

#2683

BEFORE THE
ENVIRONMENTAL QUALITY BOARD

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IN RE: PROPOSED RULEMAKING NOX EMISSION STANDARDS FOR
GLASS MELTING FURNACES

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BEFORE: STEPHEN HEPLER, Chair

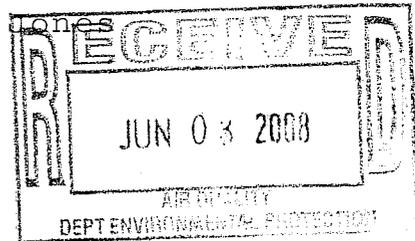
HEARING: May 23, 2008
2:00 p.m.

LOCATION: Department of Environmental Protection
Southwest Regional Office
Waterfront A and B Conference Room
400 Waterfront Drive
Pittsburgh, PA 15222

WITNESSES: James Rowlett, John Carroll

Reporter: Barbara J. Jones

COPY



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OPENING REMARKS

By Chair

4 - 7

TESTIMONY

By James Rowlett

7 - 9

TESTIMONY

By John Carroll

9 - 20

CERTIFICATE

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E X H I B I T S

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NONE OFFERED

P R O C E E D I N G S

CHAIR:

I would like to welcome you to the Environmental Quality Board's, EQB, public hearing on the proposed NOx Emission Standards for Glass Melting Furnaces rulemaking. My name is Stephen Hepler. I am an air quality program specialist with the Department of Environmental Protection's Southwest Regional Office. I am representing the Environmental Quality Board at today's hearing. I call this hearing to order at two o'clock p.m.

The purpose of this hearing is to formally accept testimony on the proposed NOx Emission Standards for Glass Melting Furnaces rulemaking. In addition to this hearing, the Environmental Quality Board held hearings on the proposed rulemaking in Harrisburg on May 19th, 2008 and in Wilkes-Barre on May 21st, 2008.

The proposed rulemaking is a part of the Commonwealth's strategy to reduce ozone transport to achieve and maintain the health-based eight hour ozone national ambient air quality standard or NAAQS. The rulemaking establishes NOx emission control requirements, emission standards and emission

1 limitations for glass melting furnaces during the
2 ozone season, opens parens, May 1 through September
3 30, close parens, as well as other requirements for
4 the purpose of reducing NOx emissions from glass
5 melting furnaces effective May 1, 2009.

6 Glass melting furnaces are one of the
7 largest industrial NOx emission source categories in
8 the Commonwealth and account for approximately 21
9 percent of the more than 45,000 tons per year of NOx
10 emitted into the air from all non-electric generating
11 units in the Commonwealth. Under this rulemaking the
12 owners or operators of these facilities will be
13 required to meet NOx emission limitation and emission
14 standards and to comply with administrative
15 requirements including emissions monitoring and
16 reporting.

17 Compliance options, including emissions
18 averaging and the use of CAIR NOx Ozone Season
19 allowances, are included in the rulemaking to provide
20 owners and operators flexibility in meeting the
21 proposed standards. During the development of the
22 proposed rulemaking the Department consulted with the
23 Air Quality Technical Advisory Committee and the
24 Citizens Advisory Council's Air Committee.

25 In order to give everyone an equal

1 opportunity to comment on this proposal I would like
2 to establish the following ground rules, one, I will
3 first call upon the witnesses who have pre-registered
4 to testify at this hearing. After hearing from these
5 witnesses I will provide any other interested parties
6 with the opportunity to testify as time allows. Two,
7 testimony is limited to ten minutes for each witness.
8 Three, organizations are requested to designate one
9 witness to present testimony on its behalf. Four,
10 each witness is asked to submit three written copies
11 of his or her testimony to aid in transcribing the
12 hearing. Please hand me your copies prior to
13 presenting your testimony. Five, please state your
14 name, address and affiliation for the record prior to
15 presenting your testimony. We would appreciate your
16 help by spelling names and terms that may not be
17 generally familiar so that the transcript can be as
18 accurate as possible. Six, because the purpose of a
19 hearing is to receive comments on the proposal, EQP
20 --- I'm sorry, EQB or DEP staff may question
21 witnesses, however, the witnesses may not question the
22 EQB or DEP staff.

