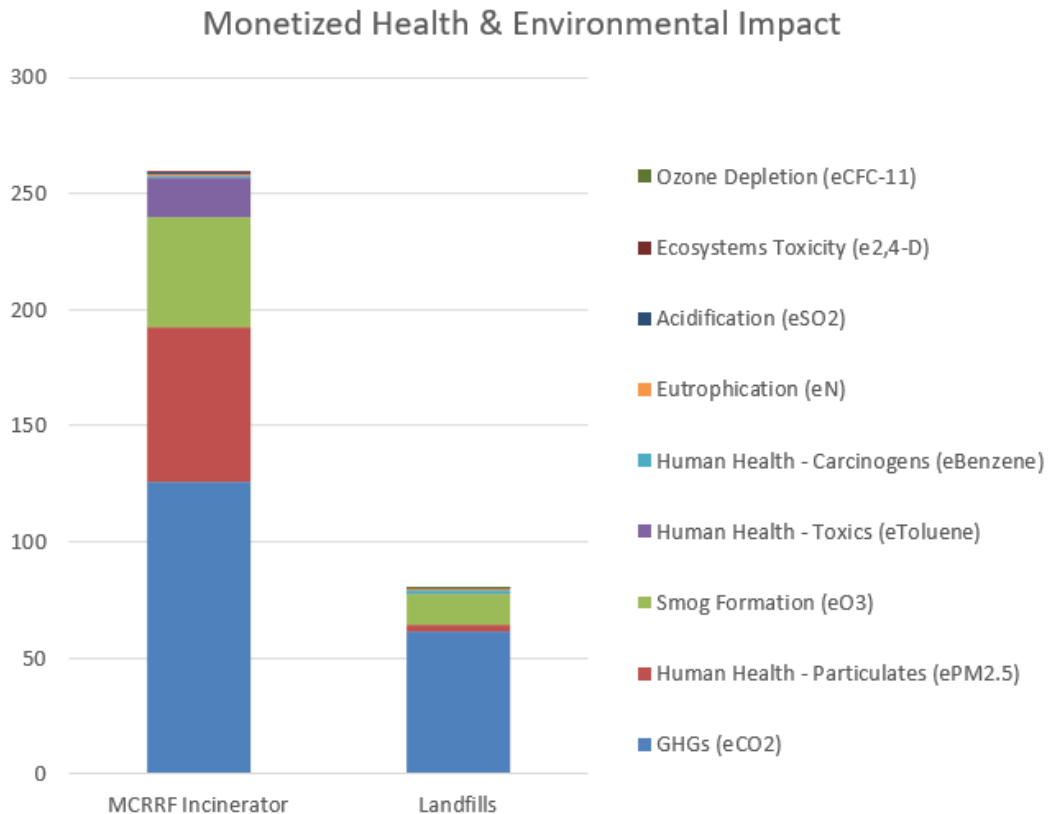
21) EPA’s FLIGHT database is listed as a source. Please make sure to count biogenic carbon in there, and not just the fossil fraction in that database. Cross check this with the “unadjusted” numbers in EPA’s eGRID database to get the appropriate data on GHG emissions.

In conclusion, we ask that DPW not permit CDM Smith to proceed with the study until the above matters are reconciled, in dialogue with the undersigned.

For reference, the results of the 2017 LCA are available in slides 61-84 here: <http://www.energyjustice.net/files/incineration/incineration.pdf>

A 2021 LCA of the Covanta incinerator in Montgomery County, MD (the Montgomery County Resource Recovery Facility, or MCRRF) is more thorough, providing a monetized summary, covering additional landfills, and finding that some of the nine evaluation criteria where landfills came out worse in the 2017 study were actually the opposite where landfill gas was not being burned for energy on-site. These criteria are among the tiny impacts, however, as you’ll see in the chart below. This 2021 LCA is available in Chapter 4 here: <http://www.energyjustice.net/md/beyond.pdf>

A summary of the impacts of that Covanta-operated incinerator vs. a composite of 10 landfills is below:



Sincerely,

Mike Ewall, Esq.
Executive Director
Energy Justice Network

Chris Weiss
Executive Director
DC Environmental Network

Neil Seldman
Director, Waste to Wealth Initiative
Institute for Local Self-Reliance

Catherine Plume
Chair
Sierra Club DC Chapter

Jeffrey Neal, P.E.
CEO and Founder
Loop Closing