October 6, 2017

Via E-mail

George (Tad) Aburn
Director
Air & Radiation Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230
george.aburn@maryland.gov

RE: Public Stakeholder Process for Setting Reasonably Available Control Technology Limits for Nitrogen Oxides Emissions from Large Municipal Waste Combustors

Dear Mr. Aburn:

The Environmental Integrity Project ("EIP") and the Chesapeake Bay Foundation ("CBF") (collectively, "Commenters") respectfully submit this initial set of comments on the Maryland Department of the Environment's ("MDE's") September 18, 2017 draft proposed regulation for changes to Chapter 8 (Control of Incinerators) and Chapter 9 of Subtitle 11 (Air Quality) of Title 26 (Department of the Environment) of the Code of Maryland Regulations (hereinafter "9/18/17 Draft Rule").

Commenters appreciate the opportunity to participate in the public stakeholder process as MDE develops new requirements for limiting emissions of nitrogen oxides (NOx) from Maryland's two large municipal waste combustors ("MWCs") in accordance with federal requirements for reducing concentrations of ground-level ozone. In this set of comments, we provide initial feedback on the 9/18/17 Draft Rule and initial input on MDE's undrafted proposal, announced at the September 22, 2017 public stakeholder meeting, to set a second set of NOx limits for the Wheelabrator incinerator to take effect in 2022 after submission of a feasibility study in 2020. In accordance with MDE's request, we are submitting these comments by October 6, 2017. However, we are not able to fully analyze the 9/18/17 Draft Rule or the proposed 2020 and 2022 requirements without more time and more information. Thus, we expect to submit further comments in this proceeding, particularly after a written draft of regulations is available relating to the proposed 2020 and 2022 requirements and after we are able to review the information in the Technical Support Document.

I. Background

MDE commenced the stakeholder process on Large MWC NOx Reasonably Available Control Technology ("RACT") rulemaking in August 2016. The new RACT limits are being set

in order to comply with federally-mandated planning requirements for moving Maryland toward compliance with federal air quality standards for ground-level ozone. Ozone is a persistent problem in Maryland, and the Baltimore area is one of the regions in the state that is most adversely affected by ozone. The U.S. EPA sets air quality standards for ozone based on a three-year average of the fourth-highest eight-hour measurement at a monitor during a given year. The 2008 federal ozone standard is 75 parts per billion ("ppb") and, in 2015, the U.S. EPA set a stronger limit of 70 ppb.

Ozone levels have been increasing in Baltimore starting in 2015. The highest ozone levels in the Baltimore nonattainment area over the last several years have been measured at the Edgewood monitor in Harford County.[1] The most recent three years of data for that monitor that are publicly available via EPA's online Monitor Values Report tool are shown in Table 1 below.[2] Commenters expect that the final monitor value for year 2017 will be higher than 73 ppb as the data available online appears to be current only through 2nd quarter 2017 (the end of June) and the highest values during the summer were likely measured during the hotter months of July or August. Thus, it appears that the three-year average for the Edgewood monitor could be over 75 ppb when the final 2017 value is added and that Baltimore area could be out of attainment with EPA's 2008 standard.

Table 1: 4th-highest 8-hour Ozone Values at Edgewood monitor (in ppb)	
2015	74
2016	77[3]
2017*	73
3-Year Average	74.7

*Data appears current through 2nd Quarter 2017

The 73 ppb ozone concentration measured in 2017 at the Edgewood monitor is only 1 ppb lower than the highest reading that has been measured (so far) in the state, 74 ppb measured at the Fairhill monitor in Cecil County. Commenters are particularly concerned about the 2017 ozone levels because ARMA Director Tad Aburn stated at the September 22, 2017 stakeholder meeting that Maryland ozone levels in 2017 were higher than in 2016, though we understand that this may not be specific to Baltimore.

