MDE
MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101 • www.mde.state.md.us

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Robert M. Summers, Ph.D.
Secretary

June 25, 2014

Randy Bordner, Chief, Stationary Sources Section
Bureau of Air Quality
Rachel Carson State Office Building
P.O. Box 8468
Harrisburg, Pennsylvania 17105-8468
ranbordner@pa.gov

Robert "Bo" Reiley, Assistant Counsel
Bureau of Regulatory Counsel
Rachel Carson State Office Building
P.O. Box 8464
Harrisburg, Pennsylvania 17105-8464
rreiley@pa.gov

Re: Proposed RACT Rulemaking

Dear Stationary Sources Chief Randy Bordner and Assistant Counsel Robert Reiley:

The Maryland Department of the Environment (MDE) appreciates the opportunity to comment on Pennsylvania's Environmental Quality Board's (EQB) proposed RACT rulemaking *Additional Requirements for Major Sources of NOx and VOCs* dated November 19, 2013 and released by EQB on April 19, 2014. MDE has three comments regarding the proposed RACT rulemaking.

The MDE urges the EQB to revise the proposed RACT rulemaking to incorporate language that

- require sources run their installed controls,
- adopt more stringent emission rates and
- enhance the alternative compliance mechanism to lower the emissions rate for the 30-day system-wide averaging mechanisms.

The MDE discusses these comments in detail below.

1. The Proposed Rulemaking Must Contain a Provision That Emission Control Technologies Must Run

RACT is defined as the "lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility". See 57 Fed. Reg. 55,620, 55,624 (Nov. 25, 1992).

Data readily available from the Environmental Protection Agency's Clean Air Markets Division (CAMD) indicates electric generating units are operating without running their post-combustion controls. An analysis of CAMD data shows NOx emission rates well above what is considered representative of a unit running its post-combustion controls as efficiently as possible. No practical interpretation of RACT would find it *reasonable* for a facility to install controls and then not operate them.

A positive RACT determination cannot be made for a unit that does not consistently run its controls. RACT, as defined by the EPA, involves the *application* of a reasonably available control technology – or more specifically the *act* of putting to *use* a reasonably available control technology. A positive RACT determination therefore cannot be made through the purchase of control technology alone – those technologies must be *put to use*. The MDE urges a revision of the proposed PA NOx RACT rule to include a provision that emission reduction controls (especially post combustion controls – as they achieve the lowest emission limit) *must run* in order to achieve a positive RACT determination.

The MDE also urges a revision of the proposed PA NOx RACT rule to remove permit provisions allowing "optional" application of post-combustion controls as it has been found that some sources are permitted to operate their post-combustion controls at their own discretion. A source that operates its controls at its own discretion inherently implies that controls are not consistently run which in and of itself cannot meet a positive RACT determination because said controls are not consistently *put to use*. RACT is an ever-evolving air pollution requirement. Installing control technologies is not RACT; RACT includes the installation *and* the operation and maintenance of control technologies. Table 1 outlines the current NOx controls and associated optional operation provision for Pennsylvania's coal-fired EGU fleet.

Mandating the running of post-combustion controls while electric generating units are operating is an important issue for air quality. Data readily available from the Environmental Protection Agency's Clean Air Markets Division (CAMD) indicates electric generating units are operating without running their post-combustion controls. An analysis of 2012 CAMD data shows that units not running post combustion SCR control devices resulted in an excess of 100 tons per day of NOx mass emissions into the airshed. Table 2 outlines the results of this analysis.

Table 1: Pennsylvania Coal-Fired EGUs and Current NOx Controls

Unit Level Data				Control Data			
Plant ID (ORISPL)	Unit ID	Facility Name	Nameplate Capacity (MW)	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Future Controls for NOX	Control Notes
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	ERTAC 2.2	PA DEP Control Table, Title V Permit, Other
10676	32	AES Beaver Valley LLC	138.5	LNBO	SNCR		PA DEP indicates SNCR is optional. Proposed Title V permit states "SNCR technology is installed on Boiler units 032, 033, 034, and 035, and is utilized as market conditions allow relative to NOX allowance requirements".
10676	33	AES Beaver Valley LLC	138.5	LNBO	SNCR		
10676	34	AES Beaver Valley LLC	138.5	LNBO	SNCR		
10676	35	AES Beaver Valley LLC	138.5	LNBO	SNCR		
6094	1	Bruce Mansfield	913.7	LNBO	SCR		PA DEP indicates SCR is optional. Proposed Title V permit states "This unit is equipped with an SCR system.. Operation of Unit with SCR is voluntary....It is not an enforceable requirement that the SCR system operate at any given time".
6094	2	Bruce Mansfield	913.7	LNBO	SCR		
6094	3	Bruce Mansfield	913.7	LNBO	SCR		

