

**Delaware' CO₂
Budget Trading
Program**

Regulation 1147

Workgroup Presentation

5-21-2008

Section 1- General Provisions

1. Purpose.
2. Applicability.
3. Definitions.
4. Measurements, abbreviations, and acronyms.
5. Standard Requirements.
6. Computation of time.
7. Severability.

Section 1.2 - Applicability

■ 1.2.1 Units

Any unit that, at any time on or after January 1, 2005, serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe shall be a CO2 budget unit, and any source that includes one or more such units shall be a CO2 budget source, subject to the requirements of this Part.

1.2.2 Limited exemption for units with electrical output to the electric grid restricted by permit conditions.

1.2.2.1 *Applicability.* Notwithstanding 1.2.1 of this regulation, a unit that has a permit containing a condition restricting the supply of the unit's annual electrical output to the electric grid to less than or equal to 10 percent of the annual gross generation of the unit, and which complies with the provisions in section 1.2.2.3 of this regulation , shall be exempt from the requirements of Regulation 1147, except for the provisions of 1.3 1.4 , 1.6 and, if applicable because of the allocation of CO2 allowances during the pre-exemption time period, sections 5, 6 and 7 of this regulation.

1.2.2.2 *Effective date.* The exemption under section 1.2.2.1 of this regulation shall become effective as of the January 1 that is on or after the date on which the restriction on the percentage of annual gross generation that may be supplied to the electric grid and the provisions in the permit required under section 1.2.2.1 of this regulation become final.

1.2.2.3 *Compliance.*

- 1.2.2.3.1 A unit exempt under section 1.2.2.1 of this regulation shall comply with the restriction on percentage of annual gross generation that may be supplied to the electric grid described in 1.2.2.1 of this regulation.
- 1.2.2.3.2 A unit exempt under section 1.2.2.1 of this regulation shall report to the Department the amount of annual gross generation and the amount of annual gross generation supplied to the electric grid during the year by the following February 1.
- 1.2.2.3.3 A unit exempt under section 1.2.2.1 of this regulation shall submit a climate action plan, approved by the Department, that addresses reduction of CO₂ emissions through reasonably available reduction practices.
- 1.2.2.3.4 A unit exempt under section 1.2.2.1 of this regulation shall provide annual updates on reductions achieved by the approved climate action plan.

1.2.2.3.5 For a period of 10 years from the date the records are created, the owners and operators of a unit exempt under 1.2.2.1 of this regulation shall retain, at the source that includes the unit, records demonstrating that the conditions of the permit under 1.2.2.1 of this regulation were met. The 10-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Department. The owners and operators bear the burden of proof that the unit met the restriction on the percentage of annual gross generation that may be supplied to the electric grid.

1.2.2.3.6 The owners and operators and, to the extent applicable, the CO₂ authorized account representative of a unit exempt under 1.2.2.1 of this regulation shall comply with all the requirements of Regulation 1147 concerning all time periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

