MANEVU
Mid-Atlantic/Northeast Visibility Union
89 South Street, Suite 602
Boston, MA 02111
617-259-2005
otcair.org/manevu

May 30, 2025

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

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; Reopening of Comment Period*

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 combustor (MWC) units [89 Fed. Reg. 4243-4268 (January 23, 2024), hereafter, "the Proposal"], the Mid-Atlantic/Northeast Visibility Union (MANEVU) is pleased to provide the comments outlined in this letter. MANEVU is the regional visibility planning organization of the air agencies in the Mid-Atlantic and Northeast, consisting of eleven states, two tribal nations, and the District of Columbia. It coordinates regional haze planning activities to help its members reduce visibility impairment at Class I areas in the MANEVU region in furtherance of achieving the national visibility goals of EPA's Regional Haze Rule (RHR). To ensure that reasonable progress in visibility protection is made at its own Class I areas, and indeed all Class I areas throughout the U.S., MANEVU offers the following comments on the Proposal. These comments are the consensus views of the MANEVU non-federal members and are not intended to represent the views of the Tribal members or federal agency partners in MANEVU.

MANEVU, along with its sister agency the Ozone Transport Commission (OTC), is pleased that the EPA is moving forward with this long-anticipated review and is updating emission limits for new and existing MWC units as required by Clean Air Act (CAA) Section 129. More stringent nitrogen oxides (NOx) emission limits will reflect the current control technology capabilities for this source category. The changes are particularly important considering that NOx emissions are a primary precursor to secondary fine particulate matter, which in turn contributes to visibility impairment. NOx also contributes to acid deposition, eutrophication, and the formation of ground-level ozone.

Because NOx contributes to secondary particulate matter formation, reducing NOx emissions on an annual basis will improve visibility in MANEVU and other nearby federal Class I areas. The seven federal Class I areas in the region have historically struggled with some of the worst visibility in the nation. Analysis of monitoring data from the Interagency Monitoring of Protected Visual Environments (IMPROVE)

MANEVU Class I Areas

Acadia National Park
Maine

Brigantine Wilderness
New Jersey

Great Gulf Wilderness
New Hampshire

Lye Brook Wilderness
Vermont

Moosehorn Wilderness
Maine

Presidential Range
Dry River Wilderness
New Hampshire

Roosevelt Campobello
International Park
Maine/New Brunswick,
Canada

network shows the increasing contribution of nitrates, and by extension NOx, to visibility impairment. MANEVU has identified the need for year-round reductions in NOx in order to achieve the 2028 Reasonable Progress Goals for the second Regional Haze planning period. According to the OTC's Municipal Waste Combustor Workgroup Report,[1] MWC units emit approximately 22,000 tons of NOx per year in the Ozone Transport Region (OTR), which encompasses all the Class I areas within the MANEVU region. Implementation of the Proposal will result in significant NOx emissions reductions from large MWC units in the MANEVU region as well as in states that are upwind of the MANEVU Class I areas. Proposed stricter limits for other pollutants such as particulate matter and sulfur dioxide will also help improve and protect visibility at MANEVU's Class I areas.

More detailed MANEVU comments are provided in the paragraphs that follow. Please note that these comments are supportive of, and largely echo, the comments submitted to EPA by the OTC on March 25, 2024.[2]

1. MANEVU supports a NOx limit of 110 parts per million dry volume (ppmvd) averaged over 24 hours @ 7% oxygen (O_2).

Based on the work carried out by the OTC in the development of its Municipal Waste Combustor Workgroup Report, MANEVU supports the EPA's proposed large MWC NOx emission limit of 110 ppmvd @ 7% O_2, 24-hour average. MANEVU concurs that the 110 ppmvd @ 7% O_2 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 LN™ as NOx reduction technologies capable of achieving compliance with a 110 ppmvd @ 7% O_2 NOx emission limit.

MANEVU also supports the EPA's proposal to prohibit existing large MWC units from requesting a case-by-case emission limit based on a demonstration that ASNCR, Covanta's LN™ Technology, or any other NOx emission reduction measures are not technically feasible. The subject sources are not limited to ASNCR and Covanta LN™ 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 revisions or modifications to existing combustion air staging, revisions to combustion chamber fuel staging and fuel distribution, installation or modification to 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 approaches. 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% O_2 24-hour average NOx emission limit.

