

**Small Business Ombudsman/Small
Business Environmental Assistance
Program National Conference
Harrisburg, PA
June 19, 2008**

Pennsylvania Air Quality Update

Joyce E. Epps
Director, Bureau of Air Quality
Pennsylvania Department of Environmental Protection
400 Market Street
Harrisburg, PA 17105-8468



Topics Covered

- Eight-Hour Ozone National Ambient Air Quality Standard (NAAQS)
 - Redesignation Requests
 - Philadelphia Area Attainment Demonstration
 - Revised Ozone NAAQS
- PM2.5 NAAQS
 - Annual PM2.5 Attainment Demonstrations
 - Revised 24-Hour PM2.5 NAAQS Designation Recommendations
- Proposed Lead NAAQS
- Criteria Pollutant Attainment Summary
- Regulatory Initiatives
- Area Source Maximum Achievable Control Technology Standards



Eight-Hour Ozone NAAQS

- In 1997, U.S. Environmental Protection Agency (EPA) promulgated eight-hour ozone and fine particulate standards.
- Litigation delayed implementation of the revised ozone NAAQS.
- The U.S. Supreme Court upheld the validity of the standards in 2002.
- In 2004, the designated 37 counties in PA as eight-hour ozone nonattainment areas.
 - 1997 standard: 0.08 ppm
- All areas in PA are currently monitoring attainment except the 5-county Philadelphia Area and the seven-county Pittsburgh-Beaver Valley Area.



Eight-Hour Ozone NAAQS (Cont'd)

- EPA has approved redesignation requests and maintenance plans for the following areas:
 - Adams, Berks, Blair, Cambria, Carbon, Centre, Cumberland, Dauphin, Erie, Franklin, Lancaster, Lackawanna, Lebanon, Lehigh, Luzerne, Mercer, Monroe, Northampton, Perry, Tioga, Wyoming, and York Counties.
- EPA requested that redesignation requests for Greene and Indiana/Clearfield Counties be revised to adjust forecasted emission inventories; approval of request pending.



Eight-Hour Ozone NAAQS (Cont'd)

- June 2007– PA DEP submitted a redesignation request, maintenance plan and mobile budgets for the seven-county Pittsburgh-Beaver Valley Area (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington and Westmoreland Counties).
- August 2007– EPA proposed approval of the redesignation request; violations of the standard occurred.
- July 2008 – PA will withdraw the request and develop an attainment demonstration for the area.
- September 2008 – EPA intends to propose a rulemaking to reclassify the Pittsburgh-Beaver Valley Area.
- September 2009 – final rulemaking expected.
- June 10, 2010 – attainment date for 1997 ozone standard.



Philadelphia Area Eight- Hour Ozone Attainment Demonstration

- The Philadelphia “moderate” eight-hour ozone nonattainment area includes:
 - Bucks, Chester, Delaware, Montgomery and Philadelphia Counties
 - Portions of Delaware, New Jersey, and Maryland.
- The attainment date for the 1997 ozone standard is June 15, 2010.
- Based on ambient air quality data for 2005-2007, EPA has expressed concerns regarding the attainment demonstration for the area.
- Additional control measures are being adopted expeditiously to supplement the attainment demonstration.



Revised Eight-Hour Ozone NAAQS

- On March 12, 2008, EPA adopted new primary and secondary eight-hour ozone NAAQS which established identical health and welfare-based standards of 0.075 parts per million.
- Based on 2005-2007 data, 28 counties in PA are currently monitoring nonattainment of the new standard.
- December 2008--PADEP will propose designation recommendations.
- March 2009 –PA will submit final designation recommendations to EPA.
- March 2010 – EPA will issue designations if sufficient data is available.
- March 2013 – Attainment demonstrations due to EPA.
- March 2013-2030 – Attainment dates depending on severity of ozone pollution.

