

Connecticut

Delaware

District of Columbia

Maine

Maryland

Massachusetts

New Hampshire

New Jersey

New York

Pennsylvania

Rhode Island

Vermont

Virginia

Paul J. Miller Executive Director

89 South St., Suite 602 Boston, MA 02111 (617) 259-2005 www.otcair.org May 30, 2025

Lee Zeldin, Administrator U.S. Environmental Protection Agency EPA Docket Center 1200 Pennsylvania Avenue NW Washington, DC 20460 Submitted via <u>https://www.regulations.gov</u>

Attn: Docket ID No. EPA-HQ-OAR-2017-0183

Re: Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and 5-Year Review

Dear Administrator Zeldin;

With the reopening of the comment period [90 Fed. Reg. 4708-4710 (January 16, 2025)] on the U.S. Environmental Protection Agency's (EPA's) proposed amendments to the new source performance standards (NSPS) and emission guidelines for large municipal waste combustors (MWCs) [89 Fed. Reg. 4243-4268 (January 23, 2024), hereafter, "the Proposal"], the Ozone Transport Commission (OTC) resubmits the following comments with additional MWC stack testing data.

The OTC is a non-partisan multi-state organization created under section 184 of the 1990 Clean Air Act (CAA) Amendments. As established by Congress, the OTC is led by the governors and their designated representatives from 12 states and the District of Columbia¹ to advise the EPA on its shared ground-level ozone problem. Ozone pollution affects the health of more than 66 million people in the Ozone Transport Region (OTR), particularly the young, elderly, and persons with compromised health. Protecting public health and the environment from the harms of ozone pollution is at the core of the OTC's work.

The OTC is pleased that the EPA is moving forward with this long-anticipated review and is updating the nitrogen oxides (NOx) emission limits for new and existing MWC units as required by CAA Section 129. More stringent NOx emission limits will reflect the current control technology capabilities for this source category. Such changes are particularly important given the persistently high ozone levels experienced by citizens in the OTR and the need for further significant reductions in ozone precursor emissions. According to the OTC's Municipal Waste Combustor Workgroup Report,²

¹ The Washington, DC mayor designates its two OTC representatives.

² OTC, *Municipal Waste Combustor Workgroup Report*, revised May 2023, <u>https://otcair.org/upload/Documents/Reports/OTC%20MWC%20report%20revised%205_20</u> <u>23.pdf</u>.

MWC units emit approximately 22,000 tons of NOx per year in the OTR. Implementation of the Proposal will result in significant emissions reductions from large MWC units in the OTR as well as in states that are upwind of the OTR. More detailed OTC comments are provided in the paragraphs that follow. We note that the enclosed Table 1 summarizes recent stack testing data from MWC units in the OTR.

<u>1. The OTC supports a NOx limit of 110 parts per million dry volume (ppmvd) averaged over 24 hours @ 7% oxygen (O2).</u>

Based on the work carried out by the OTC in the development of its Municipal Waste Combustor Workgroup Report, the OTC supports the EPA's proposed large MWC NOx emission limit of 110 ppmvd @ 7% O₂, 24-hour average. The OTC concurs that the 110 ppmvd @ 7% O₂ limit is an achievable, cost-effective NOx emission limit for all existing large MWC units. In its proposal, the EPA identifies advanced selective noncatalytic reduction (ASNCR) and Covanta LNTM as NOx reduction technologies capable of achieving compliance with a 110 ppmvd @ 7% O₂ NOx emission limit.

Included with this letter is Table 1 with reference stack gas concentration data from large MWC facilities in New Jersey, Maryland, and New Hampshire. As shown in Table 1, several units demonstrate the ability to meet the proposed federal limit of 110 ppmvd @ 7% O₂. As such, the proposed limits are not unreasonable to meet and indicate a potential for greater emission reductions at units and facilities in the OTC and potentially nationwide. Currently, while many units across the OTR are able to achieve the proposed EPA NOx limit of 110 ppmvd @ 7% O₂, there remain opportunities for units to further reduce NOx emissions to meet the limit. Table 1 is not meant to be a comprehensive listing of all available data for the facilities listed; other stack test data and permit information are available online or by request.

