COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY

Final

Section 111(d) State Plan for The Control of Mercury Emissions from Existing Coal-Fired Electric Steam Generating Units

November 2, 2006

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
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SECTION 111(d) STATE PLAN FOR THE CONTROL OF MERCURY EMISSIONS FROM EXISTING COAL-FIRED ELECTRIC STEAM GENERATING UNITS (EGUs)

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APPENDICES

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SECTION 111(d) STATE PLAN FOR THE CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC STEAM GENERATING UNITS (EGUs)

I. BACKGROUND/INTRODUCTION

On May 18, 2005, the U.S. Environmental Protection Agency (EPA) finalized the Clean Air Mercury Rule (CAMR) to establish standards of performance for mercury emissions from new and existing coal-fired electric steam generating units (EGUs), as defined in Section 111 of the federal Clean Air Act (CAA). *See* 70 FR 28606. The federal Emission Guidelines (Guidelines) for existing EGUs are codified at 40 CFR Part 60, Subpart HHHH (attached hereto as Appendix A). These Guidelines apply to existing EGUs, which commenced construction, modification or reconstruction before January 30, 2004. On June 9, 2006, after considering the petitions for reconsideration and the comments received, EPA published a revision of the December 2000 Clean Air Act Section 112(n) finding regarding electric utility steam generating units; and standards of performance for new and existing electric utility steam generating units. *See* 71 FR 33388.

Under CAMR, each State receives an annual budget for mercury emissions from coal-fired EGUs with a nameplate capacity of 25 megawatts or greater. A State can meet its CAMR budget either by participating in the EPA- managed cap-and-trade program or by demonstrating that the State mercury budgets codified in 40 CFR § 60.24(h)(3) (relating to emission standards and compliance schedule) and 40 CFR § 60.4140 (relating to state trading budgets), will not be exceeded in any year. States may adopt also more protective plans under Section 111 of the CAA. If a state does not participate in an EPA-managed cap and trade program, the state mercury budget established under CAMR "will serve as a firm cap." 70 Fed. Reg. 28624. By November 17, 2006, states must submit a plan to the EPA that meets the requirements of the 40 CFR § 60.24(h). If a state fails to submit a State Plan, as required in the final rule, then EPA will promulgate a Federal plan under Section 111(d)(2)(A) of the CAA. *See* 70 Fed. Reg. at 28632. The EPA has proposed the model rule under the CAMR as that Federal plan.

Pennsylvania will not participate in the EPA-managed cap-and-trade program to reduce mercury emissions from coal fired EGUs. Consequently, new and existing EGUs in the Commonwealth of Pennsylvania will meet an annual mercury budget of 1.779 tons per year for Phase 1, which begins January 1, 2010. The Phase 2 requirements of the Pennsylvania-specific regulation will begin January 1, 2015 and will require that designated EGUs in Pennsylvania meet an annual mercury budget of 0.702 tons per year and each year thereafter. *See* 40 CFR § 60.24(h)(3).

The procedures for adoption and submittal of State Plans are codified in 40 CFR Part 60 Subpart B. The Subpart B provisions were amended by EPA to include specifications that supersede the provisions in Subpart B regarding the schedule for submittal of State Plans to demonstrate compliance with annual EGU mercury budgets. The amendments require Section 111(d) State Plans for EGUs be submitted to the EPA administrator no later than November 17, 2006.

The Section 111(d) State Plan must be as protective as the requirements in Subpart HHHH. The State Plan, developed in accordance with 40 CFR Part 60, Subpart B is being submitted to EPA for approval as the Commonwealth of Pennsylvania's Section 111(d) Plan. Consistent with the requirements of 40 CFR Parts 60, Subparts B, the State Plan includes a demonstration of legal authority, identification of enforceable mechanisms, an inventory of EGUs and emissions, emission limitations and compliance schedules demonstrating that they will result in compliance with the State's annual EGU mercury budget for the appropriate periods, emissions limitations, testing, monitoring, recordkeeping, and reporting requirements, a record of the public hearing, and provisions for the submittal of annual progress reports to EPA related to compliance and enforcement.

The Pennsylvania Department of Environmental Protection (Department) will not participate in the EPA-managed cap and trade program and has developed a Pennsylvania-specific mercury regulation that will be codified in 25 Pa. Code §§ 123.201-123.215, for coal-fired EGUs. This rulemaking does not allow participation in the EPA-managed cap-and-trade program, but establishes mercury emission standards, annual emission limitations as part of a statewide nontradable mercury allowance program, and other requirements for the purpose of reducing mercury emissions from coal-fired EGUs.

The Pennsylvania-specific mercury regulation establishes two compliance phases: January 1, 2010 to December 31, 2014, for Phase 1 and January 1, 2015, and each subsequent year thereafter for Phase 2. The owners and operators of designated EGUs may comply with the annual emission limitations on a unit-by-unit basis, by a facility-wide compliance demonstration or by a system-wide compliance demonstration. The annual emission limitations established for each designated EGU ensures that EGUs in the Commonwealth will not exceed the annual mercury budget established under 40 CFR § 60.24(h)(3).

II. PUBLIC PARTICIPATION [40 CFR § 60.23(c), (d) and (f)]

Prior to submitting the Section 111(d) State Plan to EPA for approval, the Department held three public hearings for the purpose of accepting testimony on the proposed State Plan to reduce mercury emissions from all designated coal-fired EGUs in Pennsylvania. The public hearings were held at 1:00 PM on September 6, 2006 at the following locations:

Rachel Carson State Office Building
2nd Floor Auditorium
400 Market Street
Harrisburg, PA 17105-8468

Southwest Regional Office
Waterfront A&B Conference Room
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Southeast Regional Office
Delaware Room
2 East Main Street
Norristown, PA 19401

As required under 40 CFR § 60.23, the Department provided notice of the date, time and location of each of the hearings at least 30 days prior to the scheduled date of the hearing. The Notice of Public Hearings and opportunity to provide written comments was published in the *Pennsylvania Bulletin* on August 5, 2006 (36 Pa.B. 4269). Notice of the public hearings were also published at least 30 days in advance in the following nine newspapers of general circulation across the Commonwealth of Pennsylvania: Patriot News, Delaware County Daily News, Wilkes-Barre Times Leader, The Times Herald, The Morning Call, Bucks County Courier Times, Pittsburgh-Post Gazette, Williamsport Sun-Gazette, and Erie Daily Times. Copies of the actual newspaper notices are provided in Appendix B (relating to documentation of the public participation process) of this Plan. In addition, the Department also provided notice of the date, time and location of each public hearing to EPA, local air pollution control agencies and any state in the interstate region whose air quality may be affected by emissions from existing designated EGUs. The notice also specified that copies of the proposed Section 111(d) State Plan were available for review in each of the Department's Regional Offices described in 25 Pa. Code § 121.4 (relating to regional organization of the Department).

Interested persons were invited to submit written comments on the proposed State Plan to the Department by the close of business on September 8, 2006. In addition to testimony received at the public hearings, written comments were submitted by Senator Mary Jo White, Chairman, Senate Environmental Resource & Energy Committee; Eric J. Epstein, Chairman, Three Mile Island Alert; Melody Zullinger, Executive Director, Pennsylvania Federation of Sportsmen's Clubs; Gene Barr, Vice President, Political and Regulatory Affairs, Pennsylvania Chamber of Business and Industry; Nathan Wilcox, Energy and Clean Air Advocate, Penn Environment; Robert J. Barkanic, Environmental Director, PPL Services Corporation; Judith M. Katz, Director, Air Protection Division, U.S. EPA Region III, Philadelphia; Suzanne Seppi, Project Manager, Group Against Smog and Pollution Inc.; Joseph Otis Minott, Clean Air Council; Alisha Deen-Steindler, Eastern Pennsylvania Director, Clean Water Action; and Douglas L. Biden, President, Electric Power Generation Association. The Department has prepared a Comment and Response Document, which addresses the comments received during the public participation process. Copies of the public hearing notices and the Comment and Response document are attached hereto as Appendix B (relating to documentation of the public participation process).

In the Commonwealth of Pennsylvania, seventy-three (73) designated EGUs presently operating at thirty-five (35) facility locations are subject to the State Plan. Consequently, the Department will implement and enforce the Pennsylvania-specific final-form mercury regulation for coal-fired EGUs and the elements of this State Plan to ensure that the mercury budget established under 40 CFR § 60.24(h)(3) is not exceeded.

In accordance with 40 CFR § 60.23(f)(1), the Department is submitting the Section 111(d) State Plan to reduce mercury emissions from designated EGUs in Pennsylvania to EPA for approval. The Department also certifies that the public hearings were held in accordance with the criteria specified in 40 CFR § 60.23(d). The public hearing certification is attached hereto as Appendix B-2 (relating to public participation process).

III. IMPLEMENTATION OF THE SECTION 111(d) STATE PLAN

The Department has developed a final-form regulation to control mercury emissions from existing designated coal-fired EGUs as specified at 25 Pa. Code §§ 123.201-123.215. Owners and operators of coal-fired EGUs in Pennsylvania must demonstrate to the Department that each EGU meets the requirements of 25 Pa. Code §§ 123.201-123.215. The requirements in 25 Pa. Code §§ 123.201-123.215 will, except as noted, supercede the New Source Performance Standard requirements and Guidelines adopted in their entirety and incorporated by reference in 25 Pa. Code § 122.3 (relating to adoption of standards). The annual emission limitations for coal-fired EGUs are specified in § 123.207 (relating to annual emission limitations for coal-fired EGUs). The owners and operators of EGUs subject to the State Plan shall comply with the final rulemaking regardless of whether plan approvals or operating permits are revised to incorporate the requirements included in the Plan.

IV. ANNUAL EMISSION LIMITATIONS AND NON-TRADABLE MERCURY ALLOWANCES FOR COAL-FIRED ELECTRIC GENERATING UNITS

The owner or operator of an existing EGU must comply with the annual emission limitations established under the statewide non-tradable mercury allowance program specified in 25 Pa. Code § 123.207(b)(1) and (2) and described herein.

Emission Limitation Set-asides. The total tons of mercury emissions available for emission limitation set-asides as annual non-tradable mercury allowances in the statewide mercury nontradable allowance program are:

> (a) 1.779 tons (56,928 ounces) of mercury emissions for Phase 1, effective January 1, 2010 through December 31, 2014.
>
> (b) 0.702 tons (22,464 ounces) of mercury emissions for Phase 2, effective January 1, 2015, and each subsequent year.

The final-form mercury regulation establishes a separate new EGU set-aside for the Phase 1 control period of 5 percent of the annual non-tradable mercury allowances established in § 127.207 (c)(1)(i) for the years beginning January 1, 2010, through December 31, 2014. In accordance with § 127.207 (c)(1)(ii), a 3 percent new unit set-aside is established for the Phase 2 control period, beginning January 1, 2015 and each year thereafter.

The maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing Circulating Fluidized Bed (CFB) EGU in accordance with § 123.207(d) shall be determined by multiplying the affected CFB's baseline heat input fraction of the State's total baseline annual heat input for all EGUs subject to the Phase 2 annual mercury allowance set-aside for existing EGUs in this Commonwealth, as follows:

> (1) The baseline heat input in million British thermal units (MMBtu) for each existing designated CFB will be the average of the three highest annual heat inputs using the heat input data for the CFB from EPA's Acid Rain Database and the Department's database for the calendar years 2000 through 2004.

(2) The State's annual mercury allowance set-aside for existing EGUs for Phase 2 is 21,790 ounces.

For each designated EGU, other than CFBs, for each calendar year beginning January 1, 2010, the Department will set aside for the owners and operators of existing EGUs, other than CFBs, a total number of annual nontradable mercury allowances from the total ounces of mercury emissions available for annual emission limitation set-asides in Phases 1 and 2 of the Statewide mercury allowance program established in § 123.207 (b).

The maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing EGU, other than CFBs, in accordance with § 123.207(f) must be determined for the existing EGU, other than CFBs, by multiplying its baseline heat input fraction of the State's total baseline annual heat input for all EGUs by the Department's annual mercury allowance set-aside for existing affected EGUs in each phase, as follows:

(1) The baseline heat input in MMBtu for each existing EGU, other than CFBs, will be the average of the three highest amounts of annual heat input using the heat input data for the EGU, other than CFBs, from EPA's Acid Rain Database and the Department's database for calendar years 2000 through 2004.

(2) The State's annual mercury allowance set-aside for existing affected EGUs is:

(i) 54,080 ounces for Phase 1.
(ii) 21,790 ounces for Phase 2.

By May 31, 2008, the Department will publish for comment in the *Pennsylvania Bulletin* the maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing CFB and EGU, other than CFBs, for Phase 1 of the Statewide mercury allowance program. The nontradable mercury allowances must only be used to demonstrate compliance with the annual emission limitation requirements established in accordance with the Pennsylvania-specific mercury regulation.

By May 31, 2013, the Department will publish for comment in the *Pennsylvania Bulletin* the maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing affected CFB and EGU, other than CFBs, for Phase 2 of the Statewide mercury allowance program. The nontradable mercury allowances must only be used to demonstrate compliance with the annual emission limitation requirements.

By March 31 of the year following each reporting year, the Department will notify the owner or operator of each existing EGU, Facility, or System, in writing, of the actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU, Facility, or System for the control period.

(1) The actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU, Facility, or System will be based on the actual emissions reported to the Department in accordance with §§ 123.210-123.215.

(2) If the actual emissions of mercury reported to the Department in accordance with §§ 123.210-123.215 are less than the maximum number of annual nontradable mercury allowances set aside in the Statewide mercury allowance program for the owner or operator of an EGU, Facility, or System in accordance with the requirements of either § 123.207 (c), (d) or (f), the Department will place the unused portion of annual nontradable mercury allowances in the annual emission limitation supplement pool established under § 123.208 (relating to annual emission limitation supplement pool).

(3) The unused portion of annual nontradable mercury allowances set aside under § 123.207 (c), (d) or (f) may not be added to the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the affected EGU, Facility, or System for subsequent years. The annual nontradable mercury allowances may not be banked for use in future years.

