

**ADVANCED NOTICE OF FINAL RULMAKING  
#2683  
EQB #7-420  
CONTROL OF NO<sub>x</sub> EMISSIONS FROM GLASS  
MELTING FURNACES**

PROPOSED RULEMAKING

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

SUBPART C. PROTECTION OF NATURAL RESOURCES

ARTICLE III. AIR RESOURCES

CHAPTER 121. GENERAL PROVISIONS

§ 121.1. Definitions.

The definitions in section 3 of the act (35 P. S. § 4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

\* \* \* \* \*

~~[100% Air-fuel fired—Operation of a glass melting furnace where the oxidant is exclusively ambient air.]~~

\* \* \* \* \*

~~[Air-fuel firing—Operation of a glass melting furnace where greater than 50% of the oxidant for the fuel comes from ambient air.]~~

\* \* \* \* \*

~~Blown glass—Glassware shaped by blowing air into a molten glass gather.~~

\* \* \* \* \*

~~[Complete reconstruction—For purposes of §§ 129.301-129.310 (relating to control of NOx emissions from glass melting furnaces), the replacement of components of an existing glass melting furnace to the extent that the fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable entirely new glass melting furnace.]~~

\* \* \* \* \*

~~Container glass—Glass manufactured by pressing, blowing in molds, drawing, rolling or casting which is used as a container.~~

\* \* \* \* \*

~~Fiberglass—[Material] FOR PURPOSES OF §§ 129.301-129.310, MATERIAL consisting of fine filaments of glass that are combined into yarn and woven or spun into fabrics, or that are used as reinforcement in other materials or in masses as thermal or as acoustical insulating products[-for the construction industry].~~

(Editor's note: A definition of this term was published for comment in the *Pennsylvania Bulletin* on April 4, 2009, in a proposed amendment to Chapter 129 (relating to standards for sources) concerning control of emissions from the use or application of adhesives, sealants, primers and solvents and Chapter 130 (relating to standards for products) concerning adhesives, sealants, primers and solvents. The later of these two rulemakings to be published as a final rulemaking will include both definitions.)

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*Flat glass*—Glass produced by the float, sheet, rolled or plate glass process which is used in windows, windshields, tablespots or similar products.

\* \* \* \* \*

*[Furnace battery*—Two or more glass melting furnaces at a single facility that exhaust to a common stack.]

*Furnace rebuild*—A ~~complete reconstruction which~~ COLD REPAIR THAT is commenced after the end of a furnace campaign period or expected life cycle of a furnace. ~~For the purpose of the compliance deadline in § 129.304 (relating to emission requirements), the effective date of a furnace rebuild is the date of the start of the furnace shutdown.~~

\* \* \* \* \*

*Glass melting furnace* —A unit comprising a refractory-LINED vessel in which raw materials are charged<sup>[3]</sup> AND melted at high temperature~~[, refined and conditioned]~~ to produce molten glass. ~~The unit includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation and appendages for conditioning and distributing molten glass to forming apparatuses. As specified in 40 CFR §60.291 (relating to definitions), the forming apparatuses, including the float bath used in flat glass manufacturing and flow channels in wool fiberglass and textile fiberglass manufacturing, are not considered part of the glass melting furnace.~~

\* \* \* \* \*

*Idling*—For purposes of §§ 129.301-129.310, the operation of a glass melting furnace at less than 25% of the permitted production capacity or fuel use capacity as stated in the plan approval or operating permit.

\* \* \* \* \*

*[Multiple furnaces*—Two or more glass melting furnaces at a single facility that do not exhaust to a common stack.]

\* \* \* \* \*

[~~Oxyfuel fired—Operation of a glass melting furnace where greater than 50% of the oxidant for the fuel is provided from enriched oxygen streams.~~]

\* \* \* \* \*

[~~Oxygen-assisted combustion—Operation of a glass melting furnace where the oxygen content in the oxidant is greater than the oxygen content in ambient air or greater than 20.9% oxygen.~~]

\* \* \* \* \*

Permitted production capacity—The maximum pull rate as stated in the plan approval, operating permit or Title V permit.

\* \* \* \* \*

Pressed glass—Glassware formed by placing a blob of molten glass in a metal mold, then pressing it with a metal plunger or “follower” to form the inside shape. The resultant piece, termed “mold-pressed,” has an interior form independent of the exterior, in contrast to mold-blown glass, whose interior corresponds to the outer form.

