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HOUSE OF REPRESENTATIVES  
COMMONWEALTH OF PENNSYLVANIA  
HARRISBURG

COMMITTEES:

TRANSPORTATION  
ENVIRONMENTAL RESOURCES & ENERGY  
LOCAL GOVERNMENT  
JUDICIARY  
MAJORITY POLICY

March 18, 2003

Original: 2302

Mr. Robert E. Nyce  
Executive Director  
Independent Regulatory Review Commission  
333 Market Street  
14<sup>th</sup> Floor  
Harrisburg, PA 17101

**Re: NOx Emissions Proposed Regulation**

Dear Mr. Nyce:

I am writing to you today on behalf of Montgomery County and its commissioners who have notified me of their unanimous opposition to the proposed NOx regulation because of the severe impact it will have on Montgomery County's residents. Attached you will find the County Commissioners' letter and testimony given at the public hearing held in Conshohocken. Also attached you will find a copy of a letter by Representative Raymond Bunt and the Montgomery County Delegation House Members to the County Commissioners.

Montgomery County is a partner in a waste-to-energy facility that serves about half of the County's residents. If the proposed regulation is not revised to exempt waste to energy facilities, Montgomery County will be forced to spend \$6 million dollars to retrofit the plant with negligible effects on the air quality. This burden will fall on the residents who are required, by contract, to use the plant for their household trash disposal.

Please give the enclosed comments your careful attention as you review the proposed regulation. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Kate Harper".

Kate M. Harper  
61<sup>st</sup> Legislative District

RECEIVED  
MONTGOMERY COUNTY  
INDEPENDENT REGULATORY REVIEW COMMISSION  
MARCH 18 PM 3:44

### Montenay and WSA Summary Comments on Small NOx Rule

In summary, we believe that the Proposed Rule should clarify or be modified to **specifically exclude large Municipal Waste Combustors ("MWCs")**, which are already subject to a strict but technically and economically feasible nitrogen oxide ("NOx") emission limits under Maximum Achievable Control Technology ("MACT") regulations. See 40 C.F.R. Part 60, Subpart Cb. Pursuant to the MACT regulations, in October 1999, Montenay installed and commenced full time operation of an expensive Selective Non-Catalytic Reduction ("SNCR") NOx emission control system at the Montgomery County Resource Recovery Facility (the "Facility"). The SNCR System reduces NOx emissions to the MACT specified limit of 205 ppm for mass burn waterwall combustors. By contrast, the EQB's Proposed Rule would impose an emission limit on the Facility amounting to approximately 90 ppm (0.2 lbs/MMBTU NOx) which is neither technically nor economically feasible for the Facility or any other MWC.

In addition to its technical and economic infeasibility, the proposed emission limit also rests on questionable legal grounds. Section 4006.6 of the Commonwealth's Air Pollution Control Act ("APCA") expressly precludes the EQB from establishing more stringent performance or emission standards than those established under Section 112 of the federal Clean Air Act ("CAA"), which pursuant to CAA 7429(h)(3) includes the MACT performance standards applicable to MWCs. Moreover, while the proposed emission limit is quite clearly a technology-forcing standard (one that will require existing sources to retrofit emissions units with expensive new control technology), it does not appear to be tied in any way to one of the standard-setting authorities under the CAA (i.e. Reasonably Available Control Technology ("RACT"), Best Available Control Technology ("BACT"), Lowest Achievable Control Technology ("LAER"), Maximum Achievable Control Technology ("MACT")). Rules and regulations adopted by the EQB to implement the provisions of the CAA, however, must be consistent with the requirements of the CAA and the regulations adopted thereunder. For these reasons, we question whether the EQB even has the legal authority to promulgate an emission standard for MWCs that is more stringent than the existing MACT standard.

The Proposed Rule also claims to be based on the model rule developed by the Ozone Transport Commission ("OTC"), but the OTC has never considered MWCs to be an affected source under its model rule. Neither the Department of Environmental Protection ("Department") nor the OTC have analyzed whether the Proposed Rule is either technically or economically feasible, as required by Executive Order 1996-1. Similarly, in calculating the benefits to be derived from the Proposed Rule, MWCs were not included in the analyses as required by Executive Order 1996-1. Accordingly, clarifying that MWCs are excluded from this rule will not impact Pennsylvania's ability to demonstrate reasonable further progress in achieving attainment with the National Ambient Air Quality Standards ("NAAQS") in the Philadelphia CSMA.

Both the U.S. Environmental Protection Agency ("EPA") and the Department recently considered the issue of whether further reductions by MWCs of NOx emissions were technically or economically feasible or otherwise warranted in connection with EPA's "NOx SIP Call" and the Department's Chapter 145 regulations implementing the OTC's September 1994 Memorandum of Understanding. In each instance, EPA and the Department specifically determined that MWCs should not be subjected to additional NOx emission limits beyond that required by the recently promulgated MACT standards. In the present case, there is no new feasibility information presented or justification for including MWCs. Unlike other fossil-fuel fired industrial boilers, municipal waste combustors in the five county region cannot achieve the proposed emission reductions through fuel switching, combustion unit modifications, or even installation of additional control equipment.