Unit Level Data				Control Data			
Plant ID (ORISPL)	Unit ID	Facility Name	Nameplate Capacity (MW)	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Future Controls for NOX	Control Notes
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	ERTAC 2.2	PA DEP Control Table, Title V Permit, Other
3140	1	Brunner Island	363.3	LNC3		SCR (2017)	
3140	2	Brunner Island	405	LNC2		SCR (2017)	
3140	3	Brunner Island	790.4	LNC2		SCR (2017)	
10641	1	Cambria Cogen			SNCR		
10641	2	Cambria Cogen			SNCR		
8226	1	Cheswick	637	LNC2	SCR		
10143	AAB01	Colver Power Project		NH3			
3118	1	Conemaugh	936	LNC3	SCR		PA DEP indicates SCR is optional. Letter to PA DEP dated 2/28/2012 from Earth Justice et al states "...plan approval would allow construction and operation of SCR systems to control NOX emissions at the units 1 and 2 at the Conemaugh Power Plant...Conemaugh plans to use the SCR system as a 'discretionary control device', and the DEP is not requiring operation of the SCR system as a condition of plant operation".
3118	2	Conemaugh	936	LNC3	SCR		
10603	31	Ebensburg Power Company					
10113	31	Gilberton Power Company		OFA			
10113	32	Gilberton Power Company		OFA			
3179	1	Hatfields Ferry Power Station	576	LNCB, OFA			
3179	2	Hatfields Ferry Power Station	576	LNCB, OFA			
3179	3	Hatfields Ferry Power Station	576	LNCB, OFA	SNCR		
3122	1	Homer City	660	LNBO	SCR		PA DEP indicates SCR is optional. Proposed Title V Permit dated 5/29/2012 states "In accordance with Plan Approval PA-32-00055C, it is not an enforceable requirement that the SCR units operate at any given time".
3122	2	Homer City	660	LNBO	SCR		
3122	3	Homer City	692	LNBO	SCR		
3136	1	Keystone	936	LNC3	SCR		PA DEP indicates SCR is optional. Pennsylvania eFacts lists Boiler 1 and Boiler 2 with Low NOX burner and optional SCR system.
3136	2	Keystone	936	LNC3	SCR		
3181	33	Mitchell Power Station		LNC3			
3149	1	Montour	805.5	LNC3	SCR		
3149	2	Montour	819	LNC3	SCR		
10343	SG-101	Mt. Carmel Cogeneration					
3138	3	New Castle	98	LNBO	SNCR		PA DEP indicates SNCR is optional.
3138	4	New Castle	114	LNBO	SNCR		
3138	5	New Castle	136	LNBO	SNCR		
50888	NGC01	Northampton Generating Plant		NH3			
50039	31	Northeastern Power Company		Other			

Unit Level Data				Control Data			
Plant ID (ORISPL)	Unit ID	Facility Name	Nameplate Capacity (MW)	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Future Controls for NOX	Control Notes
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	ERTAC 2.2	PA DEP Control Table, Title V Permit, Other
50776	1	Panther Creek Energy Facility		NH3			
50776	2	Panther Creek Energy Facility		NH3	SNCR		
54144	31	Piney Creek Power Plant		OFA			
3113	1	Portland	172	LNC3			
3113	2	Portland	255	LNC3			
50974	1	Scrubgrass Generating Plant			SNCR		PA DEP indicates SNCR is optional. Document "Economic Optimization of SNCR at Scrubgrass Power Plant" (unknown date, likely post 2001) states "The Scrubgrass SNCR system is operated during the NOX trading season each year, from May through September...The point of the SNCR system is to cost effectively reduce NOx emissions during the NOx trading season. To help accomplish this goal from a tactical standpoint, the control system has been programmed to continuously adjust the ammonia flow rate based on ammonia costs relative to NOx allowance prices".
50974	2	Scrubgrass Generating Plant			SNCR		
3130	1	Seward			SNCR		
3130	2	Seward			SNCR		
3131	1	Shawville	125	LNB	SNCR		PA DEP indicates SNCR is optional. Proposed permit dated 11/02/10 states "The SNCR systems shall be operated in accordance with the manufacturer specifications and good air pollution control practices".
3131	2	Shawville	125	LNB	SNCR		
3131	3	Shawville	188	LNC3	SNCR		
3131	4	Shawville	188	LNC3	SNCR		
54634	1	St. Nicholas Cogeneration Project					
3115	1	Titus	75	LNC3			
3115	2	Titus	75	LNC3			
3115	3	Titus	75	LNC3			
50879	GEN1	Wheelabrator - Frackville	48				
50611	31	WPS Westwood Generation, LLC					

RACT is a must-run control technology requirement. For a must-run control provision, rates must reflect strict enough standards so as some level controls would have to run to meet the further revised NOx rates.

Mandating the running of post-combustion controls while EGUs are operating is an important issue for air quality. Data readily available from CAMD indicates EGUs are operating without running their post-combustion controls. An analysis of 2012 CAMD data shows that units not running post combustion control devices resulted in an excess of 100 tons per day of NOx mass emissions into the airshed. Table 2 outlines the results of MDE's analysis on emissions and savings that could have resulted if units had run their post-combustion controls during a single large-scale regional ozone event period.

Table 2: Emissions Savings for Pennsylvania Coal-Fired EGUs with SCR

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
Monday July 1, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	192056.3	0.11	10.48	7.29	3.19
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	186,861.3	0.14	13.24	7.44	5.80
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	196,382.9	0.16	15.71	7.31	8.40
8226	1	Cheswick	637	5280	0.35	0.06	2003	101,549.4	0.36	18.07	3.02	15.05
3118	1	Conemaugh	936	9420	0.35	0.30	2005	153,589.1	0.32	24.24	22.90	1.34
3118	2	Conemaugh	936	9313	0.35	0.29	2009	154,576.2	0.30	23.62	22.14	1.48
3122	1	Homer City	660	6792	0.4	0.07	2006	98,026.2	0.18	9.00	3.27	5.73
3122	2	Homer City	660	6792	0.4	0.08	2006	101,717.8	0.20	10.30	4.20	6.10
3122	3	Homer City	692	7260	0.4	0.09	2005	90,301.9	0.22	10.10	3.94	6.16
3136	1	Keystone	936	8349	0.35	0.04	2003	172,095.9	0.36	31.38	3.64	27.74
3136	2	Keystone	936	8881	0.35	0.04	2008	168,822.4	0.34	28.56	3.66	24.90
3149	1	Montour	806	7384	0.35	0.04	2003	127,836.2	0.40	25.74	2.84	22.90
3149	2	Montour	819	7384	0.35	0.05	2003	135,615.0	0.39	25.88	3.20	22.68
					Total					246.30	94.83	151.47
Tuesday July 2, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	193,342.4	0.12	11.47	7.34	4.13
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	189,710.9	0.15	13.96	7.55	6.41
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	198,882.6	0.15	15.03	7.40	7.63
8226	1	Cheswick	637	5280	0.35	0.06	2003	107,681.7	0.36	19.30	3.20	16.09
3118	1	Conemaugh	936	9420	0.35	0.30	2005	162,920.8	0.31	24.98	24.29	0.69
3118	2	Conemaugh	936	9313	0.35	0.29	2009	164,995.5	0.31	25.85	23.63	2.22
3122	1	Homer City	660	6792	0.4	0.07	2006	109,904.9	0.26	14.06	3.67	10.39
3122	2	Homer City	660	6792	0.4	0.08	2006	117,721.6	0.22	12.72	4.86	7.86
3122	3	Homer City	692	7260	0.4	0.09	2005	111,155.8	0.22	12.35	4.85	7.50
3136	1	Keystone	936	8349	0.35	0.04	2003	186,164.2	0.37	34.81	3.94	30.87
3136	2	Keystone	936	8881	0.35	0.04	2008	183,937.9	0.35	32.32	3.98	28.34
3149	1	Montour	806	7384	0.35	0.04	2003	134,123.3	0.21	14.20	2.98	11.23

