

PROPOSED RULEMAKING
Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart C. PROTECTION OF NATURAL RESOURCES
ARTICLE III. AIR RESOURCES

CHAPTER 145. INTERSTATE POLLUTION TRANSPORT REDUCTION

Subchapter E. CO₂ BUDGET TRADING PROGRAM

GENERAL PROVISIONS

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(*Editor's Note:* Sections 145.301—145.409 are proposed to be added and are printed in regular type to enhance readability.)

§ 145.301. Purpose.

This subchapter establishes the Pennsylvania component of the CO₂ Budget Trading Program, which is designed to reduce anthropogenic emissions of CO₂, a greenhouse gas, from CO₂ budget sources in a manner that is protective of public health, welfare and the environment.

§ 145.302. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:

Account number—The identification number given by the Department or its agent to each CO₂ Allowance Tracking System (COATS) account.

Acid rain emissions limitation—A limitation on emissions of sulfur dioxide or NO_x under the Acid Rain Program under Title IV of the Clean Air Act (42 U.S.C.A. §§ 7651—7651o).

Acid Rain Program—A multi-state sulfur dioxide and NO_x air pollution control and emission reduction program established by the Administrator under Title IV of the Clean Air Act and 40 CFR Parts 72—78.

Adjustment for banked allowances—An adjustment that may be applied to the Pennsylvania CO₂ Budget Trading Program base budget for an allocation year to address CO₂ allowances held in general and compliance accounts, including compliance accounts established under the CO₂ Budget Trading Program, but not including accounts opened by participating states, that are in addition to the aggregate quantity of emissions from all CO₂ budget sources in all of the participating states at the end of the control period immediately preceding the allocation year and as reflected in the CO₂ Allowance Tracking System on March 15 of the year following the control period.

Administrator—The Administrator of the EPA or the Administrator’s authorized representative.

Agent—A qualified entity to whom the Department may delegate the implementation and administrative support functions for a CO₂ allowance auction conducted under this subchapter.

Air pollution reduction account—The general account established by the Department from which CO₂ allowances will be sold or distributed in order to provide funds for use in the elimination of air pollution in accordance with the act and Chapter 143 (relating to disbursements from the clean air fund) and the administration of the Pennsylvania component of the CO₂ Budget Trading Program.

Allocate or allocation—The determination by the Department of the number of CO₂ allowances to be recorded in the compliance account of a CO₂ budget source, the waste coal set-aside account, the strategic use set-aside account, the cogeneration set-aside account, the air pollution reduction account, or the general account of the sponsor of an approved CO₂ emissions offset project.

Allocation year—A calendar year for which the Department allocates or awards CO₂ allowances under § 145.341 and § 145.391—145.397 (relating to Pennsylvania CO₂ trading program base budget; and CO₂ emissions offset projects). The allocation year of each CO₂ allowance is reflected in the unique identification number given to the allowance under § 145.354(c) (relating to recordation of CO₂ allowance allocations).

Allowance auction or auction—A bidding process in which the Department or its agent offers CO₂ allowances for sale.

Ascending price, multiple-round auction—A bidding process that starts with an opening price that increases each round by predetermined increments. In each round, a bidder offers the quantity of CO₂ allowances the bidder is willing to purchase at the posted price. Rounds continue as long as demand exceeds the quantity of CO₂ allowances offered for sale. At the completion of the final round, CO₂ allowances will be allocated as follows:

(i) At the final price to remaining bidders, unsold CO₂ allowances to be withheld for a future auction.

(ii) At the penultimate price, first to final round bidders and then to bidders in the penultimate round in chronological order of bid during the penultimate round for all remaining CO₂ allowances.

(iii) According to an alternative mechanism designed to effectuate the objectives of this subchapter.

Attribute—A characteristic associated with electricity generated using a particular renewable fuel, such as its generation date, facility geographic location, unit vintage, emissions output, fuel, state program eligibility, or other characteristic that can be identified, accounted for and tracked.

Attribute credit—A unit that represents the attributes related to one megawatt-hour of electricity generation.

Automated Data Acquisition and Handling System—The component of the continuous emissions monitoring system, or other emissions monitoring system approved for use under § 145.371 (relating to general monitoring requirements), designed to interpret and convert individual output signals from pollutant concentration monitors, flow monitors, diluent gas monitors and other component parts of the monitoring system to produce a continuous record of the measured parameters in the measurement units required by § 145.371.

Award—The determination by the Department of the number of CO₂ offset allowances to be recorded in the general account of a project sponsor under § 145.397 (relating to award and recordation of CO₂ offset allowances). Award is a type of allocation.

Beneficial interest—A profit, benefit or advantage resulting from the ownership of a CO₂ allowance.

