

## **PROPOSED RULEMAKING**

### **DEPARTMENT OF ENVIRONMENTAL PROTECTION**

#### **[25 PA. CODE CHS. 121 AND 129]**

#### **Control of Nitrogen Oxide (NO<sub>x</sub>) Emissions from Glass Melting Furnaces**

The Department of Environmental Protection (Department) is soliciting comments on changes it recommends be made to the glass melting furnaces proposed rulemaking published at 38 *Pa. B.* 1831 (April 19, 2008).

The draft final rulemaking establishes in 25 *Pa. Code* Chapter 129 (relating to standards for sources) NO<sub>x</sub> emission control requirements, emission limit standards, and emission limitations for glass melting furnaces and related administrative requirements for glass melting furnaces. The draft final rulemaking contains definitions of terms in 25 *Pa. Code* Chapter 121 (relating to general provisions) including “blown glass”, “container glass”, “fiberglass,” “flat glass,” “furnace rebuild,” “glass melting furnace,” “pressed glass,” “pull rate,” “rebricking,” “shutdown” and “start-up.” Compliance with the NO<sub>x</sub> emission limits may be demonstrated on a furnace-by furnace basis, facility-wide emissions averaging or by system-wide emissions averaging among glass melting furnaces under common control of the same owner or operator in this Commonwealth. This draft final rulemaking to reduce NO<sub>x</sub> emissions from glass melting furnaces assures that the Commonwealth will continue to experience improved ozone, fine particulate and visibility benefits. NO<sub>x</sub> is a precursor to ozone and fine particulates, which in turn facilitate the formation of haze. Adoption of NO<sub>x</sub> emission limits for glass melting furnaces is part of the Commonwealth’s strategy, in concert with other Ozone Transport Region (OTR) jurisdictions, to reduce transport of ozone to attain and maintain the health-based 8-hour ozone National Ambient Air Quality Standard (NAAQS). In addition, the adoption of this measure will improve public health and social well being by reducing emissions of NO<sub>x</sub> and the subsequent formation of ozone, fine particulates and haze and is reasonably necessary to attain and maintain the health-based ozone and fine particulate NAAQS. To the extent that this regulation is more stringent than any corresponding federal requirements, it is reasonably necessary to achieve and maintain the health-based 8-hour ozone and the fine particulate NAAQS. This draft final rulemaking, if adopted as a final-form regulation, will also be submitted to the U.S. Environmental Protection Agency (EPA) as a revision to the Pennsylvania State Implementation Plan.

#### *A. Summary of the Advance Notice of Final Rulemaking Changes*

In response to comments received during the official public comment period on the proposed rulemaking for glass melting furnaces (38 *Pa. B.* 1831) and following the Department's review of other related information, the Department has prepared a draft final rulemaking for public comment. The draft final rulemaking contains significant changes in several areas. These changes include:

- The draft final rulemaking revises the definition of the term “glass melting furnace” to be consistent with the definition in EPA’s final rule for Hazardous Air Pollutants for Area Sources: Clay Ceramics Manufacturing, Glass Manufacturing, and Secondary Nonferrous Metals Processing (72 FR 73180, December 26, 2009).

- The draft final rulemaking adds the term “rebricking” in *Pa. Code* Chapter 121. The rebricking definition is consistent with the EPA’s Standards of Performance for New Sources definition. (65 FR 61759, October 17, 2000). Furnace rebricking is an important distinction from a furnace rebuild in the glass melting industry, and therefore the draft final rulemaking adds the “rebricking” definition to address industry’s concerns.

- The proposed rulemaking required compliance by May 1, 2009, for any owner or operator of a glass melting furnace that emits or has the potential to emit NOx at a rate greater than 50 tons per year or 20 pounds per hour. The draft final rulemaking requires compliance by January 1, 2011.

- The NOx surrender compliance option which allowed for the purchase NOx Clean Air Interstate Rule (CAIR) allowances has been eliminated from the draft final rulemaking. The U.S. Environmental Protection Agency (EPA) held discussions with the Department subsequent to the closing of the public comment period on June 23, 2008, regarding the proposed rulemaking’s option to demonstrate compliance with the emission limits through the purchase of NOx CAIR allowances under the Federal CAIR regulation. During these discussions, the EPA indicated to the Department that providing a compliance option to purchase NOx CAIR allowances in the final rulemaking would not result in the approval of a revision to the State Implementation Plan (SIP) because glass melting furnaces are not specifically included in the EPA CAIR program as a source category.

- The provision requiring compliance with the emission limits during the ozone season from May-September has been deleted. The draft final rulemaking requires compliance with the NOx emission limits year-round because NOx is a precursor to both the 8-hour ozone and fine particulate national ambient air quality standards. In addition, it is anticipated that EPA will extend the ozone season in Pennsylvania from March 1 to October 31, each year.