(4) The actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU, Facility, or System may not exceed the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the EGU, Facility, or System in the Statewide mercury allowance program in accordance with subsection (c), (d) or (f) except as provided in § 123.209 (relating to petition process).

(5) Each ounce of mercury emitted in excess of the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the affected EGU, Facility, or System in accordance with subsection (c), (d) or (f) shall constitute a violation of this section and the act, except as provided under § 123.209.

(6) Section 123.209 of the Pennsylvania-specific mercury regulation establishes a petition process whereby an owner or operator may request additional allowances from the Department's annual emission supplement pool established under § 123.208. If the Department grants such a request, the additional allowances granted for an EGU, Facility or System must not exceed the mercury budget established under CAMR for Pennsylvania.

V. INVENTORY OF DESIGNATED EXISTING COAL-FIRED ELECTRIC STEAM GENERATING UNITS

In accordance with 40 CFR § 60.25(a), the State Plan must include "an inventory of all designated facilities including emissions data for the designated pollutant." In the Commonwealth of Pennsylvania, the Department's final-form regulation applies to seventy-three (73) existing designated coal-fired EGUs presently operating at thirty-five (35) facility locations including EGUs located in Allegheny County that are subject to these applicable requirements. The inventory of the existing designated coal-fired EGUs is presented in Table 1. Should other EGUs be discovered subsequent to the submittal of this State Plan to EPA, there will be no need to reopen this State Plan. The owners or operators of existing EGUs must comply with the requirements of 25 Pa. Code §§ 123.210-123.215 regardless of whether the EGU is identified in the source inventory for the Plan.

Table 1: Inventory of Existing Designated Coal-fired Electric Steam Generating Units in Pennsylvania including Allegheny County

PERMIT NUMBER	FACILITY NAME	UNIT ID	Capacity MW	FACILITY ADDRESS
Coal-Fired EGUs Other Than CFBs				
04-00446	AES Beaver Valley LLC	2	32	394 Frankfort Road, Monaca, PA 15061-2254
		3	107	
		4	55	
		5	28	
03-00023	Armstrong Power Station	1	172	281 RR 1 Clay Road, State Route 4006, Adrian, PA 16210
		2	171	
04-00235	Bruce Mansfield Power Plant	1	781	SR 168 S, Shipping port, PA 15077
		2	785	
		3	805	
67-05005	Brunner Island Steam Electric Station	1	321	Brunner Island, York Haven, PA 17370
		2	378	
		3	735	
95-0054	Cheswick Power Plant	1	562	Pittsburgh and Porter Street, Springdale, PA 15144
32-00059	Conemaugh	1	850	1442 Power Road, New Florence, PA 15944
		2	850	
15-00019	Cromby	1	144	Township Line Cromby Road, Phoenixville, PA 19460
23-00017	Eddystone	1	279	1 Industrial HWY, Eddystone, PA 19022-1524
		2	302	
63-00014	Elrama	1	97	30 Duquesne Light HWY, Elrama, PA 15038
		2	97	
		3	109	
		4	171	
30-00099	Hatfields Ferry	1	500	2907 E. Roy Furman HWY, Masontown, PA 15461-2591
		2	500	
		3	500	
Coal-Fired EGUs Other Than CFBs				
32-00055	Homer City	1	620	1750A Power Plant Road, Homer City, PA 15748-8009
		2	614	
		3	650	
40-00005	Hunlock Power Station	6	48	Route 11, Hunlock Creek, PA 18621
03-00027	Keystone	1	850	317 Keystone Lane, Shelocta, PA 15774-2305
		2	850	
48-00041	Martins Creek*	1	140	Foul Rift Road, Martins Creek, PA 18063
		2	140	
63-00016	Mitchell	33	275	50 Electric Way, New Eagle, PA 15067
47-00001	Montour	1	760	18 McMichael Road, Washington, PA 17884
		2	745	
37-00023	New Castle	3	98	Route 168 S, West Pittsburgh, PA 16160
		4	98	
		5	137	

PERMIT NUMBER	FACILITY NAME	UNIT ID	Capacity MW	FACILITY ADDRESS
48-00006	Portland	1	158	River Road, Portland, PA 18351
		2	243	
17-00001	Shawville	1	122	SR 0970, Snowville, PA 16873
		2	125	
		3	175	
		4	175	
55-00001	Sunbury	3	83	Old Trail Road, Shamokin Dam, PA 17876
		4	128	
		1A	38	
		1B	38	
		2A	38	
		2B	38	
06-05024	Titus	1	81	296 Poplar Neck Road, Birdsboro, PA 19508-8144
		2	79	
		3	81	
Coal Refuse - Fired CFB Units				
11-00332	Cambria Cogeneration	1	87	243 Rubisch Road, Edensburg, PA 15931-4500
		2	87	
11-00378	Colver Power Project	AAB01	116	141 Inter Power Dr., Colver, PA 15927-4207
11-00318	Ebensburg Power Co.	031	51	Cambria County Industrial Part, Revloc, PA 15948
49-00001	Foster Wheeler Mt. Carmel	SG-101	40	Marion Heights Road, Marion Heights, PA 17832
54-00004	Gilberton Power Co.	031	50	50 Eleanor Dr, Frackville, PA 17931-2301
		032	50	
48-00021	Northampton Generating Plant	NGC01	110	1 Horwith Dr., Northampton, PA 18067-9728
54-00008	Northeastern Power Co.	031	51	Route 309, McAdoo, PA 18237
13-00003	Panther Creek Energy Facility	1	57	4 Dennison Road, Nesquehoning, PA 18240-2242
		2	57	
16-127B	Piney Creek Power Plant	031	30	428 Power LN, Clarion, PA 16214-3128
61-00181	Scrubgrass Generating Plant	1	57	2151 Lisbon Road, Kinnerdell, PA 16374-3305
		2	57	
32-00040	Seward	12R	0	595 Plant Road, New Florence, PA 15944
		14R	62	
		15R	156	
		1	253	
		2	253	
54-00003	St. Nicholas Cog. Project	1	166	200 Mahantongo Street, Pottsville, PA 17901-3095
54-00006	Westwood	031	30	US Route 209, Tremont, PA 17981
54-00005	Wheelabrator - Frackville	GEN1	52	475 Morea Road, Frackville, PA 17931-2340

* = EGUs at this facility will be shutdown in September 2007 R = Retired

An inventory of mercury emissions for the EGUs is provided in Table 2. The 1999 data represents the data collected by the EPA during its Information Collection Request. The data reported to the Toxic Release Inventory data was accessed on June 13, 2006 and represents the reported "Total On-site Air Emissions." The owners or operators of each EGU report emissions data on an annual basis to the Department or appropriate local agency. Table 2 contains the data

reported to the Department's Air Information Management System. Data for the Cheswick facility was reported to the Allegheny County Health Department and is included in this table.

Table 2.
Mercury Emissions Data
Coal-Fired Electric Generating Units in Pennsylvania

Facility	County	1999 EPA lb/Year	2000 TRI lb/Year	2000 AIMS lb/Year	2001 TRI lb/Year	2001 AIMS lb/Year	2002 TRI lb/Year	2002 AIMS lb/Year	2003 TRI lb/Year	2003 AIMS lb/Year	2004 TRI lb/Year	2004 AIMS lb/Year
AES BEAVER VALLEY LLC	BEAVER	29.9429	87		46		45	180	42	44	42	44
ALLEGHENY ENERGY INC ARMSTRONG POWER STATION	ARMSTRONG	306.7248	290		260		246.7	254	247	257	258	258
ALLEGHENY ENERGY INC HATFIELD POWER STATION	GREENE	413.9726	581		681		420.6	1129.4	169.8	980	515.91	518
ALLEGHENY ENERGY INC MITCHELL POWER STATION	WASHINGTON	30.3098	60		54		44.1	107	55.8	132	53.4	54.2
CAMBRIA COGEN CO	CAMBRIA	69.979	13.741		14		14		8.4		4.59	
CHESWICK POWER PLANT*	ALLEGHENY	237.2168	205		236.94		186.76	185.4	236.09	240	199.7	200
COLVER POWER PROJECT	CAMBRIA	69.1795	6		8		7	8	1	7	0.7	1
CONECTIV BETHLEHEM PLANT	NORTHAMPTON						0		10.9	2.4	0	2.4
EBENSBURG POWER CO	CAMBRIA	0.5545	31		28	27.6	26	20	7.47		0.177	
EME HOMER CITY GENERATION L P	INDIANA	1852.0735	1389.25				545	544	664.67	664	658.19	650
EXELON CORP CROMBY GENERATING STATION	CHESTER	1.7226	45.1		50.1	2.4	30.8	60.2	0	100.2	44.6	80
EXELON CORP. CROYDON GENERATING STATION	BUCKS		1.6		1.2		2.1		38.6		0	
EXELON CORP. EDDYSTONE GENERATING STATION	DELAWARE	44.616	153.1		192.9	1.2	106.4	0.4	181.4	540	161.9	520

Table 2. Mercury Emissions Data
Coal-Fired Electric Generating Units in Pennsylvania

Facility	County	1999 EPA lb/Year	2000 TRI lb/Year	2000 AIMS lb/Year	2001 TRI lb/Year	2001 AIMS lb/Year	2002 TRI lb/Year	2002 AIMS lb/Year	2003 TRI lb/Year	2003 AIMS lb/Year	2004 TRI lb/Year	2004 AIMS lb/Year
GILBERTON POWER CO	SCHUYLKILL	0.6249	1		0.003		0.08		0.03		0.01	
HUNLOCK CREEK ENERGY VENTURES (HUNLOCK POWER STATION)	LUZERNE	51.6019	59		40		39		23		80.23	80.2
MONTOUR STEAM ELECTRIC STATION	MONTOUR	1218.5431	277		269		277	260	296	290	285	280
MOUNT CARMEL COGEN FACILITY	NORTHUMBERLAND	0.3636	47.568		333	334	327	320	0.6	400	0.6	200
NEW CASTLE POWER PLANT	LAWRENCE	208.6346	254		280.1		240.07	241	200.06	206	220.12	220
NORTHEASTERN POWER CO	SCHUYLKILL	0.4608	1		1		1.3		1		1	
PANTHER CREEK PARTNERS	CARBON	0.4682	1		0.59		0.62	40	0.6	40	0.4	
PENNSYLVANIA POWER CO. BRUCE MANSFIELD POWER PLANT	BEAVER	1007.9355	1000		890		790	1060	783	800	955.02	916.2
PG&E INTL ENERGY GROUP NORTHAMPTON GENERATING PLANT	NORTHAMPTON	0.9662	18		14		13.4		4.1		4.1	
PINEY CREEK LTD PTNR	CLARION	0.1811	4		0		0		0.83		0.00041	
PPL BRUNNER ISLAND STEAM ELECTRIC STATION	YORK	436.3887	270		198		298	228	272	268	314	320
PPL MARTINS CREEK STEAM ELECTRIC STATION	NORTHAMPTON	52.0678	51		49	12.4	50	49	49	54	48	53.2
RELIANT ENERGY CONEMAUGH POWER PLANT	INDIANA	494.5771	1101		500.2		496.1	500	540.6	520	500.2	520

Table 2. Mercury Emissions Data
Coal-Fired Electric Generating Units in Pennsylvania

Facility	County	1999 EPA lb/Year	2000 TRI lb/Year	2000 AIMS lb/Year	2001 TRI lb/Year	2001 AIMS lb/Year	2002 TRI lb/Year	2002 AIMS lb/Year	2003 TRI lb/Year	2003 AIMS lb/Year	2004 TRI lb/Year	2004 AIMS lb/Year
RELIANT ENERGY INC ELRAMA POWER PLANT	WASHINGTON	57.9983	60		66.86		60.85	67	60.6	56	56.82	60
RELIANT ENERGY KEYSTONE POWER PLANT	ARMSTRONG	1851.5024	1401		1290.2		1235.2	1235	1280.1	1260	1258.3	1260
RELIANT ENERGY PORTLAND POWER PLANT	NORTHAMPTON	131.5511	230		76.2		115.1	114	112	110	123	122.8
RELIANT ENERGY SEWARD POWER PLANT	INDIANA	52.6677	100		175		156.1	156.6	132.1	131.2	3.09	
RELIANT ENERGY SHAWVILLE STATION	CLEARFIELD	927.9341	400	944.2	627.4	626.8	631.6	630.6	700.5	688	646.2	645.4
RELIANT ENERGY TITUS POWER PLANT	BERKS	76.4363	170		57.3		72.1	72	81.5	80	74.4	74.4
RELIANT ENERGY WARREN STATION	WARREN		24		40.3		34.5		0		0	
SAINT NICHOLAS COGENERATION PROJECT	SCHUYLKILL	0.635					0		10		5	
SCRUBGRASS GENERATING PLANT	VENANGO	0.8538	2.4		2.201		2.401		2.201		2.201	
SUNBURY GENERATION LLC	SNYDER	236.1909	295.3	120	256.9		308.8	280	240	238.4	100	101.6
WHEELABRATOR FRACKVILLE ENERGY CO INC	SCHUYLKILL	0.3905	0.36		0.009		0.003		0		0	
WPS WESTWOOD GENERATION LLC	SCHUYLKILL		7.1		27.1		37.1	40	36	40	34	17.2
Total		**9,865.3**	**8,637.5**	**1,064.2**	**6,766.5**	**1,004.4**	**6,860.8**	**7,781.6**	**6,489.0**	**8,148.2**	**6,650.9**	**7,198.6**

VI. COMPLIANCE SCHEDULE FOR COAL-FIRED EGUs [40 CFR § 60.24(a)]

Pursuant to 40 CFR § 60.25(h)(3), the State Plan must contain emission standards and compliance schedules, which demonstrate that compliance with the mercury budget for the appropriate time periods. 70 FR 28649 (May 18, 2005). Consequently, the owner or operator of each existing designated coal-fired EGU in Pennsylvania must achieve compliance with the Phase 1 (the period from January 1, 2010 through December 31, 2014) and Phase 2 (the period from January 1, 2015, and each subsequent year thereafter) annual mercury emission limitations established by the Department and emission standards set forth in 25 Pa. Code § 123.205 (relating to emission standards for coal-fired EGUs).