Accordingly, the proposed standards are more stringent than federal requirements, are not necessary for the achievement of the NAAQS, and are technically and economically infeasible. Montenay and the WSA request that the Department exempt from the proposed rule municipal waste combustors subject to 40 C.F.R. Part 60, Subpart Cb.

**Comments on Proposed Rulemaking, Small Sources of NOx, Cement Kilns and  
Large Internal Combustion Engines**

by  
**Thomas Murphy, Facility Manager  
Montenay Montgomery Limited Partnership  
and  
Timothy T. Hartman, Executive Director  
Waste System Authority of Eastern Montgomery County**

**Summary**

Montenay Montgomery Limited Partnership ("Montenay") and the Waste System Authority of Montgomery County ("WSA") jointly submit these comments regarding the Proposed Rulemaking of the Environmental Quality Board ("EQB") entitled "Small Sources of NOx, Cement Kilns and Large Internal Combustion Engines," 32 Pa. B. 5178 (October 19, 2002).

In summary, we believe that the Proposed Rule should clarify or be modified to **specifically exclude large Municipal Waste Combustors ("MWCs")**, which are already subject to a strict but technically and economically feasible nitrogen oxide ("NOx") emission limits under Maximum Achievable Control Technology ("MACT") regulations. See 40 C.F.R. Part 60, Subpart Cb.

Pursuant to the MACT regulations, in October 1999, Montenay installed and commenced full time operation of an expensive Selective Non-Catalytic Reduction ("SNCR") NOx emission control system at the Montgomery County Resource Recovery Facility (the "Facility"). The SNCR System reduces NOx emissions to the MACT specified limit of 205 ppm for mass burn waterwall combustors. By contrast, the EQB's Proposed Rule would impose an emission limit on the Facility amounting to approximately 90 ppm (0.2 lbs/MMBTU NOx) which is neither technically nor economically feasible for the Facility or any other MWC.

In addition to its technical and economic infeasibility, the proposed emission limit also rests on questionable legal grounds. Section 4006.6 of the Commonwealth's Air Pollution Control Act ("APCA") expressly precludes the EQB from establishing more stringent performance or emission standards than those established under Section 112 of the federal Clean Air Act ("CAA"), which pursuant to CAA 7429(h)(3) includes the MACT performance standards applicable to MWCs. Moreover, while the proposed emission limit is quite clearly a technology-forcing standard (one that will require existing sources to retrofit emissions units with expensive new control technology), it does not appear to be tied in any way to one of the standard-setting authorities under the CAA (i.e. Reasonably Available Control Technology ("RACT"), Best Available Control Technology ("BACT"), Lowest Achievable Control Technology ("LAER"), Maximum Achievable Control Technology ("MACT")). Rules and regulations adopted by the EQB to implement the provisions of the CAA, however, must be consistent with the

requirements of the CAA and the regulations adopted thereunder. For these reasons, we question whether the EQB even has the legal authority to promulgate an emission standard for MWCs that is more stringent than the existing MACT standard.

The Proposed Rule also claims to be based on the model rule developed by the Ozone Transport Commission ("OTC"), but the OTC has never considered MWCs to be an affected source under its model rule. Neither the Department of Environmental Protection ("Department") nor the OTC have analyzed whether the Proposed Rule is either technically or economically feasible, as required by Executive Order 1996-1. Similarly, in calculating the benefits to be derived from the Proposed Rule, MWCs were not included in the analyses as required by Executive Order 1996-1. Accordingly, clarifying that MWCs are excluded from this rule will not impact Pennsylvania's ability to demonstrate reasonable further progress in achieving attainment with the National Ambient Air Quality Standards ("NAAQS") in the Philadelphia CSMA.

Both the U.S. Environmental Protection Agency ("EPA") and the Department recently considered the issue of whether further reductions by MWCs of NOx emissions were technically or economically feasible or otherwise warranted in connection with EPA's "NOx SIP Call" and the Department's Chapter 145 regulations implementing the OTC's September 1994 Memorandum of Understanding. In each instance, EPA and the Department specifically determined that MWCs should not be subjected to additional NOx emission limits beyond that required by the recently promulgated MACT standards. In the present case, there is no new feasibility information presented or justification for including MWCs. Unlike other fossil-fuel fired industrial boilers, municipal waste combustors in the five county region cannot achieve the proposed emission reductions through fuel switching, combustion unit modifications, or even installation of additional control equipment.

Accordingly, the proposed standards are more stringent than federal requirements, are not necessary for the achievement of the NAAQS, and are technically and economically infeasible. Montenay and the WSA request that the Department exempt from the proposed rule municipal waste combustors subject to 40 C.F.R. Part 60, Subpart Cb.