In addition, while Commenters are very appreciative of Maryland's critical efforts to curb NOx pollution from dirty out-of-state coal-fired electrical generating units (EGUs), which significantly contribute to Baltimore's ozone nonattainment,[4] it is clear that substantial additional

[1] This is excluding a monitor installed in 2016 identified on EPA's website as being located in the Essex area of Baltimore County, but which MDE has told us is actually located on Hart-Miller Island in the Chesapeake Bay. Email from David Krask, Program Manager, MDE ARMA Air Monitoring Program, to Leah Kelly, Senior Attorney, EIP, dated March 21, 2017.

[2] EPA, Outdoor Air Quality Data, Monitor Values Reports, at https://www.epa.gov/outdoor-air-quality-data/monitor-values-report

[3] Excludes values claimed as exceptional events. With exceptional events included, this value would be 79.

[4] *See* Maryland Clean Air Act 126 Petition (Nov. 16, 2016); *see also*, Maryland v. Pruitt, *et al.*, 1:17-cv-02873 (D. Md. filed Sep. 27, 2017).e

reductions in NOx emissions are also required. Table 2 below shows an estimate from MDE's recent petition to EPA under Section 126 of the Clean Air Act regarding maximum reductions to ozone levels that would be achieved by curbing NOx emissions from certain out-of-state units using data from July 2011. The ozone reductions estimated at the Edgewood monitor are the lowest of any monitor in the state. Thus, we agree with MDE that these out-of-state plants must curb their air pollution under the requirements of the Clean Air Act. However, it is also important that the Wheelabrator/BRESCO trash incinerator in Baltimore City – which, in 2016, was the third largest NOx polluter in the Baltimore nonattainment area after the Fort Smallwood coal plant complex in Anne Arundel and Lehigh Cement facility in Carroll County[5] – substantially reduce its annual NOx emissions.

Table 2: Maximum Ozone Reduction if 126 Petition Power Plants had Run Their SCR/SNCR Controls (Table D-3 from Appendix D of Maryland's Section 126 Petition to EPA)

Maryland Monitor	Reduction (ppb)
Davidsonville	2.22
Padonia	2.32
Essex	1.79
Calvert	2.55
South Carroll	2.95
Fairhill	1.85
Southern Maryland	2.60
Blackwater NWR	2.25
Frederick Airport	3.05
Piney Run	6.06
Edgewood	1.66
Aldino	1.80
Millington	1.79
Rockville	2.23
HU-Beltsville	2.24
PG Equest Center	2.50
Beltsville	2.20
Hagerstown	2.96
Furley	1.73

Lastly, Commenters think it is important to note that the NOx emissions from the BRESCO incinerator are a matter of significant and widespread public concern for Baltimore

[5] MDE PowerPoint Presentation, NOx RACT for Municipal Waste Combustors (MWCs), Stakeholder Meeting – September 22, 2017, p. 13 *at* http://mde.maryland.gov/programs/Regulations/air/Documents/SHMeetings/MunicipalWasteCombustors/MWCStakeholder09222017.pdf.

City residents and officials. On September 28, 2017, the Housing and Urban Affairs Committee of the Baltimore City Council approved a resolution that, as amended during the hearing, requests that MDE set a limit of 45 ppmvd @ 7% O2 (hereinafter "ppm") for BRESCO[6], which is the limit that would likely have to be met by a new incinerator located in Maryland.[7]

II. Comments on the 9/18/17 Draft Rule

As stated above, Commenters have not had sufficient time and do not have sufficient information to fully analyze the 9/18/17 Draft Rule. In particular, our analysis is dependent on certain information that we expect will be provided in the Technical Support Document. We have done our best to provide initial feedback below and to identify, in these comments, the additional information that we will need to evaluate certain pieces of this draft rule.

A. 2019 and 2020 NOx RACT Limits for BRESCO

Commenters have expressed in the past that MDE must set a NOx RACT limit that is no higher than 150 ppm on a 24-hour basis for the Wheelabrator/BRESCO plant. We appreciate that the 9/18/17 Draft Rule requires that BRESCO meet this limit by May 1, 2019. We also note that a representative of Wheelabrator appeared at the September 28, 2017 hearing in front of the Baltimore City Council and repeatedly stated that the company supports the 150 ppm limit. Thus, we expect that this limit will be in the final version of the rule and will not be weakened in any subsequent drafts.