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
3149	2	Montour	819	7384	0.35	0.05	2003	142,103.1	0.40	28.10	3.35	24.75
					Total					259.16	101.03	158.12
Wednesday July 3, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	192,523.2	0.09	9.11	7.31	1.81
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	191,071.8	0.13	12.02	7.60	4.42
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	198,208.4	0.15	15.10	7.37	7.73
8226	1	Cheswick	637	5280	0.35	0.06	2003	108,569.7	0.37	19.87	3.23	16.64
3118	1	Conemaugh	936	9420	0.35	0.30	2005	167,254.4	0.30	25.33	24.94	0.39
3118	2	Conemaugh	936	9313	0.35	0.29	2009	174,065.0	0.30	26.44	24.93	1.52
3122	1	Homer City	660	6792	0.4	0.07	2006	111,086.6	0.18	9.82	3.70	6.11
3122	2	Homer City	660	6792	0.4	0.08	2006	120,208.3	0.23	14.15	4.96	9.18
3122	3	Homer City	692	7260	0.4	0.09	2005	113,460.8	0.22	12.51	4.95	7.56
3136	1	Keystone	936	8349	0.35	0.04	2003	188,290.1	0.37	34.72	3.98	30.73
3136	2	Keystone	936	8881	0.35	0.04	2008	185,510.4	0.35	32.21	4.02	28.19
3149	1	Montour	806	7384	0.35	0.04	2003	137,722.3	0.19	11.51	3.06	8.45
3149	2	Montour	819	7384	0.35	0.05	2003	143,182.4	0.41	28.40	3.38	25.02
					Total					251.18	103.43	147.75
Thursday July 4, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	193,492.6	0.09	9.09	7.34	1.75
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	191,015.1	0.13	12.60	7.60	5.00
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	198,483.6	0.14	13.96	7.38	6.57
8226	1	Cheswick	637	5280	0.35	0.06	2003	107,506.7	0.36	19.48	3.20	16.28
3118	1	Conemaugh	936	9420	0.35	0.30	2005	168,812.7	0.31	26.20	25.17	1.03
3118	2	Conemaugh	936	9313	0.35	0.29	2009	170,830.4	0.31	26.60	24.46	2.14
3122	1	Homer City	660	6792	0.4	0.07	2006	120,675.3	0.18	10.80	4.02	6.78
3122	2	Homer City	660	6792	0.4	0.08	2006	127,505.9	0.24	16.06	5.27	10.79
3122	3	Homer City	692	7260	0.4	0.09	2005	121,700.4	0.22	13.44	5.31	8.13
3136	1	Keystone	936	8349	0.35	0.04	2003	188,840.6	0.38	35.74	3.99	31.75
3136	2	Keystone	936	8881	0.35	0.04	2008	184,056.0	0.34	30.86	3.98	26.87

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass If SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
3149	1	Montour	806	7384	0.35	0.04	2003	140,058.3	0.14	9.21	3.11	6.10
3149	2	Montour	819	7384	0.35	0.05	2003	145,712.6	0.41	28.64	3.44	25.20
					Total					252.67	104.28	148.39
Friday July 5, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	194,618.1	0.12	11.33	7.39	3.95
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	191,090.4	0.13	12.30	7.61	4.69
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	198,802.0	0.12	11.76	7.40	4.36
8226	1	Cheswick	637	5280	0.35	0.06	2003	117,396.7	0.36	21.19	3.49	17.70
3118	1	Conemaugh	936	9420	0.35	0.30	2005	185,932.3	0.30	28.29	27.72	0.57
3118	2	Conemaugh	936	9313	0.35	0.29	2009	187,948.0	0.30	28.60	26.91	1.68
3122	1	Homer City	660	6792	0.4	0.07	2006	125,927.6	0.23	15.07	4.20	10.87
3122	2	Homer City	660	6792	0.4	0.08	2006	133,187.4	0.28	19.63	5.50	14.13
3122	3	Homer City	692	7260	0.4	0.09	2005	124,824.2	0.22	13.68	5.44	8.24
3136	1	Keystone	936	8349	0.35	0.04	2003	206,281.4	0.38	39.20	4.36	34.84
3136	2	Keystone	936	8881	0.35	0.04	2008	200,844.8	0.33	33.53	4.35	29.18
3149	1	Montour	806	7384	0.35	0.04	2003	144,065.6	0.14	9.78	3.20	6.58
3149	2	Montour	819	7384	0.35	0.05	2003	149,310.8	0.39	28.70	3.52	25.17
					Total					273.06	111.09	161.97
Saturday July 6, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	195,549.1	0.12	11.38	7.42	3.95
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	192,818.5	0.13	12.50	7.67	4.83
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	201,211.1	0.13	13.13	7.49	5.64
8226	1	Cheswick	637	5280	0.35	0.06	2003	85,650.0	0.29	14.53	2.55	11.98
3118	1	Conemaugh	936	9420	0.35	0.30	2005	188,361.8	0.31	29.59	28.09	1.50
3118	2	Conemaugh	936	9313	0.35	0.29	2009	187,169.6	0.30	28.68	26.80	1.88
3122	1	Homer City	660	6792	0.4	0.07	2006	128,051.2	0.22	14.84	4.27	10.57
3122	2	Homer City	660	6792	0.4	0.08	2006	136,087.0	0.28	19.55	5.62	13.93
3122	3	Homer City	692	7260	0.4	0.09	2005	126,075.0	0.22	13.94	5.50	8.44
3136	1	Keystone	936	8349	0.35	0.04	2003	207,969.2	0.39	40.51	4.40	36.11
3136	2	Keystone	936	8881	0.35	0.04	2008	200,610.2	0.33	33.55	4.34	29.20

