Interstate Ozone Transport Reduction

Comment and Response Document

May 16, 2000

Bureau of Air Quality
Department of Environmental Protection

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Comment and Response Document

The Environmental Quality Board published a notice of public hearing and comment period on March 6, 1999 in the *Pennsylvania Bulletin* (29 PaB 1319). The public comment period closed on May 10, 1999. Three public hearings were held to receive comments on the proposed rulemaking as follow:

April 6, 1999	April 7, 1999	April 8, 1999
DEP Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA	DEP Southcentral Regional Office Susquehanna River Conference Room 909 Elmerton Ave Harrisburg, PA	DEP Southeast Regional Office Suite 6010 Lee Park 555 North Lane Conshohocken, PA

This document summarizes the comments received at the public hearings and the written comments received during the public comment period pertaining to Subchapter A. A response to each comment is provided. Please note, the number in parenthesis after each comment refers to the number of the commentator. Comments on Subchapters B and C were received. These comments will be summarized and responses prepared when the Department finalizes these rules.

Attachment A contains a copy of the one-page summaries submitted by the commentators during the public comment period.

List of Commentators

Number	Commentator
1	Daniel C. McIntire Panther Creek Partners 1001 Industrial Road Nesquehoning, PA 18240
2	J. Darrell Bowen CNG Transmission Corporation 625 Liberty Avenue Pittsburgh, PA 15222-3199
3	International Paper Co Mark Shaw MacDonald, Illig, Jones & Britton LLP 100 State Street Suite 700

	Erie, PA 16507-1498

Number	Commentator
4	Jim Murphy Allegheny Power 800 Cabin Hill Drive Greensburg, PA 15601
5	Billie Ramsey Anthracite Region Independent Power Producers Association 1300 Market Street Suite 7 Camp Hill, PA 17043
6	Bruce Alexander PECO Energy 2301 Market Street Philadelphia, PA 19101
7	Tom Keller PP&L 2 North Ninth Street Allentown, PA 18101-1179
8	Herman Schopman Trigen Energy Corporation 2600 Christian Street Philadelphia, PA 19146
9	Tom Hess Cambria CoGen Company 7201 Hamilton Boulevard Allentown, PA 18195-1501
10	David A. Felcman Texas Eastern Transmission Corporation 5444 Westheimer 77056-5388 P.O. Box 1642 Houston, TX 77251-1642
11	Gary A. Young National Fuel Gas Supply Corp. PO Box 2081 Erie, PA 16512
12	Gary C. Furlong Sun Company, Inc. 3144 Passyunk Ave Philadelphia, PA 19145-5299

Number	Commentator
13	Fred A. Sembach Pennsylvania Chamber of Business and Industry 417 Walnut Street Harrisburg, PA 17101-1902
14	F. L. Streitman Essroc Cement Corp. 3251 Bath Pike Nazareth, PA 18064
15	ARIPPA c/o Bart E. Cassidy Manko Gold & Katcher LLP 500 N. Third Street Harrisburg, PA 17101
16	Douglas L. Biden Electric Power Generation Assn. 301 APC Building 800 North Third Street Harrisburg, PA 17102
17*	Zinc Corporation of America c/o Makram Jaber Akin, Gump, Strauss, Hauer & Feld, LLP 1333 New Hampshire Ave, NW Suite 400 Washington, DC 20036
18	Lynn I. Ratzel PP&L, Inc. Two North Ninth Street Allentown, PA 18101-1179
19	Mary Beth Whitfield Williams Gas Pipeline Corp-Transco 2800 Post Oak Boulevard (77056) PO Box 1396 Houston, TX 77251-1396
20	Robert W. Orchowski Duquesne Light Co. 411 Seventh Ave PO Box 1930 Pittsburgh, PA 15279

* Requested a copy of the final rulemaking when it is submitted to the Standing Committees and IRRC.

Number	Commentator
21	James T. Murphy Allegheny Power 800 Cabin Hill Drive Greensburg, PA 15601-1689
22	J. Andrew Hadley, PE Procter & Gamble PO Box 32 Mehoopany, PA 18629
23	Vincent J. Ammirato, PE Columbia Gas Transmission 1700 MacCorkle Ave, SE Charleston, WV 25314
24	Tomas Powers Lehigh Portland Cement Company 200 Hokes Mill Road York, PA 17404
25	Robert E. Callahan P. H. Glatfelter Company Corporate Headquarters Spring Grove, PA 17362
26	International Paper Company c/o Mark Shaw MacDonald Illig Jones & Britton LLP 100 State Street Suite 700 Erie, PA 16507-1498
27	Tom Powers American Portland Cement Alliance Pa. Cement Industry NO_x Workgroup c/o Lehigh Portland Cement Co. 200 Hokes Mill Road York, PA 17404
28	David J. Cesareo PECO Energy Company 2301 Market Street, S21-2 PO Box 8699 Philadelphia, PA 19101-8699
29	Vincent J. Brisini GPU, Inc. 1001 Broad Street

	Johnstown, PA 15907

Number	Commentator
30	Michael Fiorentino Clean Air Council 135 South 19th Street Suite 300 Philadelphia, PA 19103
31	Marcia L. Spink Office of Air Programs US EPA, Region III 1650 Arch Street Philadelphia, PA 19103-2029
32	Jim Qin, Ph.D., PE Trigen Energy Corporation One Water Street White Plains, NY 10601-1009
33	Pennsylvania Power Company C/o Douglas J. Weber FirstEnergy 76 S. Main St Akron, OH 44308
34*	Kathleen Frackler American Lung Association of Pennsylvania 6041 Linglestown Road Harrisburg, PA 17112-1208
35	William S. Kubiak US Steel 600 Grant Street Pittsburgh, PA 15219-2749
36	Eugene M. Trisko Eastern Energy Alliance PO Box 708 Middletown, MD 21769
37	George Ellis Pennsylvania Coal Association 212 North Third Street Suite 102 Harrisburg, PA 17101

* Requested a copy of the final rulemaking when it is submitted to the Standing Committees and IRRC.

Number	Commentator
38	Joel Bluestein Coalition for Gas-Based Environmental Solutions, Inc. 1655 North Fort Myer Drive Suite 600 Arlington, VA 22209
39	Sonya Wiggins Stovall Merck & Co., Inc. Sumneytown Pike PO Box 4 WP20-208 West Point, PA
40	Nancy F. Parks Sierra Club, Pennsylvania Chapter 201 West Aaron Square PO Box 120 Aaronsburg, PA 16820-0120
41	John J. Deemer Tosco Refining Company 4101 Post Road Trainer, PA 19061
42	John Rohrbach PennFuture 212 Locust Street, Suite 410 Harrisburg, PA 17101
43	General Electric Company C/o Mark J. Shaw MacDonald Illig Jones & Britton LLP 100 State Street Suite 700 Erie, PA 16507-1498
44	Daniel B. Nugent RC Cement Co., Inc. 100 Brodhead Road Suite 230 Bethlehem, PA 18017-8989
45	Robert E. Nyce Independent Regulatory Review Commission 333 Market Street 14th Floor

	Harrisburg, PA 17101

Comments and Responses

Comments on Subchapter A. NO_x Budget Trading Program

General Comments

1. The adoption of Chapter 145 does not result in a seamless transition from the Chapter 123 regulations. The Department should modify Chapter 123 as needed while keeping most of the Chapter 123 requirements. (29)

   Department response: The proposed Chapter 145 was based on the Environmental Protection Agency (EPA) NO_x model trading rule found at 40 CFR Part 96. The final rule is based on the EPA Section 126 trading program found at 40 CFR Part 97. The Department determined that replacing the Chapter 123 NO_x trading rule with the EPA model rule would allow a broader trading area resulting in lower control costs by ensuring that the trading rule is consistent with rules in other states. A revision of Chapter 123 may have resulted in misunderstandings or omissions when compared to the detail in the proposed Chapter 145. While the Department has tried to make the transition as seamless as possible, not every transition issue could be resolved. The areas of monitoring and use of the compliance supplement pool are still areas of concern to some commentators. These issues and others are discussed in this document.

2. The commentator supports regulatory strategies that provide flexibility in choosing among options for complying with pollution control requirements. (13, 22)

   Department response: The Department thanks the commentator for its support.

3. The policy issues, economic impacts or national regulatory considerations behind the NO_x SIP call have not been discussed at the Air Quality Technical Advisory Committee (AQTAC). The Environmental Quality Board should note that the AQTAC's review has been limited to the consideration of implementation issues. (16, 20)

   Department response: The Department did ask the AQTAC to focus on implementation of the SIP Call. The EQB was advised of this during the proposed regulation discussion. Since the initial proposal of Chapter 145, the AQTAC has had several meetings and has discussed the SIP Call and the Section 126 finding.