Revised Ozone Air Quality Index

- New AQI “cut points” will be used for the air quality forecasting this ozone season based on the adjusted AQI.
- Code ORANGE or higher on the AQI scale has been lowered from 85 parts per billion (ppb) to 76 ppb.
- This 9 ppb drop in the Code ORANGE cut point will increase the number of days that we call Air Quality Action Days for ozone.

Category	AQI Value	1997 8-hour (ppm)	2008 8-hour (ppm)
Good	0-50	0.000-0.064	0.000-0.059
Moderate	51-100	0.065-0.084	0.060-0.075
Unhealthy for Sensitive Groups	101-150	0.085-0.104	0.076-0.095
Unhealthy	151-200	0.105-0.124	0.096-0.115
Very Unhealthy	201-300	0.125-0.374	0.116-0.374
Hazardous	301-400	No Change	No Change
	401-500	No Change	No Change



Ozone: Air Quality Action Days

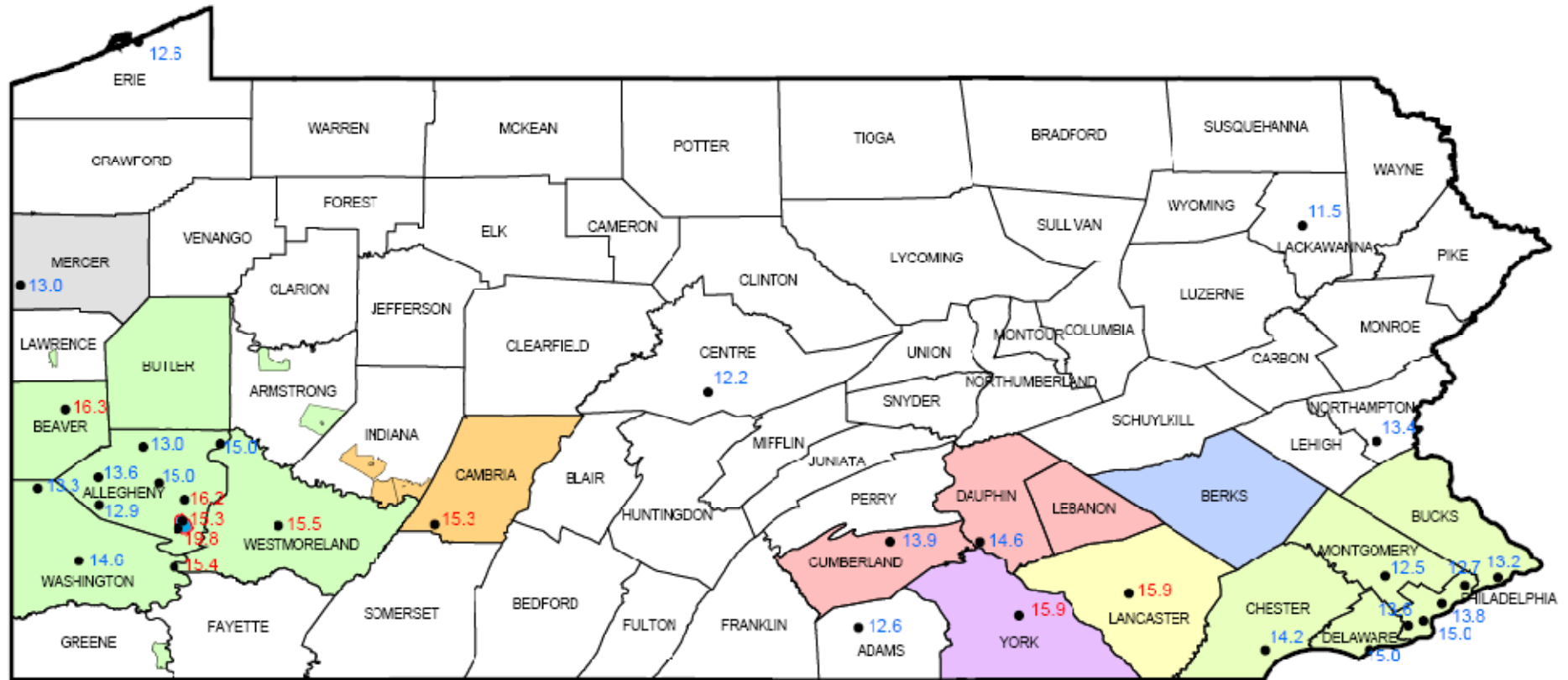
- **Southwest Pittsburgh-Beaver Valley**
 - Old AQI: 7 days per year
 - New AQI: 22 days per year
- **Susquehanna Valley**
 - Old AQI: 4 days per year
 - New AQI: 15 days per year
- **Lehigh Valley / Berks**
 - Old AQI: 5 days per year
 - New AQI: 13 days per year
- **Philadelphia Area**
 - Old AQI: 20 days per year
 - New AQI: 45 days per year