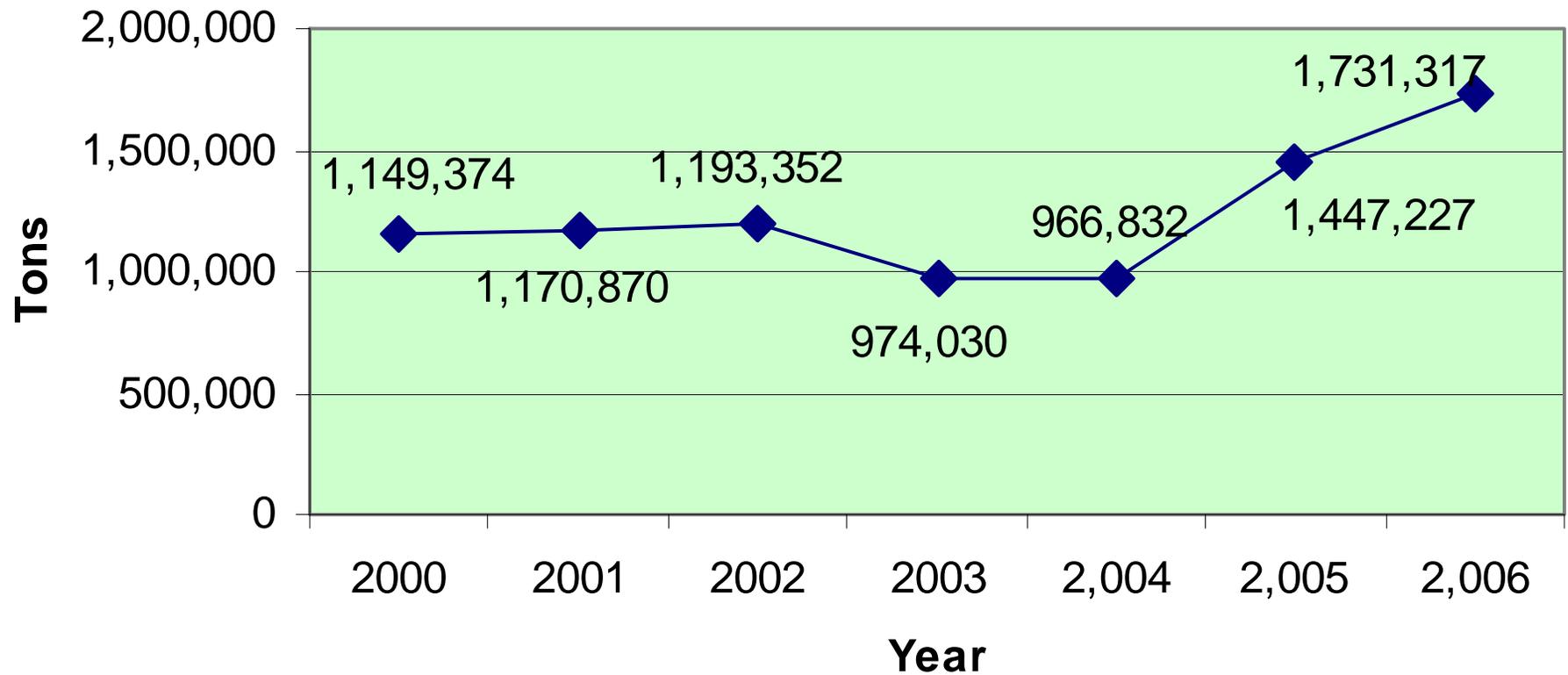
1.2.2.3.7 On the earlier of the following dates, a unit exempt under paragraph (b)(1) of this section shall lose its exemption:

1.2.2.3.7.1 the date on which the restriction on the percentage of annual gross generation that may be supplied to the electric grid described in 1.2.2.1 of this regulation is removed from the unit's permit or otherwise becomes no longer applicable in any year that commences on or after January 1, 2009; or