With respect to the 145 ppm limit for BRESCO over a 30-day period, we are missing the information necessary to evaluate the limit. Specifically, we do not know on what basis this limit was set, though we believe that it was based on emission levels at similar incinerators in other states. In addition, we would like to know MDE's numerical estimate – in pounds or tons per year – for the NOx reductions that this limit will achieve beyond the reductions provided by the 24-hour 150 ppm limit.

B. Startup Shutdown and Malfunction Events

Commenters have not had a chance to fully analyze how the startup and shutdown sections of the 9/18/17 Draft Rule measure up against EPA's requirements for addressing such events as set forth in the Final SSM SIP Call.[8] We have also not had a chance to draft comments on whether the startup, shutdown, and malfunction provisions of 40 C.F.R. § 60.58b, which we expect MDE may try to harmonize with the startup and shutdown provisions of the 9/18/17 Draft Rule, meet these requirements. Commenters expect to address these issues – possibly in substantial detail – in future comments. For now, we offer the following limited comments on this issue:

[6] The resolution and amendment are attached as Exhibits A and B respectively.
[7] This was the NOx limit set forth in the final permits for the proposed incinerator in Frederick County and the proposed Energy Answers incinerator in Baltimore City. Neither facility has been built.
[8] 80 Fed. Reg. 33840 (June 12, 2015).

- Commenters expect that Wheelabrator and Covanta may request that MDE remove the mass-based limits (in lbs/hour) that apply under the 9/18/17 Draft Rule during startup and shutdown events and may also seek a revision allowing an exemption during malfunction events of up to three hours based on the argument that this is allowed under 40 C.F.R. § 60.58b. Commenters' initial research indicates that such exemptions may not allowed as part of this rule, and we would object to unlimited exemptions during periods of startup and shutdown.

- In general, Commenters appreciate MDE's approach of requiring mass-based limits that correspond with concentration-based 24-hour NOx RACT limits during startup and shutdown events of no more than 3 hours each. However, Commenters request the Department consider startup and shutdown mass loading limits averaged over the duration of startup and shutdown periods, rather than on a 24-hour block period as proposed in 9/18/17 Draft COMAR 26.11.08.10L. Commenters propose these changes to clarify that mass-based emission averages should be calculated only during the period of startup or shutdown, and should not be averaged along with normal operations data. Because the proposed alternative emission limits are based on worst case actual NO_x emissions, changing the averaging time to only apply to the period of startup and shutdown is more stringent than applying over a 24-hour block period. This change to the alternative emission limits would ensure that the emissions during startup and shutdown are no higher than worst case actual NO_x emissions from normal operations.

- The final rule should state that NOx Continuous Emissions Monitoring System ("CEMS") data and flow data measured during periods of startup and shutdown must be reported to MDE as part of the quarterly reporting requirements imposed after the 2019 and 2020 NOx limits take effect.

C. Compliance Demonstration and Reporting

The 9/18/17 Draft Rule provision that would be codified in COMAR 26.11.08.10I, [9] requires that "[b]eginning July 1, 2019, the owner or operator of [an incinerator] shall submit a quarterly report to [MDE] containing: (1) Data, information, and calculations which demonstrate compliance with the NOx 24-hour block average emissions rate" required for each facility as well as certain records of actions taken during startup and shutdown events.

Commenters do not consider this condition to set forth with sufficient specificity the information necessary to demonstrate compliance. As discussed below in Section IIIA, Commenters are requesting that MDE order Wheelabrator to immediately begin submitting 1-hour NOx CEMS data in order to provide essential data for the feasibility study. Our preference would be that this 1-hour data would continue to be submitted and that these datasets would be part of the compliance demonstration requirements. However, at minimum, MDE should require that 24-hour block NOx CEMS data should be submitted on a quarterly basis to MDE after the 2019 limit goes into effect in order to ensure compliance with the 24-hour limits and the subsequent 30-day limits. This is particularly important for the BRESCO facility, which has not

[9] The first section I as there are two in the draft.