PM2.5 National Ambient Air Quality Standards

- PM2.5 NAAQS promulgated by EPA in 1997.
 - Annual standard – 15 ug/m³
 - Twenty-four hour standard – 65 ug/m³
- EPA designated 17 counties and 4 partial counties in PA as nonattainment areas for the annual PM2.5 standard; effective on April 5, 2005.
- Attainment demonstrations currently under development were due to EPA in April 2008.
- States must attain the annual standard by April 2010.
- Most areas in PA should attain the annual standard by the attainment date, except the Liberty-Clairton PM2.5 nonattainment area in Allegheny County.

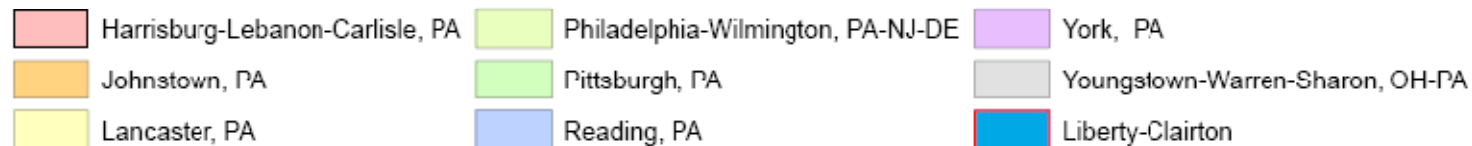
2007 Annual PM_{2.5} Design Values



Appearing in Red - 2007 Annual PM 2.5 Design Values Above the Standard of 15.0 ug/m³

Appearing in Blue - 2007 Annual PM 2.5 Design Values Below the Standard of 15.0 ug/m³