In addition to demonstrating compliance with the emission standards, the owner or operator of one or more coal-fired EGUs subject to the annual emission limitations may demonstrate compliance on a unit-by-unit basis, facility-wide emission averaging or a system-wide compliance demonstration in accordance with 25 Pa. Code § 123.207. The owners or operators of designated EGUs shall comply with all applicable requirements of the final-form mercury regulation and demonstrate compliance with the annual emission limitations of this regulation by March 1 each year for the preceding control period.

VII. RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS [40 CFR § 60.25]

(a) General Monitoring and Reporting Requirements

Pursuant to 40 CFR § 60.25, the Section 111(d) State Plan must provide for the monitoring of the status of compliance with the mercury emission standards and annual mercury emission limitations. Owners and operators, and to the extent applicable, the mercury-designated representative for the designated EGUs must demonstrate compliance with monitoring, recordkeeping and reporting requirements of 25 Pa. Code §§ 123.210-123.215 and, § 139.101 (relating to general requirements), 40 CFR Part 75, Subpart I and the provisions in 40 CFR §§ 60.4110--60.4114 (relating to authorization and responsibilities of mercury designated representative.)

(b) Certification Procedures for Emissions Monitoring

The owner or operator of an existing designated EGU shall comply with the initial certification and recertification procedures for a continuous emission monitoring system (CEMS) as specified under 40 CFR § 75.20 and § 123.211 and an excepted monitoring system (sorbent trap monitoring system) as required under 40 CFR § 75.15 and § 123.210 and Chapter 139, Subchapter C (relating to the requirements for source monitoring for stationary sources). The owner or operator of an EGU that qualifies for and in instances where the EGU owner or operator elects to use the low mass emissions excepted methodology under 40 CFR § 75.81(b) shall meet the applicable certification and recertification requirements in 40 CFR §§ 75.81(c) through (f).

(c) Recordkeeping and Reporting Requirements

The owner or operator of an existing EGU and its designated representative shall comply with all recordkeeping and reporting requirements as specified under 40 CFR § 75.84 and 25 Pa. Code §§ 123.210-123.215 and Chapter 139, Subchapter C (relating to the requirements for source monitoring for stationary sources). In addition, the mercury-designated representative for a mercury budget unit shall notify the applicable permitting authority in accordance with 40 CFR § 75.61.

(d) Additional Requirements

In addition to annual mercury emission limitation requirements, the owner and operator of each designated EGU in Pennsylvania must comply with the emissions standards requirements set forth in 25 Pa. Code § 123.205. In accordance with § 123.206 (relating to compliance requirements for the emission standards for coal-fired EGUs), the owner and operator of each EGU shall demonstrate compliance with the emission standards by complying on a unit-by-unit basis or by facility-wide emissions averaging.

The owner or operator of an EGU that monitors and reports mercury mass emissions using a mercury concentration monitoring system and flow monitoring system shall monitor and report heat input rate at the unit level using procedures set forth in 40 CFR Part 75. If a mass emissions monitoring system fails to meet a quality assurance or quality control requirement, mass emissions data shall be substituted using the missing data procedures in 40 CFR Part 75, Subpart I and 25 Pa. Code § 123.212 of the Department's final-form regulation. The owner or operator of an EGU complying with the requirements of the Pennsylvania-specific regulation shall comply with the coal sampling and analysis requirements of § 123.214 for purposes of demonstrating compliance with the mercury emission limitations of § 123.207.

The EGU owner or operator or mercury designated representative for an EGU may submit a petition to EPA requesting approval to use of an alternative monitoring system, alternative reference method or any other alternative to any requirement of 40 CFR Part 75. EPA will approve the alternative in writing in accordance with 40 CFR Part 75, Subpart E (relating to alternative monitoring system).

VIII. LEGAL AUTHORITY TO IMPLEMENT THE STATE PLAN [40 CFR § 60.26(a)]

Pursuant to 40 CFR § 60.26(a), the Section 111(d) State Plan for existing EGUs must include a demonstration that the state has sufficient legal authority to implement the provisions of the state plan. Appendix E includes a legal opinion that demonstrates that the Department has sufficient statutory and regulatory authority under its plan approval, State operating permits and Title V permit programs to implement and enforce the applicable requirements adopted under Section 111(d) of the Clean Air Act, including those for existing coal-fired EGUs.

The Air Pollution Control Act (APCA) and the regulations promulgated thereunder provide adequate authority for the Department to enforce the Guidelines requirements developed pursuant to Sections 111(d) of the Clean Air Act. Section 6.1(k) of the APCA provides that the Department shall require revisions to any permit to incorporate applicable standards and regulations promulgated under the Clean Air Act after the issuance of a Title V permit. 35 P S. § 4006.1(k).

Section 127.463(e) of Title 25 also states that: "Regardless of whether a revision is required under this section, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by the standards or regulations." Subsection (e) expressly authorizes PADEP to require compliance with applicable requirements prior to the issuance of State operating permits or Title V permits to designated facilities. Failure to comply with the Guidelines requirements subjects the owners or operators of designated facilities to appropriate enforcement action including the issuance of departmental orders and the assessment of civil penalties. 35 P. S. §§ 4004(9)(i), 4009.1 and 4010.1.

Section 9.1 of the APCA provides that the Department may assess up to $25,000 per day in civil penalties for violations of the act, regulations adopted under the act, departmental orders or terms and conditions of plan approvals and operating permits. 35 P. S. § 4009.1.

The provisions described above provide sufficient authority to enforce applicable requirements prior to the renewal of state operating permits or Title V permits. Additionally, Section 7.1 of the APCA authorizes the Department to withhold plan approvals, state operating permits or Title V permits where an applicant or related party has shown a lack of ability or intention to comply with the APCA. 35 P. S. § 4007.1. If the permittee fails to comply with the Guidelines, the Department may withhold plan approvals or operating permits until the owner or operator of a designated facility corrects violations of applicable requirements, including Sections 111(d) of the Clean Air Act.

A copy of the Commonwealth's Air Pollution Control Act (35 P. S. § 4001 et seq.) (See Appendix D-1) and applicable regulations in 25 Pa. Code Article III (relating to air resources) (See Appendix D-2) is included in this submittal in accordance with 40 CFR § 60.26(b).

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APPENDIX A:

STANDARDS OF PERFORMANCE FOR NEW AND EXISTING COAL-FIRED ELECTRIC STEAM GENERATING UNITS (EGUs)

1. New Source Performance Standards for New EGUs (40 CFR Part 60, Subpart Da amended)

2. Emission Guidelines and Compliance Times for Existing EGUs (40 CFR Part 60, Subparts B and HHHH)

As published in the Federal Register on May 18, 2005
and amended on June 9, 2006

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APPENDIX B:

DOCUMENTATION OF PUBLIC PARTICIPATION PROCESS

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APPENDIX C:

Annex A – Pa. Code, Chapter 123, Standards for Contaminants
As adopted by the Environmental Quality Board on
October 17, 2006

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Annex A
TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE III. AIR RESOURCES

CHAPTER 123. STANDARDS FOR CONTAMINANTS

(*Editor's Note*: The following text is new and is printed in regular type to enhance readability.)

MERCURY EMISSIONS

Sec.

MERCURY EMISSIONS

§ 123.201. Purpose.

Sections 123.202-123.215 establish mercury emission standards, annual emission limitations as part of a Statewide mercury allowance program with annual nontradable mercury allowances and other requirements for the purpose of reducing mercury emissions from coal-fired EGUs or cogeneration units.

§ 123.202. Definitions.

(a) IN ADDITION TO THE WORDS AND TERMS IN SUBSECTION (b) OF THIS SECTION, THE DEFINITIONS PROMULGATED IN 40 CFR PART 60, SUBPART Da (RELATING TO STANDARDS OF PERFORMANCE FOR ELECTRIC UTILITY STEAM GENERATING UNITS FOR WHICH CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 18, 1978) AND SUBPART HHHH (RELATING TO EMISSION GUIDELINES AND COMPLIANCE TIMES FOR COAL-FIRED ELECTRIC STEAM GENERATING UNITS) ARE ADOPTED IN THEIR ENTIRETY AND INCORPORATED BY REFERENCE IN THIS SUBSECTION.

(b) The following words and terms, when used in this section and §§ 123.201 and 123.203-123.215, have the following meanings, unless the context clearly indicates otherwise:

***ACT*-AIR POLLUTION CONTROL ACT, 35 P.S. §§ 4001 *ET SEQ*.**

***ADMINISTRATOR*-THE ADMINISTRATOR OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY OR THE ADMINISTRATOR'S DULY AUTHORIZED REPRESENTATIVE.**

Btu-British thermal unit-The amount of thermal energy necessary to raise the temperature of 1 pound of pure liquid water by 1° Fahrenheit at the temperature at which water has its greatest density (39°F).

[*Bituminous coal*-

(i) Coal that is classified as bituminous according to the ASTM International Standard D388-90, Standard Classification of Coals by Rank.

(ii) For the purposes of this section and §§ 123.201 and 123.203-123.215, the term shall also include anthracite coal according to the ASTM International Standard D388-77, Standard Classification of Coals by Rank.]

***BOTTOMING-CYCLE COGENERATION UNIT*-A COGENERATION UNIT IN WHICH THE ENERGY INPUT TO THE UNIT IS FIRST USED TO PRODUCE USEFUL THERMAL ENERGY AND AT LEAST SOME OF THE REJECT HEAT FROM THE**

USEFUL THERMAL ENERGY APPLICATION OR PROCESS IS THEN USED FOR ELECTRICITY PRODUCTION.

CFB-Circulating fluidized bed unit-Combustion of fuel in a bed or series of beds [**(including bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials)]** in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

CO_2-Carbon dioxide.

CS-ESP-Cold side electrostatic precipitator-A particulate control device installed downstream of a boiler air preheater that does the following:

(i) Charges particles with an electric field and causes them to migrate from the gas to a collection surface.

(ii) Treats flue gas after heat extraction from the gas has been completed.

(iii) Operates within a temperature range of no greater than 400°F.

***CLEAN AIR ACT*-THE CLEAN AIR ACT (42 U.S.C.A. §§ 7401 – 7642) AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER.**

***COAL*- SOLID FUELS CLASSIFIED AS ANTHRACITE, BITUMINOUS, SUBBITUMINOUS OR LIGNITE BY THE ASTM INTERNATIONAL STANDARD D 388–77, 90, 91, 95, 98A OR 99, SPECIFICATION FOR CLASSIFICATION OF COALS BY RANK. THE TERM INCLUDES SYNTHETIC FUELS DERIVED FROM COAL AND COAL REFUSE FOR THE PURPOSE OF CREATING USEFUL HEAT, INCLUDING SOLVENT REFINED COAL, GASIFIED COAL, COAL-OIL MIXTURES, AND COAL-WATER MIXTURES.**

Coal refuse-Waste products of coal mining, physical coal cleaning, and coal preparation operations (for example-culm, gob, and the like) containing coal, matrix material, clay, and other organic and inorganic material.

Cogeneration unit-A stationary, coal-fired boiler or stationary, coal-fired combustion turbine which:

(i) Has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy.

(ii) Produces, for a topping-cycle cogeneration unit, during the 12-month period starting on the date the unit first produces electricity and during any calendar year after the 12-month period in which the unit first produces electricity:

(A) Useful thermal energy not less than 5% of total energy output.

(B) Useful power that when added to one-half of useful thermal energy produced:

(I) Is not less than 42.5% of total energy input, if useful thermal energy produced is 15% or more of total energy output.

(II) Is not less than 45% of total energy input, if useful thermal energy produced is less than 15% of total energy output.

([]iii) Produces, for a bottoming-cycle cogeneration unit, during the 12-month period starting on the date the unit first produces electricity and during any calendar year after the 12-month period in which the unit first produces electricity, useful power not less than 45% of total energy input.

***COMMENCE OPERATION*-TO HAVE BEGUN ANY MECHANICAL, CHEMICAL, OR ELECTRONIC PROCESS, INCLUDING, WITH REGARD TO A UNIT, A START-UP OF A UNIT'S COMBUSTION CHAMBER.**

***CONTROL PERIOD*-THE PERIOD BEGINNING JANUARY 1 OF A CALENDAR YEAR AND ENDING ON DECEMBER 31 OF THE SAME YEAR, INCLUSIVE.**

EGU-Electric generating unit-

[(i) Except as provided in subparagraph (ii), a stationary coal-fired boiler or stationary, coal-fired combustion turbine that serves or has served at any time since the start-up of the unit's combustion chamber, a generator:

(A) With a nameplate capacity of more than 25 MWe.

(B) That produces electricity for sale.

(ii) For a unit that qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity and continues to qualify as a cogeneration unit, a unit that both:

(A) Serves a generator with a nameplate capacity of more than 25 MWe.

(B) Supplies, in a calendar year, more than one third of its potential electric output capacity or 219,000 MWh, whichever is greater, to a utility power distribution system for sale.

(iii) If a unit qualifies as a cogeneration unit during the 12-month period starting on the date the unit first produces electricity but subsequently no longer qualifies as a cogeneration unit, it shall become subject to subparagraph (i) starting on the day it first no longer qualifies as a cogeneration unit.]

(i) EXCEPT AS PROVIDED IN SUBPARAGRAPHS (iv) AND (v), A STATIONARY, COAL OR COAL REFUSE-FIRED BOILER OR STATIONARY, COAL-FIRED COMBUSTION TURBINE IN PENNSYLVANIA THAT SERVES OR HAS SERVED AT ANY TIME, SINCE THE LATER OF NOVEMBER 15, 1990, OR THE START-UP OF THE UNIT'S COMBUSTION CHAMBER, A GENERATOR WITH NAMEPLATE CAPACITY OF MORE THAN 25 MEGAWATTS ELECTRIC (MWE) PRODUCING ELECTRICITY FOR SALE.