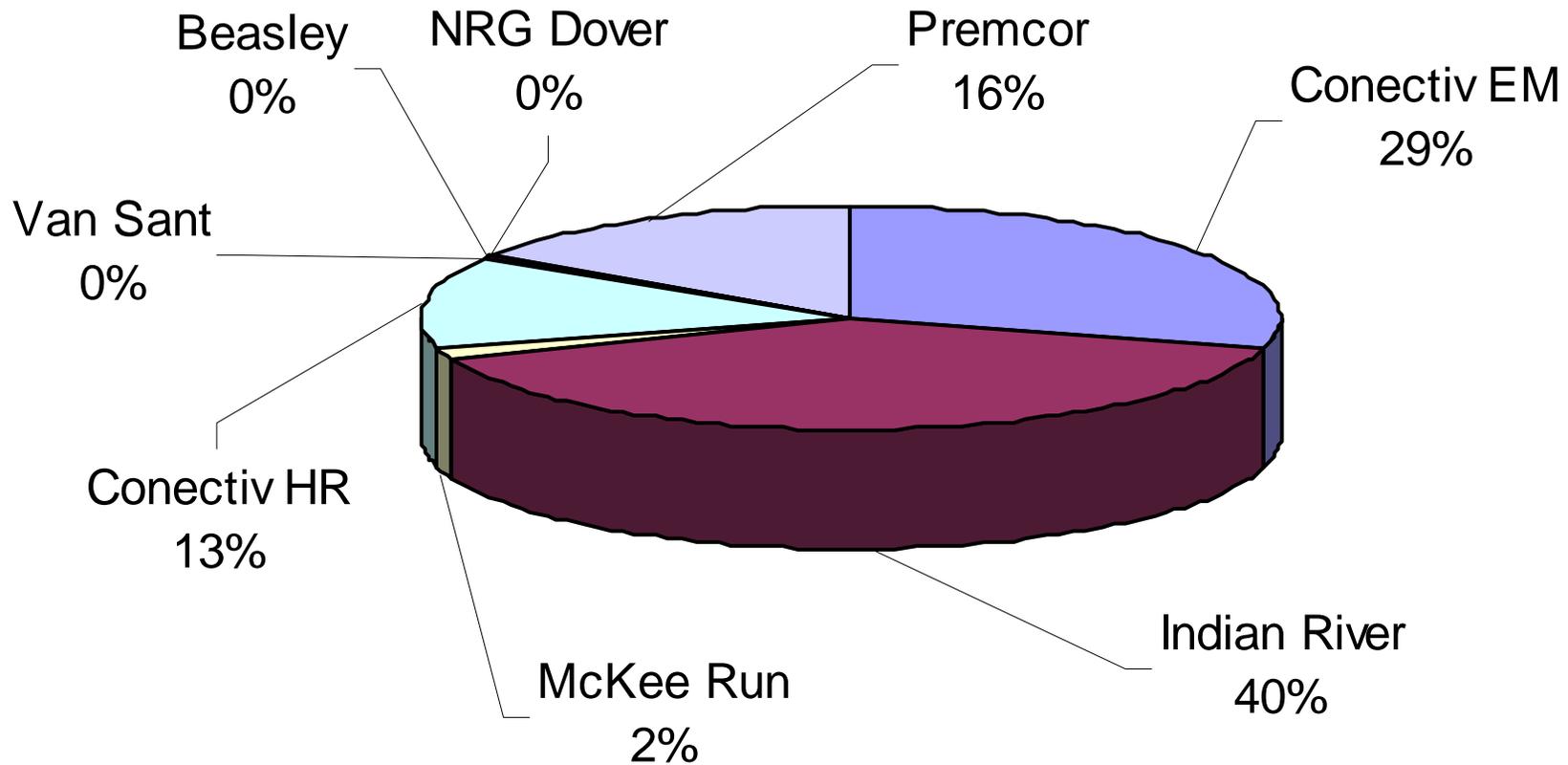
1.2.2.3.7.2 the first date on which the unit fails to comply, or on which the owners and operators fail to meet their burden of proving that the unit is complying, with the restriction on the percentage of annual gross generation that may be supplied to the electric grid described in 1.2.2.1 of this regulation during any year that commences on or after January 1, 2009.

1.2.2.3.8 A unit that loses its exemption in accordance with 1.2.2.3.5.1 of this regulation shall be subject to the requirements of Regulation 1147. For the purpose of applying permitting requirements under section 3 of this regulation, allocating allowances under section 5 of this regulation, and applying monitoring requirements under section 8 of this regulation, the unit shall be treated as commencing operation on the date the unit loses its exemption.