Annual PM 2.5 Designations Areas



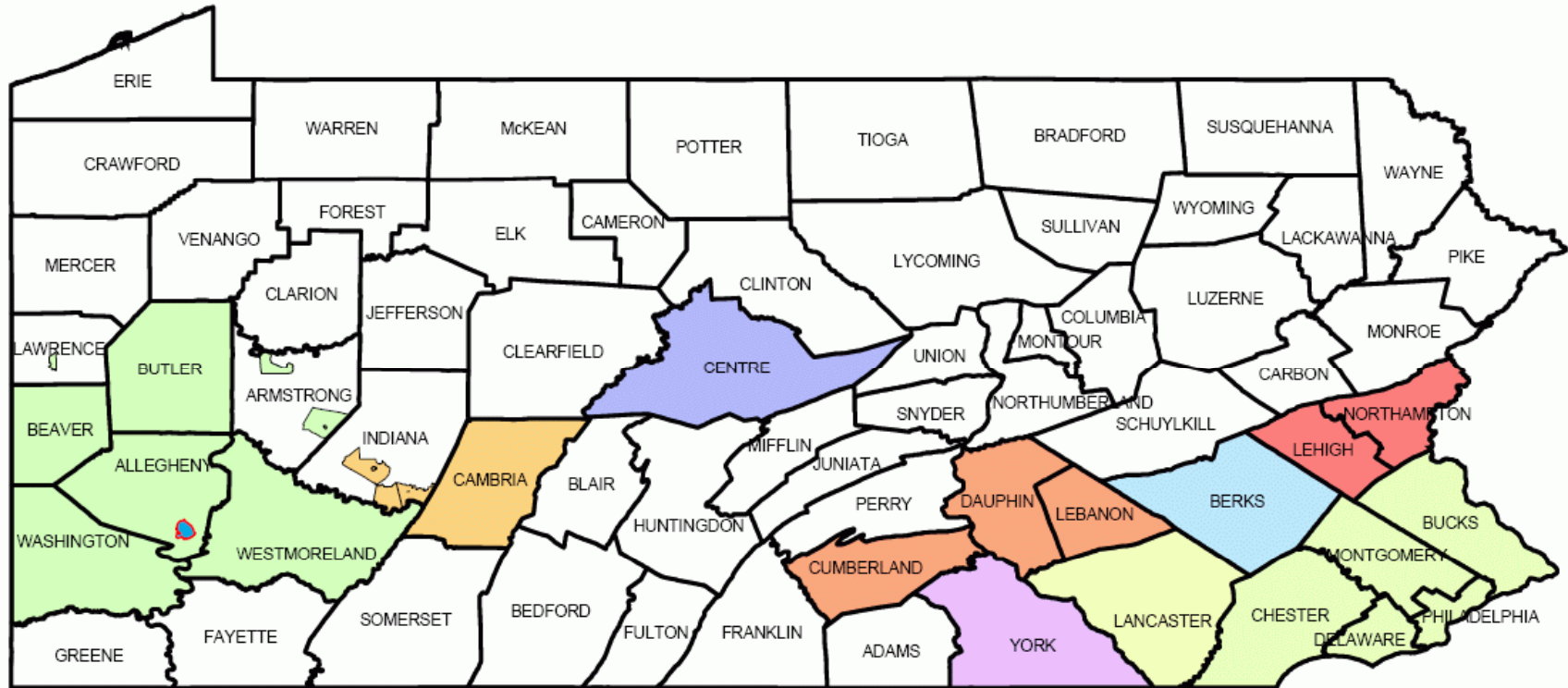
Areas are Shaded Based on EPA's December 17, 2004 Designations and as Amended on April 14, 2005



Revised 24-Hour PM_{2.5} NAAQS

- On October 17, 2006, EPA lowered the 24-hour PM_{2.5} NAAQS to 35 µg/m.³
- Pennsylvania submitted designation recommendations to EPA on December 28, 2007 for 20 counties and partial county designations for Armstrong, Indiana and Lawrence counties.
- A separate designation was recommended for the Liberty-Clairton Area in Allegheny County.
- A revised designation will be submitted for Centre County which is now monitoring attainment of the revised PM NAAQS.
- EPA will finalize the designations in December 2008.
- Attainment demonstrations will be due to EPA three years after final designations.

Recommended 24-hour PM 2.5 Nonattainment Areas



Proposed 24-Hour PM 2.5 Designation Areas

- | | | | |
|---------------------------------|-----------------------------------|-------------------|------------------|
| Attainment Counties | Johnstown, PA | Pittsburgh, PA | York, PA |
| Allentown-Bethlehem-Easton, PA | Lancaster, PA | Reading, PA | Liberty-Clairton |
| Harrisburg-Lebanon-Carlisle, PA | Philadelphia-Wilmington, PA-NJ-DE | State College, PA | |



Proposed Revisions to Lead NAAQS

- On May 1, 2008, EPA announced that the current lead NAAQS of 1.5 micrograms of lead per cubic meter of air ($\mu\text{g}/\text{m}^3$) is not sufficient to protect public health with an adequate margin of safety.
- The proposed rule sets the primary lead standard within a range of 0.10 to 0.30 $\mu\text{g}/\text{m}^3$, as measured in total suspended particles (TSP).
- EPA is also seeking comments on alternatives including alternative levels of the standard ranging from less than 0.10 $\mu\text{g}/\text{m}^3$ to as high as 0.50 $\mu\text{g}/\text{m}^3$.