2. MANEVU 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, the addition of a more stringent longer-term limit highly relevant to visibility improvement will result in overall lower NOx emissions and will encourage more effective operation of control equipment when an MWC unit is operating. MANEVU agrees with the OTC's comments that the dual emission limits are technically and economically feasible for most large MWC units in the OTR.[3]

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[1] OTC, Municipal Waste Combustor Workgroup Report, Revised May 2023, https://otcair.org/upload/Documents/Reports/OTC%20MWC%20report%20revised%205_2023.pdf.
[2] OTC, Comment letter on *Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources: Large Municipal Waste Combustors Voluntary Remand Response and 5-Year Review*, March 25, 2024, https://otcair.org/upload/Documents/Correspondence/otc-lmwc-comments-to-epa-20240325.pdf.
[3] *Id*. at 23.

3. MANEVU supports the EPA's proposed removal of the emissions averaging allowance for NOx.

MANEVU 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% O_2 24-hour 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. MANEVU supports the EPA's proposal to remove the exemption for SSM periods.

MANEVU supports the EPA's proposal to remove the exemption for startup, shutdown, and malfunction (SSM) periods contained in the 1995 MWC rule. MANEVU 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. MANEVU 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, MANEVU agrees with the EPA that subject sources will be able to meet the proposed 110 ppm 24-hour 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. MANEVU concurs with using stack gas O_2 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, MANEVU 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 MANEVU's opinion that the EPA should not consider proposing any warmup period greater than three hours.

6. MANEVU encourages the EPA to re-evaluate the economic impact of additional electrical 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. MANEVU makes this comment based on the OTC's evaluation that the proposed NOx limits are technologically and economically feasible with the consideration of potential cost increases due to increases in energy requirements.

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 LN™, may require as part of the installation package changes in the volume or pressure of introduced combustion air. Also, replacing an electrostatic precipitator with a baghouse may result in additional draft loss, and require additional fan power to maintain the required draft and flow. Additional fan power consumption would result in 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 request.

In its comment period reopening for the proposed action, the EPA is asking for data, "Specifically, the EPA seeks additional information and documentation on verifiable historic pollutant emission concentration information (*e.g.*, stack test reports, waste characterization reports and continuous emission monitor records) for the industry so that we can further assess the proposed maximum achievable control technology ("MACT") requirements, including operation of the control technologies over time." In response, we are submitting reference stack data from New Jersey, New Hampshire, and Maryland for NOx, total suspended particulate (TSP), and sulfur dioxide (SO_2), all three of which contribute to regional haze conditions in MANEVU. The tables are 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.

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% O_2. 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% O_2, there remain opportunities for units to further reduce NOx emissions to meet the limit.

We include additional reference stack data for the visibility impairing pollutants of TSP (Table 2) and SO_2 (Table 3). As with NOx, many OTC units demonstrate the ability to meet the limits for TSP and SO_2, but there remain additional opportunities for further emissions controls in the MANEVU region and elsewhere for making reasonable progress towards the 2064 Regional Haze national goal.

In summary, MANEVU welcomes the EPA's proposed amendments to the NSPS and emission guidelines for large MWC units. MANEVU 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 MANEVU's mission to foster a coordinated approach in improving visibility at national parks and wilderness areas in the Northeast and Mid-Atlantic region, and we encourage you to quickly move forward to complete this rulemaking.

If you would like further clarification or discussion on any of these comments, please contact the MANEVU Lead Manager Alex Karambelas (akarambelas@nescaum.org) or the co-chairs of the

MANEVU Technical Support Committee, Sharon Davis of the New Jersey Department of Environmental Protection (sharon.davis@dep.nj.gov) and David Healy of the New Hampshire Department of Environmental Services (david.s.healy@des.nh.gov).