(ii) A STATIONARY BOILER OR STATIONARY COMBUSTION TURBINE IN PENNSYLVANIA THAT IS NOT AN ELECTRIC GENERATING UNIT UNDER SUBPARAGRAPH (i) THAT BEGINS TO COMBUST COAL OR COAL-DERIVED FUEL OR TO SERVE A GENERATOR WITH NAMEPLATE CAPACITY OF MORE THAN 25 MWE PRODUCING ELECTRICITY FOR SALE SHALL BECOME AN ELECTRIC GENERATING UNIT AS PROVIDED IN SUBPARAGRAPH (i) ON THE FIRST DATE ON WHICH IT BOTH COMBUSTS COAL OR COAL-DERIVED FUEL AND SERVES THE GENERATOR.

(iii) A UNIT THAT QUALIFIES AS A COGENERATION UNIT DURING THE 12-MONTH PERIOD STARTING ON THE DATE THE UNIT FIRST PRODUCES ELECTRICITY AND MEETS THE REQUIREMENTS OF SUBPARAGRAPH (iv) FOR AT LEAST ONE CALENDAR YEAR, BUT SUBSEQUENTLY NO LONGER MEETS THE REQUIREMENTS SHALL BECOME AN ELECTRIC GENERATING UNIT STARTING ON THE EARLIER OF JANUARY 1 AFTER THE FIRST CALENDAR YEAR DURING WHICH THE UNIT FIRST NO LONGER QUALIFIES AS A COGENERATION UNIT OR JANUARY 1 AFTER THE FIRST CALENDAR YEAR DURING WHICH THE UNIT NO LONGER MEETS THE REQUIREMENTS OF SUBPARAGRAPH (iv)(B).

(iv) A UNIT THAT IS AN ELECTRIC GENERATING UNIT UNDER SUBPARAGRAPHS (i) OR (ii) AND MEETS BOTH OF THE FOLLOWING REQUIREMENTS SHALL NOT BE AN ELECTRIC GENERATING UNIT IF IT:

(A) QUALIFIES AS A COGENERATION UNIT DURING THE 12-MONTH PERIOD STARTING ON THE DATE THE UNIT FIRST PRODUCES ELECTRICITY AND CONTINUES TO QUALIFY AS A COGENERATION UNIT.

(B) HAS NOT SERVED AT ANY TIME, SINCE THE LATER OF NOVEMBER 15, 1990, OR THE STARTUP OF THE UNIT'S COMBUSTION CHAMBER, A GENERATOR WITH NAMEPLATE CAPACITY OF MORE THAN 25 MWE SUPPLYING IN ANY CALENDAR YEAR MORE THAN ONE-THIRD OF THE UNIT'S POTENTIAL ELECTRIC OUTPUT CAPACITY OR 219,000 MEGAWATT-HOURS (MWH), WHICHEVER IS GREATER, TO ANY UTILITY POWER DISTRIBUTION SYSTEM FOR SALE.

(v) A ''SOLID WASTE INCINERATION UNIT'' AS DEFINED IN CLEAN AIR ACT SECTION 129(g)(1) THAT COMBUSTS ''MUNICIPAL WASTE'' AS DEFINED IN

CLEAN AIR ACT SECTION 129(g)(5) SHALL NOT BE AN ELECTRIC GENERATING UNIT IF IT IS SUBJECT TO ONE OF THE FOLLOWING RULES:

(A) AN EPA-APPROVED STATE PLAN FOR IMPLEMENTING THE REQUIREMENTS OF 40 CFR PART 60, SUBPART Cb (RELATING TO EMISSIONS GUIDELINES AND COMPLIANCE TIMES FOR LARGE MUNICIPAL WASTE COMBUSTORS THAT ARE CONSTRUCTED ON OR BEFORE SEPTEMBER 20, 1994).

(B) 40 CFR, PART 60, SUBPART Eb (RELATING TO STANDARDS OF PERFORMANCE FOR LARGE MUNICIPAL WASTE COMBUSTORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 20, 1994 OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED AFTER JUNE 19, 1996).

(C) 40 CFR PART 60, SUBPART AAAA (RELATING TO STANDARDS OF PERFORMANCE FOR SMALL MUNICIPAL WASTE COMBUSTORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER AUGUST 30, 1999 OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED AFTER JUNE 6, 2001).

(D) AN EPA-APPROVED STATE PLAN FOR IMPLEMENTING 40 CFR PART 60, SUBPART BBBB (RELATING TO EMISSION GUIDELINES AND COMPLIANCE TIMES FOR SMALL MUNICIPAL WASTE COMBUSTION UNITS CONSTRUCTED ON OR BEFORE AUGUST 30, 1999).

(E) 40 CFR PART 62, Subpart FFF (RELATING TO FEderal Plan Requirements for Large Municipal Waste Combustors Constructed On or Before September 20, 1994).

(F) 40 CFR PART 62, SUBPART JJJ (RELATING TO FEDERAL PLAN REQUIREMENTS FOR SMALL MUNICIPAL WASTE COMBUSTION UNITS CONSTRUCTED ON OR BEFORE AUGUST 30, 1999).

Existing EGU-An EGU which commenced construction, modification or reconstruction **ON OR** before January 30, 2004**, OR WHICH HAS THREE COMPLETE CONTROL PERIODS OF HEAT INPUT DATA AS OF DECEMBER 31 OF THE PRECEDING CONTROL PERIOD.**

FF-Fabric filter-An add-on air pollution control system that removes particulate matter (PM) and emissions of nonvaporous metals by passing flue gas through filter bags.

Facility-All units located on one or more contiguous or adjacent properties and which are owned or operated by the same person under common control.

GWh-Gigawatt-hour-One billion watt-hours.

***HEAT INPUT*-FOR A SPECIFIED PERIOD OF TIME, THE PRODUCT, EXPRESSED AS MILLION BTUs PER UNIT TIME (MMBTU/TIME), OF THE GROSS CALORIFIC**

VALUE OF THE FUEL (IN BTUs PER POUND FUEL (BTU/LB FUEL) DIVIDED BY 1,000,000 BTU/MMBTU) MULTIPLIED BY THE FUEL FEED RATE INTO A COMBUSTION DEVICE (IN POUNDS OF FUEL PER UNIT TIME (LB FUEL/TIME)), AS MEASURED, RECORDED, AND REPORTED TO THE DEPARTMENT BY THE OWNER OR OPERATOR OF AN EGU AND DETERMINED IN ACCORDANCE WITH 40 CFR 60.4170 THROUGH 60.4176 AND EXCLUDING THE HEAT DERIVED FROM PREHEATED COMBUSTION AIR, RETICULATED FLUE GASES, OR EXHAUST FROM OTHER SOURCES.

IGCC-Integrated gasification combined cycle unit- A**N** [**coal-fired]** electric utility steam generating unit that burns a synthetic gas derived from coal in a combined-cycle gas turbine. No coal is directly burned in the unit during operation.

MMBtu-One million British thermal units.

MW-Megawatt-A unit for measuring power equal to one million watts.

MWe-Megawatt electric-One million watts of electric capacity.

MWh-Megawatt-hour-One million watt-hours.

Nameplate capacity-The maximum electrical generating output (in MWe) that the generator is capable of producing on a steady-state basis during continuous operation (when not restricted by seasonal or other deratings):

(i) As specified by the manufacturer, starting from the initial installation of the generator.

(ii) As specified by the person conducting the physical change, starting from the completion of a subsequent physical change in the generator resulting in an increase in the maximum electrical generating output in MWe.

New EGU-An EGU which commenced construction, modification or reconstruction, as defined under 40 CFR Part 60 (relating to standards of performance for new stationary sources), on or after January 30, 2004**, AND HAS LESS THAN THREE COMPLETE CONTROL PERIODS OF HEAT INPUT DATA AS OF DECEMBER 31 OF THE PRECEDING CONTROL PERIOD**.

O_2-Oxygen.

***OPERATOR*-A PERSON WHO OPERATES, CONTROLS, OR SUPERVISES AN EGU OR A FACILITY THAT INCLUDES AN EGU. THE TERM ALSO INCLUDES A HOLDING COMPANY, UTILITY SYSTEM, OR PLANT MANAGER OF AN EGU OR FACILITY.**

***OWNER*-A HOLDER OF ANY PORTION OF THE LEGAL OR EQUITABLE TITLE IN AN EGU OR A FACILITY IN THIS COMMONWEALTH THAT INCLUDES AN**

EGU. THE TERM ALSO INCLUDES A HOLDER OF A LEASEHOLD INTEREST IN AN EGU OR A FACILITY IN THIS COMMONWEALTH THAT INCLUDES AN EGU.

PCF-Pulverized coal-fired unit-

(i) A steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension.

(ii) The term includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units.

Phase 1-The period from January 1, 2010, through December 31, 2014.

Phase 2-The period beginning January 1, 2015, and each subsequent year thereafter.

Rolling 12-month basis-A determination made on a monthly basis from the relevant data for a particular calendar month and the preceding 11 calendar months (total of 12 months of data).

SCR-Selective catalytic reduction-A process where a gaseous or liquid reductant (most commonly ammonia or urea) is added to the flue gas stream in the presence of a catalyst. The reductant reacts with nitrogen oxides in the flue gas to form **MOLECULAR** nitrogen.

SO_2-Sulfur dioxide.

Space velocity-The exhaust gas volume per hour of the SCR corrected to standard temperature and pressure divided by the volume of the catalyst.

Standby unit-A unit that is out of operation but under a Department-approved maintenance plan as provided under § 127.11a (relating to reactivation of sources), which will enable the source to be reactivated in accordance with the terms of the permit issued to the source.

***SYSTEM*-THE TOTAL NUMBER OF EGUs UNDER COMMON OWNERSHIP OR OPERATOR CONTROL IN THE COMMONWEALTH, WHICH AN OWNER OR OPERATOR IDENTIFIES TO THE DEPARTMENT AS PARTICIPATING IN AN EMISSIONS COMPLIANCE DEMONSTRATION FOR THE PURPOSE OF COMPLYING WITH § 123.207 (RELATING TO ANNUAL EMISSION LIMITATIONS FOR COAL-FIRED EGUs).**

***SYSTEM-WIDE COMPLIANCE DEMONSTRATION*-DEMONSTRATING COMPLIANCE WITH THE ANNUAL EMISSION LIMITATION BY ENSURING THAT THE AGGREGATE OF ACTUAL MASS EMISSIONS IS LESS THAN THE AGGREGATE OF ALLOWABLE MASS EMISSIONS FOR ALL EGUs IN THE SYSTEM WHICH ARE INCLUDED IN THE DEMONSTRATION.**

***TOPPING-CYCLE COGENERATION UNIT*-A COGENERATION UNIT IN WHICH THE ENERGY INPUT TO THE UNIT IS FIRST USED TO PRODUCE USEFUL POWER, INCLUDING ELECTRICITY, AND AT LEAST SOME OF THE REJECT HEAT FROM THE ELECTRICITY PRODUCTION IS THEN USED TO PROVIDE USEFUL THERMAL ENERGY.**

WFGD-Wet flue gas desulfurization unit-A sulfur dioxide control system located downstream of the steam generating unit that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution including lime and limestone.

Watt-hour-A unit of energy equivalent to 1 watt of power expended for 1 hour of time.

§ 123.203. Applicability.

The requirements of this section and §§ 123.201, 123.202 and 123.204-123.215 apply to owners and operators of an EGU located in this Commonwealth **AND, EXCEPT AS OTHERWISE NOTED, SUPERCEDE THOSE REQUIREMENTS ADOPTED IN THEIR ENTIRETY AND INCORPORATED BY REFERENCE IN 25 *PA. CODE* § 122.3 (RELATING TO ADOPTION OF STANDARDS)**.

§ 123.204. Exceptions.

Consistent with § 123.207(b)(1) (relating to annual emission limitations for coal-fired EGUs), the owner or operator of an EGU that enters into an enforceable agreement with the Department not later than December 31, 2007, for the shutdown and replacement of the unit with IGCC technology no later than December 31, 2012, shall be exempted from compliance with the **[following]**Phase 1 **[requirements]EMISSION STANDARDS SPECIFIED IN § 123.205 (RELATING TO EMISSION STANDARDS FOR COAL-FIRED EGUs)[for the converted unit:**

(1) Section 123.205 (relating to emission standards for coal-fired EGUs).

(2) Section 123.207].

§ 123.205. Emission standards for coal-fired EGUs.

(a) *New EGUs.* In addition to the mercury emission limitation requirements of § 123.207 (relating to annual emission limitations for coal-fired EGUs), the owner or operator of a new EGU subject to § 123.203 (relating to applicability) shall comply at the commencement of operation on a rolling 12-month basis with one of the following standards:

(1) *PCF EGU.* The owner or operator of a PCF EGU shall comply with **[one]EITHER** of the following:

(i) A mercury emission standard of 0.011 pounds of mercury per GWh.

(ii) A minimum 90% control of total mercury as measured from the mercury content in the coal**, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(2) *CFB EGU.* The owner or operator of a CFB EGU shall comply with the following applicable provisions:

(i) CFB EGUs burning 100% **[waste]**coal **REFUSE AS THE ONLY SOLID FOSSIL FUEL** shall comply with **[the mercury emission standard for new units as established under 40 CFR Part 60, Subpart D (relating to standards of performance for fossil-fuel-fired steam generators for which construction is commenced after August 17, 1971), which is adopted and incorporated by reference in § 122.3 (relating to adoption of standards).]EITHER OF THE FOLLOWING:**

(A) A MERCURY EMISSION STANDARD OF 0.0096 POUNDS OF MERCURY PER GWH.

(B) A MINIMUM 95% CONTROL OF TOTAL MERCURY AS MEASURED FROM THE MERCURY CONTENT IN THE COAL REFUSE, EITHER AS FIRED OR AS APPROVED IN WRITING BY THE DEPARTMENT.

(ii) CFB EGUs burning 100% **[bituminous]**coal **AS THE ONLY SOLID FOSSIL FUEL** shall comply with either **OF THE FOLLOWING**:

(A) A mercury emission standard of 0.011 pounds of mercury per GWh.

(B) A minimum 90% control of total mercury as measured from the mercury content in the coal**, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(iii) CFB EGUs burning multiple fuels shall comply with a prorated emission standard based on the percentage of heat input from the coal and the percentage of heat input from the **[waste]**coal **REFUSE**.

(3) *IGCC EGU.* The owner or operator of an IGCC EGU shall comply with one of the following:

(i) A mercury emission standard of 0.0048 pounds of mercury per GWh.