### **Background of the Commentors**

Montenay owns and operates the Facility, which began commercial operation in 1992. This Facility was developed by Montgomery County to serve the municipal waste disposal needs of 22 municipalities in Eastern Montgomery County. The WSA was formed by the County to represent the municipalities in a contractual Service Agreement with Montenay Montgomery Limited Partnership. Under the Service Agreement, the WSA is obligated to pay more than 90% of the cost for change orders due to change in environmental regulations, as well as any other changes in law with respect to operation of the Facility. Therefore, both entities wish to comment on proposed § 129.201 Standards for boilers because they should not apply to municipal waste combustors.

### **Background of Facility**

The Facility consists of two nominal 600 tons per day mass-burn water-wall municipal waste combustors. The steam generated by the two boilers is converted into electrical energy by one 32-megawatt steam turbine generator. The maximum rated capacity of each boiler is approximately 350 million BTUs heat input per hour. The air pollution control system presently consists of urea-based SNCR, acid gas scrubbers, carbon injection, fabric filters, and continuous emission monitors ("CEMS").

The municipal waste combustors are not designed and are not operated in the same manner as fossil fuel-fired boilers. Their primary purpose is the effective destruction of heterogeneous, wet municipal solid waste. The combustors are less thermally efficient than fossil fuel-fired boilers because they require a large amount of excess air and are less densely packed heat recovery systems. The EPA and the Department have historically recognized these differences in regulating municipal waste combustors separately and distinctly from fossil fuel-fired boilers. See also 1990 Amendments to Clean Air Act Section 129.

The Montgomery County Resource Recovery Facility was designed and originally permitted by the Department in accordance with the BAT analysis. The original plan approval (1987, 1989) and operating permit (1994) limit on NOx emissions was 300 ppm. The facility was constructed with redundant CEMS to measure more parameters and to meet more stringent data availability specifications than EPA requires of municipal waste combustors and/or fossil fuel-fired boilers.

In April 1999, the Department issued Permit No. OP-46-0010A which contained the Department's final determination of RACT for the control of NOx for the Facility. See 25 PA Code Sections 129.91 through 129.95. The Department determined that RACT required no further controls, based on the technical feasibility and cost-effectiveness information provided by Montanay and the WSA regarding SCR and SNCR. The April 1999 permit specified that the emission limit was 300 ppm, corrected to 7% O2 daily average, and 0.638 lbs/MMBTU, 159.5 lbs/hr and 615 tons per year. See 4/20/99 Permit, Condition 5(A)(4). See also, 28 Pa. Bull. 1847 (April 18, 1998); 29 Pa. Bull. 27 (January 2, 1999).

Under section 111(d)/129 of the Clean Air Act, the EPA promulgated Emission Guidelines to control the emission of combustor gases from existing large municipal waste combustors (December 19, 1995 and August 15, 1997). The guidelines are codified at 40 C.F.R. Part 60, Subpart Cb. These guidelines comprehensively regulate emissions of specific pollutants, including NOx, for all large (capable of combusting more than 250 tons per day) waste-to-energy facilities constructed on or before September 20, 1994. The guidelines are based on "maximum achievable control technology" standards, which are technology forcing standards that are more stringent than RACT. The Department implemented the Emission Guidelines by publishing a State Plan and incorporating the applicable requirement of 40 C.F.R. Part 60, Subpart Cb into Federally Enforceable State Operating Permits ("FESOPs"). EPA has approved of

Pennsylvania's State Plan and the relevant FESOPs, and the 205 ppm NOx emission limit has also been incorporated into Montenay's Title V permit.

Because the Facility could not meet the new MACT-based 205 ppm NOx emission limit, Montenay applied for and received a plan approval for the operation of a SNCR system to reduce NOx emissions to the Subpart Cb emission limit. See, e.g., July 12, 1999 Plan Approval issued to Montenay. In October 1999, Montenay commenced full time operation of its SNCR system, substantially reducing its NOx emissions. Although Subpart Cb did not require compliance with the NOx limit until December 2000, Montenay and the WSA have been proactive in the operation of the resource recovery facility regarding the reduction of NOx. The WSA has spent in excess of \$1.7 million to install the SNCR system. In addition, due to the significant shortfall of NOx emission reduction credits (ERC's) in the severe ozone nonattainment area, Montenay and the WSA have been investigating the over control of NOx below the existing permit limits. This could lead to substantial emission reductions of NOx from the Facility on a year round basis. Even after the sale of ERCs, substantial reductions of NOx are expected both through the 1.3 to 1 offset requirements of the Pennsylvania New Source Review rules, and possibly through the substitution of a cleaner, newer energy source in place of an older power plant.

#### Comments

1. **The Department should not include municipal waste combustors in the proposed rules because neither the Department nor the OTC intended to include MWCs, and neither the Department nor the OTC considered the technical or economic feasibility of achieving the 0.2 lb/MMBTU NOx limit**

The Department claims that the proposed rule is based upon the OTC model rule and was approved by the Air Quality Technical Advisory Committee ("AQTAC"). However, the proposal before us today deviates substantially from the OTC model rule and from the draft proposal submitted to the AQTAC. It is evident that the Department's decision to include MWCs as affected sources was conceived as "an afterthought" without any supporting analysis of the relative air quality benefits and costs associated with additional NOx control of MWCs. Absent this benefit/cost analysis, it would be arbitrary, capricious, and contrary to law to include MWCs in this rule-making.