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reduct-ions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
3149	1	Montour	806	7384	0.35	0.04	2003	144,225.0	0.29	21.48	3.20	18.28
3149	2	Montour	819	7384	0.35	0.05	2003	151,173.6	0.40	29.50	3.57	25.94
					Total					283.17	110.92	172.26
Sunday July 7, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	197,516.0	0.11	11.30	7.50	3.80
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	192,757.7	0.13	12.89	7.67	5.22
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	199,648.4	0.16	16.39	7.43	8.97
8226	1	Cheswick	637	5280	0.35	0.06	2003	107,914.6	0.37	19.46	3.21	16.25
3118	1	Conemaugh	936	9420	0.35	0.30	2005	193,961.8	0.31	29.95	28.92	1.03
3118	2	Conemaugh	936	9313	0.35	0.29	2009	191,432.0	0.31	29.96	27.41	2.55
3122	1	Homer City	660	6792	0.4	0.07	2006	127,827.8	0.20	12.84	4.26	8.58
3122	2	Homer City	660	6792	0.4	0.08	2006	136,320.1	0.29	20.75	5.63	15.12
3122	3	Homer City	692	7260	0.4	0.09	2005	127,563.9	0.22	13.99	5.56	8.42
3136	1	Keystone	936	8349	0.35	0.04	2003	208,299.5	0.38	39.74	4.41	35.33
3136	2	Keystone	936	8881	0.35	0.04	2008	201,515.1	0.34	34.60	4.36	30.24
3149	1	Montour	806	7384	0.35	0.04	2003	145,048.1	0.46	33.09	3.22	29.87
3149	2	Montour	819	7384	0.35	0.05	2003	153,757.1	0.40	29.81	3.63	26.18
					Total					304.76	113.21	191.55
Monday July 8, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	200,814.5	0.12	11.71	7.62	4.08
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	192,754.2	0.13	12.27	7.67	4.60
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	198,559.9	0.18	17.89	7.39	10.50
8226	1	Cheswick	637	5280	0.35	0.06	2003	118,800.8	0.36	21.18	3.53	17.65
3118	1	Conemaugh	936	9420	0.35	0.30	2005	195,118.6	0.30	29.50	29.09	0.41
3118	2	Conemaugh	936	9313	0.35	0.29	2009	196,218.5	0.31	30.56	28.10	2.47
3122	1	Homer City	660	6792	0.4	0.07	2006	123,078.8	0.18	11.50	4.10	7.40
3122	2	Homer City	660	6792	0.4	0.08	2006	137,262.7	0.27	19.32	5.67	13.65
3122	3	Homer City	692	7260	0.4	0.09	2005	11,513.0	0.05	1.02	0.50	0.52
3136	1	Keystone	936	8349	0.35	0.04	2003	206,698.7	0.38	39.10	4.37	34.72
3136	2	Keystone	936	8881	0.35	0.04	2008	203,648.3	0.35	35.26	4.41	30.85

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
3149	1	Montour	806	7384	0.35	0.04	2003	147,602.1	0.45	32.82	3.28	29.54
3149	2	Montour	819	7384	0.35	0.05	2003	155,724.6	0.38	29.14	3.68	25.46
					Total					291.27	109.41	181.85
Tuesday July 9, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	198,619.6	0.12	12.34	7.54	4.80
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	192,048.5	0.14	13.05	7.64	5.40
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	199,174.6	0.18	18.36	7.41	10.95
8226	1	Cheswick	637	5280	0.35	0.06	2003	109,960.6	0.33	18.43	3.27	15.16
3118	1	Conemaugh	936	9420	0.35	0.30	2005	178,600.6	0.31	28.01	26.63	1.38
3118	2	Conemaugh	936	9313	0.35	0.29	2009	179,795.8	0.32	28.73	25.75	2.98
3122	1	Homer City	660	6792	0.4	0.07	2006	120,219.9	0.25	15.81	4.01	11.80
3122	2	Homer City	660	6792	0.4	0.08	2006	133,800.1	0.28	19.71	5.53	14.18
3122	3	Homer City	692	7260	0.4	0.09	2005	107,448.0	0.26	14.02	4.68	9.34
3136	1	Keystone	936	8349	0.35	0.04	2003	201,430.9	0.38	38.68	4.26	34.42
3136	2	Keystone	936	8881	0.35	0.04	2008	199,894.2	0.35	34.91	4.33	30.58
3149	1	Montour	806	7384	0.35	0.04	2003	141,754.6	0.46	32.31	3.15	29.16
3149	2	Montour	819	7384	0.35	0.05	2003	146,262.9	0.42	30.57	3.45	27.12
					Total					304.92	107.64	197.28
Wednesday July 10, 2012												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	191,856.6	0.09	8.70	7.28	1.42
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	187,018.2	0.14	13.48	7.44	6.03
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	191,798.4	0.19	17.98	7.13	10.84
8226	1	Cheswick	637	5280	0.35	0.06	2003	105,092.2	0.34	17.67	3.13	14.55
3118	1	Conemaugh	936	9420	0.35	0.30	2005	179,017.6	0.31	28.03	26.69	1.33
3118	2	Conemaugh	936	9313	0.35	0.29	2009	180,835.8	0.32	29.05	25.90	3.16
3122	1	Homer City	660	6792	0.4	0.07	2006	118,110.6	0.18	10.78	3.94	6.84
3122	2	Homer City	660	6792	0.4	0.08	2006	125,335.1	0.26	16.80	5.18	11.62
3122	3	Homer City	692	7260	0.4	0.09	2005	116,409.4	0.22	12.78	5.08	7.70
3136	1	Keystone	936	8349	0.35	0.04	2003	200,372.8	0.38	38.38	4.24	34.15
3136	2	Keystone	936	8881	0.35	0.04	2008	199,834.1	0.35	35.46	4.33	31.13