– based on the most recent data made available – been achieving emission levels close to its 24-hour NOx limit (150 ppm) and less important for the Montgomery County Resource Recovery Facility, which appears to be achieving emission levels significantly below its proposed 24-hour limit of 140 ppm. Further, to reduce paperwork and the burden on MDE, the companies should be required to report this CEMS data electronically in a spreadsheet using Microsoft Excel or a similar format.

D. Absence of Ammonia Slip Limit and Ammonia CEMS Monitoring Requirement

Commenters are very concerned about the absence of a limit for ammonia slip in the 9/18/17 Draft Rule, especially as Connecticut includes such a limit in its incinerator NOx RACT regulations, which also includes a 24-hour limit of 150 ppm for mass burn waterwall combustors. EIP also provided two examples in its May 9, 2017 comments of similar Wheelabrator incinerators in other states that are subject to a NOx limit of 150 ppm on a 24-hour basis and an ammonia slip limit of 20 ppm.

Wheelabrator has argued in the past that it will have difficulty meeting the 150 ppm NOx limit without increasing its ammonia slip, which the company has stated could cause it to violate its emissions limit. Visible emissions, or opacity, is used as a proxy to measure particulate matter, which, in its smallest fraction (PM2.5), can pose the risk of premature death due from heart and lung disease. MDE should revise the 9/18/17 Draft Rule to include an ammonia slip limit of no higher than 20 ppm and should also require that ammonia CEMS be installed to monitor ammonia slip, as also discussed in EIP's May 9, 2017 comments and Attachment B to CBF's May 9, 2017 comments.

III. Comments on 2020 Feasibility Study and 2022 "Beyond RACT" NOx Limit

At the September 22, 2017 stakeholder meeting, MDE announced that it is seeking input on a new section of the rule, for which a written draft has not been made available to the public, which would require Wheelabrator to meet a lower NOx limit in 2022 and to submit a feasibility study in 2020. Commenters appreciate that MDE has proposed to go beyond the 150 ppm limit as that limit, while appropriate for the RACT legal standard, is not sufficient to achieve the ozone reductions necessary to move toward protecting public health in the Baltimore area. In addition, MDE clearly has the legal authority to require a stronger limit as "a state has discretion to require beyond-RACT reductions from any source, and has an obligation to demonstrate attainment as expeditiously as practicable. Thus, states may require . . . NOx reductions that are 'beyond RACT' if such reductions are needed in order to provide for timely attainment of the ozone [federal air quality standards]."[10]

Commenters appreciate that MDE has taken the important step of proposing a beyond-RACT set of requirements in the regulation. However, we are concerned that the proposed feasibility study is the end result of unacceptable foot-dragging on the part of Wheelabrator. In our view, much of the information that will be produced by this study is information that should have been submitted by Wheelabrator to MDE early in the NOx RACT rulemaking process,

[10] EPA, Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements, 80 Fed. Reg. 12264,12279 (March 6, 2015).

likely in 2015 (before the public stakeholder process commenced). Nevertheless, as we consider it essential to have more information about the BRESCO facility, Commenters support the collection of additional information and are providing our initial thoughts below with respect to this proposed approach.

A. MDE Should Order Wheelabrator to Start Submitting Certain Information Necessary for the Feasibility Study Immediately, Especially NOx CEMS Data

Certain additional detailed data is necessary in order to develop an adequate set of information regarding the facility operations as a basis for the feasibility study. MDE should require Wheelabrator to start reporting this immediately, at least in the case of NOx CEMS data, or as soon as possible.

It appears that Wheelabrator is not submitting any NOx CEMS data to MDE with regularity other than the short amount of annual data provided in the annual Emissions Certification Reports ("ECR"). (By contrast, Commenters note that the Montgomery County plant makes its 24-hour CEMS data available online where any member of the public can see it.)[11] This data is essential for MDE's engineers and the public[12] to assess facility performance claims regarding demonstration of the feasibility of various controls.