In drafting the proposed rulemaking, the Department states that it relied on the OTC's Model Rule and the analysis presented in "Control Measure Development Support Analysis of Ozone Transport Commission Model Rules" (E.H. Pechan & Associates, Inc. for Ozone Transport Commission, March 31, 2001) ("Pechan Report") for their assessment of the NOx Model Rule regarding boilers. An examination of this OTC Model Rule and the Pechan Report clearly establishes, however, that (i) municipal waste combustors were not intended to be affected by the model rule, and (ii) no examination has been performed by OTC, Pechan, or the Department regarding the technical feasibility or cost effectiveness of the 0.2 lb/MMBTU NOx limit as applied to MWCs.

The OTC's Draft Model Rule Overview, which was published at the December 11, 2000 OTC Special Meeting, also states clearly that, with respect to boilers, the model rule was intended to apply only fossil fuel fired industrial boilers greater than 250 MMBTU/hr not already regulated under the EPA NOx SIP Call.<sup>1</sup> The emission limits proposed for boilers greater than 250 MMBTU/hrs specifically refer to "gas fired," or "oil or gas-fired boilers." See Table 1 to OTC Draft Model Overview. Similarly, the Pechan Report, which analyzed the anticipated feasibility and benefits of the proposed rule, establishes that MWCs were not intended to be part of the proposed rule. First, the Pechan Report indicates that the purpose of the rule is to achieve NOx reductions from stationary point sources that are too small to be regulated by either the EPA NOx SIP Call or Phase III of the OTC NOx Memorandum of Understanding (MOU).<sup>2</sup> The Report also indicates that affected industrial boiler sources are "boilers that are used to heat institutional, commercial, and large residential building complexes, and for heat and power in industrial applications." MWC facilities, which combust municipal waste primarily for source reduction purposes as part of a comprehensive waste management plan and secondarily for generation of electricity, do not fit within this category. Moreover, Table III-1 of the Pechan Report shows that only "gas fired" or "oil, coal fired" industrial boilers are intended to be covered by the model rule.<sup>3</sup> Most importantly, the Pechan Report in Appendix B specifically lists the Source Classification Codes ("SCC") of the units that will be affected by the rule, and the SCC code for MWCs (e.g., 50100102, Solid Waste Disp.;Government;Municipal Incin.;Mass Burn: Single Chamber) is not listed.<sup>4</sup>

Similarly, as part of the technical/economic cost effectiveness analysis, the Pechan Report did not consider MWCs or municipal solid waste as a fuel type. See Appendix C of the Pechan report, NOx Model Rule Control Cost Summaries, NOx Control Methods for Industrial Boilers, Table C-1.

<sup>1</sup> See [http://www.sso.org/otc/Publications/2000/001122\\_mod\\_sum\\_NOx.PDF](http://www.sso.org/otc/Publications/2000/001122_mod_sum_NOx.PDF).

<sup>2</sup> See CHAPTER III, NOx Model Rule Analysis, Methods, [http://www.sso.org/otc/Publications/2001/OTC\\_PechanReport\\_Final.pdf](http://www.sso.org/otc/Publications/2001/OTC_PechanReport_Final.pdf).

<sup>3</sup> The EPA 1996 National Emission Trends Inventory was the starting point for the Pechan analysis. The states, including Pennsylvania, provided emission updates, additional capacity information, and identification of sources affected by the NOx SIP Call or OTC MOU, and case-by-case RACT limits (where applicable). The data base was then modified by excluding the source types that are not subject to the regulation under the OTC draft model rule. Pennsylvania regulations affecting non EGU NOx emissions were determined on a case-by-case basis.

<sup>4</sup> SCC or Source Classification Code is a code developed and used by the USEPA to categorize processes which result in air emissions for the purpose of assessing emission factor information. Each SCC represents a unique process or function within a source category logically associated with a point of air pollution emissions. Any operation that causes air pollution can be represented by one or more SCC's. None of the SCC code typically used by municipal waste combustors appear on the Pechan Report in Appendix B. (even the very limited auxiliary use of natural gas or fuel oil in a municipal waste combustor is covered by another SCC code not listed in the Pechan Report -- e.g., SCC 5-01-001-04).

Moreover, the Pechan Report did not consider MWCs in its rule-benefits analysis.<sup>5</sup> None of the model plant types considered by Pechan involved a MWC or municipal waste as solid fuel. In fact, the Pechan spreadsheet that shows the anticipated benefits of the Proposed Rule in Pennsylvania (which the Department recently provided to Montenay's consultant upon its request) shows that no MWC in the 5 county area was considered.