\* \* \* \* \*

Primary furnace combustion system—The burners in a glass melting furnace that are used during production of glass.

\* \* \* \* \*

Pull rate—The amount of glass withdrawn from a glass melting furnace, expressed in short tons per day.

\* \* \* \* \*

REBRICKING—THE COLD REPLACEMENT OF DAMAGED OR WORN REFRACTORY PARTS OF THE GLASS MELTING FURNACE.

\* \* \* \* \*

Shutdown—For purposes of §§ 129.301 -129.310 [(relating to exemptions)], the period of time during which a glass melting furnace is TAKEN FROM AN OPERATIONAL TO A NON-OPERATIONAL STATUS BY ALLOWING IT [purposely allowed] to cool DOWN from ITS operating temperature TO A COLD OR AMBIENT TEMPERATURE AS THE FUEL SUPPLY IS TURNED OFF.[and molten glass is removed from the tank for the purpose of a furnace rebuild.]

\* \* \* \* \*

Start-up—For purposes of §§ 129.301 -129.310 [(relating to exemptions)], the period of time, after initial construction, SHUTDOWN or a furnace rebuild, during which a glass melting furnace is heated to stable operating temperature by the primary furnace combustion system.

**CONTROL OF NO<sub>x</sub> EMISSIONS FROM GLASS MELTING FURNACES**

**§ 129.301. Purpose.**

**The purpose of this section and §§ 129.302-129.310 is to limit THE emissions of NO<sub>x</sub> from glass melting furnaces.**

**§ 129.302. Applicability.**

**This section, § 129.301 (relating to purpose) and §§ 129.303-129.310 apply 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 or 20 pounds per hour. [Beginning May 1, 2009, and for each year thereafter, an owner or operator of a glass melting furnace shall comply with this section, §§ 129.301 and 129.303-129.310.]**

**§ 129.303. Exemptions.**

**(a) [This section, §§ 129.301 and 129.302 (relating to purpose; and applicability) and 129.304-129.310 do not apply to glass melting furnaces where the heat is supplied solely by an electric current from electrodes submerged in the molten glass, except that heat may be supplied by other fuels for start-up when the furnace contains no molten glass.]**

**~~(b)~~ The emission requirements in § 129.304 (relating to emission requirements) do not apply during periods of start-up, ~~or~~ shutdown, OR IDLING as defined in § 121.1 (relating to definitions), if the owner or operator complies with the requirements of §§ 129.305, 129.306 and 129.307 (relating to start-up requirements; ~~and~~ shutdown requirements; AND IDLING REQUIREMENTS).**

**~~(e)~~ (b) The owner or operator of a glass melting furnace claiming an exemption under subsection ~~(b)~~ (a) shall notify the Department in writing at least 24 hours prior to initiating shutdown,~~or~~ start-up, OR IDLING. The methods for submitting the written notice may include e-mail, hand or courier delivery, CERTIFIED mail or facsimile transmissions to the appropriate regional office described in § 121.4 (relating to regional organization of the Department). The notification must include:**

**(1) The date and time of the start of the exempt operation.**

**(2) The reason for performing the operation and an estimated completion date.**

**~~(d)~~ (c) The owner or operator of a glass melting furnace granted an exemption under this section shall maintain operating records or documentation, or both, necessary to support the claim for the exemption. The records shall be maintained**

for 5 years onsite and made available or submitted to the Department upon request.

~~[(e)] (d) The owner or operator of a glass melting furnace shall notify the Department in writing within 24 hours after completion of the operation for which the exemption is claimed.~~

§ 129.304. Emission requirements.

~~(a) [During the interval from May 1 through September 30, 2009, and each year thereafter, except] Except as specified in §§ 129.303, 129.305, 129.306 and 129.307 (relating to exemptions; start-up requirements; [and] shutdown requirements; AND IDLING REQUIREMENTS), the owner or operator of a glass melting furnace may not operate the glass melting furnace in a manner that results in NO<sub>x</sub> emissions in excess of the FOLLOWING allowable limits [specified in subsection (b)].~~ OR NO<sub>x</sub> EMISSION LIMITS CONTAINED IN THE PLAN APPROVAL OR OPERATING PERMIT, WHICHEVER IS LOWER:

~~(b) The owner or operator of a glass melting furnace shall determine allowable NO<sub>x</sub> emissions 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:~~

(1) 4.0 pounds of NO<sub>x</sub> per ton of glass pulled for container glass furnaces.