4. The commentator supports the broad regional approach taken by EPA in the SIP Call. The NO_x reductions can help Pennsylvania achieve the ozone standard. Other states are encouraged to do their fare share. (18, 28, 40)

   Department response: The Department agrees with the comment.

5. The rule should be revised to explicitly authorize the EPA to assist the state in implementing the rule. In general, EPA would operate the emissions and trading tracking systems. (31)

   Department response: The rule has been revised to add a definition for NO_x Budget Administrator. It is the Department's intention to designate the Environmental Protection Agency as the NO_x Budget Administrator.

6. The NO_x trading rule is based on the SO_2 trading program which controls utility sources. The rule has been developed with utilities in mind and should not include industrial units. (35)

   Department response: The Department disagrees with the comment. The EPA has determined controls on large industrial sources are highly cost effective. In addition, EPA determined that these same sources contribute to ozone transport and nonattainment issues. Therefore, these sources are included in the program.

7. There should not be any inter-pollutant trading under this program. (40)

   Department response: The Department agrees. Inter-pollutant trading is not permitted under this program.

Definitions

8. The definition of "emissions" should be revised with the phrase "as determined". This limits the emissions covered by the Chapter 145 rules to those measured and reported as required by Chapter 145. (31)

   Department response: The suggested change has been made to the definition.

9. The definition of "maximum potential NO_x emission rate" should include the phrase "under all operating conditions of the unit except for unit start up, shutdown, and upsets." This phrase is needed so that acid rain sources use the same definition and to clarify what is reported in the electronic quarterly report. (31)

   Department response: The suggested change has not been made to the definition. The Department believes that all NO_x emissions should be reported under this program.

10. The definition of NO_x Budget Administrator in Section 121.1 should be revised to clearly state that EPA is the administrator. (31)

    Department response: A definition of NO_x Budget Administrator has been added to Chapter 145. The Department cannot mandate that EPA be the NO_x Budget Administrator. The Department does intend to designate EPA as the NO_x Budget Administrator. This designation

will occur after the rule has been adopted and the EPA and Department have had an opportunity to discuss this issue.

11. The definition of "NO_x allowances held" has a typographical error and should be revised to read "the NO_x allowances recorded or submitted for recordation, in accordance with this subchapter, in a NO_x allowance tracking system account." (31, 45)

    Department response: The regulation has been revised as suggested.

12. The definition of NO_x authorized account representative should be revised to add the phrase "this subchapter" after "in accordance with". (31)

    Department response: The regulation has been revised as suggested.

13. The definition of "NO_x budget trading program" may limit other states from trading with Pennsylvania. Other states' trading programs can be established in accordance with the subchapter or 40 CFR 51.121. The definition of "state" has a similar problem. (31, 45)

    Department response: The definition of state does not need revision. The definition of "NO_x budget trading program" and "state" have not been revised. This definition states that the trading program is multi-state. The phrase of concern is "established in accordance with this subchapter." This phrase does not require other states to receive approval from the Department for their program or specify how other states create their programs.

14. Definitions for "electric generating unit" and "non-electric generating unit" are proposed. One commentator stated that these terms were not defined and should be included for clarity. (39, 45)

    Department response: The Department has not included definitions of electric generating unit and non-electric generating unit. Section 145.4 was revised to clarify the two classifications as described in the Section 126 trading rule.

15. The term "natural person" is used in the NO_x authorized account representative. The term is unclear and should be deleted. (39)

    Department response: The term natural person has been retained. This is the wording used by EPA to clarify that a corporation cannot be a person under this definition. Keeping this wording assures consistency among the states.

16. The definition of continuous emission monitor implies that a flow monitor is a component of any CEM. There are provisions for CEMs that do not require flow monitors. The definition should be revised. (39)

Department response: The definition has not been revised. The definition states that the list of components are required consistent with 40 CFR Part 75. If Part 75 does not require flow monitors, then they are not required under this definition.

17. The definition of "maximum design heat input" should have a reference condition specified. Standard conditions of 68° F and 14.696 psia at full load are suggested. The applicable test method for NO_x (40 CFR 70, Appendix E, 2.1.3.1) specifies that gaseous fuel flow should be converted to standard conditions for the calculation of heat input. (10)

Department response: The Department has not made the suggested change. The control program was based on those controls found to be cost effective by EPA. The EPA used this information to help determine what sources contribute to ozone pollution transport. The commentator references an Appendix that does not exist in the Code of Federal Regulations. The Department is not adopting standards for internal combustion engines at this time. The Department will review this issue when final standards are proposed for this category.

18. The Board did not include a definition for "nameplate capacity". The Board should add the federal model definition. (45)

Department response: The Department did include a definition for "nameplate capacity." This definition was and is the same as the federal definition. No additional change is necessary.

SIP Call Implementation

19. There have been several legal challenges to the EPA SIP Call. Pennsylvania should include language in the final rulemaking that would revoke implementation of the rule subject to the outcome of the litigation. One commentator suggested that language be added to protect Pennsylvania's competitive interests. (4, 21, 45)

Department response: The Department has not included the requested language in the final rule. The control requirements are necessary in order to attain the ozone standard in Philadelphia and to maintain the standard in the remainder of the state. In addition, reduction of emissions will help Pennsylvania reduce the amount of pollutants transported to downwind states. These reductions will lead to healthier air for all citizens of Pennsylvania and the downwind states.

20. The state rules should be consistent with the other 22 states so that Pennsylvania is not economically disadvantaged. (3, 13, 20, 36, 37)

Department response: In general, the Department agrees with the commentator. The regulations have been developed to be as consistent as possible among the states while still meeting the goals of the SIP Call and the Section 126 ruling. However, it is not possible to guarantee that every aspect of the rule is identical to every aspect of all the other states' rules. The SIP Call allows each state to design a rule that best meets the needs of the state. Thus,

states will vary slightly in their rules. It will be EPA's responsibility to review each state's SIP revision to determine if the control programs are similar.

21. The regulations should be structured to take into account any future changes to the SIP Call. The regulations should not place the state at a competitive disadvantage compared to other states. The emission reduction requirements should be consistent with other states. (7, 18, 33, 36, 37, 45)

Department response: The Department has adopted an allocation method that is consistent with the EPA Section 126 rule. Therefore, the control requirement will be consistent with other states that adopt that rule. However, the SIP call does not mandate that states adopt the same rule. Each state may adopt rules to meet local needs so long as the total state budget is met. If a state chooses to control other sources and reduce control requirements on budget sources and still meet the budget, then that state has complied with the SIP call.

22. A contingency provision should be included in Chapter 145 that requires broad participation by a majority of the states before the regulation is implemented. (29)

Department response: The Department has included a Section 145.100 that would require controls in those states that EPA found contribute to the ozone nonattainment problem in Pennsylvania. This section would be implemented if those states fail to comply with the Section 110 rule or the Section 126 finding. These reductions are needed to protect the health of Pennsylvania citizens. The SIP attainment plans for both Philadelphia and Pittsburgh envision reductions from major NO_x sources. The controls have been determined to be highly cost effective by EPA.

23. Suggested wording is provided which require the regulation to be modified or invalidated depending on litigation or enforcement of the SIP Call in other states. (18)

Department response: The Department has not made the suggested modification. The Department will review any litigation. The Department will discuss any need for changes resulting from litigation with the Air Quality Technical Advisory Committee.

24. There should not be a trigger provision in the final regulation. It would be inappropriate for Pennsylvania to limit implementation of the rule until such time as any or all other states implement the rule. Pennsylvania should state in its final preamble that it will not impose Phase III of the OTC NO_x MOU in place of the SIP call if litigation delays implementation. (28)

Department response: The Department has not included a trigger provision. The controls are needed for Philadelphia to attain the ozone standard.

25. The Department should state that Phase III of the NO_x MOU will not be implemented and that the SIP Call regulation is comparable. (33, 37)

Department response: The Ozone Transport Commission has determined that Phase III of the NO_x MOU is equivalent to the SIP Call on a regional basis. Pennsylvania is adopting a regulation consistent with the SIP Call and Section 126 finding. Consistent with the OTC findings, adoption and implementation of the SIP Call requirements is equivalent to adopting Phase III of the NO_x MOU.

26. The effective date of the regulation should be the same as required by EPA for other states. Suggested wording is provided. (36, 37)

Department response: The comment is intended to ensure that all sources in the affected states implement control programs at the same time. This would ensure that the electric generation industry will not be disadvantaged because similar sources in other states do not control. However, these sources are covered by the Section 126 finding that requires compliance by May 1, 2003. The Department will implement the regulation by 2003 in order to achieve the necessary health benefits for all Pennsylvanians. The Department supports the EPA Section 126 finding and will work to ensure implementation of the program.

27. The provisions of Chapter 123 that are overlap with the proposed Chapter 145 should be moved to Chapter 145. This would reduce the paperwork and administrative requirements related to the transition to Chapter 145. (39)

Department response: The Department proposed a new Chapter 145 in order to assure consistency with other states based on the EPA model rule. The Chapter 123 provisions will be deleted when appropriate. This will eliminate the potential for confusion.