- The draft final rulemaking adds a NOx emission limit applicable to a glass melting furnace that produces a glass product that is other than flat, container, fiberglass, pressed or blown. The Department considered commentators who suggested that their furnaces do not produce a glass product listed in the proposed rulemaking, and therefore an “other” category of glass product was added in the draft final rulemaking.

- The draft final rulemaking deletes the exemption from the NOx emission limits for a glass melting furnace where the heat is supplied solely by an electric current from electrodes submerged in the molten glass. The Department believes that for furnaces that supply heat from solely electrical electrodes will not emit NOx emissions greater than 50 tons per year or 20 pounds per hour, and therefore the exemption is unnecessary.

- The draft final rulemaking adds an exemption from the NO<sub>x</sub> emission limits for a glass melting furnace during idling. The Department concurred with commentators who requested the exemption because during an idling scenario, a glass melting furnace would be producing at less than 25% of the permitted production capacity or fuel use capacity in accordance with the applicable requirements in a federally enforceable plan approval or operating permit. When technologically feasible, controls must be operated to minimize emissions during idling.

- The draft final rulemaking adds a petition process for an alternative compliance deadline for any glass melting furnace that demonstrates to the Department's satisfaction that it is economically or technologically infeasible to meet the January 1, 2011, compliance deadline. The Department considered public comments which suggested that some furnaces cannot meet the emission limits without furnace rebuilds or furnace rebricks, and the furnaces are not anticipated to do rebuilds or rebricks before 2011, so allowing for an alternative compliance deadline is reasonable.

- The draft final rulemaking provides a petition process for alternative emission limitations for glass melting furnaces that produce a glass product other than flat, container, fiberglass, pressed or blown glass. The furnaces that produce a glass product other than flat, container, fiberglass or pressed and blown glass were not considered during the glass melting furnaces control measures strategy and planning within the Ozone Transport Commission, so providing them an alternative emission limitation is also reasonable.

- The draft final rulemaking adds a longer furnace start-up exemption time for furnaces that install NO<sub>x</sub> controls that are not in common use or are not readily available from a commercial supplier. The approach is consistent with other states' glass melting furnace's regulations and affords the same flexibility for owners and operators installing NO<sub>x</sub> controls in the Commonwealth.

- The draft final rulemaking provides an owner or operator of a glass melting furnace the option to demonstrate compliance with the emission limits on a furnace-by-furnace basis, facility-wide averaging basis, or a system-wide averaging basis among glass melting furnaces under common control of the same owner or operator in this Commonwealth. The draft final rulemaking includes a prohibition against demonstrating compliance using emissions averaging if an owner or operator of a glass melting furnace, having been granted approval by the Department, has voluntarily opted into a market-based program. The draft final rulemaking stipulates that an emission reduction obtained by emissions averaging to demonstrate compliance with the emission limits will not be considered surplus for emission reduction credit purposes. This prohibition is required to ensure that actual emission reductions due to the implementation of the rulemaking are occurring, and not being traded in a market-based NO<sub>x</sub> program promulgated in the future as part of a Federal CAIR replacement rule. (CAIR was remanded to EPA on December 23, 2008, by the U.S. Court of Appeals for the District of Columbia Circuit. The final rule which is expected in 2011, must be revised to be consistent with the Court's July 11, 2008, decision in *State of North Carolina v. Environmental Protection Agency*, No. 05-1244 (D.C. Cir.).)

- The draft final rulemaking requires a demonstration of compliance with the emission limits on a 30-day rolling averaging basis. Use of an arithmetic average of the daily emissions over a contiguous 30-day period to demonstrate compliance with the NOx emission limitations is consistent with the OTC's model rule and rulemakings adopted or proposed by other OTR jurisdictions.

While there is no legal requirement to provide an opportunity to comment upon the Department's recommendations for final rulemaking, the Department believes further discussion would serve the public interest in this instance.

#### B. *Contact Persons*

For further information or to request a copy of the draft final rulemaking, contact Jane Mahinske, Division of Air Resource Management, Bureau of Air Quality, Rachel Carson State Office Building, 12<sup>th</sup> Floor, P.O. Box 8468, Harrisburg, PA 17101-8468, (717) 783-8949, [jmahinske@state.pa.us](mailto:jmahinske@state.pa.us); or Robert Reiley, Assistant Counsel, Bureau of Regulatory Counsel, 9<sup>th</sup> Floor, Rachel Carson State Office Building, P.O. Box 8464, Harrisburg, PA 17105-8464, (717) 787-7060. Persons with a disability may use the AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). The draft final rulemaking is available electronically through the Department's Web site (<http://www.dep.state.pa.us>), (Quick Access Keyword: Public Participation).

Written or electronic comments should be sent to Jane Mahinske at the previous address. Comments must be received by October 14, 2009. A subject heading of the rulemaking and a return name and address must be included in each letter or transmission. Comments will not be accepted by facsimile or voice mail.

JOHN HANGER  
*Secretary*