(2) 7.0 pounds of NO<sub>x</sub> per ton of glass pulled for pressed or blown glass furnaces.

(3) 4.0 pounds of NO<sub>x</sub> per ton of glass pulled for fiberglass furnaces.

(4) 7.0 pounds of NO<sub>x</sub> per ton of glass pulled for flat glass furnaces.

(5) 6.0 POUNDS OF NO<sub>x</sub> PER TON OF GLASS PULLED FOR ALL OTHER GLASS MELTING FURNACES.

(b) THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE SHALL COMPLY WITH THE REQUIREMENTS OF SUBSECTION (a) BY JANUARY 1, 2011 UNLESS A PETITION FOR AN ALTERNATE EMISSION LIMITATION OR COMPLIANCE SCHEDULE IS APPROVED BY THE DEPARTMENT IN ACCORDANCE WITH SUBSECTION (c).

(c) AN OWNER OR OPERATOR OF A GLASS MELTING FURNACE NOT MEETING THE NO<sub>x</sub> EMISSION LIMITS SPECIFIED IN SUBSECTION (a) BY JANUARY 1, 2011, MAY PETITION THE DEPARTMENT FOR AN ALTERNATIVE EMISSION LIMITATION OR COMPLIANCE SCHEDULE AS FOLLOWS:

**(1) THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE SUBJECT TO SUBSECTION (a)(5) MAY SUBMIT A PETITION TO THE DEPARTMENT REQUESTING THAT THE DEPARTMENT ESTABLISH AN ALTERNATIVE EMISSION LIMITATION IF THE OWNER OR OPERATOR DEMONSTRATES TO THE DEPARTMENT'S SATISFACTION THAT IT IS ECONOMICALLY OR TECHNOLOGICALLY INFEASIBLE TO MEET THE EMISSION LIMITATIONS IN SUBSECTION (a)(5). THE ALTERNATIVE EMISSION LIMITATION MUST BE INCLUDED IN EITHER A PLAN APPROVAL OR AN OPERATING PERMIT.**

**(2) THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE WHERE THE SCHEDULE FOR COLD SHUTDOWN DOES NOT ALLOW COMPLIANCE IN ACCORDANCE WITH SUBSECTION (b) MAY SUBMIT A PETITION TO THE DEPARTMENT REQUESTING THAT THE DEPARTMENT ESTABLISH AN ALTERNATIVE COMPLIANCE DEADLINE. THE ALTERNATIVE COMPLIANCE DEADLINE MAY NOT BE EXTENDED BEYOND 180 DAYS AFTER THE FIRST REBUILD/REBRICKING AFTER THE EFFECTIVE DATE OF THIS REGULATION. THE DEPARTMENT MAY ESTABLISH IN A PLAN APPROVAL OR OPERATING PERMIT AN INTERIM EMISSION LIMITATION AND INCREMENTS OF PROGRESS DETERMINED TO BE NECESSARY FOR EFFECTIVE MONITORING OF PROGRESS TOWARD FULL COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION.**

**(3) THE OWNER OR OPERATOR OF THE GLASS MELTING FURNACE SHALL SUBMIT TO THE DEPARTMENT THE PETITION FOR AN ALTERNATIVE EMISSION LIMITATION OR COMPLIANCE SCHEDULE BY JANUARY 1, 2011.**

**(4) THE PETITION MUST INCLUDE THE FOLLOWING:**

**(i) A BRIEF DESCRIPTION, INCLUDING MAKE, MODEL AND LOCATION OF EACH AFFECTED GLASS MELTING FURNACE.**

**(ii) A LIST OF ALL AIR POLLUTION CONTROL TECHNOLOGIES AND MEASURES THAT HAVE BEEN INSTALLED ON EACH AFFECTED GLASS MELTING FURNACE AND ARE OPERATING TO CONTROL EMISSIONS OF NOX.**