Sincerely,

Sharon Davis, New Jersey Department of Environmental Protection
and on behalf of David Healy, New Hampshire Department of Environmental Services
Co-chairs, MANEVU Technical Support Committee

cc: MANEVU Directors

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

State	Facility	No. of Units	Heat Input (MMBtu/hr)	Capacity (tons/day)	NO_X Controls	Proposed EPA Limit (ppmvd@7%O_2)	Currently Permitted Limit (ppmvd@7%O_2)	Reference Stack Data NOx (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	146 (U1) 140 (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)

[a] Average of three 1-hourly stack emissions tests

[b] CLNT – Covanta Low NO_X Technology

[c] CEMS Relative Accuracy Test Audit (RATA) data

Table 2. TSP Stack Compliance Test Data for Facilities in New Jersey, New Hampshire, and Maryland (non-comprehensive)

State	Facility	No. of Units	Heat Input (MMBtu/hr)	Capacity (tons/day)	Particulate Controls	Proposed EPA Limit (mg/dscm@7%O_2)	Currently Permitted Limit (mg/dscm@7%O_2)	Stack Tested TSP (mg/dscm@7%O_2)
NJ	Reworld Essex Co., Newark (2023)	3	3 x 423	3 x 2700	Baghouse	7.4	12/25/27	0.716 (U1) 2.92 (U2) 4.2 (U3)
NJ	Reworld Camden County Energy Recovery, Camden (2021)	3	3 x 154.6	3 x 388	Electrostatic precipitator	7.4	12/25/27	5.4 (U1) 5.2 (U2) 7.4 (U3)
NJ	Reworld Union, Rahway (2022)	3	3 x 93.5	3 x 480	Baghouse	7.4	12/25/27	4.09 (U1) 2.43 (U2) 0.893 (U3)
NJ	Wheelabrator Gloucester Company LP, Westville (2022)	2	2 x 108.3	2 x 288	Baghouse	7.4	12/25/27	0.375 (U1) 2.18 (U2)
NH	Wheelabrator Concord Company L.P. (2024)	2	2 x 107.8	2 x 287.5	Baghouse	7.4	25	3.8 (U1) 1.2 (U2)
MD	Wheelabrator Baltimore (2024)	3	-	3 x 750	Baghouse	7.4	-	1.8 (U1) 1.5 (U2) 0.7 (U3)
MD	Montgomery County Resource Recovery Facility (2024)	3	5,500	3 x 600	Baghouse	7.4	-	1.69 (U1) 6.24 (U2) 1.03 (U3)

Table 3. SO_2 Reference Stack Data for Facilities in New Jersey, New Hampshire, and Maryland (non-comprehensive)

State	Facility	No. of Units	Heat Input (MMBtu/hr)	Capacity (tons/day)	SO_2 Controls	Proposed EPA Limit (ppmvd@7%O_2)	Currently Permitted Limit (ppmvd@7%O_2)	Reference Stack Data SO_2 (ppmvd@7%O_2)
NJ[a]	Reworld Essex Co., Newark (2023)	3	3 x 423	3 x 2700	Spray Dryer Adsorber Scrubber	20	29	0.716 (U1) 2.92 (U2) 4.2 (U3)
NJ[a]	Reworld Camden County Energy Recovery, Camden (2021)	3	3 x 154.6	3 x 388	Spray Dryer Absorber	20	29	5.4 (U1) 5.2 (U2) 7.4 (U3)
NJ[a]	Reworld Union, Rahway (2022)	3	3 x 93.5	3 x 480	Spray Dryer	20	-	4.09 (U1) 2.43 (U2) 0.893 (U3)
NJ[a]	Wheelabrator Gloucester Company LP, Westville (2022)	2	2 x 108.3	2 x 288	Spray Dryer Absorber	20	29	0.375 (U1) 2.18 (U2)
NH[b]	Wheelabrator Concord Company L.P. (2024)	2	2 x 107.8	2 x 287.5	Spray Dryer Absorber	20	29	19.1 (U1) 22.1 (U2)
MD[b]	Wheelabrator Baltimore (2024)	3	-	3 x 750	Spray Dryer Absorber	20	-	1.3 (U1) 9.2 (U2) 7.2 (U3)
MD[b]	Montgomery County Resource Recovery Facility (2024)	3	5,500	3 x 600	Spray Dryer Absorber	20	-	5 (U1) 4 (U2) 1 (U3)

[a] Average of three 1-hourly stack emissions tests

[b] CEMS Relative Accuracy Test Audit (RATA) data