The OTC also supports the EPA's proposal for not allowing existing large MWC units to request a case-by-case emission limit based on a demonstration that ASNCR, Covanta's LNTM Technology, or any other NOx emission reduction measures are not technically feasible. The subject sources are not limited to ASNCR and Covanta LNTM as there are additional NOx control techniques available to assist large MWC units in meeting the proposed NOx emission limit. Additional commercially available NOx control strategies may include modifications to existing combustion air staging, revisions to combustion chamber fuel staging and fuel distribution, installation or modification of existing flue gas recirculation, changes in firing rate, firing of supplemental fuels (e.g., natural gas, low sulfur distillate fuel oil), or combinations of these. Some or all of these NOx reduction methodologies (singularly or in conjunction with others) are applicable and available to all existing large MWC units, and the availability of these multiple technologies supports the proposed 110 ppm @ 7% O₂ 24-hour average NOx emission limit.

2. The OTC supports the addition of a NOx emission limit of 105 ppmvd averaged over 30 days.

While the 24-hour emission limit of 110 ppmvd addresses daily NOx emissions, which is particularly important to limit emissions on high ozone days during ozone events, the addition of a more stringent longer-term limit will result in overall lower NOx emissions and will encourage more effective operation of control equipment when an MWC unit is operating. The OTC has

determined that the dual emission limits are technically and economically feasible for most large MWC units in the OTR.

3. The OTC supports the EPA's proposed removal of the emissions averaging allowance for <u>NOx.</u>

The OTC supports the EPA's proposed removal of the NOx emissions averaging allowance as a compliance strategy for meeting the proposed NOx emission limit. Information evaluated by the OTC in the preparation of its Municipal Waste Combustor Workgroup Report indicates that the EPA's proposed 110 ppm @ 7% O₂ 24-hr average NOx emission limit is technically feasible for all existing large MWC units, and eliminates the need for emission averaging as a necessary compliance option. Further, the elimination of any NOx emission averaging provisions among large MWC units provides for greater environmental and public health protection by preventing situations where different concentrations of pollutants could be emitted at different locations.

4. The OTC supports the EPA's proposal to remove the exemption for SSM periods.

The OTC supports the EPA's proposal to remove the exemption for startup, shutdown, and malfunction (SSM) periods contained in the 1995 MWC rule. The OTC agrees with the EPA's observation that emissions from burning natural gas or distillate oil during periods of startup (i.e., before municipal solid waste is introduced into the unit) would be significantly lower than from burning solid wastes. The OTC also agrees that emissions during periods of shutdown would be significantly lower than during normal operation because materials in the incinerator are almost fully combusted before shutdown occurs. Therefore, the OTC agrees with the EPA that subject sources will be able to meet the proposed 110 ppm 24-hr average NOx emission limit at all times. Lastly on this point, the 24-hour averaging period component of the NOx emission limit is in itself a compliance flexibility, minimizing the impact of any NOx emission spikes over the averaging period of 24 hours.

5. The OTC concurs with using stack gas O₂ content during startup and shutdown periods.

The EPA proposes that continuous emissions monitoring system (CEMS) data during periods of startup and shutdown be averaged with the actual stack gas oxygen content rather than at the 7% O_2 diluent cap used during periods of normal operation. As the EPA points out in its proposal, this approach is similar to that taken for commercial and institutional solid waste incinerators. High levels of excess air are required to safely operate the unit during startup and shutdown periods and correcting pollutant concentrations to 7% O_2 rather than actual stack gas oxygen content can artificially inflate reported pollutant stack gas concentrations and, by extension, reported emissions. Therefore, the OTC concurs with the EPA's proposed approach.

The EPA also requests comment on a recommended warmup period cutoff for the purposes of determining the amount of time where the use of uncorrected pollutant concentrations may be appropriate. It is the OTC's opinion that the EPA should not consider proposing any warmup period greater than three hours.

<u>6. The OTC encourages the EPA to re-evaluate the economic impact of additional electrical</u> power required to meet the proposed NOx standards.

To strengthen the basis of the final rule, the EPA should re-evaluate potential increases in energy requirements due to new emission control measures. The OTC's evaluation, when considering these potential increases in energy requirements, still concluded that the proposed NOx limits are technologically and economically feasible, but the OTC makes this recommendation to more fully account for this potential cost increase that can further strengthen the rule's basis.