Proposed Revisions to Lead NAAQS

- Based on 2004-2006 monitored data, Beaver, Berks and Carbon Counties in PA would be designated as lead nonattainment areas if the final standards are within a range of 0.10 to 0.30 $\mu\text{g}/\text{m}^3$.
- EPA is proposing to require additional ambient air monitoring and has indicated that \$9.5 million may be needed for 500 lead monitors nationwide.
- State and local agencies believe that EPA should provide funding under Section 103 of the Clean Air Act to meet the monitoring requirements.
- NOTE: Comments due to EPA no later than July 21, 2008.



Status of Attainment in Pennsylvania for the National Ambient Air Quality Standards

NAAQS	Current Status
Carbon Monoxide	Attainment
Nitrogen Dioxide	Attainment
Lead	Attainment
One-hour Ozone	Attainment
Eight-hour Ozone (1997)	Attainment (55 counties)
Eight-hour Ozone (2008)	~ 28 counties monitoring nonattainment
PM-10	Attainment
Annual PM2.5 (1997)	Nonattainment (21 Counties including partial counties)
Twenty-four hour PM2.5 (2007)	~23 counties monitoring nonattainment



Regulatory Actions

- Permit Streamlining
- Consumer Products
- Architectural and Industrial Maintenance (AIM) Coatings
- Diesel Vehicle Idling
- Cement Kilns
- Glass Melting Furnaces



Permit Streamlining Amendments

- May 24, 2008 – amendments to streamline the air quality permitting process were published in the Pennsylvania Bulletin (38 Pa.B. 2365).
- The final-form regulation provides that an application is administratively complete if it contains the necessary information, maps, fees and other documents requested in the application.
- Action by the Department is required within 30 days of receipt of a complete application; supplemental information will be requested if the application is not complete.
- If the requested information is not provided within 10 working days of receipt of the request, the Department will return the application and fees to the applicant.



Permit Streamlining Amendments

- The final-form regulation requires the Department to publish in the *Pennsylvania Bulletin* a combined notice of receipt and intent to issue plan approvals for the construction, modification or reactivation of minor air contamination sources or the installation air cleaning devices.
- Notice requirements include a brief description of the following:
 - air contamination source to be constructed, modified, reactivated or installed.
 - air cleaning device or control technology required including best available technology.
 - type of conditions being placed in the plan approval with reference to applicable state and federal requirements.
 - the type and quantity of air contaminants being emitted.



Electronic Requests for Determinations (eRFD*Online) System

- Requests for Determinations (RFD) are used by applicants to determine if a plan approval application is required for the construction or modification of certain air contamination sources.
- The eRFD*Online process is designed to:
 - Accelerate the RFD evaluation process.
 - Improve data quality by reducing data processing errors and incomplete submissions.



What is RFD*Online?

- Requests for Determinations Online is a secure Web site launched by the Department in May 2007 for online RFD data entry.
- To date, 350 eRFD applications have been filed; 289 of the electronic submittals have been approved; others are pending.
- The RFD*Online application is available at the Department's "GreenPort" web portal: www.DEPgreenport.state.pa.us



Consumer Products Final Rulemaking

On June 17, 2008, the Environmental Quality Board unanimously adopted the final-form Consumer Products regulation. Specifically, these amendments will:

- define terms and definitions and establish VOC content limits for eleven new consumer product categories including construction paneling and floor coverings, contact adhesives, antistatic products, electric and electronic cleaners.
- Require compliance by 1/1/2009 for new consumer product categories.
- Allow for the sell-through of products that meet date or date-code labeling requirements