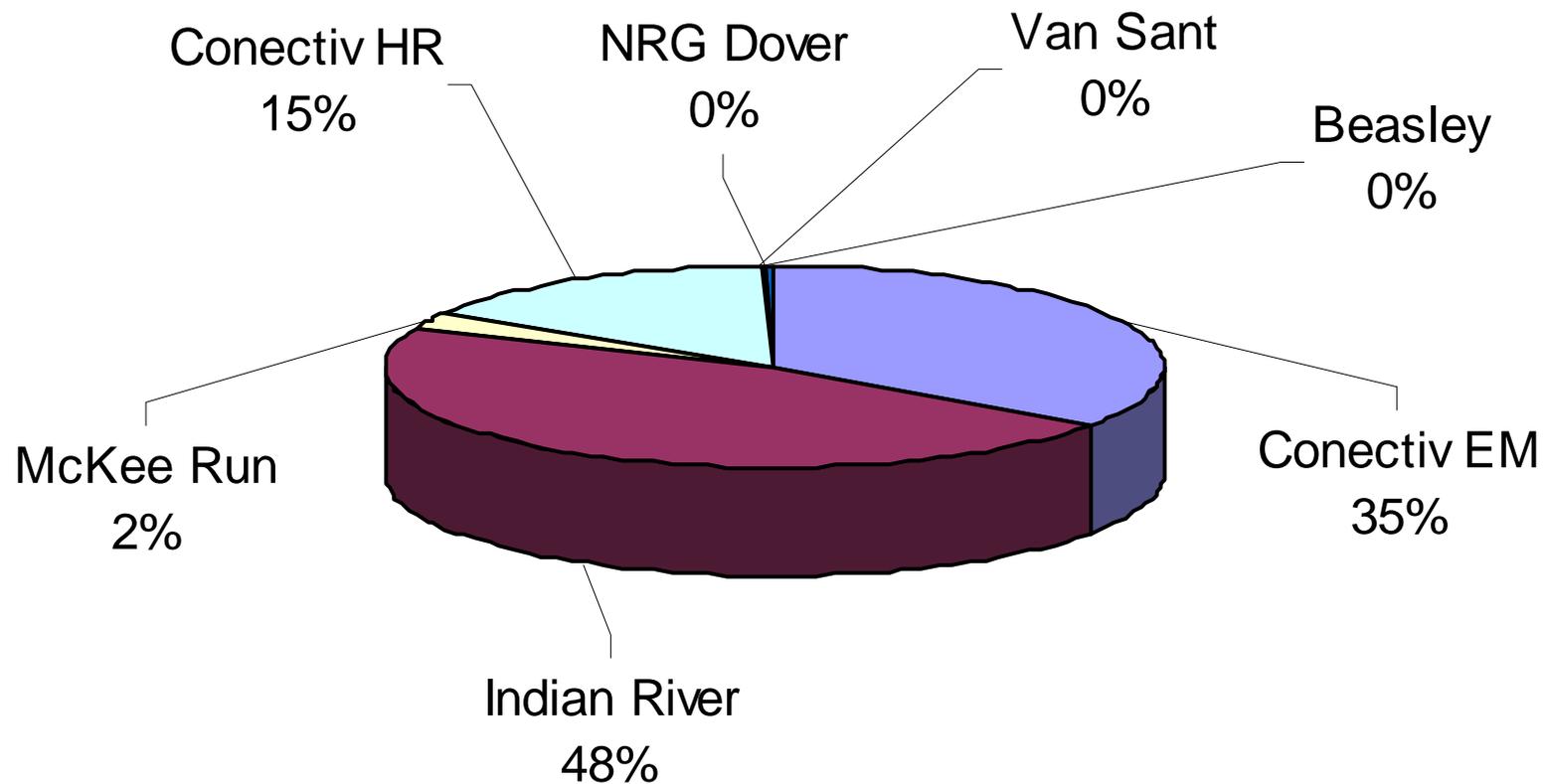
Premcor CO₂ Emissions - All Units



Delaware EGU - Percent of RGGI Budget



Delaware EGU - Percent RGGI Budget Without Refinery CO2 Emissions



(4) *Deduction of tons from STATE OF DELAWARE CO2 Budget Trading Program limited industrial exemption set-aside account.*

In the event that the DEPARTMENT grants an exemption under this subdivision to a CO2 source, with one or more units that on January 1, 2005, serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe, the DEPARTMENT shall retire for each subsequent allocation year the number of CO2 tons equal to the exempt source's average annual emissions over the most recent three calendar years for which data are available. The retired tons shall be taken from the set-aside established for such purpose under section 5.3 of this regulation.

Section 2 – Authorized Account Representative

1. Authorization and responsibilities.
2. Alternate authorized account representative.
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5. Objections concerning account representative.
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1. Permit requirements.
2. Submission of permit applications.
3. Information requirements for permit applications.

Section 4 – Compliance Certification

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2. Action on compliance certifications.

Section 5 – Allowance Allocations

1. Base Budget.
2. Timing requirements for allowance allocations.
3. Allowance allocations.

5.1 STATE OF DELAWARE CO₂ trading program base budget.

- (a) For the 2009 through 2014 allocation years, the STATE OF DELAWARE CO₂ Budget Trading Program annual base budget is 7,559,787 tons.
- (b) For the 2015 allocation year, the STATE OF DELAWARE CO₂ Budget Trading Program annual base budget is 7,370,792 tons.
- (c) For the 2016 allocation year, the STATE OF DELAWARE CO₂ Budget Trading Program annual base budget is 7,181,798 tons.
- (d) For the 2017 allocation year, the STATE OF DELAWARE CO₂ Budget Trading Program annual base budget is 6,992,803 tons.
- (e) For the 2018 allocation year and each succeeding allocation year, the STATE OF DELAWARE CO₂ Budget Trading Program annual base budget is 6,803,808 tons.