**(iii) FOR EACH OF THE TECHNOLOGIES AND MEASURES LISTED IN ACCORDANCE WITH PARAGRAPH (ii), THE DATE OF INSTALLATION AND ORIGINAL COMMENCEMENT OF OPERATION.**

**(iv) FOR EACH OF THE TECHNOLOGIES AND MEASURES LISTED IN ACCORDANCE WITH PARAGRAPH (ii), AN EXPLANATION OF HOW THE**

**NOX CONTROL TECHNOLOGY OR MEASURE INSTALLED HAS BEEN OPTIMIZED FOR THE MAXIMUM NOX EMISSION REDUCTION.**

**(v) THE RESULTS OF EACH STACK TEST AND OTHER EMISSIONS MEASUREMENTS FOR THE AFFECTED GLASS MELTING FURNACE FOLLOWING THE INSTALLATION AND COMMENCEMENT OF OPERATION OF THE AIR POLLUTION CONTROL TECHNOLOGIES AND MEASURES LISTED IN ACCORDANCE WITH PARAGRAPH (ii).**

**(vi) DATE OF LAST COLD SHUTDOWN DUE TO FURNACE REBUILD OR REBRICKING FOR EACH AFFECTED FURNACE.**

**(vii) DATE OF NEXT SCHEDULED COLD SHUTDOWN OF EACH AFFECTED FURNACE.**

**(viii) CONDITIONS OR SPECIAL CIRCUMSTANCES WHICH DEMONSTRATE THAT THE APPLICABLE REQUIREMENTS ARE TECHNOLOGICALLY OR ECONOMICALLY INFEASIBLE.**

**(ix) WHERE AN ALTERNATE COMPLIANCE SCHEDULE IS SOUGHT, THE OWNER OR OPERATOR SHALL SUBMIT A PROPOSED SCHEDULE CONTAINING INTERIM MILESTONE DATES FOR COMPLETING ANY PHASE OF THE REQUIRED WORK AND A FINAL COMPLIANCE DATE, AS SOON AS PRACTICABLE. THE PETITION SHALL ALSO INCLUDE AN INTERIM EMISSION LIMITATION UNTIL COMPLIANCE IS ACHIEVED WITH THE REQUIREMENTS SPECIFIED IN SUBSECTION (a) OF THIS SECTION.**

**(x) WHERE AN ALTERNATE EMISSION LIMITATION IS SOUGHT, THE OWNER OR OPERATOR SHALL PROPOSE EMISSION LIMITATIONS IN THE PETITION.**

**(xi) OTHER RELEVANT INFORMATION REQUESTED, IN WRITING, BY THE DEPARTMENT.**

**(d) DURING ROUTINE MAINTENANCE OF AN ADD-ON EMISSION CONTROL SYSTEM OR SYSTEMS, THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE SUBJECT TO THE EMISSION LIMITS SPECIFIED IN SUBSECTION (a) IS EXEMPT FROM THESE LIMITS IF:**

**(1) ROUTINE MAINTENANCE IN EACH CALENDAR YEAR DOES NOT EXCEED 144 HOURS TOTAL FOR ADD-ON CONTROLS.**

**(2) ROUTINE MAINTENANCE IS CONDUCTED IN A MANNER CONSISTENT WITH GOOD AIR POLLUTION CONTROL PRACTICES FOR MINIMIZING EMISSIONS.**



**§ 129.305. Start-up requirements.**

**(a) ~~The plan approval issued for the construction of a new glass melting furnace or furnace rebuild must include terms and conditions consistent with the requirements of § 127.12b (relating to plan approval terms and conditions). At least no later than 30 days prior to the anticipated date of start-up, t~~The owner or operator of the glass melting furnace shall submit, in writing, to the Department, NO LATER THAN 30 DAYS PRIOR TO THE ANTICIPATED DATE OF START-UP, information requested by the Department to assure proper operation of the furnace. The information must include the following:**

**(1) A detailed list of activities to be performed during start-up and an explanation for the length of time needed to complete each activity.**

**(2) A description of the material process flow rates and system operating parameters and other information that the owner or operator plans to evaluate during the process optimization.**

**(b) The owner or operator of a glass melting furnace may submit a request for a start-up exemption in conjunction with the plan approval application for the construction of a new furnace or furnace rebuild. The actual length of the start-up exemption, if any, will be determined by the Department at the time of the issuance of the plan approval for the furnace rebuild.**

