

# Executive Summary

## **Final-form Amendments to 25 Pa. Code Chapters 121 and 129**

### **Control of NO<sub>x</sub> Emissions from Glass Melting Furnaces**

The Department of Environmental Protection (Department) recommends final-form amendments to 25 Pa. Code Chapters 121 and 129 (relating to general provisions; and standards for sources) for consideration by the Environmental Quality Board (Board) for the reduction of nitrogen oxide (NO<sub>x</sub>) emissions from glass melting furnace facilities.

#### **Purpose of the Final-form Rulemaking**

NO<sub>x</sub> emissions are precursors to the formation of ground-level ozone and fine particulate matter (PM<sub>2.5</sub>) pollution, both of which are serious human health and public welfare threats. The purpose of this final rulemaking is to amend Chapter 129 to annually limit the NO<sub>x</sub> emissions from glass melting furnace facilities located in this Commonwealth. The owners or operators of the affected facilities would be required to meet NO<sub>x</sub> emission limitations and comply with administrative requirements including emissions monitoring and reporting. These control measures are reasonably necessary as part of the Commonwealth's efforts to attain and maintain the 8-hour ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards. If adopted by the Board, the final regulation will be submitted to the U.S. Environmental Protection Agency (EPA) as a revision to the State Implementation Plan.

#### **Summary of the Final-form Rulemaking**

This final-form regulation amends Chapter 129 to establish §§ 129.301-129.310 (relating to control of NO<sub>x</sub> emissions from glass melting furnaces) which include NO<sub>x</sub> emission control requirements, emission standards, emission limitations and related administrative requirements for the purpose of reducing NO<sub>x</sub> emissions from glass melting furnaces year-round, beginning January 1, 2012. The final-form regulation requires compliance with the NO<sub>x</sub> emission limits year-round, because NO<sub>x</sub> is not only a precursor to ozone formation, which is monitored during the hotter months of the year, but is also a precursor to the formation of PM<sub>2.5</sub> pollution, which is monitored year-round. Definitions of terms are included under Chapter 121 of the final-form rulemaking. Compliance with the final-form NO<sub>x</sub> emission limits may be demonstrated on a furnace-by-furnace basis, on a facility-wide basis or on a system-wide basis. The final-form regulation adds a NO<sub>x</sub> emission limit applicable to a glass melting furnace that produces a glass product that is other than flat, container, fiberglass, or pressed or blown. The final-form regulation provides glass melting furnace owners and operators a petition process for an alternative emission limitation for glass melting furnaces that produce a glass product other than flat, container, fiberglass, or pressed or blown glass. The final rulemaking also provides a petition process to all glass melting furnace owners and operators for an alternative compliance schedule if they are unable to meet the emission limits by January 1, 2012.

The final-form rulemaking adds 13 new terms and definitions to § 121.1 (relating to definitions) including: "blown glass," "cold shutdown," "container glass," "fiberglass," "flat

glass,” “glass melting furnace,” “idling,” “permitted production capacity,” “pressed glass,” “primary furnace combustion system,” “pull rate,” “shutdown” and “start-up.”

Section 129.301 (relating to purpose) provides that the purpose of the rulemaking is to annually limit the emissions of NO<sub>x</sub> from glass melting furnaces.

Section 129.302 (relating to applicability) specifies that the rulemaking applies to an owner or operator of a glass melting furnace that emits or has the potential to emit NO<sub>x</sub> at a rate greater than 50 tons per year.

Section 129.303 (relating to exemptions) provides that the emission requirements under § 129.304 (relating to emission requirements) shall not apply during certain periods. In addition, operating records and documentation must be maintained to support an exemption granted under § 129.303.

Section 129.304 specifies that the NO<sub>x</sub> emissions from a glass melting furnace may not exceed the allowable NO<sub>x</sub> emissions, except during certain periods. This section also provides for petitions for an alternative emission limitation or compliance schedule.

Section 129.305 (relating to start-up requirements) requires certain information to assure proper operation of the furnace during start-up. This section also provides for requests for exemptions from emission limits during start-up.

Section 129.306 (relating to shutdown requirements) specifies that the duration of a glass melting furnace shutdown shall not exceed 20 days.

Section 129.307 (relating to idling requirements) specifies the maximum allowable daily emissions of NO<sub>x</sub> during idling.

Section 129.308 (relating to compliance determination) specifies the date by which a NO<sub>x</sub> continuous emissions monitoring system or an alternate monitoring system or method must be installed, operating and maintained.

Section 129.309 (relating to compliance demonstration) specifies emissions monitoring and glass production data calculation and reporting requirements.

Section 129.310 (relating to recordkeeping) specifies recordkeeping and reporting requirements.

### **Affected Parties**

The final-form rulemaking will affect the owners and operators of 16 glass melting facilities with 26 glass melting furnaces in this Commonwealth. In 2005, these industrial NO<sub>x</sub> emission sources accounted for approximately 21% of the more than 45,000 tons per year of NO<sub>x</sub> emitted from all sources other than electric generating units in this Commonwealth. This final-form regulation will reduce NO<sub>x</sub> emissions from glass melting furnaces by approximately 2,500 tons

per year or 25% from 2005 levels. The owners or operators of the facilities will be required to meet NO<sub>x</sub> emission limitations and emission standards and to comply with administrative requirements including emissions monitoring and reporting.

### **Advisory Groups**

The Air Quality Technical Advisory Committee (AQTAC) reviewed this final-form rulemaking on November 18, 2009. The AQTAC was also briefed at that meeting on comments to the Department's Advance Notice of Final Rulemaking (ANFR) draft final-form rulemaking, which was open for comment from September 12, 2009, to October 14, 2009 (39 *Pa.B.* 5318, September 12, 2009). The AQTAC recommended revisions to the final-form regulation and concurred with the Department's recommendation to present the final-form rulemaking to the Board for consideration. In addition, the final-form rulemaking was discussed with the Citizens Advisory Council Air Committee on December 16, 2009.

### **Public Comment Period and Board Hearings**

The proposed rulemaking was published on April 19, 2008, with a 66-day public comment period and three public hearings that were held May 19, 21 and 23, 2008, in Harrisburg, Wilkes-Barre and Pittsburgh, respectively. The comment period closed on June 23, 2008. As noted above, the ANFR was developed and published to provide a 30-day opportunity for review and comment on the changes from proposed to final-form rulemaking. The ANFR comment period closed on October 14, 2009.