28. The Pennsylvania Legislature approved a resolution that called on the Department to revise its proposed regulation to make sure that Pennsylvania sources were not subject to a more stringent standard than similar sources in other states. In addition, the resolution was concerned about the implementation schedule for Pennsylvania sources. The commentator believes that language should be added to protect Pennsylvania's competitive interests. (45)

Department response: The Department has not included additional language as requested. The emission reductions are needed to protect the health of Pennsylvania citizens and to demonstrate compliance with the Clean Air Act requirements of achieving the health based standard. The commentator raised the concern that sources in other states will not implement similar controls on a timely basis. However, these same sources are subject to the Section 126 remedy requiring compliance by 2003 using an allocation the same as in Sections 145.40-43. As a back-up to the Section 126 remedy, the Department has added a Section 145.100 that requires sources in several states that significantly contribute to Pennsylvania's air quality to meet the same emission limitations as sources located in Pennsylvania.

Emission Budget Comments

29. The regulations should be reproposed when EPA revises the emission inventory and budgets for each sector. The Department should include the same source sectors as included in the EPA SIP Call. If the Department decides to change the budgets or emission reduction obligations, then the rulemaking should be reproposed to allow additional comment. (4, 21)

    Department response: The Department revised the final rule to incorporate the final EPA budgets. These budgets were the subject of several public comment periods. Sources have had several opportunities to review and comment on the data. The Department will use the base inventories developed by EPA to determine the appropriate allocations. The Department does not believe that additional comment is necessary since the EPA budgets are being used.

30. The electric generating unit budget should be revised to include the units rated in the 15 to 25 megawatt range. (4, 7, 21)

    Department response: The regulation has been revised to cover units greater than 25 megawatts. These sources are included in the emission inventory developed by EPA. No additional revision is necessary.

31. Source specific inventory data is submitted to clarify what units are affected and the baseline firing rates. This data was not submitted to EPA during the agency's public comment periods. The company should not be penalized for failing to respond to EPA. The Department should provide a proper notice for identification of all affected sources. (12, 13)

    Department response: The EPA reopened the public comment period and accepted comments. A final inventory was issued with the Section 126 trading rule in January 2000.

32. Pennsylvania should follow EPA's model NO_x budget rule in regulating electric generating units with a nameplate capacity greater than 25 megawatts. (13, 15)

    Department response: The Department has revised the regulation as suggested.

33. The EPA inventory contains inaccuracies. The regulation should be based on source specific data maintained by the Department. (15)

    Department response: The Department will use the data collected by EPA. This data has been subject to several public comment periods. The budgets and control findings that are based on this inventory have been reviewed by the District Court. The Department believes that this data is the best available for the program.

34. The program should not be based on EPA's flawed inventory. Sources should receive notice of the inventory and an opportunity to comment on the inventory in the permit issuance process. (25)

Department response: Sources will have an opportunity to comment on their permits. However, the data has been subject to several public comment periods and has been litigated at the federal level.

35. Section 145.40 should be revised to reflect updated information submitted to EPA under the request for modification of data period provided in the final rulemaking. (39)

Department response: The regulation has been revised. The EPA published final budget values in the January 18, 2000 Federal Register and the March 2, 2000 Federal Register.

Compliance Supplement Pool and Banking

36. The distribution of the compliance supplement pool should be based on banked allowances generated under Chapter 123. The regulations should be revised to include reductions from 1999. (4, 13, 21)

Department response: The Department agrees that certain Chapter 123 banked allowances should be allowed to transfer to Chapter 145 allowances using the compliance supplement pool. This rule restricts the early reductions to those reductions that occurred in 2001 and 2002 except for reductions that result from the installation and operation of control technology. For these early reductions, the final rule, in Section 145.43, allows reductions that occur in 1999 to be included.

37. Certain Chapter 123 allowances should not be allowed to be considered for the compliance supplement pool. These allowances are bonus allowances issued under Section 123.119 and allowances purchased from out of state sources. (4)

Department response: The Department agrees that bonus allowances do not meet the requirements for early reduction allowances. Bonus allowances were generated during 1997 and 1998 and do not meet the generation requirements of Section 145.43. The Department believes that allowances banked during the appropriate years (as identified by the allowance serial number) should qualify as early reductions. These allowances represent a reduction at a source and are a compliance investment by a Pennsylvania unit. This investment in over control at another facility is the result of the market forces in the trading program and should be supported.

38. The Chapter 123 bank that is carried forward to Chapter 145 should be based on the number of allowances at the end of 2002. This shows the cumulative effect of control efforts at each source. As a result, Section 145.5(c)(9) should be revised. (4)

Department response: The Department disagrees with the proposed change. This recommendation would discourage installation of control equipment to reduce emissions during the 2001 and 2002 control periods. For example, a source may emit in 2000 and 2001 more allowances than provided in Chapter 123, Appendix E because of acquisition of allowances from other sources. It then installs control equipment and is able to bank emissions in 2002. The early reduction allowances were designed, by EPA, for this purpose.

39. The compliance supplement pool should be distributed to existing facilities based on the output of the units for the years 1995 through 1997. This addresses the problem that some sources did not have to make as much emission reductions as others have. It also reflects more current operating conditions. If the Department does not agree with these suggestions and the proposed distribution method is adopted, then there should be no prejudice regarding allowances banked by Pennsylvania sources that were acquired from other states. (6, 28)

Department response: The Department disagrees with the proposal to distribute the compliance supplement pool based on 1995 through 1997 activity. The Department agrees that allowances allocated in 2001 and 2002, not used, and then banked should be considered for the compliance supplement pool regardless of the state in which they were created.

40. The proposed regulation should allow all banks created under the Chapter 123 allowance program to be carried forward to the Chapter 145 program and not be restrained by the compliance supplement pool. (7, 16, 18, 20, 22, 29)

Department response: The Department disagrees with the comment. The EPA rules at 40 CFR Section 51.121 establishes the limitation on the use of the compliance supplement pool. Most of the banked allowances under Chapter 123 would not normally meet the early reduction requirements of Chapter 145 such as emissions less than 0.25 lb/mmBtu and 80% less than the emission rate occurring in 2000. Because of the provision to allow Chapter 123 banked allowances to roll forward to the Chapter 145 program, the Department has maximized the number of credits available.

41. There should be no restrictions on banked allowances under Chapter 123 being transferred to Chapter 145. Allowances created in other states but purchased by Pennsylvania sources should be available for transfer to the Chapter 145 banks. (12, 18)

Department response: The Department disagrees that all Chapter 123 banked allowances should be transferable to Chapter 145. Section 51.121 specifically establishes limitations on the number and type of allowances that can be moved forward to the new program. The Department does agree that all allowances owned by Pennsylvania sources that were created in 2001 and beyond are eligible for transfer, regardless of the state of origin.

42. The use of NO_x credits generated in other affected states should be allowed to be banked in the Commonwealth's supplemental compliance pool. (14, 18, 24, 27, 28, 44)

Department response: The Department agrees that allowances created in other states may be purchased and banked by Pennsylvania sources. These banked allowances are then eligible to be considered for the compliance supplement pool. However, sources in other states may not apply to bank credits or use Pennsylvania's compliance supplement pool.

43. The proposed use of the compliance supplement pool is supported. Allowances purchased from sources in other states should be allowed to be considered for the compliance supplement pool. (17, 39)

Department response: The Department agrees with the comment. No change is necessary in the regulation.

44. The Section 145.55(c) should be deleted. It may conflict with the provisions of paragraph 9 which allows the Chapter 123 banked credits to be early reductions. One commentator stated that it was unclear if a source could receive credit for both early reductions or banked allowances. (18, 45)

Department response: The Department revised the compliance supplement pool provisions and placed them in Section 145.43. The regulation specifies how sources may apply for early reductions or apply to carry over banked allowances. The section now states that a source may not apply for both early reductions and banked credits for the same emission reduction. The regulation allows the source to apply for the credit it believes it has earned.

45. All banked credits created in Chapter 123 should expire at the end of 2002. These credits are not the same as those under Chapter 145. (30, 40)

Department response: The Department has retained the proposed conversion of banked Chapter 123 allowances to Chapter 145 allowances using the compliance supplement pool. This flexibility was provided by EPA in recognition of the program currently being implemented in Pennsylvania. The compliance supplement pool does expire at the end of 2004.

46. The regulation should be revised to place daily and seasonal caps on individual sources. The banking flow control mechanism in the proposed rule will not limit a source's actual emissions. A daily cap will help prevent exacerbations of ozone episodes. Seasonal caps would thwart reliance on banked allowances at such levels that harm attainment efforts. If this proposal is not accepted, then the withdrawal rates should be revised. (30)

Department response: The regulation has not been revised as suggested. The proposed rule places a seasonal cap on emissions. Daily caps are not proposed. However, sources are not free to emit at an unlimited rate. RACT places a limit on the peak emission rate for a source.