(ii) A minimum 95% control of total mercury as measured from the mercury content in the coal**, EITHER** as processed **OR AS APPROVED IN WRITING BY THE DEPARTMENT.**

(b) **[*Baseline for review.*]*OTHER REQUIREMENTS FOR NEW EGUs.* IN ADDITION TO THE EMISSION REQUIREMENTS OF SUBSECTION (a), THE APPLICABLE REQUIREMENTS FOR A NEW EGU SHALL INCLUDE:**

(1) *BEST AVAILABLE TECHNOLOGY REQUIREMENT.* The emission standards in this subsection will serve as a baseline for review and approval of case-by-case best available technology determinations for a new EGU in accordance with the requirements of Chapter 127 (relating to construction, modification, reactivation and operation of sources).

(2) *STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES REQUIREMENTS.* IN ADDITION TO THE REQUIREMENTS OF THIS SECTION, §§ 123.201-123.204 AND 123.206-123.215, THE OWNER OR OPERATOR OF A NEW EGU SHALL ALSO COMPLY WITH THE STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES PROMULGATED IN 40 CFR PART 60 SUBPART Da AND ADOPTED IN THEIR ENTIRETY AND INCORPORATED BY REFERENCE IN 25 *PA. CODE* CHAPTER 122 (RELATING TO NATIONAL STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES).

(c) *Existing EGUs.* In addition to the mercury emission limitation requirements of § 123.207, the owner or operator of an existing EGU subject to **[§ 123.203]THE EMISSION STANDARDS FOR EGUs SPECIFIED IN THIS SECTION** shall comply on a rolling 12-month basis with one of the following standards:

(1) *Phase 1.* Effective from January 1, 2010, through December 31, 2014:

(i) *PCF EGU.* The owner or operator of a PCF shall comply with one of the following:

(A) A mercury emission standard of 0.024 pounds of mercury per GWh.

(B) A minimum 80% control of total mercury as measured from the mercury content in the coal**, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(ii) *CFB EGU.* The owner or operator of a CFB **BURNING COAL REFUSE** shall comply with one of the following:

(A) A mercury emission standard of **[0.0058]0.0096** pounds of mercury per GWh.

(B) A minimum 95% control of total mercury as measured from the mercury content in the coal **REFUSE, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(2) *Phase 2.* Effective beginning January 1, 2015, and each subsequent year:

(i) *PCF EGU.* The owner or operator of a PCF shall comply with one of the following:

(A) A mercury emission standard of 0.012 pounds of mercury per GWh.

(B) A minimum 90% control of total mercury as measured from the mercury content in the coal**, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(ii) *CFB EGU.* The owner or operator of a CFB **BURNING COAL REFUSE** shall comply with one of the following:

(A) A mercury emission standard of **[0.0058]0.0096** pounds of mercury per GWh.

(B) A minimum 95% control of total mercury as measured from the mercury content in the coal **REFUSE, EITHER** as fired **OR AS APPROVED IN WRITING BY THE DEPARTMENT**.

(d) *CREDIT FOR FUEL PRETREATMENT*. THE OWNER OR OPERATOR OF AN EGU MAY REQUEST, IN WRITING, CREDIT FOR THE MERCURY REMOVAL EFFICIENCY RESULTING FROM THE PRETREATMENT OF COAL OR COAL REFUSE TOWARDS THE MINIMUM PERCENT CONTROL EFFICIENCY OF TOTAL MERCURY REQUIREMENTS SPECIFIED IN § 123.205. THE CREDIT SHALL BE APPROVED, IN WRITING, BY THE DEPARTMENT CONSISTENT WITH THE PROCESS OUTLINED IN 40 CFR 60.50Da (RELATING TO COMPLIANCE DETERMINATION PROCEDURES AND METHODS).

§ 123.206. Compliance requirements for the emission standards for coal-fired EGUs.

(a) The owner or operator of one or more EGUs subject to the emission standards of § 123.205 (relating to emission standards for coal-fired EGUs) shall demonstrate compliance with the standards using one of the following methods:

(1) Compliance on a unit-by-unit basis.

(2) Facility-wide emissions averaging.

[(b) The owner or operator of an existing EGU combusting 100% bituminous coal which is controlled by an air pollution control device configuration of:

(1) A CS-ESP or FF and a WFGD will be presumed to be in compliance with the emission standard requirements of § 123.205(c)(1) without any additional compliance demonstrations.

(2) SCR, CS-ESP or FF and WFGD will be presumed to be in compliance with the emission standard requirements of § 123.205(c)(2) without additional compliance demonstrations if the design space velocity of the SCR catalyst is no more than 3000 hr^{-1}.

(3) Other technologies when the Department determines that there is sufficient data to provide a compliance presumption with the emission standard requirements of § 123.205(c)(1) or (2) without additional compliance demonstrations. The Department will publish these determinations in the *Pennsylvania Bulletin*.]

(c)]<u>(b)</u> The Department may approve in a plan approval or operating permit, or both, an **[alternative]<u>ALTERNATE</u>** mercury emission standard or **<u>COMPLIANCE</u>** schedule, or both, if the owner or operator of an EGU subject to the emission standards of § 123.205 demonstrates in writing to the Department's satisfaction that the mercury reduction requirements are economically or technologically infeasible. **<u>THE DEPARTMENT'S WRITTEN APPROVAL OF AN ALTERNATE MERCURY EMISSION STANDARD OR COMPLIANCE SCHEDULE SHALL NOT RELIEVE THE OWNER OR OPERATOR OF THE EGU FROM COMPLYING WITH THE OTHER REQUIREMENTS OF §§ 123.201-123.205 AND 123.207-123.215.</u>** The owner or operator shall:

(1) Submit a plan approval application or operating permit application requesting an **[alternative]<u>ALTERNATE</u>** emission standard or **<u>COMPLIANCE</u>** schedule, or both, to the Department for approval no later than 120 days before the applicable compliance deadline.

(2) Include the following in the application:

(i) A brief description, including make, model and location of each EGU.

(ii) A list of all air pollution control technologies and measures that have been installed on each EGU and are operating to control emissions of air contaminants including mercury.

(iii) The dates of installation and commencement of operation for each of the technologies and measures required under subparagraph (ii).

(iv) An explanation of how the technology or measure was installed and if it is being operated according to the manufacturer's instructions for each of the technologies and measures required under subparagraph (ii).

(v) The results of each mercury stack test and other emissions measurements for the EGU following installation and commencement of operation of the air pollution control technologies and measures listed in accordance with subparagraph (ii).

(vi) A list of other air pollution control technologies or measures that the owner or operator proposes to install and operate on each EGU to control emissions of air contaminants including mercury.

(vii) A summary of how the owner or operator of the EGU intends to operate and maintain the unit during the term of the approved plan approval or operating permit, or both, including the associated air pollution control equipment and measures that are designed to maintain compliance with all other applicable plan approval or operating permit requirements and that are designed and operated to minimize the emissions of mercury to the extent practicable.

(viii) A proposed schedule that lists the increments of progress and the date for final compliance if an **[alternative]<u>ALTERNATE</u>** compliance schedule is requested.

(ix) An emission reduction proposal and information on the technological feasibility of meeting the requirements of this section and §**[§]** 123.205**[, 123.207-123.215]** if an **[alternative]**<u>**ALTERNATE**</u> emission standard is requested.

(x) Other information which the Department requests that is necessary for the approval of the application.

<u>(c) THE DEPARTMENT'S WRITTEN APPROVAL OF AN ALTERNATE EMISSION STANDARD OR COMPLIANCE SCHEDULE WILL BE BASED ON THE INFORMATION PROVIDED IN THE APPLICATION SUBMITTED BY THE OWNER OR OPERATOR OF THE EGU IN ACCORDANCE WITH SUBSECTION (b).</u>

(d) For an EGU complying with the energy output-based mercury emission standards of § 123.205 (expressed in pounds of mercury per GWh), the actual mercury emission rate of the EGU for each 12-month rolling period, monitored in accordance with §§ 123.210-123.215 and calculated as follows, may not exceed the applicable emission standard:

$$ER = \sum_{i=1}^{12} E_i \div \sum_{i=1}^{12} O_i$$

Where:

ER = Actual mercury emissions rate of the EGU for the particular 12-month rolling period, expressed in pounds per GWh.

E_i = Actual mercury emissions of the EGU, in pounds, in an individual month in the 12-month rolling period, as determined in accordance with the monitoring provisions.

O_i = Gross electrical output of the EGU, in GWhs, in an individual month in the 12-month rolling period.

(e) For an EGU complying with the percent control requirements of § 123.205, the actual control efficiency for mercury emissions achieved by the EGU for each 12-month rolling period, monitored in accordance with §§ 123.210-123.215 and calculated as follows, shall meet or exceed the applicable efficiency requirement:

$$CE = 100 * \left\{ 1 - \left(\sum_{i=1}^{12} E_i \div \sum_{i=1}^{12} I_i \right) \right\}$$

Where:

CE = Actual control efficiency for mercury emissions of the EGU for the particular 12-month rolling period, expressed as a percent.

E_i = Actual mercury emissions of the EGU, in pounds, in an individual month in the 12-month rolling period, as determined in accordance with the monitoring provisions of §§ 123.210-123.215.

I_i = Amount of mercury in the fuel fired in the EGU, in pounds, in an individual month in the 12-month rolling period, as determined in accordance with § 123.214 (relating to coal sampling and analysis for input mercury levels).

(f) *FACILITY-WIDE AVERAGING.* THE OWNER OR OPERATOR OF AN EGU MAY DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF § 123.205 (RELATING TO EMISSION STANDARDS FOR COAL-FIRED EGUs) BY MEANS OF FACILITY-WIDE AVERAGING THAT DEMONSTRATES THAT THE ACTUAL MERCURY EMISSIONS FROM EGUs COVERED UNDER THE EMISSIONS AVERAGING DEMONSTRATION ARE LESS THAN THE ALLOWABLE MERCURY EMISSIONS FROM ALL EGUs COVERED BY THE DEMONSTRATION ON A ROLLING 12-MONTH BASIS.

§ 123.207. Annual emission limitations for coal-fired EGUs.

(a) *Statewide mercury nontradable allowance program*. In addition to the mercury emission standard requirements of § 123.205 (relating to emission standards for coal-fired EGUs), the owner or operator of a new or existing affected EGU subject to § 123.203 (relating to applicability) shall comply with the annual emission limitations established through a Statewide mercury nontradable allowance program under this section. **THE DEPARTMENT WILL ISSUE TO THE OWNER OR OPERATOR OF AN AFFECTED EGU A PLAN APPROVAL OR OPERATING PERMIT (INCLUDING TITLE V) THAT CONTAINS THE APPLICABLE REQUIREMENTS OF THIS SECTION, §§ 123.202-123.206 AND §§ 123.208-215 BEFORE THE LATER OF JANUARY 1, 2010 OR THE DATE ON WHICH THE AFFECTED EGU COMMENCES OPERATION.**

(b) *Emission limitation set-asides*. The total ounces of mercury emissions available for emission limitation set-asides as annual nontradable mercury allowances in the Statewide mercury allowance program are:

(1) **[56,960]56,928** ounces (**[3,560]3,558** pounds) of mercury emissions for Phase 1, effective from January 1, 2010, through December 31, 2014.

(2) 22,464 ounces (1,404 pounds) of mercury emissions for Phase 2, effective beginning January 1, 2015, and each subsequent year.

(c) *New affected EGUs.* For each calendar year beginning January 1, 2010, the Department will set aside a total number of annual nontradable mercury allowances for the owners and operators of new affected EGUs in this Commonwealth that do not yet have a baseline heat input determined in accordance with the requirements of an approved plan approval **[application]**or operating permit.

(1) The total number of annual nontradable mercury allowances set aside for the owners and operators of new affected EGUs will be equal to a percentage of the amount of ounces of mercury emissions in the Statewide mercury allowance program established in subsection (a). The percentage of set-aside is:

(i) 5% of the Phase 1 annual nontradable mercury allowances established in subsection (b)(1) for the years beginning January 1, 2010, through December 31, 2014.

(ii) 3% of the Phase 2 annual nontradable mercury allowances established in subsection (b)(2) for the calendar year beginning January 1, 2015, and subsequent years.

(2) The annual nontradable mercury allowances set aside for the owners and operators of new affected EGUs shall be placed in the annual emission **[limit]**__LIMITATION__ supplement pool established under § 123.208 (relating to annual emission **[limit]**__LIMITATION__ supplement pool).

(3) AFTER A NEW EGU HAS COMMENCED OPERATION AND COMPLETED THREE CONTROL PERIODS, THE EGU WILL BECOME AN EXISTING EGU. THE NEW EGU WILL CONTINUE TO RECEIVE ANNUAL NONTRADABLE MERCURY ALLOWANCES FROM THE NEW UNIT SET-ASIDE UNTIL THE NEW EGU IS ELIGIBLE FOR ANNUAL NONTRADABLE MERCURY ALLOWANCES ALLOCATED FROM THE SET-ASIDE FOR EXISTING EGUS. THE ANNUAL NONTRADABLE MERCURY ALLOWANCES ALLOCATED FROM THE SET-ASIDE FOR EXISTING EGUS SHALL NOT EXCEED THE ALLOWABLE MERCURY EMISSIONS LIMITATION SPECIFIED IN A PLAN APPROVAL OR OPERATING PERMIT (INCLUDING TITLE V) FOR THE NEW EGU.

(4) WHEN A NEW EGU IS ELIGIBLE TO RECEIVE ANNUAL NONTRADABLE MERCURY ALLOWANCES FROM THE SET-ASIDE FOR EXISTING EGUs, NEW MAXIMUM ALLOWANCE LEVELS FOR ALL EXISTING EGUs WILL BE ESTABLISHED AND PUBLISHED IN THE *PENNSYLVANIA BULLETIN* FOR COMMENT BY MAY 31 OF THE YEAR THAT IS TWO YEARS PRIOR TO THE AFFECTED CONTROL PERIOD.