Bidder—A qualified participant who has met the requirements of § 145.405 and § 145.406 (relating to auction participant requirements; and auction participant qualification) and has been determined by the Department to be eligible to participate in a specified CO₂ allowance auction under § 145.406.

Boiler—An enclosed fossil or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam or other medium.

CEMS—continuous emissions monitoring system—The equipment required under § 145.371 to sample, analyze, measure and provide, by means of readings recorded at least once every 15 minutes, using an automated data acquisition and handling system, a permanent record of stack gas volumetric flow rate, stack gas moisture content, and oxygen or carbon dioxide concentration, as applicable, in a manner consistent with 40 CFR Part 75 (relating to continuous emission monitoring) and § 145.371. The following systems are types of continuous emissions monitoring systems required under § 145.371.

(i) A flow monitoring system, consisting of a stack flow rate monitor and an automated data acquisition and handling system and providing a permanent, continuous record of stack gas volumetric flow rate, in standard cubic feet per hour (scfh).

(ii) A nitrogen oxides emissions rate (or NO_x-diluent) monitoring system, consisting of a NO_x pollutant concentration monitor, a diluent gas (CO₂ or O₂) monitor, and an automated data acquisition and handling system and providing a permanent, continuous record of NO_x concentration, in parts per million (ppm), diluent gas concentration, in percent CO₂ or O₂; and NO_x emissions rate, in pounds per million British thermal units (lb/MMBtu).

(iii) A moisture monitoring system, as defined in 40 CFR 75.11(b)(2) (relating to specific provisions for monitoring SO₂ emissions) and providing a permanent, continuous record of the stack gas moisture content, in percent H₂O.

(iv) A carbon dioxide monitoring system, consisting of a CO₂ pollutant concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO₂ concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO₂ emissions, in percent CO₂.

(v) An oxygen monitoring system, consisting of an O₂ concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of O₂, in percent O₂.

COATS—CO₂ allowance tracking system—

(i) A system by which the Department or its agent records allocations, deductions and transfers of CO₂ allowances under the CO₂ Budget Trading Program.

(ii) The system may also be used to track all of the following:

(A) CO₂ emissions offset projects.

(B) CO₂ allowance prices.

(C) Emissions from affected sources.

*COATS account—*An account established by the Department or its agent for purposes of recording the allocation, holding, transferring or deducting of CO₂ allowances. The tracking system may also be used to track CO₂ offset allowances, CO₂ allowance prices and emissions from affected sources.

*CO₂ allowance—*A limited authorization by the Department or a participating state under the CO₂ Budget Trading Program to emit up to 1 ton of CO₂, subject to all applicable limitations contained in this subchapter.

CO₂ allowance auction or auction—The sale of CO₂ allowances through competitive bidding as administered in accordance with §§ 145.401—145.409 (relating to CO₂ allowance auctions).

CO₂ allowance deduction or deduct CO₂ allowances—The permanent withdrawal of CO₂ allowances by the Department or its agent from a COATS compliance account to account for one of the following:

(i) The number of tons of CO₂ emitted from a CO₂ budget source for a control period or an interim control period, determined in accordance with § 145.371.

(ii) The forfeit or retirement of CO₂ allowances as provided by this subchapter.

CO₂ allowances held or hold CO₂ allowances—The CO₂ allowances recorded by the Department or its agent or submitted to the Department or its agent for recordation, in accordance with § 145.351 and § 145.361 (relating to CO₂ Allowance Tracking System (COATS) accounts; and submission of CO₂ allowance transfers), in a COATS account.

CO₂ allowance price—The price for CO₂ allowances in the CO₂ Budget Trading Program for a particular time period as determined by the Department, calculated based on a volume-weighted average of transaction prices reported to the Department, and taking into account prices as reported publicly through reputable sources.

CO₂ allowance transfer deadline—Midnight of the March 1 occurring after the end of the relevant control period and each relevant interim control period or, if that March 1 is not a business day, midnight of the first business day thereafter and is the deadline by which CO₂ allowances must be submitted for recordation in a CO₂ budget source's compliance account in order for the source to meet the CO₂ requirements of § 145.306(c) (relating to standard requirements) for the control period and each interim control period immediately preceding the deadline.

CO₂ authorized account representative—

(i) For a CO₂ budget source and each CO₂ budget unit at the source, the person who is authorized by the owner or operator of the source and all CO₂ budget units at the source, in accordance with § 145.311 (relating to authorization and responsibilities of the CO₂ authorized account representative), to represent and legally bind each owner and operator in matters pertaining to the CO₂ Budget Trading Program.