47. The compliance supplement pool should be revised to restrict its usage to voluntary early reductions and renewable energy and efficiency projects. (30)

Department response: Early reductions are allowed to apply for credit under the compliance supplement pool. The Department believes that banked allowances under Chapter 123 should be considered a reduction below applicable levels and qualify for the compliance supplement pool. The final rule does, however, provide an incentive for voluntary early reductions. Section 145.43 has been revised to provide that 10% of the compliance supplement pool is set aside for voluntary early reductions resulting from the installation and operation of NO_x control equipment.

48. It is unclear how the state will attain the budget if all of the banked allowances are carried forward and used in 2003. The Board should explain how the Department can allow the use of old banked allowances and not exceed the NO_x allocation. (45)

Department response: The budget is set for each year in Section 145.40. The compliance supplement pool of Section 145.43 is an extra amount of allowances for use by sources. These allowances can be earned by reducing emissions before 2003 either through the installation of control equipment, process changes, or lower utilization of units. The use of these early reduction allowances from the compliance supplement pool will provide a smooth transition to the new budget level. Each year, the Department will allocate the number of allowances as provided in Section 145.40. However, sources may use banked, compliance supplement pool allowances, or purchase current year allowances. These activities may result in the total emissions from the Pennsylvania sources exceeding the budget provided in Section 145.40. However, in another year, the emissions will be lower. Each source must be able to demonstrate that it's emissions are less than or equal to the number of allowances it's compliance account.

49. The control periods for early reductions should be expanded to include the years 1999 through 2001. (39, 45)

Department response: The Department has not made the suggested change. The EPA model rule specifies the years 2001 and 2002 as the base year for early reductions. The Department has retained this provision in order to be consistent with other states. In addition, by specifying the year 2001 as the first early reduction year, sources have notice and an opportunity to take action including upgrading monitoring to meet the new requirements (if necessary).

50. Only emission reductions created in Pennsylvania should be allowed to be banked by Pennsylvania sources. Allowing out of state reductions increases the opportunity for double counting. (40)

Department response: Each allowance under the NO_x MOU has a unique identifier. This will prevent double counting. Allowing out of state allowances to be banked by Pennsylvania sources is a basic tenet of the trading program and should be supported.

51. The progressive flow control provisions of Section 145.55 are supported. (40)

Department response: The Department thanks the commentator for their support and points out that the compliance supplement pool provisions have been moved to Section 145.43.

52. The use of the compliance supplement pool is opposed. These credits should be retired. Their use would "bust" the cap of emissions. (40)

Department response: The use of the compliance supplement pool provides some assurance that there will be no generation capacity shortage due to delays in control installation. In addition, the pool rewards sources for reducing emissions prior to the control requirement. This benefits the environment and reduces the possibility that sources will increase emissions just to use up their allowances. No change has been made to the proposed rule.

53. The compliance supplement pool should be used for energy efficiency and renewable energy projects. (42)

Department response: The Department has not made this suggested revision. EPA is developing guidance on how energy efficiency and renewable energy projects may earn allowances. This guidance has not been completed. Therefore, the Department is not including this provision at this time. The guidance will be discussed with the Air Quality Technical Advisory Committee.

54. Section 145.54(c)(10) specifies the compliance supplement pool for Pennsylvania is 13,716. The commentator questions why the need to specify the number and what happens if EPA revises the pool. (45)

Department response: The Department has moved the compliance supplement pool to Section 145.43. This section now lists the pool as 15,763. This is the value specified by EPA in the Section 126 remedy. A specific number of allowances should be specified so that sources may know the size of the pool available. The Department will consider revising this section if EPA adjusts the pool size in the future.

<u>Allocation Methodology</u>

55. The proposed allocation methodology which allocates to electric generating units at 0.15 lb/mmBtu or allowable emission rate, whichever is lower, is supported. This methodology provides enough allowances to clean sources to operate. (4, 7, 42)

Department response: The Department has revised Section 145.42 to eliminate the consideration of the allowable emission rate for existing sources. This change was recommended at the Air Quality Technical Advisory Committee (AQTAC) meeting of April 21, 1999.

56. The proposal to allocate for a three year period, 2003 to 2005, and then annually thereafter is supported. (4, 21)

Department response: The Department has revised the allocation methodology found in Section 145.42. The allocations are based on average heat input for certain years as specified in the section. The allocations will be for 5 year periods in order to provide sources with sufficient certainty to allow planning and control installation. The annual allocation provision has been deleted.

57. The current proposal uses a 1 year heat input to determine the allocation for the years after 2005. The commentator proposes that Section 145.42(a) be revised to use the average of the two highest amounts of the unit's heat input for the three control periods that begin six years before the year of the allocation. This is suggested to more accurately reflect the normalization of the plant. (4, 6, 20, 21, 28)

Department response: The Department has revised Section 145.42 to use an average heat input. The initial heat input time frame is 1995 through 1998 for electric generating units and 1995 (with some approved modifications) for non-electric generating units. The program transitions to the use of a 5-year average baseline for both categories of sources. This will reflect the normal use of each unit.

58. The Department should revise the allocation scheme to remove the consideration of the allowable emission rate. This is not contained in the federal rule. (1, 5, 13, 15, 16, 18, 20, 21, 28, 30, 32, 38, 39, 40, 41, 45)

Department response: The Department has revised the section as suggested for existing units. The use of allowable has been retained for the new source set-aside. The allocation method is consistent with the method found in Part 97.

59. The proposed allocation scheme is supported for the years 2003 through 2005. Beginning in the year 2006, the Department should use an allocation method that is based on the output of the source. EPA guidance on this method is being developed. Use of output based allocations provides an incentive to use the lowest emission generation possible. (6, 8, 32)

Department response: The suggestion to make output based allocations has not been made. The Department is concerned that adopting the proposal prior to reviewing the EPA allocation guidance is premature. Upon issuance of the EPA guidance, the Department will discuss the use of output based allocations with the AQTAC.

60. Allocations for the years 2006 and beyond should be made in 3 year increments to support long-term planning. (6, 28)

Department response: The regulation has been revised to provide allocations in 5 year increments. This should provide sufficient lead time for planning.

61. The proposed allocation scheme should be revised to allocate to repowered sources in the same manner as new sources. This provides an incentive to repower older units. (7)

Department response: The Department has revised the allocation method to resemble that proposed by EPA in Part 97. This allows repowered sources to be treated as existing sources and receive allowances based on the old units' heat input. Since a repowered source will emit at a much lower rate than an old source, there should be sufficient allowances for operation.

62. Allocations should be made using an output based scheme. EPA is moving in this direction. EPA has issued New Source Performance Standards for utility boilers which are output based standards. EPA is working to develop guidance on how output based allocations can be incorporated into the trading program. (8, 28, 30, 32, 33)

Department response: The suggested revision has not been made. The Department is concerned that adopting the proposal prior to reviewing the EPA allocation guidance is premature. Upon issuance of the EPA guidance, the Department will discuss the use of output based allocations with the AQTAC.

63. Section 142(a)(i) should be revised to allow the use of 1995 through 1998 data. Many sources installed RACT by May 31, 1995 and had low heat rates or capacity factors. (29)

Department response: The Department has revised the section to use the average heat input for 1995 through 1998 for electric generating units. Non-electric generating units will use the 1995 data unless the source provided data to the EPA Administrator for one or more years of 1996 through 1998.

64. Use of a single season's heat input in determining a unit's heat input could result in a unit receiving a low allocation. The average of the two highest seasons over three years should be used for all sources for the initial and future years allocation. (13, 16, 25, 28)

Department response: The Department has revised the section to be consistent with the provisions of Part 97. The section now allows the use of multiple control periods to determine the heat input.

65. The use of a single year, 1995, for the non-EGU unit first allocation does not address possible operational problems. In addition, the use of a single year for future allocations does not

address possible fluctuations in operations. The initial non-EGU allocation should use the same two year average as the EGU. Future allocations should be calculated using a two year average of the heat input. (17, 22, 25, 39)

Department response: The Department has revised the section to allow for the initial allocation a multiple year average provided that the data has been reviewed and approved by the EPA Administrator. After the initial allocation, the non-electric generating units use a multiple year average consistent with the provisions for electric generating units.

66. Electric generating sources should not be given special consideration by allowing them to use maximum allowable heat input rather than actual heat input. (21)

Department response: The Department agrees. No change in the regulation is necessary.

67. A portion of the difference in allocation to a unit in its pre- and post repowering stage should be either retired or transferred to the new source set aside rather than be returned to the main budget on a pro-rata basis. (30)

Department response: The Department has not made this suggested revision. The final regulation allocates to repowered sources at the same rate as existing sources. This procedure was discussed with the Air Quality Technical Advisory Committee on April 23, 1999. The definition of "commence commercial operation" contains the provision that a repowered source is an existing source.