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
3149	1	Montour	806	7384	0.35	0.04	2003	133,256.7	0.47	30.76	2.96	27.80
3149	2	Montour	819	7384	0.35	0.05	2003	143,361.8	0.43	30.04	3.38	26.66
					Total					289.89	106.67	183.22
Total for Ozone Event Period by Unit												
6094	1	Bruce Mansfield	914	7914	0.4	0.08	2004	1,950,388.4	0.11	106.90	74.02	32.88
6094	2	Bruce Mansfield	914	7914	0.4	0.08	2004	1,907,146.6	0.13	128.30	75.90	52.39
6094	3	Bruce Mansfield	914	7914	0.4	0.07	2005	1,981,151.9	0.16	155.31	73.70	81.61
8226	1	Cheswick	637	5280	0.35	0.06	2003	1,070,122.4	0.35	189.18	31.84	157.34
3118	1	Conemaugh	936	9420	0.35	0.30	2005	1,773,569.7	0.31	274.12	264.44	9.68
3118	2	Conemaugh	936	9313	0.35	0.29	2009	1,787,866.8	0.31	278.09	256.02	22.07
3122	1	Homer City	660	6792	0.4	0.07	2006	1,182,908.9	0.21	124.51	39.45	85.06
3122	2	Homer City	660	6792	0.4	0.08	2006	1,269,146.0	0.27	168.98	52.42	116.56
3122	3	Homer City	692	7260	0.4	0.09	2005	1,050,452.4	0.22	117.82	45.80	72.02
3136	1	Keystone	936	8349	0.35	0.04	2003	1,966,443.3	0.38	372.25	41.59	330.66
3136	2	Keystone	936	8881	0.35	0.04	2008	1,928,673.4	0.34	331.25	41.76	289.50
3149	1	Montour	806	7384	0.35	0.04	2003	1,395,692.2	0.32	220.90	30.98	189.91
3149	2	Montour	819	7384	0.35	0.05	2003	1,466,203.9	0.39	288.79	34.60	254.19
					Total					2,756.39	1,062.52	1,693.87
Total for Ozone Event Period by Day												
Monday July 1, 2012										246.30	94.83	151.47
Tuesday July 2, 2012										259.16	101.03	158.12
Wednesday July 3, 2012										251.18	103.43	147.75
Thursday July 4, 2012										252.67	104.28	148.39
Friday July 5, 2012										273.06	111.09	161.97
Saturday July 6, 2012										283.17	110.92	172.26
Sunday July 7, 2012										304.76	113.21	191.55
Monday July 8, 2012										291.27	109.41	181.85

Unit Level Data					Emissions Data							
Plant ID	Unit ID	Facility Name	Nameplate Capacity	Max Heat Input	Proposed RACT NOX Rate	Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu		2012 Regional O3 Event - Daily Emissions Heat Input	2012 Regional O3 Event - Daily Emissions Rate	2012 Regional O3 Event - Daily Emissions Mass	2012 O3 Event Daily Mass if SCR Optimized to Lowest Rate	2012 O3 Event NOx Reductions
ORISPL			(MW)	(mmBtu/hr)	(lbs/mmBtu)	(Rate)	(Year)	(mmBtu)	(lbs/mmBtu)	(tons)	(tons)	(tons)
ERTAC	ERTAC	ERTAC	ERTAC	ERTAC	PA Draft Rule	CAMD	CAMD	CAMD	CAMD	CAMD		
Tuesday July 9, 2012										304.92	107.64	197.28
Wednesday July 10, 2012										289.89	106.67	183.22
					Total					2,756.39	1,062.51	1,693.87

MDE recognizes that running controls is critical for a number of reasons. First and foremost it protects and enhances the air quality in the state. It's also important because it limits the portion of those emissions that contribute to the nonattainment or interference with maintenance of an air quality standard in another state.

2. The Proposed NOx RACT Rate Limits Are Overly Permissive

The proposed rulemaking fails to set strict NOx emission limits for coal-fired EGUs. The proposed NOx emission rate is exceptionally permissive in that it is set at a level above and beyond what Pennsylvania's coal-fired facilities are already capable of achieving.

Under the proposed rulemaking, the RACT NOx emission limit for a coal-fired EGU would range from 0.20 lbs/mmBtu to 0.40 lbs/mmBtu based on unit size and configuration. See Proposed 25 PA Code §129.97 (g)(1)(v)-(iv). The proposed NOx RACT rate limit is significantly more permissive compared to what Pennsylvania's coal-fired EGU's have and are already achieving, which is in and of itself contrary to a positive RACT determination.

Table 3 demonstrates that the proposed NOx RACT rates are insufficient when compared to the historical performance of Pennsylvania's coal-fired EGUs. An analysis of the historical NOx emissions data downloaded from CAMD, compares the lowest average annual and ozone season emission rates from 2003 to 2012 to the proposed NOx RACT emission rate.