It is equally clear that the Department also did not consider MWCs to be an affected source when it reviewed the proposed OTC Model Rule. This is demonstrated by, among other sources, a review of the AQTAC minutes and materials. The Department presented the proposed rule at the January 17, 2002 AQTAC meeting, where it described the proposed rule as:

based on an Ozone Transport Commission (OTC) model rule. The proposed Pennsylvania regulation would apply to combustion units and stationary turbines rated at 100 million Btu's and greater and to stationary internal combustion (IC) engines rates at 200 Hp and greater. The OTC model rule applies to units as small as 20 Hp. The emission limits in the proposed regulation are consistent with those in the OTC model rule for the respective sources.

See <http://www.dep.state.pa.us/dep/subject/adv coun/aqtac/2002/MIN01172002.pdf>. It is important to recall that the AQTAC did not concur with the Department's recommendation to move the proposal to the EQB for formal rulemaking due to a number of concerns about applicability and cost. Instead, the AQTAC requested that the Department provide a list of affected sources and anticipated emissions reductions at the next AQTAC meeting. Thereafter, at the AQTAC's May 2, 2002 meeting, the Department distributed a preliminary list of boilers in the five county area subject to the rule. See <http://www.dep.state.pa.us/dep/subject/adv coun/aqtac/2002/NOXSRCLST.pdf> (Preliminary List of Boilers Bucks, Chester, Delaware, Montgomery Counties and Preliminary Internal Combustion Engine (ICE) List Philadelphia County). Noteworthy in its absence from the list of affected boilers is any reference to MWCs. Plainly, therefore, neither the Department nor the AQTAC considered MWCs to be boilers subject to additional NOx control at the time of the AQTAC deliberations. We confirmed this fact through discussions with committee members. Accordingly, it is evident that the Department's decision to include MWCs as affected sources was conceived only at the "eleventh hour" without any supporting analysis of the relative air quality benefits and costs associated with additional NOx control of MWCs.

Under these circumstances, inclusion of MWCs in the final rulemaking would violate the public review and comment process mandated by Section 4002(b)(1) of the APCA. This provision requires that OTC air pollution control strategies be developed in a process that

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<sup>5</sup> Pechan used the 1996 emission estimates and projected them for 2005 and 2007 using the expected NOx SIP Call emission control levels and SIC code based growth factors. The emission benefits of the model rule were then estimated by comparing the actual source emission limits with the limits imposed by adoption of the model rule. The least stringent of the emission limit, or the percentage reduction was used to estimate the rule benefits at each unit.

involves public review and opportunity for comment. Plainly, the Department did not follow this participatory process with respect to owners and operators of MWCs, who were notified that they would be affected under this rule only after promulgation of the proposed rule in November 2002. The United States and Pennsylvania Constitutions, Section 4002 of the APCA and Executive Order 1996-1 require that regulations be reasonable, technically feasible, cost-effective and consider benefits. This analysis must occur before a regulation is promulgated. In the case of MWCs, this analysis was not performed.

For these reasons, inclusion of MWCs with this rule would be arbitrary, capricious, and not in accordance with the law.

2. **The proposed rule, if applied to municipal waste combustors (MWCs), is more stringent than federal requirements and prior determinations by both EPA and the Department, and the emission limits proposed are not reasonably necessary to show reasonably further progress or to achieve or maintain the NAAOS**

The proposed rule also rests on questionable statutory grounds. The APCA contains two separate provisions that preclude the EQB from promulgating emission standards that are more stringent than the federal standards. The statutory bar against more stringent state standards is similarly echoed by Executive Order 1996-1 which states that "where federal regulations exist, Pennsylvania's regulations shall not exceed federal standards unless justified by a compelling and articulable Pennsylvania interest or required by state law." Finally, because the proposed emission limitation for MWCs finds no support in the OTC's model rule and is not based on any of the standard-setting authorities under Title I of the CAA, the emission standard lacks an adequate statutory basis under the APCA and the CAA.

First, Section 4006.6 of the APCA expressly precludes the EQB from establishing more stringent performance or emission standards than those established under Section 112 of the federal Clean Air Act ("CAA"), which pursuant to CAA 129(h)(3), includes the MACT performance standards applicable to MWCs. Because EPA's existing MACT standards under 40 C.F.R. Subpart Cb are "deemed standards under 7412(d)(2)," the EQB's imposition upon MWCs of a more stringent emission standard contravenes the APCA.

Second, Section 4004.2 of the APCA expressly precludes the EQB from establishing control measures or other requirements more stringent than those required by the CAA, unless the EQB determines that it is reasonably necessary to achieve or maintain ambient air quality standards.<sup>6</sup> Here, there is no question that the proposed rule as applied to

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<sup>6</sup> Section 4004.2 of the APCA states:

(a) In implementing the requirements of section 109 of the Clean Air Act, the board may adopt, by regulation, only those control measures or other requirements which are reasonably required, in accordance with the Clean Air Act deadlines, to achieve and maintain the ambient air quality

MWCs is more stringent than the CAA. As discussed previously, NOx emissions from MWCs are already subject to stringent federal standards and the Department has failed to articulate any reason to depart from these strict standards. In contrast, most of the non-MWC sources to be regulated under the Proposed Rule have no NOx limits applied to them.