23 In addition to or in place of oral
24 testimony presented at today's hearing, interested
25 persons may also submit written comments on this

1 proposal. All comments must be received by the EQB on
2 or before June 23rd, 2008. Comments should be
3 addressed to the Environmental Quality Board, Post
4 Office Box 8477, Harrisburg, PA 17105-8477. Comments
5 may also be submitted by e-mail to the EQB at
6 R-E-G-C-O-M-M-E-N-T-S @state.pa.us by June 23rd, 2008.
7 All comments received at this hearing, as well as
8 written or electronic comments received by June 23rd,
9 2008, will be considered by the EQB and will become
10 included in a comment/response document, which will be
11 prepared by the Department and reviewed by the EQB
12 prior to the Board taking its final action on this
13 regulation. Anyone interested in a copy of the
14 transcript of this hearing may contact the reporter
15 here this afternoon to arrange to purchase a copy.

16 I would now like to call for the first
17 witness and it's James Rowlett of World Kitchen.

18 MR. ROWLETT:

19 Thank you. My name is James Rowlett.
20 The last name is spelled R-O-W-L-E-T-T. I'm the
21 environmental, safety and health manager for World
22 Kitchen, LLC. We have a facility located in
23 Charleroi, Pennsylvania. This is the first time our
24 company has taken --- participated as a speaker as far
25 as public comment pending a proposed rule or

1 regulation. But for us the town of Charleroi, located
2 in Washington County is the home of the only glass
3 manufacturing facility World Kitchen, LLC has in the
4 State of Pennsylvania. This facility has been in
5 continuous glass making operations for over 100 years.
6 There are currently two glass furnaces located in the
7 plant. The largest furnace is in production. The
8 smaller furnace is currently shut down.

9 Both of these glass furnaces have a gas
10 oxygen firing system that were proactively installed
11 and has been in operation for over a dozen years.
12 These furnaces were some of the first in the glass
13 industry to convert to gas oxygen. The facility has
14 been in compliance with the Pennsylvania RACT program
15 since its first inception. Despite not being subject
16 to NSR/PSD the facility voluntarily installed and
17 operates opacity monitoring devices on both of glass
18 furnaces as part of its Title V Clean Air Permit.

19 In addition, as a result of further
20 process improvement, our most recent Title V
21 compliance testing in 2007 confirmed the NOx emission
22 rate for its largest glass furnace being significantly
23 less than 50 percent of the allowable emission rate as
24 outlined in 129.304.

25 We fully understand the position of the

1 Environmental Quality Board in relation to reduction
2 of NOx emissions from glass melting furnaces. We also
3 believe that the intent of the proposed rulemaking was
4 not to be a negative factor in the cost benefit
5 analysis discussion surrounding further NOx emission
6 reduction.

7 For a facility in our position, the cost
8 entailed to install and operate a NOx emission
9 monitoring system would be better utilized to support
10 the pursuit of additional NOx reduction opportunities.
11 Therefore we propose that the alternate NOx emission
12 monitoring system or method option referenced in
13 129.308 be further clarified to explain what type of
14 predictive emissions monitoring system/parameters
15 would meet this requirement, such as the monitoring of
16 fuel usage and production rates.

17 It is important for us to see a
18 regulation that defines what is allowable as an
19 alternate system/method so we can plan our future,
20 sincerely James M. Rowlett. Thank you very much.