On an ozone season basis, all of Pennsylvania's coal-fired units already meet the proposed NOx RACT rates. In fact, of the coal-fired units with selective catalytic reduction control technology, actual NOx rates are 60 – 80% lower than the proposed NOx RACT rates making the proposed NOx RACT rates meaningless.

Many areas in PA remain nonattainment for the 2008 ozone NAAQS (0.075 ppm) with design values ranging from 0.078 ppm to 0.087 ppm. The most populated areas of the state have the highest design values indicating a large segment of the population is exposed to unhealthy air quality. Since the regulations do not require any reductions, promulgation of these regulations as RACT does not move any of the current nonattainment areas toward attainment of the standard required by 2015.

Table 3: Pennsylvania Coal-Fired EGUs and Lowest Historical NOx Emission Rates

Unit Level Data				Control Data		Emissions Data				
Plant ID	Unit ID	Facility Name	Name-plate Capacity	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Proposed RACT NOX Rate	Lowest Average Annual Emission Rate (2003-2012), lbs/mmBtu		Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu	
(ORISPL)			(MW)			(lbs/ mmBtu)	(Rate)	(Year)	(Rate)	(Year)
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	PA Draft Rule	CAMD	CAMD	CAMD	CAMD
10676	32	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	0.3715	2004	0.3715	2004
10676	33	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	0.2846	2009	0.2808	2009
10676	34	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	0.3629	2004	0.3629	2004
10676	35	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	0.3181	2005	0.3181	2005
6094	1	Bruce Mansfield	913.7	LNBO	SCR	0.4	0.084	2009	0.0759	2004
6094	2	Bruce Mansfield	913.7	LNBO	SCR	0.4	0.0956	2010	0.0796	2004
6094	3	Bruce Mansfield	913.7	LNBO	SCR	0.4	0.085	2009	0.0744	2005
3140	1	Brunner Island	363.3	LNC3		0.35	0.3126	2006	0.2848	2005
3140	2	Brunner Island	405	LNC2		0.35	0.3153	2006	0.2886	2005
3140	3	Brunner Island	790.4	LNC2		0.35	0.3136	2005	0.2537	2005
10641	1	Cambria Cogen			SNCR	0.2	0.1146	2009	0.0945	2005
10641	2	Cambria Cogen			SNCR	0.2	0.1146	2009	0.0949	2006
8226	1	Cheswick	637	LNC2	SCR	0.35	0.2175	1	0.0595	2003
10143	AAB01	Colver Power Project		NH3		0.2	0.3141	2011	0.1087	2006
3118	1	Conemaugh	936	LNC3	SCR	0.35	0.3179	2012	0.2982	2005
3118	2	Conemaugh	936	LNC3	SCR	0.35	0.3023	2009	0.2864	2009
10603	31	Ebensburg Power Company				0.2	0.0793	2003	0.0717	2003
10113	31	Gilberton Power Company		OFA		0.2	0.0426	2004	0.0409	2007
10113	32	Gilberton Power Company		OFA		0.2	0.0419	2010	0.0402	2010
3179	1	Hatfields Ferry Power Station	576	LNCB, OFA		0.4	0.3884	2004	0.2677	2004
3179	2	Hatfields Ferry Power Station	576	LNCB, OFA		0.4	0.3965	2003	0.2897	2005
3179	3	Hatfields Ferry Power Station	576	LNCB, OFA	SNCR	0.4	0.3873	2005	0.2699	2005
3122	1	Homer City	660	LNBO	SCR	0.4	0.1424	2010	0.0667	2006
3122	2	Homer City	660	LNBO	SCR	0.4	0.1647	2010	0.0826	2006
3122	3	Homer City	692	LNBO	SCR	0.4	0.1517	2010	0.0872	2005
3136	1	Keystone	936	LNC3	SCR	0.35	0.0811	2009	0.0423	2003
3136	2	Keystone	936	LNC3	SCR	0.35	0.0754	2009	0.0433	2008
3181	33	Mitchell Power Station		LNC3		0.35	0.2479	2004	0.2025	2005
3149	1	Montour	805.5	LNC3	SCR	0.35	0.1108	2009	0.0444	2003
3149	2	Montour	819	LNC3	SCR	0.35	0.2167	2009	0.0472	2003
10343	SG-101	Mt. Carmel Cogeneration				0.2	0.0996	2003	0.0942	2003
3138	3	New Castle	98	LNBO	SNCR	0.4	0.2913	2005	0.2612	2005
3138	4	New Castle	114	LNBO	SNCR	0.4	0.308	2009	0.2799	2006
3138	5	New Castle	136	LNBO	SNCR	0.4	0.367	2005	0.3242	2005