Similarly, the application of the rule to MWCs cannot be justified by claiming the measure was determined to be necessary to achieve attainment with the NAAQS in the Philadelphia CSMA. Since the OTC and the Department did not include NOx emission reductions from MWCs in determining the benefits of the proposed rulemaking, it is difficult to see how the Department can now consider additional NOx control on MWCs to be necessary in order to show reasonably further progress or to achieve attainment of the ozone NAAQS. Reducing NOx emissions by 3 tons per day in the Philadelphia area can be achieved by emission reductions or fuel switching at the other sources.<sup>7</sup>

Third, the proposed emission limitation lacks an adequate statutory basis under the APCA and CAA because it does not meet the definition of an "additional control measure" under CAA Section 184 and the Department has failed to articulate any other statutory basis for the proposed rule. While the Department states that the emission limitation for boilers was derived from the OTC's model rule, as previously discussed, the model rule did not regulate MWCs. Therefore, the Department can find no statutory support for the proposed rule in the CAA's grant of authority to the OTC. See CAA

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standards or to satisfy related Clean Air Act requirements, unless otherwise specifically authorized or required by this act or specifically required by the Clean Air Act.

(b) Control measures or other requirements adopted under subsection (a) of this section shall be no more stringent than those required by the Clean Air Act unless authorized or required by this act or specifically required by the Clean Air Act. This requirement shall not apply if the board determines that it is reasonably necessary for a control measure or other requirement to exceed minimum Clean Air Act requirements in order for the Commonwealth:

- (1) To achieve or maintain ambient air quality standards;
- (2) To satisfy related Clean Air Act requirements as they specifically relate to the Commonwealth;
- (3) To prevent an assessment or imposition of Clean Air Act sanctions; or
- (4) To comply with a final decree of a Federal court.

35 P.S. 4004.2.

<sup>7</sup> The ability of additional NOx reduction to assist with ozone attainment in the Philadelphia area is suspect for another reason. The Philadelphia area and other portions of the severe ozone nonattainment area are "VOC limited." A VOC limited region is one where the concentration of ozone depends on the amount of VOC in the atmosphere, rather than the amount of NOx. Indeed, in certain VOC limited areas, decreasing NOx emissions can (paradoxically) result in increased ambient ozone concentrations. The Department and EPA, in recognition of these facts and the NOx ERC shortfalls, have recently approved of VOC for NOx substitution for offset purposes in New Source Review permitting in the Philadelphia CSMA.

Section 184, 42 U.S.C. § 7511c. Nor can the Department find statutory support for the proposed rule in any other CAA emission limitation authority as it failed to conduct any technical or economic analysis in support of the proposed emission limitation for MWCs. This failure is problematic because rules and regulations adopted by the EQB to implement the provisions of the CAA must be consistent with the requirements of the CAA and the regulations adopted thereunder. See APCA Section 4005(a)(8). Thus, while the proposed emission limitation for MWCs is quite clearly a technology-forcing standard (requiring existing sources to retrofit emissions units with expensive new control technology), the Department fails to articulate whether its proposed emissions limitation of 0.2 lbs/MMBTU NO<sub>x</sub> is based on a RACT analysis (i.e. the available control options with a reasonable potential for application to a source based on existing controls for the source category and technology transfer controls applied to similar source categories), a BACT analysis (i.e. the maximum degree of reduction determined to be achievable taking into account energy, environmental and economic impacts and other costs), or even a LAER analysis (i.e. the most stringent emission limitation contained in the implementation plan of any state for such class or category of source unless such limitations are not achievable).

Accordingly, because the proposed NO<sub>x</sub> emission limitation lacks support under the CAA, so too must it lack support under the APCA by virtue of Section 4005(a)(8). For these reasons, we question whether the EQB even has the legal authority to promulgate the emission standards proposed.

**3. Application of the Proposed Rule to MWCs is Inconsistent with Prior Determinations by the Department and EPA in Similar Rulemakings**

Both EPA and the Department have previously considered whether additional NO<sub>x</sub> controls on MWCs are warranted for purposes of achieving or maintaining the NAAQS for ozone. In EPA's NO<sub>x</sub> SIP call rule (on which the proposed rule, the OTC Model Rule, and the Chapter 145 rule are all based), EPA unequivocally stated that MWCs would not be included because of the current MACT regulations governing NO<sub>x</sub>, and since additional control measures or lower emission limits would not be cost-effective. See 63 Fed. Reg. at 57403-57404 and 57418 (October 27, 1998). Accordingly, it is difficult to see how the Department can now consider additional NO<sub>x</sub> control of MWCs to be necessary in order to achieve attainment.