68. Section 145.40 should use the term "control period" rather than "season". (31, 45)

Department response: The existing language clearly establishes the Pennsylvania NOx trading program budget that is used to calculate NOx budget unit allocations.

69. The term "allowable emission rate" is not defined. (31)

Department response: This term has been deleted from the program.

70. There should be a one-time allocation for all sources. This provides certainty to sources and is similar to the allocation method used in the acid rain program. A periodic review should be established to determine if the program is functioning properly. (33)

Department response: The Department disagrees with a one-time allocation. The final regulation provides allowances in 5-year blocks. This will provide certainty to sources while still allowing periodic revisions to the allocations to accommodate changes occurring in the industrial and power generating sectors.

71. New units are not clearly defined under Section 145.42. Units installed after May 1, 1995 would not have representative data on which to base their allocations for the 2003-2005 control period. "New" units should be explicitly defined. (39)

Department response: A "new" unit is one that commenced operation or are projected to commence operation on or after May 1 of the period used to calculate allocations. Thus, for example, a non-EGU unit that commenced operation after May 1, 1997 would be considered "new" and would receive allocations under Section 145.42(d) in the initial allocation period. New units are allocated based on their maximum design heat input. No change is necessary.

72. The units at a facility were shutdown during a portion of 1995. The allocations for non-EGUs should be based on the two highest heat input rates for the control periods of 1997, 1998 and 1999. (41)

Department response: The regulation allows non-EGUs to use an average heat input for 1995 through 1998 if the data was reviewed and approved by the EPA Administrator.

73. Allocations to non-EGU sources should be at the 0.15 lb/mmBtu rate. (1)

Department response: The Department disagrees with the comment. The EPA developed the state NO_x budget based on a 60% reduction from non-EGUs. This reduction was found to be cost-effective. Therefore, the final regulation allocates to non-EGU sources at 0.17 lb/mmBtu rate.

74. Allocations for 2006 and beyond should be based on 0.15 lb/mmBtu. The heat input should be determined on a 5 year rolling average. (1)

Department response: The final regulation allocates to EGU units at the 0.15 lb/mmBtu rate and to non-EGU units at the 0.17 lb/mmBtu rate. This allocation scheme follows the EPA model rule and assures consistency with other states. The heat input is determined as an average of the specified baseline. The initial EGU heat input uses the highest two year average heat input for 1995 through 1998. After that, the heat input is the average of the baseline years.

75. The commentator notes that a number of commentators have made conflicting suggestions on the allocation method. The commentator requests that the Board explain why the method chosen is the best alternative. (45)

Department response: As discussed earlier, the Department revised the final regulation to change the allocation methodology. The allocation method now reflects the allocation method used in the Section 126 remedy. The allocation method now provides a longer time period (5 years) to provide facilities with additional planning time. The method allocates to sources in a clear and consistent manner.

New Source Set Aside

76. The set aside for new sources should be reduced to 3 % for the first three years and then 1 % every year after. (4, 21)

Department response: The proposed set aside for new sources was 5 percent of the budget. EPA recommended this value as the average for all the 22 state SIP Call area. For Pennsylvania, 5% for three years equals 15% of the budget which is the same as the growth rate used by EPA for Pennsylvania electric generation units. If growth is less rapid than this rate, then the 5% set aside will not be used and will be returned to the existing sources.

77. There should be a timing requirement for distributing allowances under Section 145.42(d). (31)

Department response: Section 145.41(d) was added to require the Department to publish the allocation of the new-source set aside by April 1 of each year.

78. The Department should revise the new source set aside provisions to allow repowered sources to receive allowances. (7)

Department response: The definition of an affected unit is based, in part, on the date that the unit commenced operation. The definition of "commence commercial operation" states that the date it started commercial operation shall remain the date even if the unit is subsequently modified, reconstructed or repowered. Because of this definition, a repowered source is an existing source and will receive allowances as described in Section 145.42.

79. Section 145.42(b) should be revised to allocate to new or repowered sources as proposed by EPA in Section 96.42(b). (29)

Department response: The Department has made the recommended change.

80. New sources should only receive allowances equal to their need. Granting additional allowances to these sources will be economically unfair to existing sources. (12)

Department response: The Department has retained the provision of the lower of allowable of 0.15/0.17. This is consistent with the EPA allocation method found in Part 97.

81. The provisions that return unused new source allowances to existing sources is supported. (28)

Department response: The Department thanks the commentator for the support.

82. Section 145.42(d) is supported. The set aside of 5% of the budget for the first three years and 2% a year thereafter is supported. (30)

Department response: The Department has revised the rule to keep the set-aside at 5% for all years. This is consistent with the EPA Part 97 rule.

83. The creation of a set aside for new sources is supported. (38)

Department response: The Department thanks the commentator for the support.

84. Section 145.42(d) would allocate to new sources based on the date the plan approval is issued. This section should be revised to allocate after the Department has determined that the plan approval application is complete. (39)

Department response: The final rule has been revised to delete the plan approval wording. The rule now requires a unit to request allowances at the more stringent of 0.15/0.17 or allowable emission rate.

85. Section 145.42(d)(5)(i) states that the Department will begin determining allowances at the time the NO_x allocation request is received. This does not seem to be consistent with issuing allowances at the time the plan approval is issued. This section should be reviewed to make sure there is consistency. (39)

Department response: The approach is consistent. The referenced section indicates that the Department will review the request to determine if the request correctly calculates the allowances and limits the request to the correct number of years. Section 145.42(d)(5) allows the Department to correct the application if errors have been made.

Affected Sources

86. The regulation should be revised to be applicable to electric generating units that sell electricity to the grid and are greater than 25 megawatts as proposed by EPA. (3, 17, 18, 20, 22, 25, 26, 28, 35, 43)

Department response: The regulation has been changed as suggested.

87. The regulation should apply to electric generating units that are rated at greater than 25 megawatts. One commentator requests that the Department explain why there is a need for regulating 15 MW units or adopt the federal limits. (6, 45)

Department response: The regulation has been revised to follow the unit definition in the Section 126 remedy. The regulation now covers units rated at greater than 25 MW.

88. The affected units can be in the 15 to 25 megawatt range only if these sources are included in the inventory. (7, 18, 40)

Department response: The sources less than or equal to 25 megawatts are being deleted from the program.

89. Stationary gas turbines at natural gas transmission stations are non-condensing cycle, natural gas-fired turbines. These units need clarification of how to determine maximum heat input. Maximum heat input for non-condensing cycle, natural gas-fired turbines should be estimated using the lower heating value of the fuel, consistent with NSPS Subpart GG. (10)

Department response: The definition of maximum rated heat input uses the higher of the manufacturer's rated hourly heat input or the highest observed hourly heat input. No additional clarification is needed.

90. Proposed Section 145.4(1) should be revised to specify units greater than 25 megawatts. This change is consistent with the April 23, 1999 AQTAC recommendation. (28, 29)

Department response: The Department has made the recommended changes.

91. The nameplate capacity should be identified as the summer rating since the program is a summer program. A combustion turbine's capacity will change with air temperature. (29)

Department response: The Department has not made the suggested change. The EPA used the nameplate capacity when determining cost effective controls. These sources were then determined to contribute to ozone nonattainment. It is important that these sources provide emission reductions in order to assist in reducing ozone transport.

92. Pollution control devices that fire fossil fuel and otherwise seem to be affected units should be exempt. Refinery CO boilers used to control the release of CO from FCC units should be exempt from the rule. (12)

Department response: The Department has not revised the rule based on this comment. If the CO boilers meet the definition of affected unit, they should be controlled as a source that contributes to ozone nonattainment and ozone transport.

93. Section 145.4(2) should be revised to apply to electric generating units equal to or greater than 25 megawatts based on a unit summer net capacity. A unit that demonstrates this capacity at any time after January 1, 1995 should be covered. (16)

Department response: The regulation has been revised to apply to units rated at greater than 25 megawatts. This is consistent with the Section 110 and Section 126 rules and is the basis for the EPA determination of cost effective controls.

94. The proposed regulation should include an inventory of affected units and initial allowance allocations. A source cannot fully evaluate the program without knowing with some certainty how many allowances it will receive. (17)

Department response: The Department has not included an inventory of affected units in the regulation. As stated in the preamble to the proposed regulation, the regulation establishes a formula for the allocation of allowances. Because of the formula, a specific listing of allocations is not necessary in the regulation. The Department will use the formula to allocate the allowances to sources. The inventory of affected sources was developed by EPA. EPA published the inventory on May 14, 1999. Three opportunities for public comment were offered. No additional publications of the inventory by the Department are needed. Interested individuals may view the unit listing on EPA's web site at:
ftp://www.epa.gov/pub/scram001/modelingcenter/NOx_SIPcall/budget/May/
Even without the Department's publication of draft allocations, sources have the ability to review the regulation. The Department's proposed allocation method was slightly different from the method used by EPA in its proposed Section 126 remedy. (The difference was the allocation proposal to use the lower of 0.15 or 0.17 and the allowable.) The EPA published proposed allocations and affected source listings on October 21, 1998 and final allocation on January 18, 2000 in the Federal Register. Thus, sources have had the ability to analyze the impact of the proposed regulation.