Unit Level Data				Control Data		Emissions Data				
Plant ID	Unit ID	Facility Name	Name-plate Capacity	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Proposed RACT NOX Rate	Lowest Average Annual Emission Rate (2003-2012), lbs/mmBtu		Lowest Average Ozone Season Emission Rate (2003-2012), lbs/mmBtu	
(ORISPL)			(MW)			(lbs/ mmBtu)	(Rate)	(Year)	(Rate)	(Year)
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	PA Draft Rule	CAMD	CAMD	CAMD	CAMD
50888	NGC01	Northampton Generating Plant		NH3		0.2	0.0698	2003	0.0564	2003
50039	31	Northeastern Power Company		Other		0.2	0.0352	2009	0.0299	2009
50776	1	Panther Creek Energy Facility		NH3		0.2	0.1162	2005	0.1051	2005
50776	2	Panther Creek Energy Facility		NH3	SNCR	0.2	0.1155	2005	0.1093	2005
54144	31	Piney Creek Power Plant		OFA		0.2	0.1252	2010	0.0747	2004
3113	1	Portland	172	LNC3		0.35	0.2339	2009	0.2048	2006
3113	2	Portland	255	LNC3		0.35	0.3085	2009	0.2437	2004
50974	1	Scrubgrass Generating Plant			SNCR	0.2	0.0989	2005	0.0548	2003
50974	2	Scrubgrass Generating Plant			SNCR	0.2	0.108	2009	0.0681	2004
3130	1	Seward			SNCR	0.2	0.0869	2012	0.0695	2004
3130	2	Seward			SNCR	0.2	0.088	2012	0.0745	2012
3131	1	Shawville	125	LNB	SNCR	0.4	0.3978	2011	0.3706	2011
3131	2	Shawville	125	LNB	SNCR	0.4	0.4148	2011	0.3963	2005
3131	3	Shawville	188	LNC3	SNCR	0.35	0.3643	2009	0.3437	2008
3131	4	Shawville	188	LNC3	SNCR	0.35	0.3679	2008	0.3453	2008
54634	1	St. Nicholas Cogeneration Project				0.2	0.0407	2008	0.0379	2009
3115	1	Titus	75	LNC3		0.35	0.3127	2003	0.2369	2003
3115	2	Titus	75	LNC3		0.35	0.3174	2009	0.2583	2003
3115	3	Titus	75	LNC3		0.35	0.3211	2009	0.2554	2003
50879	GEN1	Wheelabrator - Frackville	48			0.2	0.1215	2003	0.1009	2004
50611	31	WPS Westwood Generation, LLC				0.2	0.3187	2011	0.1061	2011

Plainly, the majority of Pennsylvania's coal-fired EGUs are capable of achieving and complying with much more rigorous standards than those proposed by the EQB with technology that is already in place. The proposed rule would confer no benefits and is therefore inconsistent with a positive RACT determination.

Without must-run language or lower NOx RACT rates the proposed rulemaking would allow an increase in NOx emissions. An analysis of the 2012 annual NOx emissions data downloaded from CAMD, compares the actual NOx mass to the NOx mass under the proposed NOx RACT rates. An increase in NOx emissions of 33,187 tons is seen. Table 4 below indicates that while 25 units would see a decrease in their overall emissions, resulting in a savings of 8,848 tons of NOx, 30 units would be allowed to increase their emissions above and beyond their 2012 performance and increase their overall NOx emissions by 41,635 tons.

Table 4: Pennsylvania Coal-Fired EGUs and Potential NOx Mass (based on 2012 rates)

Unit Level Data				Control Data		Emissions Data			
Plant ID (ORISPL)	Unit ID	Facility Name	Nameplate Capacity (MW)	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Proposed RACT NOX Rate (lbs/mmBtu)	2012 NOX (Tons)	2012 Heat input (mmBtu)	2012 Tonnage if RACT Rate Allowed (Tons)
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	PA Draft Rule	CAMD	CAMD	Rt*ht*ton fac.
10676	32	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	775.72	3613517	722.7034
10676	33	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	940.65	3790582	758.1164
10676	34	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	775.16	3807872	761.5744
10676	35	AES Beaver Valley LLC	138.5	LNBO	SNCR	0.4	468.52	1889257	377.8514
6094	1	Bruce Mansfield	913.7	LNBO	SCR	0.4	2,753.28	54700000	10940
6094	2	Bruce Mansfield	913.7	LNBO	SCR	0.4	3,325.23	57700000	11540
6094	3	Bruce Mansfield	913.7	LNBO	SCR	0.4	3,439.03	61500000	12300
3140	1	Brunner Island	363.3	LNC3	SCR (2017)	0.35	1,969.47	9851464	1724.0062
3140	2	Brunner Island	405	LNC2	SCR (2017)	0.35	3,623.75	18500000	3237.5
3140	3	Brunner Island	790.4	LNC2	SCR (2017)	0.35	5,728.04	30600000	5355
10641	1	Cambria Cogen			SNCR	0.2	470.14	4563555	456.3555
10641	2	Cambria Cogen			SNCR	0.2	515.94	4873332	487.3332
8226	1	Cheswick	637	LNC2	SCR	0.35	4,484.30	25100000	4392.5
10143	AAB01	Colver Power Project		NH3		0.2	878.02	10500000	1050
3118	1	Conemaugh	936	LNC3	SCR	0.35	8,118.18	51100000	8942.5
3118	2	Conemaugh	936	LNC3	SCR	0.35	8,337.55	53900000	9432.5
10603	31	Ebensburg Power Company				0.2	315.99	6451584	645.1584
10113	31	Gilberton Power Company		OFA		0.2	59.29	2615958	261.5958
10113	32	Gilberton Power Company		OFA		0.2	59.65	2638912	263.8912
3179	1	Hatfields Ferry Power Station	576	LNCB, OFA		0.4	7,240.04	30300000	6060
3179	2	Hatfields Ferry Power Station	576	LNCB, OFA		0.4	8,039.84	32800000	6560
3179	3	Hatfields Ferry Power Station	576	LNCB, OFA	SNCR	0.4	8,308.98	33700000	6740
3122	1	Homer City	660	LNBO	SCR	0.4	2,584.73	29000000	5800
3122	2	Homer City	660	LNBO	SCR	0.4	4,291.12	35200000	7040
3122	3	Homer City	692	LNBO	SCR	0.4	3,415.12	33700000	6740
3136	1	Keystone	936	LNC3	SCR	0.35	9,531.24	51300000	8977.5
3136	2	Keystone	936	LNC3	SCR	0.35	7,923.30	44300000	7752.5
3181	33	Mitchell Power Station		LNC3		0.35	1,969.91	12400000	2170
3149	1	Montour	805.5	LNC3	SCR	0.35	7,532.97	38000000	6650
3149	2	Montour	819	LNC3	SCR	0.35	7,582.29	38900000	6807.5
10343	SG-101	Mt. Carmel Cogeneration				0.2	303.63	4610015	461.0015
3138	3	New Castle	98	LNBO	SNCR	0.4	240.83	1335178	267.0356
3138	4	New Castle	114	LNBO	SNCR	0.4	206.74	1248636	249.7272
3138	5	New Castle	136	LNBO	SNCR	0.4	408.32	1761603	352.3206
50888	NGC01	Northampton Generating Plant		NH3		0.2	383.45	9242761	924.2761