Similarly, the Department's interpretation that the proposed rulemaking is applicable to MWCs is not consistent with the scope of the NO<sub>x</sub> Budget Rule nor with previous determinations of applicability with specific sources. The Department appears to rely on the terms "solid or liquid fuel" in Chapter 145 to support an extension of the proposed rules to MWCs. In Chapter 145, the definition of "boiler" is limited to fossil-fuel fired boilers because the applicability provisions of Chapter 145 divide NO<sub>x</sub> budget sources into "electric generating units" and "non-electric generating units." Chapter 145 further defines "units" as fossil-fired stationary boiler, combustion turbine or combined cycle system." The reference to "solid fuel" in Chapter 145 refers back to language used in the Chapter 145 definition of "fossil fuel" as "natural gas, petroleum, coal, or any form of

solid, liquid or gaseous fuel derived from this material." Chapter 145 accordingly defines "fossil-fired units" as those that "commenced operation before January 1, 1996, the combination of fossil fuel, alone or in combination with any other fuel, where fossil fuel actually combusted comprises more than 50% of the annual heat input on a Btu basis during 1995, or, if a unit has no heat input in 1995, during the last year of operation of the unit prior to 1995," which is clearly not applicable to MWCs.<sup>8</sup>

**4. The proposed rule, if applied to MWCs, is unreasonable because the emission limit proposed is not economically feasible**

In its regulatory impact analysis of the NOx SIP Call, FIP, and Section 126 Petitions, EPA based its analysis of costs and economic impacts for non-electric generating units on low NOx burners as the default, and in some cases, SNCR. EPA applied a cost-effectiveness benchmark of \$2,000 per ton of NOx removed. See 64 Fed. Reg. 28250, 28299 (May 25, 1999). To achieve the reductions at MWCs, however, would require selective catalytic reduction (SCR) technology that has a marginal cost far in excess of EPA's benchmark of \$2,000 per ton of NOx removed. A selective non catalytic reduction (SNCR) system such as the one that is installed on the Facility is not capable of reducing NOx emissions down to the level of the proposed rule, (approximately 90 ppm<sub>dv</sub> corrected to 7% oxygen), 0.20 lbs/MMBTU. This system would have to be supplemented or replaced with a potentially more effective technology such as SCR. SCR has been used on fossil fuel boilers, but has not been successfully implemented on municipal waste combustors in the United States.<sup>9</sup>

Our preliminary estimate of the costs for reducing NOx emissions from the Montgomery County Resource Recovery Facility using SCR is estimated to exceed \$16,304 per ton during the five month ozone season. This estimate is based on a capital cost of \$17,000,000 and ozone season O&M cost of \$1,075,428. Therefore, had the Department performed the requisite cost-effectiveness analysis, it would have determined that the costs of the proposed emission standard far outweigh any marginal air quality benefits.

Based on the foregoing analysis, the Proposed Rule NOx emission limit of 0.20 lbs/MMBTU, as applied to MWCs, is not technically feasible or cost effective.

<sup>8</sup> Montenay limits its annual capacity factor for fossil fuel consumption (auxiliary fuel) to less than 10%.

<sup>9</sup> Montenay and the WSA have previously addressed the technical feasibility issues associated with SCR in numerous submissions to EPA and the Department, including but not limited to the RACT proposals (supplemented in 1999). Likewise our review of EPA's RACT/BACT/LAER Clearinghouse indicates that no MWC has installed SCR control technology.

**Thank you for the opportunity to submit comments on the Proposed Rulemaking for Small Sources of NOx, Cement Kilns and Large Internal Combustion Engines.**

**Respectfully Submitted,**

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**Thomas Murphy  
Facility Manager  
Montgomery County Resource Recovery Facility**

**On behalf of Montenay Montgomery Limited Partnership  
and the Waste System Authority of Eastern Montgomery County**



**COUNTY OF MONTGOMERY  
COURT HOUSE  
P.O. BOX 311  
NORRISTOWN, PENNSYLVANIA  
19404-0311**

**COUNTY OF MONTGOMERY****COMMISSIONERS****MICHAEL D. MARINO, ESQ.****CHAIRMAN****JAMES R. MATTHEWS      RUTH S. DAMSKER****ROBERT W. GRAF****CHIEF OPERATING OFFICER****RICHARD D. WINTERS, ESQ.****SOLICITOR**

(610) 278-3020    FAX: (610) 2785943  
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February 5, 2003

The Honorable Kate Harper  
61st District  
1515 DeKalb Pike, Suite 106  
Blue Bell, PA 19422

Dear Representative Harper:

The Montgomery County Board of Commissioners and the Board of Directors of the Waste System Authority of Eastern Montgomery County respectfully request your involvement in averting an unnecessary six million dollar (\$6,000,000) air pollution control system retrofit to the waste-to-energy (WTE) facility in Plymouth Township. The burden of such a retrofit would fall upon the residents and businesses of twenty-two eastern Montgomery County municipalities. This retrofit would be required only if WTE facilities are not exempted from the proposed Pennsylvania Department of Environmental Protection (PADEP) regulations targeting Nitrous Oxide (NOx) emissions from certain sources. We believe the inclusion of WTE facilities with other very different sources of NOx emissions was either an inadvertent mistake or an overextension of regulatory intent.