95. The emission inventory should be published so that sources have an opportunity to review the data. The EPA inventory contains errors. (17)

Department response: The EPA inventory has been published several times. The inventory has been open for public comment on three different occasions. No additional opportunities are needed.

96. The Department should confirm that the shutdown units, Phillips and Brunot Island, are not subject to the rule until reactivated. Once reactivated, allowance allocations should be issued from Section 145.42(b) and (d). (20)

Department response: The Department agrees that these shutdown units are not subject to the provisions of the rule. Any operating units at Brunot Island are subject to the rule. The method of allocation will be determined when an application to operate the units is received.

97. The regulation should contain an exemption for sources that emit less than 25 tons per summer season. This provision was included in EPA's model rule. (26, 35, 41, 43, 45)

Department response: A provision exempting these sources has been added to the regulation. It is found at Section 145.4(b).

98. The regulation should be clarified to use the same source classification system as used by EPA. Specifically, a cogeneration unit that does not have a firm contract for sale should not be considered an electrical generating unit. (28)

Department response: The Department agrees that the EPA classification system should be used. Section 145.4 of the rule specifies how sources are classified.

99. The inclusion of sources rated at 15 megawatts or greater is beneficial to the environment and should be retained. (30, 39, 42)

Department response: The Department has changed the applicability criteria to 25 megawatts. This is consistent with the EPA model rule and finding of cost effective controls.

100. The industrial proposal to allow sources to take a permit cap to be exempted from the program is opposed. (30)

Department response: The Department has added a provision to provide permit caps for small emitting sources. The amount of the permit cap is subtracted from the trading budget to prevent double counting of emissions. Since the budget is preserved, there is no reason to oppose the concept.

101. Section 145.4 should be revised to exempt sources in iron and steel mills from the program. In the Federal Register (63 FR 57416) EPA stated that no additional control measures were assumed for source categories with relatively small NO_x emissions. (35)

Department response: The EPA intended the statement to refer to small sources such as process heaters. EPA was not exempting large boilers at steel mills from the proposed program. These boilers are similar to other large industrial boilers and should be controlled in a similar manner. No change was made to the regulation.

102. No provision has been made to exclude sources that utilize byproduct fuels. It was not EPA's intent to regulate these sources. Coke oven gas and blast furnace gas should not be included in the program. (35)

Department response: EPA has determined that coke oven gas is a fossil fuel. EPA has determined that blast furnace gas is not a fossil fuel. No revision of the regulation is necessary.

103. The definition of boiler should be clarified. The current definition may include coke ovens. The ovens and other similar sources should be excluded from the program. (35)

Department response: The Department has reviewed the definition of boiler. It requires that the combustion devise be used to produce heat and that the heat is transferred to recirculating

water, steam or other medium. Existing coke ovens in Pennsylvania do not transfer heat to recirculating water, steam or other medium and would not be subject to the rule.

104. The Section 145.4 should be clarified to define what is an EGU. Industrial sources that do not meet the EGU definition should not be in the EGU category. (39)

Department response: The section has been clarified. The Department is using the wording contained in the Part 97 rule.

105. Section 145.4 should have an exemption for low mass emitters as suggested by EPA in 40 CFR 96.4. Specific wording are suggested. (39)

Department response: The Department has added a provision for capping low mass emitters. Section 145.4 now includes a provision to allow these sources to have their permits modified under certain conditions.

Monitoring Requirements

106. The non-part 75 sources have revised their monitoring systems to comply with the requirements of the Chapter 123 allowance program. There is no reason to require these sources to change monitoring a second time for the new Chapter 145. The Chapter 145 monitoring should be the same as currently required by Chapter 123. One commentator asked that should monitoring changes be needed, the Board should provide an analysis of the additional costs. (5, 7, 13, 15, 18, 20, 22, 25, 26, 28, 29, 39, 45)

Department response: This issue was discussed with the Air Quality Technical Advisory Committee on May 21, 1999. The main concern was that certain sources have approved alternative monitoring plans under Chapter 123. The commentators would like to have these same systems approved under Chapter 145. At the May meeting, EPA stated that most of the alternative monitoring plans would only need minor changes to be approved under Part 75. The Department believes that it is important to have consistent monitoring requirements across all states involved with the SIP Call trading program. This assures that a ton of emissions measured in Pennsylvania is the same as a ton of emissions measured in any other state. Therefore, the final regulation retains the monitoring requirements. The Department has not estimated the additional cost of monitoring revisions. At the meeting with EPA, the EPA staff stated that the Part 75 rules will be revised to provide additional alternatives as currently provided in Chapter 123. It was EPA's technical judgement that only a very few sources would need to modify their monitors. Because there is no specific estimate of the number of sources that need to revise the monitors, the Department has not estimated the cost of the modifications.

107. The definition of "CEMS" requires a permanent record of NO_x emissions expressed as tons per hour. The Electronic Data Report version 2.0 records pounds per hour. The definition should

be changed to require the recording of pounds NO_x per hour. One commentator suggested that the EQB should incorporate a waiver process or reference an existing waiver process to deal with minor conflicts. (29, 45)

Department response: The Department agrees with the comment and has made the recommended change on the reporting of pounds of emissions. The monitoring provisions of 40 CFR Part 75 subpart H contain provisions to allow sources to petition the Administrator for modifications or changes to the monitoring rules. The Department believes that consistent monitoring at all sources in all states is important to the trading program. Therefore, the Administrator should oversee the monitoring waivers or changes.

108. Section 145.6 should be revised to allow data records to be kept at a central location or be made available upon request. Data may be stored off-site depending on the records management practices of various companies. (29, 45)

Department response: The Department has made the recommended change.

109. The regulation would adopt the new EPA monitoring requirements at 40 CFR 75. In particular, Part 75, section 75.19 creates difficulties for low mass emitter units. In addition, sources have recently invested in upgrading systems to meet the Chapter 123 monitoring requirements. Changing the monitoring requirements does not improve the representativeness of the data. (16)

Department response: The monitoring issues were discussed with the AQTAC at the May 21, 1999 meeting. EPA staff attended the meeting and explained why the monitoring requirements have been revised from the Chapter 123 requirements. In general, EPA is seeking to create a monitoring requirement that is applied consistently among all states. EPA states that the trading system must have uniform monitoring requirements if interstate trading is to work. At the AQTAC meeting, EPA specifically discussed the low mass emitter unit requirements. EPA believes that the Part 75 requirements do provide the necessary flexibility and are appropriate for these sources. Sources may apply to EPA for alternatives. EPA will approve alternatives and make the information available for all sources' information. A detailed summary of the discussions can be found in the May 21, 1999 AQTAC minutes.

110. The proposed section 145.71 does not contain a time limit for Department review of certification applications. This time limit was included in the EPA model rule and should be included in the final rule (26)

Department response: The Department has revised the rule to provide time limits for review.

111. Sections 145.70 and 145.74 should be modified with the correct references to either annual or seasonal reporting. (31, 39, 45)

Department response: The change has been made.

112. Section 145.71 contains a timing problem for certification of monitors. It is unclear what the status of the monitors and monitored data is if the state fails to approve a monitor within 120 days. If a monitor is automatically approved, how will the source be advised of this decision. It is recommended that the provisions of 40 CFR 96.74 be adopted to clarify these issues. (31, 45)

Department response: The Department has modified the section to include the 120-day provision.

113. Section 145.74(d)(3)(iii) just applies to sources reporting during the control period. It should be deleted if annual reporting is required. (31)

Department response: The regulation has been revised to allow certain sources to report during the control period rather than annually. Therefore, the section has been retained.

114. While the current Chapter 123 monitoring requirements should be retained, the commentator would not support retaining these requirements if Pennsylvania sources would be precluded from participating in interstate trading. (39)

Department response: The Department is retaining the proposed Chapter 145 monitoring requirements. This will allow sources to participate in interstate trades. As stated in the response to comment 101, the change will affect some sources. However, EPA will work with the Department and source to minimize any negative impacts.

115. Section 145.70(1)(i) should be revised to state that a flow monitor is necessary only when required by Part 75. (39)

Department response: No revision is necessary. The paragraph lists a number of systems and then states that the implementation is to be done in accordance with 40 CFR 75.72 and 75.76. If these sections do not require flow monitors under certain conditions, then Section 145.70 is read to not require the flow monitors.