**(c) The length of the start-up exemption following activation of the primary furnace combustion system IS AS FOLLOWS ~~may not exceed~~:**

**~~(1) One hundred and four days for a flat glass furnace.~~**

**~~(2) Seventy days for a container glass, pressed or blown glass furnace.~~**

**~~(3) (2) Forty days for a fiberglass furnace.~~**

**(3) ONE HUNDRED AND FOUR DAYS FOR A FLAT GLASS FURNACE AND FOR ALL OTHER GLASS MELTING FURNACES NOT COVERED UNDER PARAGRAPHS (1) AND (2).**

**(d) THE REQUIREMENTS OF SUBSECTION (c) NOTWITHSTANDING, IF THE NO<sub>x</sub> CONTROL SYSTEM IS NOT IN COMMON USE OR IS NOT READILY AVAILABLE FROM A COMMERCIAL SUPPLIER, THE LENGTH OF THE MAXIMUM START-UP EXEMPTION FOLLOWING ACTIVATION OF THE PRIMARY FURNACE COMBUSTION SYSTEM IS AS FOLLOWS:**

**(1) ONE HUNDRED DAYS FOR A CONTAINER GLASS, PRESSED OR BLOWN GLASS FURNACE.**

(2) ONE HUNDRED AND FIVE DAYS FOR A FIBERGLASS FURNACE.

(3) TWO HUNDRED AND EIGHT DAYS FOR A FLAT GLASS FURNACE AND FOR ALL OTHER GLASS MELTING FURNACES NOT COVERED UNDER PARAGRAPHS (1) AND (2).

(e) The Department may approve start-up exemptions to the extent that the submittal clearly:

(1) Identifies the control technologies or strategies to be used.

(2) Describes the physical conditions that prevail during start-up periods that prevent the controls from being effective.

(3) Provides a reasonably precise estimate as to when physical conditions will have reached a state that allows for the effective control of emissions.

~~(e)~~ (f) During the start-up period, the owner or operator of a glass melting furnace shall maintain the stoichiometric ratio of the primary furnace combustion system so as not to exceed 5% excess oxygen, as calculated from the actual fuel and oxidant flow measurements for combustion in the glass melting furnace.

~~(f)~~ (g) The owner or operator shall place the emission control system in operation as soon as technologically feasible during start-up to minimize emissions.

§ 129.306. Shutdown requirements.

(a) The duration of a glass melting furnace shutdown, as measured from the time the furnace operations drop below 25% of the permitted production capacity or fuel use capacity to when all emissions from the furnace cease, may not exceed 20 days.

(b) The owner or operator of a glass melting furnace shall operate the emission control system whenever technologically feasible during shutdown to minimize emissions.

§ 129.307. Idling requirements.

(a) The owner or operator of a glass melting furnace shall operate the emission control system whenever technologically feasible during idling to minimize emissions.

(b) The NO<sub>x</sub> emissions during idling may not exceed the amount calculated using the following equation:

Pounds per day emission limit of NO<sub>x</sub> = (Applicable NO<sub>x</sub> emission limit specified in § 129.304(a) (relating to emission requirements) expressed in pounds per ton of glass produced) x (Furnace permitted production capacity in tons of glass produced per day)

§ 129.308. Compliance determination.

(a) [By May 1, 2009] NOT LATER THAN 14 DAYS PRIOR TO THE APPLICABLE COMPLIANCE DATE UNDER § 129.304(b), the owner or operator of a glass melting furnace subject to this section, §§ 129.301-129.307, 129.309 and 129.310 shall install, operate and maintain continuous emissions monitoring systems (CEMS, as defined in § 121.1 (relating to definitions)) for NO<sub>x</sub> and other monitoring systems to convert data to required reporting units in compliance with Chapter 139, Subchapter C (relating to requirements for continuous source monitoring for stationary sources) and calculate actual emissions using the CEMS data reported to the Department. The owner or operator of a glass melting furnace may install and operate an alternate NO<sub>x</sub> emissions monitoring system or method, approved in writing<sup>[5]</sup> by the Department.

(b) Data invalidated under Chapter 139, Subchapter C, shall be substituted with data calculated using the potential emission rate for the furnace, or if approved<sup>[5]</sup> in writing<sup>[5]</sup> by the Department as follows:

(1) The highest valid 1-hour emission value that occurred during the reporting quarter.