(ii) For a general account, the person who is authorized under § 145.351 to transfer or otherwise dispose of CO₂ allowances held in the general account.

CO₂ authorized alternate account representative—

(i) For a CO₂ budget source and each CO₂ budget unit at the source, the alternate person who is authorized by the owner or operator of the source and all CO₂ budget units at the source, in

accordance with § 145.311, to represent and legally bind each owner and operator in matters pertaining to the CO₂ Budget Trading Program.

(ii) For a general account, the alternate person who is authorized under § 145.351 to transfer or otherwise dispose of CO₂ allowances held in the general account.

CO₂ budget emissions limitation—For a CO₂ budget source, the tonnage equivalent, in CO₂ emissions in a control period or an interim control period, of the CO₂ allowances available for compliance deduction for the source for a control period or an interim control period.

CO₂ budget permit condition—The portion of the permit issued by the Department under Chapter 127 (relating to construction, modification, reactivation and operation of sources) to the owner or operator of a CO₂ budget source which specifies the CO₂ Budget Trading Program requirements applicable to the CO₂ budget source.

CO₂ budget source—A facility that includes one or more CO₂ budget units.

CO₂ Budget Trading Program—A multi-state CO₂ air pollution control and emissions reduction program established under this subchapter and corresponding regulations in other participating states as a means of reducing emissions of CO₂ from CO₂ budget sources.

CO₂ budget unit—A unit that is subject to the CO₂ Budget Trading Program requirements under § 145.304 (relating to applicability).

CO₂ CCR allowance or CO₂ cost containment reserve allowance—A CO₂ allowance that is offered for sale at an auction by the Department for the purpose of containing the cost of CO₂ allowances.

CO₂ CCR trigger price or CO₂ cost containment reserve trigger price—The minimum price at which CO₂ CCR allowances are offered for sale by the Department or its agent at an auction.

CO₂ ECR allowance or CO₂ emissions containment reserve allowance—A CO₂ allowance that is withheld from sale at an auction by the Department for the purpose of additional emission reduction in the event of lower than anticipated emission reduction costs.

CO₂ ECR trigger price or CO₂ emissions containment reserve trigger price—The price below which CO₂ allowances will be withheld from sale by the Department or its agent at an auction.

CO₂e—CO₂ equivalent—The quantity of a given greenhouse gas multiplied by its global warming potential.

CO₂ offset allowance—A CO₂ allowance that is awarded to the sponsor of a CO₂ emissions offset project under § 145.397 and is subject to the relevant compliance deduction limitations of § 145.355(a)(3) (relating to compliance).

Cogeneration set-aside account—A general account established by the Department for the allocation of CO₂ allowances for retirement in an amount equal to the adjustment of the compliance obligation of a cogeneration unit under § 145.342(k) (relating to CO₂ allowance allocations).

Cogeneration unit—An electric-generating unit that simultaneously produces both electric and useful thermal energy from the same primary energy facility.

Combined cycle system—A system comprised of one or more combustion turbine, heat recovery steam generator and steam turbine configured to improve overall efficiency of electricity generation or steam production.

Combustion turbine—An enclosed fossil or other fuel-fired device that is comprised of a compressor, if applicable, a combustor and a turbine, and in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine.

Commence commercial operation—With regard to a unit that serves a generator, to have begun to produce steam, gas or other heated medium used to generate electricity for sale or use, including test generation.

(i) For a unit that is a CO₂ budget unit under § 145.304 on the date the unit commences commercial operation, the date shall remain the unit's date of commencement of commercial operation even if the unit is subsequently modified, reconstructed or repowered.

(ii) For a unit that is not a CO₂ budget unit under § 145.304 on the date the unit commences commercial operation, the date the unit becomes a CO₂ budget unit under § 145.304 is the unit's date of commencement of commercial operation.

Commence operation—To have begun any mechanical, chemical or electronic process, including, with regard to a unit, start-up of the unit's combustion chamber.

(i) For a unit that is a CO₂ budget unit under § 145.304 on the date of commencement of operation, the date shall remain the unit's date of commencement of operation even if the unit is subsequently modified, reconstructed or repowered.

(ii) For a unit that is not a CO₂ budget unit under § 145.304 on the date of commencement of operation, the date the unit becomes a CO₂ budget unit under § 145.304 shall be the unit's date of commencement of operation.

Compliance account—A COATS account, established by the Department or its agent for a CO₂ budget source under § 145.351, that holds CO₂ allowances available for use by the owner or operator of the source for a control period and each interim control period for the purpose of meeting the CO₂ requirements of § 145.306(c).

Control period—A 3-calendar-year period. The fifth control period, which is the first control period in which Pennsylvania will participate in the CO₂ Budget Trading Program, is from January 1, 2021, through December 31, 2023, inclusive. Each subsequent sequential 3-calendar-year period is a separate control period.