In addition to its general legal authority to require regulated air pollution sources in Maryland to submit information and perform analyses,[13] MDE also has specific legal authority to review and/or require the submission of this data under applicable federal regulations for Large MWCs and under COMAR's provisions relating to CEMS data. Through its Title V permit conditions and COMAR,[14] the BRESCO plant is subject to federal regulations for Large MWCs set forth in 40 C.F.R. § 60.59b. Under that regulation, an owner/operator of an incinerator is required to maintain data for 1-hour and 24-hour average NOx emission concentrations on site for 5 years and to make it available "for submittal to the Administrator or review on site by an EPA or State inspector." 40 C.F.R. § 60.59b(d)(2)(i). In addition, COMAR 26.11.01.11E(2)(c)(vii) requires facilities to submit certain data in quarterly CEMS, including "[o]ther information required by [MDE] that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."

MDE should begin collecting the following data from Wheelabrator now or as soon as possible, no later than upon the effective date of the regulation:

- NOx and ammonia[15] CEMS data reported on a 1-hour average, provided electronically by Wheelabrator on a semiannual basis.

[11] Montgomery County Maryland Department of Environmental Protection, Resource Recovery Facility Emissions Data at https://www.montgomerycountymd.gov/sws/facilities/rrf/cem-detail.html.
[12]Commenters would expect to review the NOx CEMS data themselves. We have submitted requests under the Maryland Public Information Act ("PIA") that would have produced NOx CEMS data if it were being submitted to MDE.
[13] *See* COMAR 26.11.01.05(A), COMAR 26.11.01.04(B)(1).
[14] Wheelabrator Baltimore, LP Title V Permit pages 41-42; COMAR 26.11.08.08(C).
[15] As stated above, Commenters recognizes that ammonia monitoring is not currently required at the facility, but it should be required.

- Temporal Fuel/waste composition data, provided in a quarterly report.[16]
- Quarterly gas composition sample collected as a 12-hour integrated sample at the first practical location after leaving the boiler. Sample shall be sent to accredited lab and will be analyzed for:
    - O_2, CO, CO_2, NO, NO_2, NH_3, SO_2 and total reduced sulfur.
    - Organics and toxics included within EPA Method TO-15
    - Alkaline Metals (sodium, potassium)
    - Heavy Metals
    - Arsenic
- Detailed temperature profile and model of gas flow path, including vertical profiling within boiler and along the gas path after it leaves the boiler to the stack.

B. Feasibility Study

Commenters consider it critical that the entity performing the feasibility study and creating a report thereon be a truly independent third party that does not consider itself beholden financially or in any other way to Wheelabrator. For this reason, we request that MDE ensure that Wheelabrator submit the funding for the study to the state but that the study be performed by internal state engineers or an independent consultant managed by staff from MDE and/or the Power Plant Research Program ("PPRP") within the Maryland Department of Natural Resources.

i. Technologies that must be considered

Commenters have compiled the following list of technologies that should be considered within the feasibility analysis *at minimum*:

- Optimized SNCR, including analysis of ammonia versus urea injection
- Flue Gas Recirculation
- Fuel nitrogen content reduction strategy
- In-duct Hybrid SNCR/SCR[17]
- Regenerative SCR (RSCR)[18]
- Advanced Natural Gas Injection
- Injection or Combustion Optimization

[16] At the 9/22/17 meeting, Tim Porter stated that Wheelabrator had conducted a study regarding fuel NO_x going back to regulation development in the mid-90's, and found that there was limiting yard waste had no measurable effect on NO_x reductions. Commenters request the referenced study, and maintain that tracking nitrogen within the fuel is an important component within the optimization study.

[17] Wheelabrator Representative Tim Porter gave initial feedback on in-duct hybrid SNCR/SCR technology within 9/22/17 NOx RACT stakeholder meeting, stating his concerns about catalyst interference and poisoning at the Wheelabrator Baltimore facility. Commenters believe additional engineering analysis and gas composition data is needed to assess the feasibility of this technology, and request that the analysis include potential strategies to address concerns of catalyst interference or poisoning.

[18] Commenters had previously presented RSCR as a control option within the 1/17/17 stakeholder meeting, and request that RSCR be included within beyond RACT feasibility analysis.