Consumer Products Final Rulemaking

- The Consumer Products regulation applies statewide to any person who sells, supplies, offers for sale, or manufactures consumer products.
- The consumer products regulation is based on a regional strategy designed to achieve additional volatile organic compound (VOC) reductions to attain and maintain the health-based 8-hour ozone National Ambient Air Quality Standards in the Ozone Transport Region (OTR).
- This regional strategy has already been proposed or adopted by other OTR states including CT, DE, ME, MD, MA and NJ.
- Approximately 767 tons per year of additional VOC emission reductions will be realized in PA following the implementation of the VOC-content limits.



Architectural and Industrial Maintenance (AIM) Coatings Amendment

- On June 17, 2008, the Environmental Quality Board also unanimously adopted an amendment to the VOC definition in the AIM Coatings regulation.
- The amended VOC definition will automatically exclude a compound from the listing of VOCs when the EPA “delists” a compound from the Federal VOC definition.
- The amendment addresses several requests for the harmonization of VOC definitions in the Consumer Products and AIM Coatings regulation.



Diesel Idling Rulemaking

- October 2007 – The Environmental Quality Board (EQB) proposed a rulemaking which establishes an idling restriction of 5 minutes in a 60-minute period for diesel-powered commercial motor vehicles with a number of exemptions including exemptions for:
 - State or Federal inspections to verify that all equipment is in good working order, provided idling is required as part of the inspection.
 - The maintenance, service or repair of vehicles for vehicle diagnostic purposes.
 - Operation of defrosters, heaters, air conditioners or cargo refrigeration equipment, or to install equipment, in order to prevent a safety or health emergency.
 - Police, fire, ambulance, public safety, military or other vehicles while being used in an emergency or training capacity
- Idling restrictions would apply at locations where on-road diesel vehicles load, unload, or park.



Diesel Idling Rulemaking

- By the end of the comment period on March 17, 2008, the EQB had received comments from 568 commentators; petitions including approximately 2200 signatures were filed in support of the regulation.
- The final-rulemaking has been developed for EQB consideration on August 19, 2008.
- The Department estimates that the rulemaking will reduce emissions in the Commonwealth by approximately 1,610 tons of NO_x, 45 tons of VOC and 30 tons of particulate matter once the temperature exemption expires.



Diesel Idling Rulemaking

- The final rule will apply to owners and operators of diesel-powered motor vehicles with a gross vehicle weight rating (GVWR) of 10,001 pounds or more.
- The idling restrictions will not apply to motor homes, farm equipment or farm vehicles.
- An exemption is also provided when idling is necessary for an occupied vehicle equipped with a sleeper berth compartment to operate air conditioning or heating during a rest period and the outside temperature at the location of the vehicle at the start of the rest period is less than 40° F or greater than 75° F.
 - Exemption expires May 1, 2010.
 - The exemption does not apply if the vehicle is parked at a location equipped with stationary idle reduction technology that is available for use at the start of the rest period.



Diesel Idling Rulemaking

- Permanent idling restriction signs will be required.
- An owner or operator of a location where vehicles, subject to the regulation, load or unload or a location that provides 15 or more parking spaces for vehicles subject to the final rulemaking must erect and maintain a permanent sign to inform drivers that idling is restricted in Pennsylvania.
- The signs must comport with applicable PennDOT requirements.



Cement Kiln and Glass Melting Furnace Proposed Rulemakings

- The Environmental Quality Board (EQB) approved proposed cement kiln and glass manufacturing rulemakings on February 19, 2008.
- The proposed rulemakings will reduce NO_x emissions, establish monitoring requirements and provide alternative compliance options.
- The proposals were published in the *Pa. Bulletin* on April 19, 2008 (38 Pa.B. 1838, 38 Pa.B. 1831); three public hearings were held in May 2008.
- The public comment period will close on June 23, 2008.