(5) IF THE ACTUAL EMISSIONS OF MERCURY REPORTED TO THE DEPARTMENT FROM THE OPERATION OF A NEW EGU DURING A SPECIFIC CONTROL PERIOD ARE LESS THAN THE MAXIMUM NUMBER OF ANNUAL NONTRADABLE MERCURY ALLOWANCES SPECIFIED IN THE PLAN APPROVAL OR OPERATING PERMIT FOR THE EGU, THE DEPARTMENT WILL INCLUDE THE UNUSED PORTION OF THE ANNUAL NONTRADABLE MERCURY ALLOWANCES IN THE SET-ASIDE FOR NEW EGUs.

(6) THE UNUSED PORTION OF ANNUAL NONTRADABLE MERCURY ALLOWANCES SET ASIDE UNDER SUBSECTION (c)(3) SHALL NOT BE ADDED TO THE MAXIMUM NUMBER OF ANNUAL NONTRADABLE MERCURY

ALLOWANCES SET ASIDE IN SUBSEQUENT YEARS FOR THE OWNER OR OPERATOR OF A NEW EGU. THE ANNUAL NONTRADABLE MERCURY ALLOWANCES MAY NOT BE BANKED FOR USE IN FUTURE YEARS.

(d) *Existing affected CFBs.* For each calendar year beginning January 1, 2010, the Department will set aside for the owners and operators of existing affected CFBs a total number of annual nontradable mercury allowances from the total ounces of mercury emissions available for annual emission **[limit]LIMITATION** set-asides in Phase 2 of the Statewide mercury allowance program established in subsection (b)**[]**(2).

(e) *Maximum allowances set aside for CFBs.* The maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing affected CFB in accordance with subsection (d) shall be determined by multiplying the affected CFB's baseline heat input fraction of the State's total baseline annual heat input for all EGUs by the Department's Phase 2 annual mercury allowance set-aside for existing EGUs, as follows:

(1) The baseline heat input in MMBtu for each existing affected **[mercury allowance program]**CFB will be the average of the three highest amounts of annual heat input using the heat input data for the CFB from **EPA's ACID RAIN DATABASE AND** the Department's **[acid rain]**database for the calendar years 2000 through 2004.

(2) The State's annual mercury **[emission]**allowance set-aside for existing EGUs for Phase 2 is 21,790 ounces.

(f) *Existing affected **[PCFs]EGUs OTHER THAN CFBs**.* For each calendar year beginning January 1, 2010, the Department will set aside for the owners and operators of existing affected **[PCFs]EGUs OTHER THAN CFBs** a total number of annual nontradable mercury allowances from the total ounces of mercury emissions available for annual emission **[limit]LIMITATION** set-asides in Phase 1 and Phase 2 of the Statewide mercury allowance program established in subsection (b).

(g) *Maximum allowances set aside for **[PCFs]EXISTING AFFECTED EGUs OTHER THAN CFBs**.* The maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing affected **[PCF]EGU OTHER THAN CFB** in accordance with subsection (f) shall be determined **FOR THE EXISTING AFFECTED EGU OTHER THAN CFB** by multiplying **[the existing affected PCF's]ITS** baseline heat input fraction of the State's total baseline annual heat input for all EGUs by the Department's annual mercury allowance set-aside for existing affected EGUs in each phase, as follows:

(1) The baseline heat input in MMBtu for each existing affected **[mercury allowance program PCF]EGU OTHER THAN CFB** will be the average of the three highest amounts of annual heat input using the heat input data for the **[PCF]EGU OTHER THAN CFB** from **EPA's ACID RAIN DATABASE AND** the Department's **[acid rain]**database for calendar years 2000 through 2004.

(2) The State's annual mercury **[emission]**allowance set-aside for existing **AFFECTED** EGUs is:

(i) **[54,112]54,080** ounces for Phase 1.

(ii) 21,790 ounces for Phase 2.

(h) *Publication of maximum number of allowances set aside for Phase 1.* By **[July 1, 2009]MAY 31, 2008,** the Department will publish **FOR COMMENT** in the *Pennsylvania Bulletin* the maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing affected CFB and **[PCF]EGU OTHER THAN CFB** for Phase 1 of the Statewide mercury allowance program. The nontradable allowances shall only be used to demonstrate compliance with the annual emission limitation requirements.

(i) *Publication of maximum number of allowances set aside for Phase 2.* By **[July 1, 2014]MAY 31, 2013,** the Department will publish **FOR COMMENT** in the *Pennsylvania Bulletin* the maximum number of annual nontradable mercury allowances set aside for the owner or operator of each existing affected CFB and **[PCF]EGU OTHER THAN CFB** for Phase 2 of the Statewide mercury allowance program. The nontradable allowances shall only be used to demonstrate compliance with the annual emission limitation requirements.

(j) *Maximum number of allowances awarded.* By March 31 of the year following each reporting year, the Department will notify the owner or operator of each **[existing]**affected **[CFB and PCF]EGU, FACILITY, OR SYSTEM**, in writing, of the actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU, **FACILITY, OR SYSTEM** for the **[reporting year]CONTROL PERIOD**.

(1) The actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU, **FACILITY, OR SYSTEM** shall be based on the actual emissions reported to the Department in accordance with §§ 123.210-123.215.

(2) If the actual emissions of mercury reported to the Department in accordance with §§ 123.210-123.215 are less than the maximum number of annual nontradable mercury allowances set aside in the Statewide mercury allowance program for the owner or operator of an EGU**, FACILITY, OR SYSTEM** in accordance with the requirements of either subsection (c), (d) or (f), the Department will place the unused portion of annual nontradable mercury allowances in the annual emission **[limit]LIMITATION** supplement pool established under § 123.208 (relating to annual emission **[limit]LIMITATION** supplement pool).

(3) The unused portion of annual nontradable mercury allowances set aside under subsection **(c),** (d) or (f) may not be added to the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the **[existing]**affected EGU**, FACILITY, OR SYSTEM** for subsequent years. **THE ANNUAL NONTRADABLE MERCURY ALLOWANCES MAY NOT BE BANKED FOR USE IN FUTURE YEARS.**

(4) The actual number of annual nontradable mercury allowances awarded to the owner or operator of the EGU**, FACILITY, OR SYSTEM** may not exceed the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the EGU**, FACILITY, OR SYSTEM** in the Statewide mercury allowance program in accordance with subsection **(c),** (d) or (f) except as provided in § 123.209 (relating to petition process).

(5) Each ounce of mercury emitted in excess of the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the affected EGU**, FACILITY, OR SYSTEM** in accordance with subsection **(c),** (d) or (f) shall constitute a violation of this section and the act, except as provided under § 123.209.

(k) *Standby units **AND UNITS PERMANENTLY SHUT DOWN***. Annual nontradable mercury allowances will not be set aside for the owner or operator of an existing affected EGU that is already shut down**[,] OR** scheduled for shutdown**[,] UNLESS THE OWNER OR OPERATOR OF THE EGU OBTAINS A PLAN APPROVAL FOR THE CONSTRUCTION OF A NEW EGU,** or is on standby as of the effective date of each set-aside phase under subsection **(c),** (d) or (f). When a standby unit is ready for normal operation, the owner and operator may petition the Department for a number of annual nontradable mercury allowances as provided under § 123.209. **ANNUAL NONTRADABLE MERCURY ALLOWANCES WILL BE ALLOCATED TO THE OWNER OR OPERATOR OF THE EGU. THE ANNUAL NONTRADABLE MERCURY ALLOWANCES ALLOCATED FROM THE EXISTING EGU SET-ASIDE SHALL NOT EXCEED THE ALLOWABLE MERCURY EMISSIONS LIMITATION SPECIFIED IN A PLAN APPROVAL OR OPERATING PERMIT (INCLUDING TITLE V) FOR THE NEW EGU.**

(l) UNITS SCHEDULED FOR PERMANENT SHUTDOWN.

(a) THE REQUIREMENTS OF THIS SECTION, §§ 123.202-123.206 AND 123.208-123.215 DO NOT APPLY TO THE OWNER OR OPERATOR OF AN EGU THAT WILL BE PERMANENTLY SHUT DOWN NO LATER THAN DECEMBER 31, 2009. THE OWNER OR OPERATOR OF THE EGU SCHEDULED FOR SHUTDOWN SHALL DO THE FOLLOWING:

(i) WITHIN 180 DAYS PRIOR TO THE SHUTDOWN, NOTIFY THE ADMINISTRATOR AND THE DEPARTMENT, IN WRITING, THAT THE EGU IS SCHEDULED TO BE PERMANENTLY SHUT DOWN. THE NOTICE SHALL CONTAIN A DESCRIPTION OF THE ACTIONS THAT HAVE BEEN TAKEN TO SHUT DOWN THE EGU, THE FUTURE ACTIONS AND SCHEDULE FOR COMPLETING THE SHUT DOWN OF THE EGU, AND THE ANTICIPATED DATE OF PERMANENT SHUTDOWN OF THE EGU.

(ii) EXECUTE A LEGALLY ENFORCEABLE DOCUMENT PRIOR TO SHUTDOWN THAT REQUIRES THE EGU TO BE PERMANENTLY SHUT DOWN IN ACCORDANCE WITH THIS SECTION.

(b) WITHIN 30 DAYS AFTER THE PERMANENT SHUTDOWN OF THE EGU, THE MERCURY DESIGNATED REPRESENTATIVE SHALL PROVIDE WRITTEN NOTICE TO THE ADMINSTRATOR AND THE DEPARTMENT OF THE ACTUAL DATE OF THE PERMANENT SHUTDOWN OF THE UNIT.

(c) FOR A PERIOD OF FIVE YEARS FROM THE DATE THE RECORDS ARE CREATED, THE OWNER AND OPERATOR OF AN EGU SHALL RETAIN RECORDS DEMONSTRATING THAT THE EGU IS PERMANENTLY SHUT DOWN. THE ADMINSTRATOR OR DEPARTMENT MAY, IN WRITING, EXTEND THE RECORDKEEPING TIME PERIOD FOR CAUSE, AT ANY TIME BEFORE THE END OF THE FIVE-YEAR PERIOD. THE OWNERS AND OPERATORS BEAR THE BURDEN OF PROOF THAT THE UNIT IS PERMANENTLY SHUT DOWN. THE RECORDS SHALL BE RETAINED AT THE FACILITY WHERE THE EGU IS LOCATED AND SUBMITTED TO THE DEPARTMENT UPON REQUEST.

[(l)](m) *Future emission limitations*. The Department may revise the percentage of set-aside used to determine the number of ounces of mercury set aside for future annual mercury emission limitations to accommodate the emissions from new EGUs so that the total number of ounces of mercury emissions in the Statewide mercury allowance program is not exceeded. **THE DEPARTMENT WILL PUBLISH NOTICE OF THE PROPOSED AND FINAL REVISIONS IN THE *PENNSYLVANIA BULLETIN***.

[(m)](n) *Changes in calculation of baseline heat input*. The Department may revise the percentage of set-aside used to determine the number of ounces of mercury set aside for future annual mercury emission limitations to accommodate changes in the calculation of baseline heat input in accordance with the **REQUIREMENTS OF** subsection (e) or (g) so that the total number of ounces of mercury emissions in the Statewide mercury allowance program is not exceeded. **THE DEPARTMENT WILL PUBLISH NOTICE OF THE PROPOSED AND FINAL REVISIONS IN THE *PENNSYLVANIA BULLETIN***.

[(n)](o) *Maintained by Department*. The Statewide mercury allowance program established under subsection (a) and the annual nontradable mercury allowances set aside for emission limitations under subsections (b)-**[(m)](n)** will be maintained by the Department.

[(o)](p) *Demonstration of compliance*. The owner or operator of one or more **[existing]**affected mercury allowance program EGUs subject to **THE REQUIREMENTS OF** this section shall demonstrate compliance with the applicable requirements using one of the following methods **BY MARCH 1 FOR THE PRECEDING CONTROL PERIOD:**

(1) Compliance on a unit-by-unit basis.

(2) **[Facility-wide emissions averaging.]COMPLIANCE ON A FACILITY-WIDE BASIS.**

(3) COMPLIANCE ON A SYSTEM-WIDE BASIS.

(q) *FACILITY-WIDE COMPLIANCE DEMONSTRATION.* THE OWNER OR OPERATOR OF AN EGU MAY DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION ON A FACILITY-WIDE BASIS. THE TOTAL OF THE ACTUAL MERCURY EMISSIONS FROM THE EGUs INCLUDED IN THE DEMONSTRATION SHALL BE LESS THAN THE TOTAL OF THE ALLOWABLE MERCURY EMISSIONS FROM ALL EGUs INCLUDED IN THE DEMONSTRATION ON AN ANNUAL BASIS.

(r) *SYSTEM-WIDE COMPLIANCE DEMONSTRATION*. THE OWNER OR OPERATOR OF TWO OR MORE EGUs UNDER COMMON OWNERSHIP OR OPERATOR CONTROL IN THE COMMONWEALTH MAY DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION AS FOLLOWS:

(1) THE TOTAL OF THE ACTUAL MERCURY EMISSIONS FROM THE EGUs AT THE FACILITY AND OTHER EGUs AT OTHER FACILITIES INCLUDED IN THE SYSTEM-WIDE DEMONSTRATION SHALL BE LESS THAN THE TOTAL OF THE ALLOWABLE MERCURY EMISSIONS FROM ALL EGUs INCLUDED IN THE DEMONSTRATION ON AN ANNUAL BASIS.

(2) AN OWNER OR OPERATOR MAY NOT INCLUDE AN EGU, OR A PORTION THEREOF, IN MORE THAN ONE SYSTEM-WIDE DEMONSTRATION SUBMITTED FOR PURPOSES OF COMPLYING WITH THE REQUIREMENTS OF THIS SECTION, §§ 123.201-123.206 AND 123.208-123.215.

§ 123.208. Annual emission **[limit]LIMITATION** supplement pool.

(a) Effective January 1, 2010, the Department will establish an annual emission **[limit]LIMITATION** supplement pool to monitor annual nontradable mercury allowances that:

(1) Have been created as part of the new affected EGU set-aside under § 123.207(c) (relating to annual emission limitations for coal-fired EGUs).