For example, upgrading from an existing SNCR system to ASNCR to meet more stringent NOx emission limits may require the installation of additional elevations of injection along with additional injectors on all levels to meet the higher reagent demand and dispersion. The OTC in its Municipal Waste Combustor Workgroup Report indicated that this may require nearly 50% higher urea consumption for some facilities to meet the proposed NOx emission limit for existing MWC units. Some MWC units, including all that may install Covanta LNTM, may require as part of the installation package changes in the introduction of combustion air. Also, replacing an electrostatic precipitator with a baghouse may result in additional fan power consumption would be an added electric power cost in the operation of the system. Another cost consideration, assuming that all large MWC facilities are net exporters of electric energy, is that the incremental increase in site auxiliary power consumption will result in less power exported to the grid, potentially resulting in some loss of revenue due to the reduction of net energy available to export to the grid.

The EPA can strengthen the basis of the final rule by re-evaluating economic costs from increased electrical power needs. This comment, however, does not alter the OTC's own findings that when taking these potential increased costs into consideration for existing large MWC units, a NOx emission limit of 110 ppmvd, averaged over a 24-hour period, is technologically and economically achievable.

7. Data on number of facilities

In addition to general comments on the proposed action, the EPA is also interested in additional data that may improve the analyses, including data on the number of facilities that will require retrofit and data to inform the EPA's projections of air pollution control device use by large MWC units. In response to this request, the OTC offers data in the aforementioned Municipal Waste Combustor Workgroup Report, which is enclosed as an attachment to these comments. Appendix A to this report contains a comprehensive listing of large MWC units in the OTR along with currently known NOx permit limits and projected emissions. Appendix B provides the characteristics of the OTR large MWC units, including current NOx controls. Lastly, Appendix D provides a listing of non-OTR large MWC units along with information such as boiler configuration, NOx control, and currently known permit limits.

In summary, the OTC welcomes the EPA's proposed amendments to the NSPS and emission guidelines for large MWC units. The OTC encourages the EPA to make the Proposal even more protective through the addition of a 30-day NOx emission limit. Overall, the Proposal is

consistent with the OTC's mission to protect human health and the environment from the harms of ozone pollution, and we encourage the EPA to quickly move forward to complete this rulemaking.

Sincerely,

Francis C Steitz Digitally signed by Francis C Steitz Date: 2025.05.29 10:20:46 -04'00'

Francis C. Steitz Chair, OTC Stationary and Area Sources Committee Director, Division of Air Quality and Radiation Protection New Jersey Department of Environmental Protection

cc: OTC Directors

Encls. 1. Stack Testing Data summaries from New Jersey, New Hampshire, and Maryland 2. OTC Municipal Waste Combustor Workgroup Report (revised May 2023)

State	Facility (year of	No. of	Heat Input	Capacity	NO _x Controls	Proposed EPA	Currently	Reference Stack Data
	data collection)	Units	(WIWBtu/hr)	(tons/day)		Limit (ppmvd@7%O ₂)	(ppmvd@7%O ₂)	NO _X (ppmvd@7%O ₂)
NJ ^a	Reworld Essex Co., Newark (2023)	3	3 x 423	3 x 2700	SNCR (Reagent- ammonium hydroxide) + CLNT ^b	110	150	101 (U1) 116 (U2) 80.7 (U3)
NJ ^a	Reworld Camden County Energy Recovery, Camden (2021)	3	3 x 154.6	3 x 388	SNCR (Reagent- Urea)	110	150	105 (U1) 93.8 (U2) 104 (U3)
NJ ^a	Reworld Union, Rahway (2022)	3	3 x 93.5	3 x 480	SNCR (Reagent- Ammonia) + CLNT ^b	110	150	137 (U1) 131 (U2) 132 (U3)
NJ ^a	Wheelabrator Gloucester Company LP, Westville (2022)	2	2 x 108.3	2 x 288	SNCR (Reagent- Urea)	110	150	123 (U1) 130 (U2)
NH ^c	Wheelabrator Concord Company L.P. (2024)	2	2 x 107.8	2 x 287.5	SNCR (Reagent-Urea)	110	150	137.0 (U1) 131.7 (U2)
MD ^c	Wheelabrator Baltimore (2024)	3	-	3 x 750	ASNCR (Reagent-Urea)	110	150	104.6 (U1) 94.3 (U2) 95.8 (U3)
MD ^c	Montgomery County Resource Recovery Facility (2024)	3	5,500	3 x 600	SNCR (Reagent- Ammonia) + CLNT ^b	110	140	83 (U1) 88 (U2) 104 (U3)

Table 1. NO_X Reference Stack Data for Facilities in New Jersey, New Hampshire, and Maryland (non-comprehensive)

^a Average of three 1-hourly stack emissions tests

^b CLNT – Covanta Low NO_X Technology

^c CEMS Relative Accuracy Test Audit (RATA) data