(2) If no valid data were collected during the reporting quarter, the most recent quarter for which valid data were collected shall be reported to the Department unless an alternative reporting period is approved in writing by the Department.

(c) The owner or operator of a glass furnace subject to this section shall submit to the Department quarterly reports of CEMS monitoring in pounds of NO<sub>x</sub> emitted per hour, in a format approved by the Department and in compliance with Chapter 139, Subchapter C.

(d) The CEMS or approved monitoring system or method for NO<sub>x</sub> installed under this section must meet the minimum data availability requirements in Chapter 139, Subchapter C.

~~[(e) The owner or operator of a furnace battery may use a single CEMS to determine the total NO<sub>x</sub> emissions from all the furnaces if the emission measurements are made at the common stack.]~~

**§ 129.309. Compliance demonstration.**

**(a) THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE SHALL CALCULATE AND REPORT TO THE DEPARTMENT ON A QUARTERLY BASIS, NO LATER THAN 30 DAYS AFTER THE END OF THE QUARTER, THE CEMS DATA AND GLASS PRODUCTION DATA USED TO SHOW COMPLIANCE WITH THE ALLOWABLE NO<sub>x</sub> EMISSION LIMITATION SPECIFIED IN § 129.304 (RELATING TO EMISSION REQUIREMENTS). THE GLASS PRODUCTION DATA MUST CONSIST OF THE QUANTITY OF GLASS, IN TONS, PULLED PER DAY FOR EACH FURNACE. [By October 31, 2009, and each year thereafter, the owner or operator of a glass melting furnace shall calculate and report to the Department, the difference between the actual NO<sub>x</sub> emissions from the glass melting furnace during the interval from May 1 through September 30 and the allowable NO<sub>x</sub> emissions for that period. The calculations used to determine the difference in NO<sub>x</sub> emissions, including] shall be included in the report submitted to the Department]. The glass production data must consist of the quantity of glass, in tons, pulled per day for each furnace. Compliance with § 129.304 shall be demonstrated by averaging the NO<sub>x</sub> emissions during the interval from May 1 through September 30.]**

**(b) The owner or operator of a glass melting furnace[, multiple glass melting furnaces or A furnace battery] shall demonstrate compliance with the EMISSION requirements of [§ 129.304] SUBSECTION 129.304(a) using one of the following methods:**

- (1) On a furnace-by-furnace basis.**
- (2) Facility-wide emissions averaging.**
- (3) System-wide emissions averaging among glass melting furnaces under common control of the same owner or operator in this Commonwealth.**

**(c) THE OWNER OR OPERATOR OF A GLASS MELTING FURNACE FOR WHICH THE DEPARTMENT HAS GRANTED APPROVAL TO VOLUNTARILY OPT INTO A MARKET-BASED PROGRAM MAY NOT DEMONSTRATE COMPLIANCE ON AN EMISSIONS AVERAGING BASIS PURSUANT TO SUBSECTION (b). AN EMISSION REDUCTION OBTAINED BY EMISSIONS AVERAGING TO DEMONSTRATE COMPLIANCE WITH THE EMISSION REQUIREMENTS OF SUBSECTION 129.304(a) WILL NOT BE CONSIDERED SURPLUS FOR EMISSION REDUCTION CREDIT PURPOSES. The owner or operator of a glass melting furnace[, multiple glass melting furnaces or A furnace battery may] SHALL demonstrate compliance with the EMISSION requirements of [§ 129.304] SUBSECTION 129.304(a) in accordance with [the following:] SUBSECTION (d).**

~~[(1) For the period from May 1 through September 30, 2009, the owner or operator of a glass melting furnace, multiple glass melting furnaces or A furnace battery shall surrender to the Department 0.25 CAIR NO<sub>x</sub> Ozone Season allowance, as defined in § 145.202 (relating to definitions), for each ton of NO<sub>x</sub> by which the combined actual emissions exceed the allowable emissions of the glass melting furnaces subject to this section.~~