(2) Are unused annual nontradable mercury allowances set aside as **ANNUAL** emission **[limit]LIMITATION** supplements under § 123.207(j)(2).

(b) The **ANNUAL** emission **[limit]LIMITATION** supplement pool of annual nontradable mercury allowances established under subsection (a) will be administered in accordance with § 123.209 (relating to petition process) by the Department.

§ 123.209. Petition process.

(a) Each calendar year beginning January 1, 2010, the owner or operator of either **A NEW EGU OR** an existing affected EGU that emits amounts of mercury in excess of the maximum number of annual nontradable mercury allowances set aside in accordance with § 123.207 (relating to annual emission limitations for coal-fired EGUs) or a standby affected EGU that is

ready for normal operation may petition the Department, in writing, for supplemental annual nontradable mercury allowances to be set aside for the owner or operator from the annual emission **[limit]LIMITATION** supplement pool established under § 123.208(a) (relating to annual emission **[limit]LIMITATION** supplement pool).

(b) The owner or operator shall submit a separate petition for each calendar year for which the owner or operator requests supplemental annual nontradable mercury allowances to be set aside from the annual emission **[limit]LIMITATION** supplement pool.

(c) The owner or operator with more than one affected EGU shall submit a separate petition for each EGU for which the owner or operator requests supplemental annual nontradable mercury allowances to be set aside from the annual emission **[limit]LIMITATION** supplement pool.

(d) The owner or operator of the existing affected EGU shall submit the petition to the Department by January 31 of the year following the calendar year for which the supplemental annual nontradable mercury allowances are requested to be set aside.

(e) The owner or operator of the standby affected EGU shall submit the petition to the Department no later than 120 days before the date of anticipated start-up of the EGU.

(f) The petition must include the following:

(1) A brief description, including make, model and location of each affected EGU.

(2) A list of all air pollution control technologies and measures that have been installed on each affected EGU and are operating to control emissions of air contaminants, including mercury.

(3) For each of the technologies and measures listed in accordance with paragraph (2), the date of installation and original commencement of operation.

(4) For each of the technologies and measures listed in accordance with paragraph (2), an explanation of how the mercury control technology or measure as installed has been optimized for the maximum mercury emission reduction.

(5) The results of each mercury stack test and other emissions measurements for the affected EGU following installation and commencement of operation of the air pollution control technologies and measures listed in accordance with paragraph (2).

(6) A list of other air pollution control technologies or measures that the owner or operator proposes to install and operate on each affected EGU to control emissions of air contaminants, including mercury.

(7) A summary of how the owner or operator of the affected EGU intends to operate and maintain the EGU during the term of the approved plan approval or operating permit, or both,

including the associated air pollution control equipment and measures that are designed to maintain compliance with all other applicable plan approval or operating permit requirements and that are designed and operated to minimize the emissions of mercury to the extent practicable.

(g) Each calendar year beginning January 1, 2010, the Department may **[set aside at its discretion]**__**ALLOCATE**__ supplemental annual nontradable mercury allowances from the annual emission **[limit]**__**LIMITATION**__ supplement pool established under § 123.208(a) for the owners or operators of __**NEW AND**__ existing affected EGUs**[that successfully petition the Department in accordance with this section, to be distributed IN the following order of preference:]**__**. IF A PETITION IS APPROVED BY THE DEPARTMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION, THE ALLOWANCES WILL BE DISTRIBUTED TO THE FOLLOWING:**__

(1) Each owner or operator of a standby unit as defined under § 123.202 (relating to definitions) __**WHICH MEETS THE REQUIREMENTS OF THIS SECTION, §§ 123.205-123.208 AND 123.210-123.215**__.

(2) **[Each owner or operator of an existing affected EGU that is a CFB combusting 100% waste coal or bituminous coal along with any approved noncoal fuels]**__**EACH OWNER OR OPERATOR OF AN EGU THAT ENTERS INTO AN ENFORCEABLE AGREEMENT WITH THE DEPARTMENT NOT LATER THAN DECEMBER 31, 2007, FOR THE SHUT DOWN AND REPLACEMENT OF THE UNIT WITH IGCC TECHNOLOGY BY DECEMBER 31, 2012.**__

(3) **[Each owner or operator of an existing affected EGU combusting 100% bituminous coal that is controlled by an air pollution control device configuration of SCR, CS-ESP or FF, WFGD and mercury-specific control technology.]**__**EACH OWNER OR OPERATOR OF A NEW EGU.**__

(4) **[Each owner or operator of an existing affected EGU combusting 100% bituminous coal that is controlled by an air pollution control device configuration of SCR, CS-ESP or FF and WFGD.]**__**EACH OWNER OR OPERATOR OF AN EXISTING AFFECTED EGU BASED ON THE PERFORMANCE OF THE AIR POLLUTION CONTROL TECHNOLOGIES AND MEASURES THAT HAVE BEEN INSTALLED AND ARE OPERATING TO CONTROL MERCURY EMISSIONS.**__

[

(5) Each owner or operator of an existing affected EGU combusting 100% bituminous coal that is controlled by an air pollution control device configuration of WFGD and mercury-specific control technology.

(6) Each owner or operator of an existing affected EGU combusting 100% bituminous coal that is controlled by an air pollution control device configuration of CS-ESP or FF and WFGD.

(7) Each owner or operator of an existing affected EGU based on the air pollution control technologies and measures that have been installed and are operating to control emissions of air contaminants, including mercury.]

(h) If the petition for supplemental annual nontradable mercury allowances is approved by the Department, the supplemental annual nontradable mercury allowances set aside for the owner or operator of the existing affected EGU will be added to the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the EGU in accordance with § 123.207 only for the calendar year of the request.

(i) **[The supplemental annual nontradable mercury allowances set aside under subsection (h) may not be added to the maximum number of annual nontradable mercury allowances set aside for the owner or operator of the EGU for subsequent years.]THE DEPARTMENT'S APPROVAL OF SUPPLEMENTAL ANNUAL NONTRADABLE MERCURY ALLOWANCES WILL BE BASED ON THE INFORMATION PROVIDED IN THE PETITION SUBMITTED BY THE OWNER OR OPERATOR OF AN EGU IN ACCORDANCE WITH SUBSECTION (f) OF THIS SECTION.**

(j) THE SUPPLEMENTAL ANNUAL NONTRADABLE MERCURY ALLOWANCES SET ASIDE UNDER SUBSECTION (h) MAY NOT BE ADDED TO THE MAXIMUM NUMBER OF ANNUAL NONTRADABLE MERCURY ALLOWANCES SET ASIDE FOR THE OWNER OR OPERATOR OF THE EGU FOR SUBSEQUENT YEARS.

§ 123.210. General monitoring and reporting requirements.

(a) The owner or operator of a new EGU subject to the requirements of this section**,[and]** §§ 123.201**–** 123.209 and 123.211-123.215 shall demonstrate compliance with §§ 123.205 and 123.207 (relating to emission standards for coal-fired EGUs; and annual emission limitations for coal-fired EGUs) by installing and operating **[a]**continuous emissions monitoring system**S** to measure, record and report **[the concentration of mercury in the exhaust gases]MERCURY EMISSIONS** from each **[stack]EGU. THE MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS AS PROVIDED IN THIS SECTION, §§ 123.211 – 123.215, 139.101 (RELATING TO GENERAL REQUIREMENTS), 40 CFR PART 75, SUBPART I (RELATING TO MERCURY MASS EMISSION PROVISIONS) AND THE APPLICABLE PROVISIONS OF THE CONTINUOUS SOURCE MONITORING MANUAL (DEP 274-0300-001) SHALL APPLY. FOR THE PURPOSE OF COMPLYING WITH THE REQUIREMENTS OF THIS SECTION, THE PROVISIONS IN 40 CFR §§ 60.4110--60.4114 (RELATING TO AUTHORIZATION AND RESPONSIBILITIES OF MERCURY DESIGNATED REPRESENTATIVE; OBJECTIONS CONCERNING MERCURY DESIGNATED REPRESENATIVE) ARE ADOPTED IN THEIR ENTIRETY AND INCORPORATED HEREIN BY REFERENCE.**

(b) Except as provided in subsection (c), the owner or operator of an existing **[affected]**EGU **[shall comply with the]SUBJECT TO THE REQUIREMENTS OF THIS SECTION, §§ 123.201–123.209 AND 123.211–123.215 SHALL DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF §§ 123.205 (RELATING TO EMISSION**

STANDARDS FOR COAL-FIRED EGUs) AND 123.207 (RELATING TO ANNUAL EMISSION LIMITATIONS FOR COAL-FIRED EGUs) BY INSTALLING AND OPERATING CONTINUOUS EMISSIONS MONITORING SYSTEMS TO MEASURE, RECORD AND REPORT MERCURY EMISSIONS FROM EACH EGU. THE monitoring, recordkeeping and reporting requirements as provided in this section**[and]**, §§ 123.211-123.215**[and §],** 139.101 (relating to general requirements)**, 40 CFR PART 75, SUBPART I (RELATING TO MERCURY MASS EMISSION PROVISIONS),** and the applicable provisions of the *Continuous Source Monitoring Manual* (DEP 274-0300-001) **SHALL APPLY**. **IN ADDITION, [For]for** purposes of complying with these requirements, the definitions in § 123.202 (relating to definitions) and in 40 CFR 72.2 (relating to definitions) **SHALL** apply. **FOR THE PURPOSE OF COMPLYING WITH THE REQUIREMENTS OF THIS SECTION, THE PROVISIONS IN 40 CFR §§ 60.4110--60.4114 (RELATING TO AUTHORIZATION AND RESPONSIBILITIES OF MERCURY DESIGNATED REPRESENTATIVE;OBJECTIONS CONCERNING MERCURY DESIGNATED REPRESENATIVE) ARE ADOPTED IN THEIR ENTIRETY AND INCORPORATED HEREIN BY REFERENCE.**

(c) For an affected EGU that emits 464 ounces (29 lbs) or less of mercury per year, the owner or operator of the affected EGU **SHALL EITHER**:

(1) **[Shall meet the general operating requirements in 40 CFR 75.10 (relating to general operating requirements) for the continuous emission monitors described in 40 CFR 75.81(a)(2) and (4) (relating to monitoring of Hg mass emissions and heat input at the unit level)]MEET THE REQUIREMENTS IN SUBSECTIONS (a) AND (b) FOR DEMONSTRATING COMPLIANCE WITH THE REQUIREMENTS OF § 123.205 (RELATING TO EMISSION STANDARDS FOR COAL-FIRED EGUs), § 123.207 (RELATING TO ANNUAL EMISSION LIMITATIONS FOR COAL-FIRED EGUs) AND 40 CFR PART 75, SUBPART I (RELATING TO MERCURY MASS EMISSION PROVISIONS).**

(2) **[Shall perform mercury emissions testing for the initial certification and ongoing quality assurance as described in 40 CFR 75.81(c)-(e)]IMPLEMENT THE EXCEPTED MONITORING METHODOLOGY FOR AN EGU MEETING THE REQUIREMENTS IN SUBSECTIONS (b)-(e) OF 40 CFR 75.81 (RELATING TO MONITORING OF MERCURY MASS EMISSIONS AND HEAT INPUT AT THE UNIT LEVEL).**

[(3)](d) THE OWNER OR OPERATOR OF AN EGU THAT EMITS 464 OUNCES (29 LBS) OR LESS OF MERCURY PER YEAR, [May]MAY demonstrate compliance with the percent control requirements by averaging the coal mercury content and stack emission data collected during the **[rolling 12-month]CONTROL** period.

[(d)](e) The owner or operator of each EGU shall:

(1) Install all monitoring systems required under this section**[and],** §§ 123.211--123.215 and the applicable provisions of Chapter 139, Subchapter C (relating to requirements for **[continuous in-stack]**source monitoring for stationary sources)**[,]** for monitoring mercury **[mass]**emissions**, [(]**including all systems required to monitor mercury concentration, stack gas moisture content, stack gas flow rate and CO_2 or O_2 concentration, as applicable, in accordance with 40 CFR 75.81 and 75.82 (relating to monitoring of **[Hg]MERCURY** mass emissions and heat input at common and multiple stacks).

(2) Successfully complete the certification tests required under § 123.211 (relating to initial certification and recertification procedures for emissions monitoring) and meet the other requirements of this section and §§ 123.211--123.215 that are applicable to the monitoring systems required under paragraph (1).

[(e)](f) The owner or operator **OF EACH EGU** shall comply with the monitoring system certification and other requirements of subsection **[(d)](e)** on or before the later of:

(1) **[March]JANUARY** 1, 2009.

(2) Ninety EGU operating days or 180 calendar days, whichever occurs first, after the date on which the EGU commences commercial operation.

[(f)](g) The owner or operator **OF EACH EGU** shall record, report and quality-assure the data from the monitoring systems required under subsection **[(d)](e)**(1) on and after the later of:

(1) **[March]JANUARY** 1, 2009.

(2) Ninety EGU operating days or 180 calendar days, whichever occurs first, after the date on which the EGU commences commercial operation.

(h) THE OWNER OR OPERATOR OF AN EGU FOR WHICH CONSTRUCTION OF A NEW STACK OR FLUE, INSTALLATION OF ADD-ON MERCURY EMISSION CONTROLS, A FLUE GAS DESULFURIZATION SYSTEM, AN SCR SYSTEM, OR A COMPACT HYBRID PARTICULATE COLLECTOR SYSTEM IS COMPLETED AFTER THE APPLICABLE DEADLINES OF SUBSECTIONS (f) AND (g), SHALL:

(1) COMPLY WITH THE MONITORING SYSTEM CERTIFICATION AND OTHER REQUIREMENTS OF SUBSECTION (e).

(2) RECORD, REPORT AND QUALITY ASSURE THE DATA FROM THE MONITORING SYSTEMS REQUIRED UNDER SUBSECTION (e)(1).

(3) COMPLY WITH THE REQUIREMENTS OF THIS SECTION WITHIN 90 EGU OPERATING DAYS OR 180 CALENDAR DAYS, WHICHEVER OCCURS FIRST, AFTER THE DATE ON WHICH EMISSIONS FIRST EXIT TO THE ATMOSPHERE THROUGH THE NEW STACK OR FLUE, ADD-ON MERCURY EMISSION

CONTROLS, FLUE GAS DESULFURIZATION SYSTEM, SCR SYSTEM OR COMPACT HYBRID PARTICULATE COLLECTOR SYSTEM.