    - Additional temperature and flow profiling to inform injector height, positions, injection rates, and injector technology
    - Additional flow modeling (in boiler and ducts) and optimization of combustion practices
- Replacement of ESP with Baghouses
- Boiler modification to accommodate Covanta Low-NO_x or similar technology
- Boiler replacement

ii. *Cost benefit analysis*

Any cost-benefit analysis performed as part of the feasibility study must include the costs of Wheelabrator's pollution to the public. Baltimore residents already suffer from the highest asthma rates in Maryland and are consistently exposed to some of the highest levels of harmful ozone. Wheelabrator's emissions contribute to this persistent public health problem. Accordingly, the cost-benefit analysis should include the human health costs to Baltimore and Maryland residents that are caused by Wheelabrator's emissions. CBF has been working with a human health expert to estimate the annual cost of human health impacts caused by air pollution emissions from the Wheelabrator Baltimore incinerator. Preliminary results show that human health impacts from Wheelabrator's emissions in Maryland cost over $20 million annually. This estimate includes costs related to bronchitis, asthma, heart attacks, emergency room visits, and lost work days. CBF plans to share a more comprehensive report with these results in the coming weeks and will submit a copy to MDE. Ultimately, the feasibility analysis for Wheelabrator must account for the significant health costs imposed upon the community by the air pollution from the incinerator.

iii. *Relationship to 2022 limit*

Finally, as discussed below, Commenters think that MDE must set an emissions limit for the 2022 time frame as part of this rulemaking and should, under no circumstances, delay the promulgation of such a limit. The purpose of the feasibility study should be to determine how the facility will meet the limit. If Wheelabrator selects the option of retiring the facility, then the study should focus on how the facility should transition to retirement.

C. 2022 Limits

Commenters believe that there have been repeated and unacceptable efforts by Wheelabrator to delay imposition of new NOx limits by MDE. Thus, we would strongly oppose any suggestion by Wheelabrator that the stronger, "beyond RACT" limits should take effect after 2022. For this reason, we do not consider "Option 2" of the two options for the 2022 limits, as presented in MDE's September 22, 2017 Powerpoint presentation, to be a sufficient approach. Option 2 contemplates the initiation of future rulemaking in 2020 or 2021. Future rulemaking only invites further delay and Commenters believe, along with members of the public and local elected officials, that Wheelabrator must reduce its emissions substantially and quickly.[19]

[19] *See* Fern Shen, *City Council blasts State's NOx rule for BRESCO*, Baltimore Brew, September 29, 2017, at

Option 1 for the 2022 limit, as set forth in MDE's September 22, 2017 Powerpoint presentation contemplates establishing the limit as part of the current rulemaking. MDE provides two choices for the form of the limit: either a Presumptive limit or "'Alternative Limit' if supported by the 2020 feasibility study - Alternative limit would need to go through full public comment and hearing process required by Maryland law." It is unclear to Commenters why an alternative limit – one that allows compliance based on meeting one of 3 or 4 options set forth in a rule – would need to go through a *separate* comment and hearing process, if this is what is meant by MDE's presentation. If the alternative limit is established as part of the current rulemaking, as opposed to future rulemaking (which would make it fall under Option 2), then it will have to go through public comment and hearing. This should be sufficient for promulgation of a regulation establishing the 2022 limit.

MDE has already set such an alternative limit for some of the worst-performing coal plant units in the state as part of its recent NOx reduction rule for coal plants. COMAR 26.11.38.04B requires that operators of these seven coal plant boilers (units) shall choose from the following:

(1) Not later than June 1, 2020:

(a) Install and operate a selective catalytic reduction (SCR) control system; and

(b) Meet a NO_x emission rate of 0.09 lbs/MMBtu, as determined on a 30-day rolling average during the ozone season;

(2) Not later than June 1, 2020, permanently retire the unit

(3) Not later than June 1, 2020, permanently switch fuel from coal to natural gas for the unit;

(4) Not later than June 1, 2020, meet either a NO_x emission rate of 0.13 lbs/MMBtu as determined on a 24-hour system-wide block average or a system-wide NO_x tonnage cap of 21 tons per day during the ozone season.