5.2 Timing requirements for CO2 allowance allocations.

- 5.2.1 By January 1, 2009, the DEPARTMENT will determine the CO2 allowance allocations under 5.3.1 and 5.3.2 for the 2009, 2010, 2011, and 2012 allocation years.
- 5.2.2 By January 1, 2010 and January 1 of each year thereafter, the DEPARTMENT will allocate CO2 allowances under 5.3.1 and 5.3.2 of this regulation for the allocation year that commences in the year that is three years after the applicable deadline for allocation under this subdivision.

5.3 CO2 allowance allocations.

5.3.1 *General allocations.*

[Place Holder – Language from the SCR 28 recommendation & subsequent legislation regarding Delaware’s auction/allocation].

Possible Basis using a 60/40 split:

tons/unit = (% Cap/unit x DE RGGI Cap) x (% available for allocation x DE RGGI Cap)

243,902 tons/unit = (8.07% x 7,559,787 tons) x (40% x 7,559,787 tons)

Analysis without Premcor RGGI Units				2009	2010	2011	2012	2013	2014
2000 - 2002 3-yr. ave.	% of cap per unit	% of cap per facility	Facility Name	40% Allocation (60% Auction)	32% Allocation (68% Auction)	24% Allocation (76% Auction)	16% Allocation (84% Auction)	8% Allocation (92% Auction)	100% Auction
2,333	0.04%	Conectiv	Conectiv Christiana	933	933	560	420	233	
2,255	0.04%	Conectiv	Conectiv Christiana	902	902	541	406	225	
609,756	9.60%		Conectiv Edge Moor	243,902	243,902	146,341	109,756	60,976	
999,580	15.74%		Conectiv Edge Moor	399,832	399,832	239,899	179,924	118,960	
684,513	10.78%	36.11%	Conectiv Edge Moor	273,805	273,805	164,283	123,212	81,464	
447,985	7.05%		NRG Indian River	179,194	179,194	107,516	80,637	53,315	
486,991	7.67%		NRG Indian River	194,796	194,796	116,878	87,658	57,957	
526,418	8.29%		NRG Indian River	210,567	210,567	126,340	94,755	62,649	
1,601,864	25.22%	48.22%	NRG Indian River	640,746	640,746	384,447	288,336	190,637	
154,711	2.44%	2.44%	City of Dover McKee Run	61,885	61,885	37,131	27,848	18,412	
178,564	2.81%		Conectiv Hay Road	71,426	71,426	42,855	32,142	21,251	
186,742	2.94%		Conectiv Hay Road	74,697	74,697	44,818	33,613	22,224	
193,248	3.04%		Conectiv Hay Road	77,299	77,299	46,379	34,785	22,998	
0	0.00%		Conectiv Hay Road	-	-	-	-	-	
149,791	2.36%		Conectiv Hay Road	59,916	59,916	35,950	26,962	17,827	
152,481	2.40%		Conectiv Hay Road	60,992	60,992	36,595	27,447	18,147	
156,921	2.47%		Conectiv Hay Road	62,768	62,768	37,661	28,246	18,675	
0	0.00%	16.02%	Conectiv Hay Road	-	-	-	-	-	
5,290	0.08%	0.08%	City of Dover Van Sant	2,116	2,116	1,270	952	630	
13,946	0.22%	0.22%	Warren F. Beasley Station	5,578	5,578	3,347	2,510	1,660	
10,468	0.16%		NRG Energy Center Dover	4,187	4,187	2,512	1,884	1,246	
9,258	0.15%	0.31%	NRG Energy Center Dover	3,703	3,703	2,222	1,666	1,102	
			Motiva Refinery	-	-	-	-	-	
			Motiva Refinery	-	-	-	-	-	
			Motiva Refinery	-	-	-	-	-	
			Motiva Refinery	-	-	-	-	-	
			Motiva Refinery	-	-	-	-	-	