~~—(2) For the period from May 1 through September 30, 2010, the owner or operator of a glass melting furnace, multiple glass melting furnaces or A furnace battery shall surrender to the Department 0.50 CAIR NO<sub>x</sub> Ozone Season allowance for each ton of NO<sub>x</sub> by which the combined actual emissions exceed the allowable emissions of the glass melting furnaces subject to this section.~~

~~—(3) For the period from May 1 through September 30, 2011, the owner or operator of a glass melting furnace, multiple glass melting furnaces or furnace battery shall surrender to the Department 0.75 CAIR NO<sub>x</sub> Ozone Season allowance for each ton of NO<sub>x</sub> by which the combined actual emissions exceed the allowable emissions of the glass melting furnaces subject to this section.~~

~~—(4) For the period from May 1 through September 30, 2012, and each ozone season thereafter, the owner or operator of a glass melting furnace, multiple glass melting furnaces or furnace battery shall surrender to the Department one CAIR NO<sub>x</sub> Ozone Season allowance for each ton of NO<sub>x</sub> by which the combined actual emissions exceed the allowable emissions of the glass melting furnaces subject to this section.~~

~~—(5) The surrendered CAIR NO<sub>x</sub> Ozone Season allowances shall be of current year vintage. For the purpose of determining the amount of allowances to be surrendered, a remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and a fraction of a ton less than 0.50 ton is deemed to equal zero tons.~~

~~—(6) By November 1, 2009, and by November 1 of each year thereafter, an owner or operator of a glass melting furnace, multiple glass melting furnaces or furnace battery subject to this section shall surrender the required CAIR NO<sub>x</sub> Ozone Season allowances to the Department's designated NATS NO<sub>x</sub> allowance tracking system account as defined in § 121.1 (relating to definitions) and shall provide to the Department, in writing, the following:~~

~~—(i) The serial number of each NO<sub>x</sub> allowance surrendered.~~

~~—(ii) The calculations used to determine the quantity of NO<sub>x</sub> allowances required to be surrendered.~~

~~—(7) If an owner or operator fails to comply with paragraph (6), the owner or operator shall by December 31 surrender three CAIR NO<sub>x</sub> Ozone Season~~

allowances of the current or later year vintage for each NO<sub>x</sub> allowance that was required to be surrendered by November 1 of that year.]

(d) COMPLIANCE WITH THE EMISSION REQUIREMENTS OF SUBSECTION 129.304(a) SHALL BE DETERMINED ON A 30-DAY ROLLING AVERAGE BASIS. [The surrender of CAIR NO<sub>x</sub> Ozone Season allowances under paragraph (c)(7) does not affect the liability of the owner or operator of the unit for a fine, penalty or assessment, or an obligation to comply with another remedy for the same violation, under the CAA or the act.

—(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30 which have not been reconciled with CAIR NO<sub>x</sub> Ozone Season allowances, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.

—(2) Each ton of excess emissions is a separate violation.

(c) If the combined allowable emissions from glass melting furnaces at a facility from May 1 through September 30 exceed the combined actual emissions from glass melting furnaces at the facility subject to this section during the same period, the owner or operator may deduct the difference or a portion of the difference from the amount of actual emissions from glass melting furnaces at the owner or operator's other facilities located in this Commonwealth for that period]

#### § 129.310. Recordkeeping.

(a) The owner or operator of a glass melting furnace subject to this section and §§ 129.301-129.309 shall maintain records to demonstrate compliance. The records must include an operating log maintained for each glass melting furnace that includes, on a [monthly] DAILY basis:

(1) The total hours of operation.

(2) The type and quantity of fuel used.

(3) The quantity of glass pulled.

(b) The owner or operator of a glass melting furnace shall maintain records of:

(1) Source tests and operating parameters established during the initial source test.

(2) Maintenance, repairs, malfunctions, idling, start-up and shutdown.

**(c) THE OWNER OR OPERATOR CLAIMING THAT A GLASS MELTING FURNACE IS EXEMPT FROM THE REQUIREMENTS OF §§ 129.302-129.310 BASED ON THE FURNACE'S POTENTIAL TO EMIT SHALL MAINTAIN RECORDS THAT CLEARLY DEMONSTRATE TO THE DEPARTMENT THAT THE FURNACE IS NOT SUBJECT TO §§ 129.302-129.310.**

**le| (d) The records required under this section shall be maintained onsite for 5 years. The records shall be made available or submitted to the Department upon request.**