MDE should set a similar kind of limit for Wheelabrator. Based on our initial analysis, we would suggest that such a limit would allow the plant to meet one of the following options:

(1) Not later than May 1, 2022:

a. Install and operate a selective catalytic reduction (SCR) control or Regenerative Selective Catalytic Reduction (RSCR) system; and
b. Meet a NOx emission rate of 45 ppm on a 24-hour basis; OR

https://baltimorebrew.com/2017/09/29/city-council-hearing-blasts-states-nox-rules-for-bresco/ (Councilwoman Mary Pat Clarke stating to a Wheelabrator representative that, with respect to NOx reductions: "We need you to go real low, real fast.")

(2) Not later than May 1, 2022, permanently retire the source; OR

(3) Not later than May 1, 2022, based on a method identified during the feasibility study, meet a limit of 87 ppm on a 30-day average and a limit of [numerical value to be determined] on a 24-hour average. [20]

Thank you for your consideration of these comments.

Sincerely,

Leah Kelly
Attorney
Environmental Integrity Project
1000 Vermont Ave. NW, Suite 1100
Washington, D.C. 20005
Phone: 202-263-4448
Email: lkelly@environmentalintegrity.org

Alison Prost, Esq.
Maryland Executive Director
Chesapeake Bay Foundation
6 Herndon Ave.
Annapolis, MD 21403
Phone: (443) 482-2167
Email: aprost@cbf.org

Cc: *Via E-mail*

Randy E. Mosier
Division Chief, Air Quality Regulations Division
Maryland Department of the Environment
1800 Washington Boulevard, STE 730
Baltimore, Maryland 21230-1720
randy.mosier@maryland.gov

[20] The basis for the limits in part 3 would be NOx emission levels at the Montgomery County Resource Recovery Facility. Commenters have not had a chance to fully review the 24-hour CEMS data for that plant so we are not able, at this time, to suggest a value for the 24-hour standard. However, the final rule must have a numerical limit in it for the 24-hour value. In addition, Commenters understand that the 87 ppm limit on a 30-day value suggested is lower than the 105 ppm limit on a 30-day average that MDE has proposed on the 9/18/17 Draft Rule. However, the proposed 105 ppm limit appears more lenient than is necessary given that the 9/22/17 MDE Presentation shows that the 4-year average from 2013-2016 and the annual 24-hour block average for 2016 were 87 ppm at the Montgomery County incinerator.

EXHIBIT A

CITY OF BALTIMORE
COUNCIL BILL 17-0034R
(Resolution)

Introduced by: Councilmembers Reisinger, Clarke, Henry, Pinkett, Scott, Costello, President Young, Councilmembers Cohen, Middleton, Stokes, Dorsey, Burnett, Sneed, Bullock
Introduced and read first time: July 17, 2017
Assigned to: Housing and Urban Affairs Committee
REFERRED TO THE FOLLOWING AGENCIES: City Solicitor, Department of Housing and Community Development, Department of Public Works, Health Department

A RESOLUTION ENTITLED

A COUNCIL RESOLUTION concerning

Request for State Action – Set a Strong Nitrogen Oxides Limit for the Wheelabrator Baltimore Incinerator

FOR the purpose of urging the Maryland Department of the Environment to set a nitrogen oxides pollution limit for the Wheelabrator Baltimore incinerator that is no higher than the 150 ppm standard on a 24-hour average that has been adopted by Connecticut and New Jersey and proposed in Massachusetts, or, if at all possible, significantly lower than 150 ppm in order to provide maximum air quality benefits to residents of Baltimore.

Recitals

Emissions of nitrogen oxides (NOx) contribute to the formation of three pollutants in the ambient (outdoor) air: ground-level ozone, nitrogen dioxide, and fine particulate matter. Each of these pollutants can have adverse effects on human health, including worsening symptoms of asthma in people who already have the condition. Baltimore City has substantially higher rates of asthma hospitalizations and emergency room visits due to asthma than the rest of the State of Maryland.

The Baltimore area, which includes Baltimore City and five additional counties, is designated as a nonattainment area for ground-level ozone by the U.S. EPA, meaning that the area does not meet federal air quality standards for ozone. NOx is the primary pollutant that contributes to the formation of ground-level ozone.