Analysis with Premcor RGGI Units					2009	2010	2011	2012	2013
2000 - 2002 3-yr. ave.	% of budget per unit	Facility Name	Boiler ID	Gen. ID	40% Allocation	32% Allocation	24% Allocation	16% Allocation	8% Allocation
2,333	0.03%	Conectiv Christiana	3		933	747	560	420	233
2,255	0.03%	Conectiv Christiana	4		902	721	541	406	225
609,756	8.07%	Conectiv Edge Moor	3	3	243,902	195,122	146,341	109,756	60,976
999,580	13.22%	Conectiv Edge Moor	4	4	399,832	319,865	239,899	179,924	99,958
684,513	9.05%	Conectiv Edge Moor	5	5	273,805	219,044	164,283	123,212	68,451
447,985	5.93%	NRG Indian River	1	1	179,194	143,355	107,516	80,637	44,799
486,991	6.44%	NRG Indian River	2	2	194,796	155,837	116,878	87,658	48,699
526,418	6.96%	NRG Indian River	3	3	210,567	168,454	126,340	94,755	52,642
1,601,864	21.19%	NRG Indian River	4	4	640,746	512,597	384,447	288,336	160,186
154,711	2.05%	City of Dover McKee Run	3	3	61,885	49,508	37,131	27,848	15,471
178,564	2.36%	Conectiv Hay Road	1	1	71,426	57,141	42,855	32,142	17,856
186,742	2.47%	Conectiv Hay Road	2	2	74,697	59,757	44,818	33,614	18,674
193,248	2.56%	Conectiv Hay Road	3	3	77,299	61,839	46,379	34,785	19,325
0	0.00%	Conectiv Hay Road	4	4	-	-	-	-	-
149,791	1.98%	Conectiv Hay Road	5	5	59,916	47,933	35,950	26,962	14,979
152,481	2.02%	Conectiv Hay Road	6	6	60,992	48,794	36,595	27,447	15,248
156,921	2.08%	Conectiv Hay Road	7	7	62,768	50,215	37,661	28,246	15,692
0	0.00%	Conectiv Hay Road	8	8	-	-	-	-	-
5,290	0.07%	City of Dover Van Sant	11	1	2,116	1,693	1,270	952	529
13,946	0.18%	Warren F. Beasley Station	1	1	5,578	4,463	3,347	2,510	1,395
10,468	0.14%	NRG Energy Center Dover	2	2	4,187	3,350	2,512	1,884	1,047
9,258	0.12%	NRG Energy Center Dover	3	3	3,703	2,963	2,222	1,666	926
297,966	3.94%	Motiva Refinery	BLR1	G1	119,187	95,349	71,512	53,634	29,797
232,018	3.07%	Motiva Refinery	BLR2	G2	92,807	74,246	55,684	41,763	23,202
246,474	3.26%	Motiva Refinery	BLR3	G3	98,590	78,872	59,154	44,365	24,647
322,050	4.26%	Motiva Refinery	DCPP4	G4	128,820	103,056	77,292	57,969	32,205
69,955	0.93%	Motiva Refinery	MECCU1	CT1	27,982	22,386	16,789	12,592	6,996

ALSO IN SECTION 5.3

[The following subdivision is an optional set-a-side provision for states that adopt the optional section 1.2.2. It represents one way a state could implement such a set-a-side.]

5.3.5 *Limited industrial exemption set-a-side allocation.* The limited industrial exemption set-a-side allocation will consist of **1,207,544** tons from the STATE OF DELAWARE CO2 Budget Trading Program base budget set forth in section XX5.1, as applicable. For each control period, the DEPARTMENT will determine CO2 allowance allocations in accordance with the following procedures.

5.3.5.1 The DEPARTMENT will open and manage a general account for the limited exemption set-a-side for each control period.

5.3.5.2 As of the January 1 that is after the date that an exemption under subdivision 1.2.2 has been granted, for each allocation year the DEPARTMENT may retire CO2 allowances in the limited industrial exemption set-a-side General account as determined pursuant to paragraph 1.2.2.4.

5.3.5.3 After retirement of allowances pursuant to 5.3.5.2 of this regulation, the Department will determine whether any CO2 allowances remain in the limited industrial exemption set-a-side general account for the control period. The Department will transfer any such remaining CO2 allowances from the limited industrial exemption set-a-side allocation general account to the compliance account of each CO2 budget source that was allocated allowances pursuant to 5.3.5.1 of this regulation using the following methodology:

Existing CO2 budget unit's share of the CO2 allowances remaining in the limited industrial exemption set-a-side general account = Total CO2 allowances remaining in the limited industrial exemption set-a-side general account x (The individual CO2 budget unit's CO2 allowance allocation determined in accordance with 5.3.5.1 of this regulation ÷ The STATE OF DELAWARE CO2 Budget Trading Program annual base budget, as applicable)

This section (5.3.5.3) could be deleted from the regulation which results in permanently removing the 1.2 million tons from the budget. Should an industrial generator choose to participate in the CO2 Budget Trading Program in the future the 1.2 million will not be made available for auction.