Unit Level Data				Control Data		Emissions Data			
Plant ID (ORISPL)	Unit ID	Facility Name	Nameplate Capacity (MW)	Existing Pre-Combustion Controls for NOX	Existing Post-Combustion Controls for NOX	Proposed RACT NOX Rate (lbs/mmBtu)	2012 NOX (Tons)	2012 Heat Input (mmBtu)	2012 Tonnage if RACT Rate Allowed (Tons)
CAMD	CAMD	CAMD	EIA	CAMD	CAMD	PA Draft Rule	CAMD	CAMD	Rt*ht*ton fac.
50039	31	Northeastern Power Company		Other		0.2	101.24	5457292	545.7292
50776	1	Panther Creek Energy Facility		NH3		0.2	272.2	4265864	426.5864
50776	2	Panther Creek Energy Facility		NH3	SNCR	0.2	270.35	4246619	424.6619
54144	31	Piney Creek Power Plant		OFA		0.2	264.15	3670147	367.0147
3113	1	Portland	172	LNC3		0.35	74.55	572552.4	100.19667
3113	2	Portland	255	LNC3		0.35	243.12	1141456	199.7548
50974	1	Scrubgrass Generating Plant			SNCR	0.2	356.68	5196282	519.6282
50974	2	Scrubgrass Generating Plant			SNCR	0.2	399.83	5229584	522.9584
3130	1	Seward			SNCR	0.2	394.61	8616569	861.6569
3130	2	Seward			SNCR	0.2	558.45	12200000	1220
3131	1	Shawville	125	LNB	SNCR	0.4	543.92	2506052	501.2104
3131	2	Shawville	125	LNB	SNCR	0.4	664.66	2958106	591.6212
3131	3	Shawville	188	LNC3	SNCR	0.35	851.05	4529868	792.7269
3131	4	Shawville	188	LNC3	SNCR	0.35	829.53	4216115	737.820125
54634	1	St. Nicholas Cogeneration Project				0.2	239.6	11200000	1120
3115	1	Titus	75	LNC3		0.35	67.53	379142.6	66.349955
3115	2	Titus	75	LNC3		0.35	56.73	311459.5	54.5054125
3115	3	Titus	75	LNC3		0.35	64.32	377218.3	66.0132025
50879	GEN1	Wheelabrator - Frackville	48			0.2	230.02	3124046	312.4046
50611	31	WPS Westwood Generation, LLC				0.2	446.15	4959745	495.9745
							123,929		157,127

Any proposed NOx RACT rate that allows an overall increase in emissions is contrary to the definition of RACT in that it is not indicative of the lowest emission limitation a source is capable of achieving, and therefore is incapable of being used to make a positive RACT determination.

3. The Proposed Alternative Compliance Mechanisms Must Include a Rate Sufficient to Lower System-Wide Emissions

As written, the proposed alterative compliance mechanisms would allow sources to meet the NOx RACT emission rate limits through the averaging of NOx emissions on a system-wide basis or per unit on a 30-day rolling average basis. See Proposed 25 Pa. Code §129.98(a). Because the proposed NOx RACT rates are so high, both of these alternative compliance options would fail to deliver any new reductions in NOx emissions and would allow units without any post-combustion controls to continue to operate.

The alternative compliance mechanism is inconsistent with clear RACT objectives – the addition and operation of reasonably available control technologies.

The 30-day system-wide rolling average rate allows for multiple emission units owned and/or operated by the same owner to average NOx emission rates. The 30-day system-wide rolling average rate is set so high that it fails to require reductions at all sources. The rulemaking may have the effect of allowing operators to discontinue the operation of NOx control equipment simply by running controls on a different unit. Therefore, the emission rate needed to achieve compliance with system-wide average is not consistent with an appropriate level of post combustion controls. The averaging mechanism itself must reflect some level of control. At minimum, the system-wide rate needs to incorporate a sufficient use of control technologies already installed on the unit(s). A revision of the NOx rate ought to take into account unit configuration and control technologies that have already been installed.

Conclusion

As discussed above, the proposed rulemaking regarding RACT requirements and emission limits for emissions of NOx and VOCs from certain major stationary sources in Pennsylvania needs to be revised. The MDE strongly urges the EQB to make the necessary changes that are presented in this comment letter.

1. Incorporate language requiring that sources run their installed controls.
2. Adopt more stringent emission rates.
3. Lower the emissions rate for the 30-day system-wide averaging mechanisms.

Furthermore, MDE is currently in dialogue about the elements of a "Good Neighbor" ozone SIP with the Midwest Ozone Group (MOG). MDE encourages Pennsylvania to join in the discussion. The elements of a "Good Neighbor" ozone SIP act as a starting point for resolving individual state responsibilities in Pennsylvania and elsewhere. The three main discussions items that MDE would like to urge Pennsylvania to engage in are the following.

1. Status of individual programs related to a state's "Good Neighbor" responsibilities
2. Knowledge of the EGUs that have been or are expected to be shutdown
3. Survey of the NOx control equipment currently in operation during ozone season

The MDE's Air and Radiation Management Administration thanks you for the opportunity to comment on the proposed RACT rulemaking *Additional Requirements for Major Sources of NOx and VOCs*. If you have any questions, please do not hesitate to contact George (Tad) Aburn, Director of the Air and Radiation Management Administration at (410) 537-3245.

Sincerely,

George (Tad) S. Aburn, Jr. Director
Air and Radiation Management Administration