Many factors contribute to Baltimore's ozone problem, including pollution from power plants located in other states. Locally, the municipal solid waste incinerator operated by Wheelebrator Baltimore, L.P. and located in South Baltimore is a major source of NOx emissions.

In 2015, the Baltimore incinerator emitted 1,123 tons of NOx, making it the sixth largest emitter of NOx in the State of Maryland that year. The Baltimore incinerator also emitted more NOx per unit of energy generated in 2015 than any other large power plant in Maryland.

The Maryland Department of the Environment is in the process of developing regulations that will establish new NOx emission limits for Maryland's two municipal solid waste incinerators, including the Wheelabrator incinerator in Baltimore. These regulations are part of an air quality

EXPLANATION: Underlining indicates matter added by amendment.
~~Strike out~~ indicates matter deleted by amendment.

plan that Maryland must submit to the EPA under the federal Clean Air Act to show that the state is making progress toward attaining federal ozone standards.

The new NOx limits established under this rulemaking must, at minimum, meet a standard called Reasonably Available Control Technology ("RACT"). The RACT standard is defined as "the lowest emissions limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."

MDE may not set NOx emission limits that are weaker and less health-protective than the RACT standard. However, MDE has the authority to set NOx emission limits that are stronger and more protective of health than the RACT standard.

Short-term emission limits for incinerators are expressed in parts per million by volume dry at 7% oxygen (hereinafter "ppm"). The limit is frequently assessed based on a 24-hour average. A NOx limit of 150 ppm on a 24-hour basis has been adopted as the RACT standard for municipal solid waste incinerators by the states of Connecticut and New Jersey and has been proposed for adoption in Massachusetts. New Jersey allows facility operators to seek an exception in the form of an alternate limit.

Around 2009, the operator of Maryland's second municipal solid waste incinerator, the Montgomery County Resource Recovery Facility ("MCRRF"), voluntarily installed new NOx pollution controls on that incinerator that reduced its NOx emissions by about half. From 2013 through 2015, MCRRF's annual average NOx emissions were about 85 to 89 ppm on a 24-hour basis.

The Wheelabrator Baltimore's annual average NOx emissions from 2013 through 2015 were 162 to169 ppm on a 24-hour basis. Its current NOx emissions limit is 205 ppm. Wheelabrator Baltimore, L.P. has proposed that Maryland set a new NOx emissions limit of 170 ppm for the Baltimore incinerator. According to the most recent calculations by the Maryland Department of the Environment, this would reduce annual NOx emissions from the Baltimore incinerator by 60 tons per year.

The Baltimore incinerator receives financial benefits because it is treated as a Tier 1 source of renewable energy under Maryland's Renewable Portfolio Standard. Under this program, Marylanders are supposed to reap benefits from renewable energy resources that include long-term decreased emissions and a healthier environment.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF BALTIMORE, That the Council urges the Maryland Department of the Environment to set a nitrogen oxides pollution limit for the Wheelabrator Baltimore incinerator that is no higher than the 150 ppm standard on a 24-hour average that has been adopted by Connecticut and New Jersey and proposed in Massachusetts, or, if at all possible, significantly lower than 150 ppm in order to provide maximum air quality benefits to residents of Baltimore.

AND BE IT FURTHER RESOLVED, That a copy of this Resolution be sent to the Governor, the Secretary of the Maryland Department of the Environment, the Director of the Air and Radiation Management Administration, the Division Chief of the Air Quality Regulations Division, the Mayor, and the Mayor's Legislative Liaison to the City Council.

EXHIBIT B

AMENDMENTS TO COUNCIL BILL 17-0034R
(1st Reader Copy)

By:
{To be offered to the Housing and Urban Affairs Committee}

Amendment No. 1

On page 2, after line 27, insert:

"The Council requests that the Maryland Department of the Environment use its legal authority to go beyond the RACT standard in order to set a nitrogen oxides limit of 45 ppm on a 24-hour basis, which is the limit that would likely be set for a new incinerator.".