Where:

“Total CO2 allowances remaining in the limited industrial exemption set-a-side allocation general account” is the total number of CO2 allowances remaining in the limited industrial exemption set-a-side allocation general account (established under paragraph 5.3.5.1 of this regulation) for the particular control period to which the limited industrial exemption set-a-side allocation applies; and

“The individual CO2 budget unit’s CO2 allowance allocation” is the number of CO2 allowances allocated under 5.3.5.1 of this regulation to the individual CO2 budget unit for the control period to which the limited industrial exemption set-a-side allocation applies. The Department will only transfer CO2 allowances in whole ton increments. The Department will continue to hold any fractional shares of CO2 allowances in the name of the CO2 budget unit as banked CO2 allowances until they may be combined with other fractional shares of CO2 allowances in future years and then transferred as whole ton increments.

Section 6 – Allowance Tracking System

1. Allowance Tracking System accounts.
2. Establishment of accounts.
3. Allowance Tracking System responsibilities of authorized account representative.
4. Recordation of allowance allocations.
5. Compliance.
6. Banking.
7. Account error.
8. Closing of general accounts.

Section 7 – Allowance Transfers

1. Submission of allowance transfers.
2. Recordation.
3. Notification.

Section 8 – Monitoring and Reporting

1. General requirements.
2. Initial certification and recertification procedures.
3. Out-of-control periods.
4. Notifications.
5. Recordkeeping and reporting.
6. Petitions.
7. Budget units that co-fire eligible biomass.
8. Additional requirements to provide output data.

8.1.1 *Requirements for installation, certification, and data accounting.* The owner or operator of each CO₂ budget unit must meet the following requirements.

8.1.1.1 Install all monitoring systems necessary to monitor CO₂ mass emissions in accordance with 40 CFR Part 75, **except for equation G-1. Equation G-1 in Appendix G shall not be used to determine CO₂ emissions under this Part.** This may require systems to monitor CO₂ concentration, stack gas flow rate, O₂ concentration, heat input, and fuel flow rate.

8.1.1.2 Successfully complete all certification tests required under section 8.2 and meet all other requirements of this Section and 40 CFR part 75 applicable to the monitoring systems under paragraph (a)(1) of this section.

8.1.1.3 Record, report and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

Recordkeeping and reporting.

- See handout on USEPA's Summary of Part 75 Administrative Process Table 1 – Initial Certification
 - Certification Test Notification
 - Initial Monitoring Plan Submittal
 - Certification Application
 - Notice of Approval/Disapproval
 - Notice of Incomplete Application

Recordkeeping and reporting.

- See handout on USEPA's Summary of Part 75 Administrative Process Table 3 – Monitoring Plans
 - Monitoring Plan Submittal
 - Electronic Copy
 - Hardcopy
 - Updates

Section 9 - Reserved

Section 10 – Offset Projects

1. Purpose.
2. Definitions.
3. General Requirements.
4. Application Process.
5. Emission offset project standards.
6. Accreditation of independent verifiers.
7. Award of emissions offset allowances.

Section 11 – Delaware Auction Language

- Delaware is committed to participation in a regional auction.
- First RGGI Auction – Sep 10, 2008
- Delaware anticipates participating in the 1st qtr auction of 2009.
- World Energy has been selected as the contractor to “run” the auction.
- PQA has been selected as the contractor to develop the emissions allowance tracking system.

Design Elements for Regional Allowance Auctions under the Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative, or RGGI, is an agreement among the Governors of ten Northeastern and Mid-Atlantic states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New Hampshire, New York, Rhode Island and Vermont) to reduce greenhouse gas emissions from power plants. The RGGI states (participating states) have committed to cap and then reduce the amount of carbon dioxide (CO₂) that certain power plants are allowed to emit, limiting the region's total contribution to atmospheric greenhouse gas levels. The participating states have agreed to implement RGGI through a regional cap-and-trade program whereby the participating states anticipate auctioning nearly the entire annual regional emissions budget, which initially is approximately 188 million short tons of CO₂. Each ton of CO₂ will constitute an "allowance."