116. Section 145.70 should allow a period of time for "shakedown" of equipment for troubleshooting and debugging. NO_x allowances should not be made until after the shakedown period. (39)

Department response: The Department disagrees. The allowance program covers all NO_x emissions including times of problems. Using the commentator's recommendation would result in sources having excess emissions and not counting that toward the budget or cap.

117. The section 145.70(3)(ii) should be revised to clarify that the data collected during the initial CEMS certification process not be reported for compliance purposes. (39)

Department response: The Department disagrees. These emissions must be recorded and reported in order to demonstrate that the budget is achieved. Delays in certification approval would give units an opportunity to have high emissions and not count them toward the cap. This is contrary to the intent of the trading program. This should not be a burden for sources since they have the entire control period to demonstrate compliance with the cap.

118. Section 145.74(d)(1)(iii) should be revised to require the reporting of data after the date of the certification. Data collected prior to the certification date should not be required. (39)

Department response: All data must be reported once a unit starts operation. Sources are encouraged to certify monitors prior to the start of the program in order to avoid any problems.

119. Section 145.75 should list the alternatives that are allowed. (39)

Department response: EPA maintains a list of approved alternatives to the Part 75 monitoring requirements. No change to the rule is necessary.

120. All sources covered by the program should be required to have CEMS. The rules should follow the EPA monitoring requirements. (40)

Department response: The rule retains the requirement to use the Part 75 monitoring requirements. In some circumstances, this may allow sources to monitor without CEMs.

121. The monitoring requirements specify a moisture analyzer. However, there are no certifiable analyzers on the market. (1)

Department response: Many sources now monitor H_2O for correction of results. Most use a combination of dry O_2 and wet O_2 measurement to do the calculation, although some are using infrared to measure H_2O directly.

122. Section 145.72(a) should provide for an alternative. Many software vendors will not provide certification of their data substitution algorithms. (1)

Department response: Both the SO2 and NO_x programs require data substitution. If the vendor is not willing to back his substitution algorithm, then the source is encouraged to find a vendor that will support its software.

<u>Heat Input Data</u>

123. The Department should use the corrected heat input data collected by EPA. (1)

Department response: The Department agrees with the comment. The corrected inventory published by EPA is the basis for the allocations.

124. Section 142(a)(2) should be revised to either eliminate the listing of heat input sources or to recognize that CEM data is more accurate that emission statements. Emission statements provide average information and do not report the actual heat input data. (5, 9, 13, 15)

Department response: The section has been revised to eliminate the category listing. Sources have had three opportunities to comment on the accuracy of this data. Comments were received by EPA for the November 7, 1997 notice of proposed rulemaking (62 FR 60318), the notice of supplemental rulemaking published on May 11, 1998 (63 FR 25903), and under the notice of final rulemaking published on October 27, 1998 (63 FR 57356). Judicial review of the data is also available under Section 307 of the Clean Air Act.

125. The regulation should be revised to allow sources an opportunity to demonstrate that the 1995 through 1997 years do not include two representative years for that facility's operations. (15)

Department response: The Department is not including this provision in the regulation. In allocating the allowances, each source is given the opportunity to normalize its operations. These normalized operations are allocated at 0.15 lb/mmBtu rate. This initial allocation is then adjusted upward to reflect the growth contained in the budget. Should a specific source still have problems, the market mechanisms are available to allow the acquiring of allowances to provide increased operations.

126. Heat input data for four sources were submitted to EPA. The Department should use this data even if EPA does not modify its inventory. (20)

Department response: The Department has not made the suggested changes. EPA responded to the comment on the inventory. The shutdown sources at Phillips and Brunot Island were included in the final EPA inventory with the appropriate heat input. EPA did not change the heat input for Elrama and Cheswick stations since the commentator did not provide justification that the EPA acid rain data was incorrect. The Department will use the final EPA inventory.

127. The final regulations should allow the opportunity for units that cannot directly monitor heat input to calculate heat input from the fuel throughput and gross calorific values. (25)

Department response: Heat input monitoring generally does measure fuel throughput and gross calorific values. The actual monitoring method is specified in the monitoring plan and must be approvable under Part 75.

<u>Opt-In Provisions</u>

128. The opt-in provisions are supported. However, sources should not need a full season of monitored data prior to permit approval. Sources should be required to comply with the monitoring provisions prior to issuance of the opt-in permit. This is important for non-utility sources because of the need for flexibility in modifying operations. (12)

Department response: The purpose of the one season monitoring requirement is to develop a base for allocations. The allocation would then be calculated using data of equal quality as other affected sources. The result is that the allowances are of equal value. The Department understands that this may reduce a facility's flexibility to modify its operations. However, in a market based regulation sources are responsible for being proactive. Those sources that anticipate the need to opt-in should begin monitoring as soon as possible.

129. It is unclear what the status would be for a smaller source, rated less than 250 mmBtu/hr, that increases heat input and is now over 250 mmBtu/hr. It is not clear if this source is a new source. (12)

Department response: This issue is addressed by Section 145.87 for opt-in sources. Opt-in sources that increase capacity or otherwise become affected units are allocated under Section 145.42 when they become affected units. Sources that have not opted-in and later become affected units are allocated under Section 145.42(d). In this case, the budget does not increase in order to control growth. Heat input for these sources is determined based on data collected in accordance with Part 75 monitoring requirements.

130. The opt-in provisions are unclear as they apply to cement kilns. The definition of unit seems to preclude cement kilns from opting into the program. The regulation should be revised to allow all sources covered by the proposed Chapter 145 be allowed to opt into the program. This could be a change in the definition of "unit" or a change in the opt-in section. (14, 24, 27, 45)

Department response: Section 145.80 has been revised to allow any unit that meets emits through a stack and can meet the monitoring requirements of Part 75 to opt-in to the program. A unit must be either a boiler, turbine, or combined cycle system. A cement kiln would not qualify to opt into the program. This change is consistent with the Section 126 remedy.

131. Section 145.80 can be interpreted to allow sources in other states to opt into the Pennsylvania program. (31)

Department response: Sources from other states cannot opt into the Pennsylvania program and expand the Pennsylvania budget.

132. The excess emissions penalty should be consistent for opt in and budget units. (39)

Department response: The excess emissions penalty is the same for both types of units. Section 145.86(b)(2) specifies that excess emissions be corrected as specified in Section

145.54(d). This section contains the penalty provisions that apply to all budget units. No change is necessary to the regulation.

Permitting

133. Section 145.21(b)(1) requires a permit application to be filed within 6 months of adoption of the regulation. This is much earlier than required by the federal rule. The Department should explain why this time schedule is needed. This section does not provide a schedule for the Department to respond to the applications. (45)

Department response: The Department initially proposed an earlier time schedule for permit applications in order to allow sufficient time to process the applications. The Department has revised the permitting requirement in the final regulation by deleting the permitting sections.

134. Permitting must be kept as simple and timely as possible. The requirement in Section 145.5(c)(2) to submit a permit application 18 months prior to restart is unnecessary. (12, 26)

Department response: The Department has eliminated the permit application process.

135. Section 145.6 does not contain a requirement for automatic permit amendments as contained in 40 CFR 96.6(c)(8). How does the state intend to cover automatic permit amendments? (31, 45)

Department response: The Department has deleted that explicit requirement for a NO_x permit. The permit requirements of Chapter 127 describe how permitting occurs in Pennsylvania. Chapter 127 describes how permits are amended and issued. No additional change is necessary to Chapter 145.

136. Section 145.6(f) does not include the liability provisions of 40 CFR 96.6(f)(1) and (2). Do state laws and regulations already address this concern? (31, 45)

Department response: These provisions are not necessary. Section 8 of the Air Pollution Control Act states "It shall be unlawful … to violate the provisions of 18 Pa.C.S. § 4903 (relating to false swearing) or § 4904 (relating to unsworn falsification to authorities) in regard to papers required to be submitted under this act."

137. There appears to be a typographical error in Section 145.6(e)(1)(ii). (31)

Department response: The typographical error has been corrected.

138. Section 145.21 does not contain a "duty to reapply" requirement as is in 40 CFR 96.21(c). Do other state permitting requirements address this issue? A similar problem occurs in Section 145.83. (31)

Department response: The Department has deleted the section. Sources are not required to reapply for permits under this Chapter 145.

139. Section 145.25 does not address automatic permit amendments. Does the section require amendments of the permits for each allowance trade? This may not be a problem if Section 145.23(b) addresses the concern. (31)

Department response: The Department has deleted the permit requirements of Sections 145.20 through 145.25. Permits will be issued as specified in Chapter 127. The Chapter 127 state operating and Title V permit programs have been federally approved.

140. Section 145.20 should be revised to state that the NO_x budget permit may be part of a facility's Title V permit. (39)

Department response: The section has been deleted. The Department will incorporate the NO_x budget program requirements into the Title V permits as required under Chapter 127.

141. General permits should not be used under this program. (40)

Department response: The Department agrees. No change to the regulation is necessary.