21 CHAIR:

22 Thank you. And John you'll be speaking
23 next.

24 MR. CARROLL:

25 My name is John Carroll. I'm an attorney

1 with the law firm Pepper Hamilton, LLP, Harrisburg,
2 Pennsylvania. I'm here today representing our client
3 Saint-Gobain Containers, Incorporated. I will refer
4 to my client as SGCI in short during this testimony.
5 I am joined here today by Stephen Smith, Vice
6 President of Environmental, Health and Safety for
7 Saint-Gobain Containers, Inc. from their headquarters
8 office in Muncie, Indiana. Mr. Smith is here to
9 answer any questions that you may have, but I will
10 make presentation of remarks on behalf of SGCI. I
11 provided the Board with a copy of this testimony. I
12 will depart from the written copy at the conclusion to
13 raise an additional issue which will be reflected in
14 further written comments to be filed before the end of
15 the deadline. The proposed rule will amend
16 Pennsylvania Administrative Code Chapters 121 and 129
17 and I will, throughout this testimony, refer to the
18 proposed rule as the NOx proposal.

19 SGCI operates two glass melting furnaces
20 at its container glass manufacturing facility in Port
21 Allegheny, McKean County, Pennsylvania. SGCI produces
22 container glass at these furnaces, employs
23 approximately 330 employees at that facility and would
24 be subject to the NOx proposal. There are two primary
25 issues that I would like to address today. First, the

1 NOx proposal we believe should adopt a clearer and
2 more modern definition of glass melting furnace than
3 the currently proposed definition. And second, we
4 believe the NOx proposal should adopt a more
5 reasonable timetable for facilities to approve,
6 permit, construct and employ the means necessary to
7 meet the lower NOx emission limits. I'll discuss each
8 of these two issues in turn.

9 First we believe the Commonwealth should
10 adopt a better definition of glass melting furnace in
11 the NOx proposal to make the rule clearer and to make
12 the rule consistent with the test methods and
13 monitoring devices used to determine NOx emission
14 rates. The NOx proposal appears against the backdrop
15 of two existing federal regulations that apply to
16 glass melting furnaces. First is the New Source
17 Performance Standards, the second are the NESHAP
18 requirements. The New Source Performance Standards
19 are found in 40 CFR Part 60, subpart CC, and the Glass
20 NESHAP is codified at 40 CFR Part 63, subpart SSSSSS.
21 Both programs regulate glass melting furnaces, but the
22 programs employ different definitions of the term
23 glass melting furnace. The NOx Proposal before the
24 EQB currently incorporates the language from the Glass
25 NSPS rule, but we respectfully urge the adoption of

1 the definition in the Glass NESHAP rule based on its
2 clarity and consistency with the emission testing
3 methodology.

4 In December 2007 EPA adopted the
5 simplified NESHAP definition of glass melting furnace
6 despite the fact that both the NSPS and NESHAP glass
7 standards regulate particulate emissions from the
8 glass melting furnace using an identical stack testing
9 method, method five. EPA did so because the NESHAP
10 definition provides greater certainty regarding the
11 scope of the equipment included in the definition of
12 glass melting furnace and is directly related to the
13 method of compliance demonstration.

14 The NESHAP definition which we urge the
15 Board to adopt defines a glass melting furnace as
16 follows, quoting, glass melting furnace means a unit
17 comprising a refractory-lined vessel in which raw
18 materials are charged and melted at high temperature
19 to produce molten glass, close quote.

20 By contrast, the NSPS definition, which
21 currently appears in the NOx proposal, starts with the
22 same basic glass manufacturing vessel as the NESHAP
23 standard, but then adds a laundry list of additional
24 equipment along with some sector specific exclusion
25 for certain types of glass manufacturing such as flat

1 glass, wool fiberglass and textile fiberglass
2 furnaces.

3 The NOx proposal, and I'll read from it,
4 currently defines a glass melting furnace as follows,
5 a unit comprising a refractory vessel in which raw
6 materials are charged, melted at high temperature,
7 refined and conditioned to produce molten glass. The
8 unit includes foundations, superstructure and
9 retaining walls, raw material charger systems, heat
10 exchangers, melter cooling system, exhaust system,
11 refractory brick work, fuel supply and electrical
12 boosting equipment, integral control systems and
13 instrumentation and appendages for conditioning and
14 distributing molten glass to forming apparatuses. The
15 forming apparatuses including the float bath used in
16 flat glass manufacturing and flow channels in wool
17 fiberglass and textile fiberglass manufacturing, are
18 not considered part of the glass melting furnace,
19 close quote.