The Waste System Authority's recent testimony and written comments are attached for your consideration. The comment period has ended and the Waste System Authority's comments regarding its affiliated WTE facility, along with the testimony of other WTE facility representatives, are currently under review by the Environmental Quality Board (EQB). If WTE facilities are not eliminated from the proposed regulations as a result of these well-reasoned comments, the next opportunity to do so is in the Senate and House Environmental Resources and Energy Committees.

We believe the arguments contained in the Waste System Authority's testimony and comments to the EQB and capsulized below make a compelling case to eliminate WTE facilities from the regulations:

- 1) WTE facilities were not intended to be covered by these proposed regulations issued by PADEP.
- 2) The WTE industry was not consulted during the regulation drafting process as is the usual practice.
- 3) No customary cost-benefit analysis was done for the waste-to-energy sector in the development of these proposed regulations.
- 4) WTE facilities are already tightly controlled by the existing Maximum Achievable Control Technology regulations.

We are urging you to express our concerns with the proposed regulations to the Environmental Resources and Energy Committee Chair Mary Jo White and Minority Chair Raphael Musto in the Senate and Committee Chair Arthur Hershey and Minority Chair Camille George in the House.

Please feel free to contact us or the Waste System Authority's Executive Director, Tim Hartman (610-278-3045), if there is anything we can do to assist your efforts on our behalf. Thank you for considering this request of import to the residents and businesses of eastern Montgomery County.

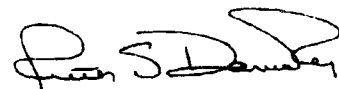
Sincerely,



Michael D. Marino  
Chairman



James R. Matthews  
Commissioner



Ruth S. Damsker  
Commissioner

cc: Senate Environmental Resources and Energy Committee  
House Environmental Resources and Energy Committee  
Waste System Authority Board of Directors  
Participating Municipalities

**Comments on Proposed Rulemaking  
to amend 25 PA Code Chapters 121, 129 and 145**

**Small Sources of NOx Cement Kilns and large Internal Combustion Engines**

Public Hearing held at the  
Department of Environmental Protection  
Southeast Regional Office  
Conshohocken, PA

November 25, 2002

My name is Tim Hartman, Executive Director of the Waste System Authority of Eastern Montgomery County, located at 151 West Marshall St., Bldg. #3, Suite #100, Norristown, PA 19401.

I am speaking on behalf of the Board of Directors of the Waste System Authority of Eastern Montgomery County. As the public sector partner of Montanay's waste to energy project in Plymouth Township, the Authority pays approximately 90% of the cost of operating this Facility for the duration of our service agreement, which ends on December 31, 2014. Additional project costs resulting from the proposed regulations fall on the Authority, its twenty-two member municipalities, their residents and businesses. Late last week, we were notified by Montanay Montgomery Limited Partnership, that the proposed regulations might apply to the Montgomery County Resource Recovery Facility.

It is my understanding that the proposed regulations were not intended to cover waste-to-energy facilities. It is also my understanding that the Air Quality Technical Advisory Committee did not contact waste-to-energy facilities as part of their evaluation of the proposed rulemaking.

Under section 111(d)/129 of the Clean Air Act, the Environmental Protection Agency (EPA) promulgated Emission Guidelines to control the emission of combustor gases from existing large municipal waste combustors (December 19, 1995 and August 15, 1997). The guidelines are codified at 40 CFR Part 60, Subpart Cb. These guidelines comprehensively regulate emissions of specific pollutants, including NOx, for all large (capable of combusting more than 250 tons per day) waste-to-energy facilities constructed on or before September 20, 1994 in the United States. In 1998, the Pennsylvania Department of Environmental Protection submitted a State Plan for large waste-to-energy facilities to EPA. In accordance with the Plan, the Department has implemented the Emission Guidelines by incorporating the applicable requirement of 40 CFR Part 60, Subpart Cb into Federally Enforceable State Operating Permits. Years of effort were expended by Department personnel and industry representatives to develop fair limits consistent with federal guidelines issued by the EPA.

The Waste System Authority of Eastern Montgomery County and Montenay have been proactive in our operation of the resource recovery facility regarding the reduction of NOx. The Authority has spent in excess of \$1.7 million to install a NOx reduction system to comply with 40 CFR Part 60, Subpart Cb. Our NOx reduction system has been operating continuously since 1999. In addition, due to the existing market for emission reduction credits (ERC's), Montenay and the Authority have been investigating the over control of NOx below the existing permit limits. The proposed rule would undermine our efforts to over control beyond the permit limits for all twelve (12) months of the year.

In our view, the Department should amend these proposed regulations to exclude the existing waste-to-energy facilities that are subject to the federal and state-implemented Emission Guidelines.