Energy Efficiency Credits

142. The Environmental Protection Agency has issued guidance which allow states to set aside 5-15% of the NO_x trading budget for energy efficiency improvements. Improvements in the efficiency of equipment will reduce the demand for energy and reduce NO_x emissions. (8, 30, 32, 40)

Department response: The Department has reviewed the initial guidance issued by the Environmental Protection Agency on March, 1999. EPA states that this is the first of three guidance documents that will be issued on energy efficiency. The March 1999 guidance document focuses on the elements for a state to consider in deciding whether or not to do a set aside and how many allowances should be set aside. The second guidance document was issued in April 2000 and discusses the design elements for the administration and quantification of allowances. The third guidance document will be issued in 2000 and will discuss measurement and verification of reductions. The Department is not including explicit energy efficiency provisions in the regulation at this time. The Department will forward the guidance documents to the AQTAC.

143. The regulation should be revised to set aside 10 percent of the electric generating unit budget or 4,940 allowances for use by companies, manufacturers, schools, hospitals, energy service companies, aggregators and others who invest in energy efficiency and renewable energy. To

qualify for these credits the energy efficiency improvement should not be "business as usual" improvement. Rather, there should be some new investment in energy efficiency or some new commitment to renewable energy to obtain the allowance. Companies that invest in energy efficiency become stronger business competitors. Savings could be used to further spur economic growth. The use of these credits could help transition the state to a renewable energy generation base. (30, 34, 42)

Department response: The Department agrees that there would be environmental and economic benefits to an energy efficiency credit program. However, the Department has not included energy efficiency in the final regulation. The Department will continue to work with AQTAC on this issue.

Trading and Compliance Issues

144. The NO_x allowance transfer deadline should be revised to December 31 from November 30. One commentator requested an explanation of the need for the November 30 deadline. (13, 17, 25, 29, 45)

Department response: The Department has not made the suggested revision. The true up date of November 30 allows two months to acquire additional allowances to demonstrate compliance. Sources will have had four years of experience in demonstrating compliance with an allocation under the Chapter 123 trading rules. The loss of one month for true up should not affect these sources because of the experience gained during the Chapter 123 program. Maintaining the same transfer deadline as other states allows Pennsylvania sources to participate in the interstate trading program since one allowance tracking system would be needed.

145. The deadline for submission of a compliance certification report should be changed to December 31 in order to be consistent with the current Chapter 123 requirements. One commentator asked that an explanation be provided why November 30 was chosen. (13, 25, 29, 45)

Department response: The Department has not made the suggested revision. The requirement to submit the compliance certification by November 30 allows two months after the end of the ozone season to prepare the submission. Sources will have had four years of experience preparing compliance certifications under the Chapter 123 trading rules. The loss of one month for submission should not affect these sources because of the experience gained during the Chapter 123 program. The acid rain program currently requires sources to submit compliance certifications within 60 days of the end of the control period. The November 1 date is consistent with this requirement.

146. Section 145.54(d)(1) should be revised to require the surrender of 1 allowance rather than 3 when a source is out of compliance. Because the budget is so small there is a constraint on

emissions and the potential for units to have unused allowances to bank will be low. The provision is unnecessary and unreasonable. (13, 18, 21, 25, 29)

Department response: The recommended change has not been made. The penalty provisions provide a strong compliance incentive.

147. The determination of the number of days of violation should be based on a demonstration of when allowances were unavailable. The regulation should not assume that every day of the ozone season was a violation. (13, 18, 21, 25, 29, 45)

Department response: The recommended change has not been made. The penalty provisions provide a strong compliance incentive.

148. Section 145.54(d)(3) indicates that the fines will be assessed under the Clean Air Act or the act. The Board should explain which specific sections of the Clean Air Act or the act apply. (45)

Department response: The Department has not revised the regulation. The subsection (d)(3) states that an allowance deduction for improper account balances does not exempt a source from monetary or other penalties as provided under the Clean Air Act or act. This subsection clarifies that there may be other penalties and provides further incentive to sources to comply with the rule.

149. The proposed requirement for withdrawal of banked allowances under Section 145.55(b)(3) should be deleted. The budget is so small that inter-temporal trading will not occur. Sources with small banks should not be penalized with a 2:1 withdrawal ratio. Because of the flow control, no source will be comfortable with its bank and will want to build it larger ensuring that flow control is triggered. All allowances should be available at a 1:1 withdrawal rate. (29)

Department response: The recommended change has not been made. The banking provisions of the EPA model rule are required in order to participate in the interstate trading program. This provision is included in the EPA model rule to control excess withdrawals during a particular ozone season. EPA describes in detail the reasons for a flow control program. (63 FR57473) The Department has moved the flow control provisions from Section 145.55 to Section 145.54 relating to compliance.

150. The Section 145.54(d) should be revised to allow a source to recommend a lower surrender ratio. (28)

Department response: The Department has retained the penalty provisions as proposed. This will ensure that sources are treated equally in all states.

151. Sections 145.10(c) and (d), 145.11(b), and 145.12(a) and (b) contain a timing problem. This can be solved by having the account certificate of representation submitted to EPA and a copy sent to the state. The receipt date would be when the Administrator receives the form. (31)

Department response: The change has not been made. Sources are responsible for submitting the material in early enough to allow the Department and NO_x Budget Administrator sufficient time to process the documents.

152. There is a typographical error in Section 145.50(a). EPA will establish an overdraft account when there are two sources or more at a facility. (31)

Department response: The section has been corrected.

153. Section 145.54(e)(2) should be revised to reference Section 145.54(b)(2)(I). (31)

Department response: The change has been made as requested.

154. The penalty provisions of Section 145.6 are overly onerous. Errors related to accidental monitoring problems (calibration errors) are penalized the same as overt violations. These violations should be penalized differently. (39)

Department response: The enforcement responses are the same. In both cases, errors are made estimating the actual emissions. Under a market approach, all NO_x emissions must be accounted for in a consistent manner. To do otherwise would jeopardize the market value of the allowances and reduce the savings benefit of the market.

155. Section 145.31 should be revised to place a time limit on the Department and EPA to conduct reviews or audits. (39)

Department response: The Department disagrees with the comment. The purpose of the audit is to be able to verify that monitoring and reporting is done correctly. If the Department or Administrator finds that a source has incorrectly accounted for its allowances, then there should be an adjustment to the account. This puts those sources that monitor and report correctly on an even basis with those with incorrect monitoring and reporting. The Department and Administrator should have the ability to audit the records as necessary. Due to resource constraints, audits cannot be done for every source within a short time period after the November 30 true up date. This provision is no different than the Department's current authority to review records and determine compliance for any other regulation. No change has been made to the regulation.

156. Section 145.54(b)(2) should be modified to clarify which section subparagraphs i and ii reference. (39)

Department response: The section has been modified to clarify the appropriate reference.

157. The penalty provision of a 3:1 offset contained in Section 145.54(d)(1) are supported. In addition, each fraction of each allowance should be considered a violation. (40)

Department response: The penalty provision has not been changed. The allowance reporting system requires sources to round data in a specific manner. This data is then used to determine compliance through the deduction process. Sources should not be penalized because they round as required by the regulations.

158. The number of days of violation should be each and every day of violation. The phrase "unless the owners and operators of the unit demonstrate that a lesser number of days should be considered" should be deleted. (40)

Department response: The phrase has been retained. The phrase gives the source the opportunity to make a demonstration. However, the onus is on the source to demonstrate that the alternative is more appropriate than assuming each day is a violation. The Department will evaluate each demonstration on a case-by-case basis.

159. The Department should establish a clearing house to assist sources conducting energy efficiency or renewable energy projects. (42)

Department response: The Department is not implementing the energy efficiency or renewable concepts at this time. These provisions will be further discussed with the Air Quality Technical Advisory Committee for additional evaluation. Sources interested in energy efficiency projects may contact EPA for additional information.

160. Interstate trades should only be allowed when states have equivalent programs that will prevent double counting of emission reductions. (40)

Department response: The interstate trades can only occur between states that participate in the EPA tracking system. EPA, acting as the NO_x Budget Administrator, will assign discrete identifying numbers to each allowance. This will prevent double counting.

Emission Reduction Credits

161. Section 145.90(b) should be deleted. This section inappropriately restricts the generation of emission reduction credits which are necessary for the construction or modification of stationary sources. Banked credits are preserved allowances and represent a historical perspective of emissions. Emission reduction credits are a future authorization of emissions. (18, 29)

Department response: The Department has revised the section. However, ERCs must be surplus and it may be difficult to demonstrate that ERCs resulting from banked allowances meet that requirement.

162. Section 145.90 would require allowances to be deducted in certain circumstances. How will this be implemented? (31)

Department response: The Department maintains a registry of all ERC applications and approvals for the state. Transactions from this registry will be compared to the allowance registry to determine if adjustments to the allowance should be made.

Attachment A

One-Page Summaries