20 The broad scope of the NSPS definition,
21 which includes such items as foundations and retaining
22 walls, was intended to be used to determine which
23 furnaces would be subject to the rule. Under the NSPS
24 program the rules apply to new furnaces or
25 reconstructed furnaces. The definition of

1 reconstruction includes a cost measuring concept and
2 so the various appendages to the glass melter itself
3 were included in the definition to provide clarity as
4 to how the cost of construction (sic) should be
5 determined.

6 Like the current NOx proposal before the
7 EQB, however, the recently enacted NESHAPS rule
8 applies to all furnaces regardless of whether they are
9 new or reconstructed, and thus EPA and the NESHAPS use
10 a more limited definition of glass furnace to describe
11 the emissions unit to which the rule applies.

12 The simpler NESHAP definition of glass
13 melting furnace is also recommended because it better
14 tracks the method for measuring emissions from the
15 glass melting furnace. Specifically, the NOx proposal
16 requires the operator to measure NOx emissions through
17 stack testing or with a continuous emission monitor
18 installed in the furnace stack. Since the NOx
19 proposal does not discuss attempting to measure NOx
20 from the laundry list of appendages that appear in the
21 NSPS definition of glass melting furnace, the
22 inclusion of that add-on equipment serves no purpose
23 in the NOx proposal.

24 This specific point was recently made by
25 U.S. EPA when it finalized the Glass NESHAP on

1 December 26th, 2007. EPA stated that it revised the
2 definition of glass melting furnace from the
3 previously suggested NSPS definition because, quote,
4 the previous definition included the raw material
5 charging system and other appendages to the furnace.
6 However, the revised definition is consistent with the
7 procedures for testing furnaces to demonstrate
8 compliance, close quote.

9 In other words, since stack testing for
10 the furnace itself is the sole measure for determining
11 emissions under the NESHAP standard, there is no need
12 for a definition that would include additional
13 equipment that is not being monitored or measured.
14 Similarly, the NOx proposal before the Board relies on
15 stack testing or a continuous emission monitor
16 positioned in the furnace stack as the sole measure of
17 NOx emissions. This is logical because the appendages
18 from the broader NSPS definition contribute little or
19 no NOx emissions. This is also logical because
20 quantifying NOx emissions from the other facility
21 appendages in the NSPS definition would be extremely
22 difficult and far less precise, because there are no
23 simple means for measuring these fugitive emissions.
24 There is no stack where these emissions could be
25 measured.

1 Thus, SGCI recommends that the NOx
2 proposal incorporate the glass melting furnace
3 definition found at 40 CFR, part 63 section 11459
4 rather than the current definition based on the NSPS
5 rule.

6 Our second point, as drafted, the NOx
7 proposal would impose significant emission reduction
8 requirements on Pennsylvania glass melting furnaces by
9 a deadline of May 1st, 2009, less than one year from
10 today. The NOx proposal's timetable is unrealistic
11 due to the significant engineering, permitting,
12 construction and post-construction optimization needed
13 to incorporate NOx emission control technologies at
14 existing facilities. Without these additional control
15 technologies the lower emission limits of the NOx
16 proposal are unlikely to be achieved.

17 For example, SGCI's two glass melting
18 furnaces in Pennsylvania currently have emission
19 limits of 7.8 pounds per ton and 6.0 pounds per ton of
20 NOx for ton of glass pull respectively and those RACT
21 limits, R-A-C-T. The NOx proposal would impose a
22 facility-wide 4.0 pound per ton limit, thereby
23 requiring significant reductions in the furnaces' NOx
24 emissions. Emission reductions of this magnitude
25 require a substantial investment in new firing

1 technologies, changes that are normally completed
2 during a furnace rebuild, commonly referred to as cold
3 repair. Based on the significant amount of reduced
4 NOx emissions required by the NOx proposal and the
5 corresponding need to install new pollutions control
6 technologies, the NOx proposal imposes an unreasonable
7 timetable for compliance.