[g](i) The owner or operator of an EGU that does not meet the applicable monitoring date in subsections **[(e) and](**f)**, (g) AND (h)** for any monitoring system required under subsection **[(d)](e)**(1) shall, for each monitoring system, determine, record and report maximum potential (or, as appropriate, minimum potential) values for:

(1) Mercury concentration.

(2) Stack gas flow rate.

(3) Stack gas moisture content.

(4) Other parameters required to determine mercury mass emissions in accordance with 40 CFR 75.80(g) (relating to general provisions).

[(h)](j) The owner or operator of an EGU that does not meet the applicable monitoring date in subsections **[(e) and]**(f)**, (g) AND (h)** for a monitoring system required under subsection **[(d)](e)**(1) shall, for each monitoring system, determine, record and report substitute data using the applicable missing data procedures in 40 CFR 75.80(f) **(RELATING TO GENERAL PROVISIONS)** instead of the maximum potential (or, as appropriate, minimum potential) values for a parameter if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation of the monitoring systems required under subsection **[(d)](e)**(1).

[(i)](k) [An owner or operator of an affected EGU may not use any alternative monitoring system, alternative reference method or any other alternative to the requirements of this section and §§ 123.211--123.215 unless the alternative is approved in writing by the Department.]NO OWNER OR OPERATOR OF AN EGU SHALL USE ANY ALTERNATIVE MONITORING SYSTEM, ALTERNATIVE REFERENCE METHOD, OR ANY OTHER ALTERNATIVE TO ANY REQUIREMENT OF 40 CFR PART 75 UNLESS THE ALTERNATIVE SYSTEM, METHOD OR REQUIREMENT IS APPROVED, IN WRITING, BY THE ADMINISTRATOR IN ACCORDANCE WITH 40 CFR PART 75, SUBPART E (RELATING TO ALTERNATIVE MONITORING SYSTEMS).

[(j)](l) An owner or operator of an affected EGU may not operate the EGU so as to discharge or allow to be discharged mercury emissions to the atmosphere without accounting for all of the emissions in accordance with the applicable provisions of this section, §§ 123.211--123.215 and Chapter 139, Subchapter C.

[(k)](m) An owner or operator of an affected EGU may not disrupt the continuous emission monitoring system or portion of it or other approved emission monitoring method to avoid monitoring and recording mercury mass emissions discharged into the atmosphere, except for

periods of recertification or periods when calibration, quality assurance testing or maintenance is performed in accordance with the applicable provisions of this section, §§ 123.211--123.215 and Chapter 139, Subchapter C.

[(l)]__**(n)**__ An owner or operator of an affected EGU may not retire or permanently discontinue use of the continuous emission monitoring system or component of it or other approved monitoring system required under this section and §§ 123.211-123.215, except under either of the following circumstances:

(1) The owner or operator is monitoring emissions from the affected EGU with another certified monitoring system that has been approved by the Department, in writing, for use at that EGU and that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system, in accordance with the applicable provisions of this section, §§ 123.211-123.215 and Chapter 139, Subchapter C.

(2) The owner or operator submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with § 123.211(a)(5)(i) (relating to initial certification and recertification procedures for emissions monitoring) and a complete certification application in accordance with § 123.211(a)(5)(ii).

__(3) THE OWNER OR OPERATOR OF AN EGU THAT IS USING A CONTINUOUS EMISSION MONITORING SYSTEM OR A SORBENT TRAP SYSTEM TO CONTINUOUSLY MONITOR MERCURY EMISSIONS PURSUANT TO § 123.210(c)(1) AND 40 CFR 75.81(a), MAY ELECT TO COMPLY WITH THE METHODOLOGY SPECIFIED IN § 123.210(c)(2) AND 40 CFR 75.81(b)-(f).__

§ 123.211. Initial certification and recertification procedures for emissions monitoring.

(a) By the applicable deadline specified in **__SUBSECTIONS (f), (g) AND (h) OF__** § 123.210**[(e) and (f)]** (relating to general monitoring and reporting requirements), the owner or operator of an affected EGU shall comply with the following initial certification and recertification procedures for a continuous monitoring system (continuous emission monitoring system) and an excepted monitoring system (sorbent trap monitoring system) as required under 40 CFR 75.15 (relating to special provisions for measuring **[Hg]**__**MERCURY**__ mass emissions using the excepted sorbent trap monitoring methodology) and Chapter 139**[, Subchapter C]** (relating to **__SAMPLING AND TESTING__** requirements for source monitoring for stationary sources):

(1) The owner or operator of the EGU shall ensure that each continuous monitoring system required by the applicable provisions of § 123.210 successfully completes all of the initial certification testing required under 40 CFR 75.80(d) (relating to general provisions) and Chapter 139**[Subchapter C]**.

(2) If the owner or operator of the EGU installs a monitoring system to meet the requirements of this section and §§ 123.210 and 123.212-123.215 in a location where no monitoring system

was previously installed, initial certification testing is required in accordance with the applicable provisions of 40 CFR 75.80(d) and Chapter 139**[, Subchapter C]**.

(3) If the owner or operator of the EGU makes a replacement, modification or change to a certified continuous emission monitoring system or excepted monitoring system (sorbent trap monitoring system) required by § 123.210 that may significantly affect the ability of the system to accurately measure or record mercury mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.81 (relating to monitoring of **[Hg]MERCURY** mass emissions and heat input at the unit level) or 40 CFR Part 75, Appendix B (relating to quality assurance and quality control procedures), the monitoring system for the EGU shall be recertified in accordance with 40 CFR 75.20(b) (relating to initial certification and recertification procedures) and Chapter 139**[, Subchapter C]**.

(4) If the owner or operator of the EGU makes a replacement, modification or change to the flue gas handling system or the operation of the EGU that may significantly change the stack gas flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system and each excepted monitoring system (sorbent trap monitoring system) whose accuracy is potentially affected by the change in accordance with 40 CFR 75.20(b) and Chapter 139**[, Subchapter C]**.

(5) This subsection applies to both the initial certification and recertification procedures of a continuous monitoring system required by § 123.210. For recertifications, replace the words "certification" and "initial certification" with the word "recertification," replace the word "certified" with the word "recertified," and follow the procedures required under 40 CFR 75.20(b)(5) or Chapter 139, Subchapter C as directed by the Department instead of the following procedures:

(i) The owner or operator shall submit to the Department written notice of the dates of certification testing.

(ii) The owner or operator shall submit to the Department a certification application for each monitoring system. A complete certification application shall include the information specified in Chapter 139, Subchapter C.

(iii) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall:

(A) Substitute, for each disapproved monitoring system, for each hour of EGU operation during the period of invalid data specified under 40 CFR 75.20(a)(4)(iii) or 75.21(e) (relating to quality assurance and quality control **[procedures]REQUIREMENTS)** and continuing until the applicable date and hour specified under 40 CFR 75.20(a)(5)(i), either the following values or, if approved by the Department in writing, an alternative emission value that is more representative of actual emissions that occurred during the period:

(I) For a disapproved mercury pollutant concentration monitor and disapproved flow monitor, respectively, the maximum potential concentration of mercury and the maximum potential flow

rate, as defined in Sections 2.1.4.1 and 2.1.7.1 of 40 CFR Part 75, Appendix A (relating to specifications and test procedures).

(II) For a disapproved moisture monitoring system and disapproved diluent gas monitoring system, respectively, the minimum potential moisture percentage and either the maximum potential CO_2 concentration or the minimum potential O_2 concentration (as applicable), as defined in Sections 2.1.3.1, 2.1.3.2 and 2.1.5 of 40 CFR Part 75, Appendix A.

(III) For a disapproved excepted monitoring system (sorbent trap monitoring system) under 40 CFR 75.15 and disapproved flow monitor, respectively, the maximum potential concentration of mercury and maximum potential flow rate, as defined in Sections 2.1.4.1 and 2.1.7.1 of 40 CFR Part 75, Appendix A.

(B) Submit a notification of certification retest dates and a new certification application in accordance with subparagraphs (i) and (ii).

(C) Repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, within the time period specified by the Department in the notice of disapproval.

(b) The owner or operator shall submit a certification application to the Department within 45 calendar days after completing all initial certification or recertification tests required under this section.

§ 123.212. Out-of-control periods for emissions monitors.

(a) If an emissions monitoring system fails to meet the quality-assurance and quality-control requirements or data-validation requirements of Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), data for the demonstration of compliance with § 123.207 (relating to annual emission limitations for coal-fired EGUs) shall be substituted using the applicable missing data procedures in the *Continuous Source Monitoring Manual* (DEP 274-0300-001). **IF A MASS EMISSIONS MONITORING SYSTEM FAILS TO MEET A QUALITY-ASSURANCE OR QUALITY-CONTROL REQUIREMENT, MASS EMISSIONS DATA SHALL BE SUBSTITUTED USING THE MISSING DATA PROCEDURES IN 40 CFR PART 75, SUBPART I (RELATING TO MERCURY MASS EMISSION PROVISIONS).**

(b) If both an audit of a monitoring system and a review of the initial certification or recertification application reveal that a monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under § 123.210 (relating to general monitoring and reporting requirements) or the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring), both at the time of the initial certification or recertification application submission and at the time of the audit, the Department will issue a notice of disapproval of the certification status of the monitoring system.

(1) For the purposes of this subsection, an audit must be either a field audit or an audit of information submitted to the Department.

(2) By issuing the notice of disapproval, the Department revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system will not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system.

(3) The owner or operator shall follow the applicable initial certification or recertification procedures in § 123.210 for each disapproved monitoring system.

§ 123.213. Monitoring of gross electrical output.

The owner or operator of an EGU complying with the requirements of **[either]**§ 123.206(d) (relating to compliance requirements for the emission standards for coal-fired EGUs) using electrical output (O_i) **[or § 123.206(e) using percent control efficiency]**shall monitor gross electrical output of the associated generators and report in watt-hours per hour.

§ 123.214. Coal sampling and analysis for input mercury levels.

(a) Except as provided in § 123.210(c) (relating to general monitoring and reporting requirements), the owner or operator of an EGU complying with this section**[and]**, §§ 123.201--123.213 and 123.215 shall:

(1) Perform daily sampling of the coal combusted in the EGU for mercury content, in pounds per trillion Btu, as follows:

(i) Collect coal samples from the feeders or other representative location in accordance with 40 CFR 63.7521(c) (relating to what fuel analyses and procedures must I use?).

(ii) Composite coal samples in accordance with the requirements of 40 CFR 63.7521(d).

(2) Analyze each of the composited coal samples for mercury content in accordance with the procedures of ASTM D 6414-01 or the current revision of this method, or other alternative as approved by the Department.

(b) The owner or operator of an EGU shall use the data collected from the sampling and analysis required under subsection (a) to determine the input mercury content of the coal combusted in the EGU in terms of pounds of mercury per trillion Btu.

(c) The Department may change the frequency of the sampling and analysis of the coal combusted in the EGU for the input mercury level based on historical data provided by the owner or operator of the EGU. The change in the frequency will be approved by the Department as a minor modification to the Title V operating permit.

(d) UPON THE WRITTEN REQUEST OF AN EGU OWNER OR OPERATOR, THE DEPARTMENT MAY APPROVE, IN WRITING, AN ALTERNATE COAL SAMPLING AND ANALYSIS PROGRAM SUBMITTED BY THE OWNER OR OPERATOR OF THE EGU TO DEMONSTRATE COMPLIANCE WITH THIS SECTION, §§ 123.201-123.213 AND 123.215.

§ 123.215. Recordkeeping and reporting.

(a) The owner or operator of an affected EGU shall comply with the recordkeeping and reporting requirements in this section and the applicable recordkeeping and reporting requirements of 40 CFR 75.84 (relating to recordkeeping and reporting) and Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources).

(b) The owner or operator of an affected EGU complying with this section and §§ 123.201-123.214 through the requirements of § 123.206(d) (relating to compliance requirements for the emission standards for coal-fired EGUs) by using electrical output to determine the allowable emissions of the EGU shall maintain the daily gross electrical output in GWhs in the file required under 40 CFR 75.84(a).

(c) The owner or operator of an affected EGU complying with this section and §§ 123.201-123.214 through the requirements of § 123.206(e) by using input mercury levels to determine the allowable emissions of the EGU shall maintain the daily mercury content of coal used in pounds of mercury per trillion Btu and the daily input mercury content in pounds in the file required under 40 CFR 75.84(a).

(d) Except as provided in § 123.210(c) (relating to general monitoring and reporting requirements), the owner or operator of an affected EGU shall maintain records as follows:

(1) Record the daily outlet mercury or output mercury data using the time period appropriate to the excepted **[methodology]**__**MONITORING SYSTEM**__ (sorbent trap monitoring system).

(2) If using an averaging methodology, record all other information collected on a daily basis necessary to calculate the average.

(3) Record for each **[12-month compliance demonstration period]**__**CONTROL PERIOD**__ the method through which each EGU demonstrated compliance.

(4) For an owner or operator who uses the averaging option of § 123.206(a)(2), calculate and record:

(i) The monthly actual mercury emissions within 30 days of the end of each month.

(ii) The 12-month rolling actual emissions each month.

(5) Maintain the following records onsite:

(i) The results of quarterly assessments conducted under Section 2.2 of 40 CFR Part 75, Appendix B (relating to quality assurance and quality control procedures).

(ii) Daily/weekly system integrity checks under Section 2.6 of 40 CFR Part 75, Appendix B.

(iii) Quality assurance records as required by the *Continuous Source Monitoring Manual* (DEP 274-0300-001).

(6) Make available to the Department upon request the records required under paragraph (5).

(e) The owner or operator shall submit quarterly reports to the Department in accordance with the *Continuous Source Monitoring Manual* (DEP 274-0300-001).

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APPENDIX D:

Pennsylvania Air Pollution Control Act and Applicable Permitting Regulations

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APPENDIX E:

Legal Authority to Implement the State Plan

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