The participating states have agreed to participate in uniform regional auctions for the allowances that each state will be offering for sale. The initial auction is currently planned for September 10, 2008 with a second auction scheduled for December 17, 2008. In conducting regional auctions, the participating states have come to agreement on the following design elements:

Auction Structure and Format: Allowances will be made available for sale on a quarterly basis in lot sizes of 1,000 allowances. The initial auction will offer allowances through a single-round, uniform-price, sealed-bid auction format. While the goal is to maintain a consistent auction format, flexibility will be retained to transition to a multiple-round, ascending-price auction format if necessary to address evolving market conditions.

Allowance Sale Schedule: Allowances will be identified with a vintage corresponding to the allowance's respective allocation year.¹ All allowances made available for auction by states, for a respective compliance period, will be offered for sale prior to the end of that compliance period. Future allowance vintages will be made available for sale in a quantity up to 50-percent of their respective annual allocation, and such offerings may be for allowances extending up to four allocation years into the future.

Participation: All market participants will be eligible to participate in the initial auction, provided they meet applicable qualification requirements, which will include provision of financial security. Flexibility will be retained to limit participant eligibility in subsequent auctions. Auction rules will establish a total limit for the number of allowances that entities (e.g., an organization and its affiliates and/or agents) may purchase in a single auction, equivalent to 25-percent of the allowances offered for sale in any single auction.

Reserve Price: A reserve price of \$1.86 per allowance will apply to the first auction.² After the first auction, a reserve price will be in effect that is the higher of \$1.86 per allowance, as adjusted annually from 2009 onward based on the Consumer Price Index, or 80-percent of the current market price³ of the particular RGGI allowance vintage being auctioned. A reserve price based on the current market price will only be used if representatives from participating states determine that there are sufficient, reliable market data available to establish a valid current market price. The reserve price will be made known to prospective auction participants prior to each auction.

Unsold Allowances: Any unsold allowances will be made available for sale in future auctions in which a reserve price based on the current market price is being used. In 2012, as part of the first program review envisioned in the December 2005 RGGI Memorandum of Understanding, a decision will be made by the participating states as to whether to retire any unsold allowances from the first compliance period, or to offer these allowances for sale in subsequent auctions during the second compliance period.

Notice of Auctions: A public notice of auction will be provided at least 45 days prior to each auction. Such notification will be posted on a publicly available RGGI auction web site and will be made available by states in accordance with any applicable state rules, regulations and/or administrative procedures.

Each auction notice will provide at a minimum: the date, time, and location of the auction, the categories of eligible bidders, any requirements established for qualified participants, the quantity of allowances to be auctioned, and all other relevant information and procedures necessary for prospective bidders to participate in such auction.

Monitoring: The participating states will retain a professional independent market monitor to monitor auctions and subsequent market activity. The independent monitor will observe the conduct of the auction qualification process and the conduct of the auction itself. Based on such monitoring, the independent monitor will provide the participating states with a timely report of whether the auction was conducted in accordance with the regulations established by participating states and the noticed procedures and requirements that apply to qualified auction participants.

Auction Results: Upon approval by the participating states of the auction outcome and upon payment in full by successful bidders to the respective participating states, each state shall transfer the corresponding CO₂ allowances to each successful bidder's applicable account in the CO₂ allowance tracking system. States will retain full regulatory authority for transferring allowances from their respective state accounts to winning bidders, contingent on approval of auction results and financial settlement.

Within a reasonable period of time following each auction, the participating states shall publish on the RGGI auction website the auction clearing price and the total amount of allowances sold in such auction.

Notice: This is a deliberative document and does not represent a final determination on the part of any participating state, state agency or authority, whether or not such participating state, state agency or authority is currently engaged in legislative or rulemaking processes. In particular, any participating state, state agency or authority currently engaged in the legislative or rule-making processes and currently in the required public comment period, will, according to the applicable laws and rules, consider all public comments prior to final determination of any legislative or rulemaking action.

These design principles are available from the RGGI website -
http://www.rggi.org/docs/20080317auction_design.pdf