8 It also remains unclear how the air
9 permitting associated with the NOx reductions might
10 further complicate and delay the technical changes
11 required by the NOx proposal. When furnace technology
12 is changed or added, that change requires a plan
13 approval under Pennsylvania regulations. At Port
14 Allegany SGCI submitted a permit application to
15 control one of its furnaces with the new technology
16 known as oxygen enriched air staging, but the
17 Department has complicated that permitting by
18 proposing to require additional emission limitations
19 significantly more stringent than those required by
20 the NOx proposal, and that permit process is further
21 frustrating SGCI's efforts to meet the 2009 deadline.

22 In light of the unreasonable timetable
23 proposed by the current NOx proposal, SGCI recommends
24 postponing the compliance date for each affected
25 source until at least 2010.

1 I want to add a third item which is not
2 in my written testimony and that has to do with a
3 concern for the definition of idling in the rule and
4 how that definition plays into the determination of
5 compliance. The rule indicates, and this is an
6 appropriate definition we believe, that during idling
7 when a furnace is producing less than 25 percent of
8 its capacity, that due to the low glass production
9 rate there should be an exclusion from the four pound
10 per ton limit because fuel is being consumed at a rate
11 to maintain the furnace in a molten state. And yet
12 the tons of glass produced are much lower and
13 therefore with a larger denominator in the equation,
14 it is impossible to maintain four pounds per ton
15 during low production periods.

16 So we welcome the addition in the rule of
17 an exclusion for idling. The rule as drafted would
18 provide that during periods of idling the facility
19 should meet an emission rate that is the equivalent of
20 the emission limitation times the furnace capacity.

21 For example, if one has a four pound per
22 ton limitation as the rule provides for a container
23 glass and your furnace has a daily capacity of 400
24 tons of glass, then the daily limit under the idling
25 definition would be 4 pounds times 400 tons or 1,600

1 pounds of NOx per day.

2 The problem is in the current draft of
3 the rule that the compliance methodology is a NOx
4 season average, which is also appropriate, but the
5 average adds all of the NOx emitted in pounds as
6 measured by CEMS during the ozone season and divides
7 it by the total tons of glass produced by the furnace
8 during the ozone season and there is no reference in
9 that methodology to the idling definition. So that if
10 one had a long period of idling, there would be a very
11 low glass production rate, and it would be difficult
12 to achieve the overall four pound per ton limit.

13 We believe that the definition of idling,
14 like the definition of startup and shutdown, should
15 either be excluded from the ozone averaging provision
16 or the denominator for those days of idling in the
17 methodology for determining the ozone season emission
18 rate should be the maximum capacity as identified in
19 the item of ruling. We will further provide written
20 comments on that when we provide our formal comments
21 to the board before June 23rd.

22 That ends my official comment. We would
23 certainly be willing to answer any questions that the
24 department or Board representatives have. We
25 appreciate the opportunity to provide this testimony

1 on this important ruling. Thank you.

2 CHAIR:

3 Is there anybody else here who wish to
4 provide testimony? Okay. Going once, going twice.
5 All right. I think we've allotted adequate time for
6 anybody who might be late on this. All right. Seeing
7 no other persons here wishing to offer testimony, on
8 behalf of the Environmental Quality Board I hereby
9 adjourn this hearing at 2:27 p.m.

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HEARING CONCLUDED AT 2:27 P.M.

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C E R T I F I C A T E

I hereby certify that the
foregoing proceeding 2/25/14 p.m.
was reported by me, that I have read this
transcript on 5/30/14, and I attest
that this transcript is a true and
accurate record of the proceeding.

Court Reporter