Cement Kiln Proposed Rulemaking

- The proposal applies to an owner or operator of a Portland cement kiln in Pennsylvania.
- Allowable NO_x emissions must be determined during the interval from May 1 through September 30, 2009, and each year thereafter, by multiplying the tons of clinker produced by each kiln by:
 - 3.88 pounds of NO_x per ton of clinker produced for long wet-process cement kilns.
 - 3.44 pounds of NO_x per ton of clinker produced for long dry-process cement kilns.
 - 2.36 pounds of NO_x per ton of clinker produced for preheater cement kilns or precalciner cement kilns.



Cement Kiln Proposed Rulemaking

- Compliance must be demonstrated as follows by May 1, 2009, and each year thereafter.
 - On a kiln-by-kiln basis.
 - Facility-wide emissions averaging.
 - System-wide emissions averaging among cement kilns under common control of the same owner or operator in Pennsylvania.



Glass Melting Furnace Proposed Rulemaking

- The proposal applies to an owner or operator of a glass melting furnace that emits or has the potential to emit NO_x at a rate greater than 50 tons per year or 20 pounds per hour.
- Allowable NO_x emissions must be determined during the interval from May 1 through September 30, 2009, and each year thereafter, by multiplying the tons of glass pulled by each furnace by:
 - 4.0 pounds of NO_x per ton of glass pulled for container glass furnaces.
 - 7.0 pounds of NO_x per ton of glass pulled for pressed or blown glass furnaces.
 - 4.0 pounds of NO_x per ton of glass pulled for fiberglass furnaces.
 - 7.0 pounds of NO_x per ton of glass pulled for flat glass furnaces.



Glass Melting Furnace Proposed Rulemaking

- Compliance must be demonstrated as follows by May 1, 2009, and each year thereafter.
 - On a furnace-by-furnace basis.
 - Facility-wide emissions averaging.
 - System-wide emissions averaging among glass melting furnaces under common control of the same owner or operator in Pennsylvania.



Maximum Achievable Control Technology Standards

- All Maximum Achievable Control Technology (MACT) emission standards or practices adopted by EPA under Section 112 of the Clean Air Act are incorporated by reference in the Air Pollution Control Act and *Pennsylvania Code*.
- The Department has accepted “straight delegation” for implementation and enforcement of the 40 CFR Part 63 standards for all major sources of hazardous air pollutants.
- EPA retained sole authority for approval of alternative emission limits, control technologies, test methods, monitoring methods, and waivers of recordkeeping and reporting requirements.



Area Source Maximum Achievable Control Technology Standards

- The Department has also accepted delegation of authority to implement and enforce area source MACT standards for the following:
 - Perchloroethylene drycleaning facilities
 - Hard and decorative chromium electroplating and chromium anodizing tanks
 - Ethylene oxide sterilization facilities
 - Halogenated solvent cleaning operations
 - Secondary lead smelting facilities.
- The Department is currently in negotiations with EPA Region 3 regarding the delegation of additional area source MACT standards.



Area Source Maximum Achievable Control Technology Standards

- Additional area source categories under consideration for delegation by the Department include:
 - Clay Ceramics
 - Flexible Foam
 - Iron & Steel Foundries
 - Lead Acid Battery
 - Municipal Landfills
 - Pressed & Blown Glass
 - Gasoline Distribution (at terminals)
- EPA is encouraging state and local agencies to also accept delegation for “large universe” source categories; outreach and compliance assistance programs would be developed.



Enforcement of MACT Requirements

- Delegated MACT standards are generally enforced by PADEP and the local air pollution control programs in Philadelphia and Allegheny Counties, as appropriate.
- It is within EPA's discretion, however, to initiate separate enforcement actions for Section 112 violations and pursue additional civil penalties or other relief, as appropriate.
- In certain instances, joint enforcement actions are pursued to avoid "over filings" by EPA.



Thank you!

On Behalf
Of

Kathleen A. McGinty, Secretary
PA Department of Environmental Protection