CSAPR—Cross State Air Pollution Rule.

CSAPR NO_x Annual Trading Program—A multi-state NO_x air pollution control and emission reduction program established in accordance with 40 CFR Part 97, subpart AAAAA and 40 CFR 52.38(a) (relating to CSAPR NO_x annual trading program; and what are the requirements of the Federal Implementation Plans (FIPs) for the Cross-State Air Pollution Rule (CSAPR) relating to emissions of nitrogen oxides?), including a program that is revised in a SIP revision approved by the Administrator under 40 CFR 52.38(a)(3) or (4) or that is established in a SIP revision approved by the Administrator under 40 CFR 52.38(a)(5), as a means of mitigating interstate transport of fine particulates and NO_x.

CSAPR NO_x Ozone Season Trading Program—A multi-state NO_x air pollution control and emission reduction program established in accordance with 40 CFR Part 97, subpart BBBBB (relating to CSAPR NO_x ozone season group 1 trading program) and 40 CFR 52.38(b), including a program that is revised in a SIP revision approved by the Administrator under 40 CFR 52.38(b)(3) or (4) or that is established in a SIP revision approved by the Administrator under 40 CFR 52.38(b)(5), as a means of mitigating interstate transport of ozone and NO_x.

CSAPR SO₂ Group 1 Trading Program—A multi-state SO₂ air pollution control and emission reduction program established in accordance with 40 CFR Part 97, subpart CCCCC and 40 CFR 52.39(a), (b), (d)—(f), (j), and (k) (relating to CSAPR SO₂ Group 1 Trading Program; and what are the requirements of the Federal Implementation Plans (FIPs) for the Cross-State Air Pollution Rule (CSAPR) relating to emissions of sulfur dioxide?), including a program that is revised in a SIP revision approved by the Administrator under 40 CFR 52.39(d) or (e) or that is established in a SIP revision approved by the Administrator under 40 CFR 52.39(f), as a means of mitigating interstate transport of fine particulates and SO₂.

CSAPR SO₂ Group 2 Trading Program—A multi-state SO₂ air pollution control and emission reduction program established in accordance with 40 CFR Part 97, subpart DDDDD (relating to CSAPR SO₂ group 2 trading program) and 40 CFR 52.39(a), (c), and (g)—(k), including a program that is revised in a SIP revision approved by the Administrator under 40 CFR 52.39(g) or (h) or that is established in a SIP revision approved by the Administrator under 40 CFR 52.39(i), as a means of mitigating interstate transport of fine particulates and SO₂.

Decay rate—The amount of a gas removed from the atmosphere over a number of years.

Descending price, multiple-round auction—An auction that starts with a high provisional price, which falls in each round by predetermined increments. In each round, a bidder can lock in the purchase of some number of CO₂ allowances at the current provisional price and wait for the

price to fall. Rounds continue so long as the number of CO₂ allowances locked-in is less than the quantity of CO₂ allowances offered for sale.

Discriminatory price, sealed-bid auction—A single-round, sealed-bid auction in which a bidder may submit multiple bids for CO₂ allowances at different prices. The price paid by winning bidders with the highest bids for CO₂ allowances is their own bid price.

Electronic submission agent—The person who is delegated authority by a CO₂ authorized account representative or a CO₂ authorized alternate account representative to make an electronic submission to the Department or its agent under this subchapter.

Eligible biomass—

(i) Sustainably harvested woody and herbaceous fuel sources that are available on a renewable or recurring basis, including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, unadulterated wood and wood residues, animal wastes, other clean organic wastes not mixed with other solid wastes, biogas and other neat liquid biofuels derived from these fuel sources.

(ii) This term does not include old growth timber.

Excess emissions—The amount of CO₂ emissions, in tons, emitted by a CO₂ budget source during a control period that exceeds the CO₂ budget emissions limitation for the source.

Excess interim emissions—The amount of CO₂ emissions, in tons, emitted by a CO₂ budget source during an interim control period multiplied by 0.50 that exceeds the CO₂ budget emissions limitation for the source.

General account—A COATS account established by the Department under § 145.351 that is not a compliance account.

GWP—Global Warming Potential—

(i) A measure of the radiative efficiency or heat-absorbing ability of a particular gas relative to that of CO₂ after taking into account the decay rate of each gas relative to that of CO₂.

(ii) GWPs used in this subchapter are consistent with the values used in the Intergovernmental Panel on Climate Change, Fifth Assessment Report.

Gross generation—The electrical output in MWe at the terminals of the generator.

Interim control period—A calendar-year period, during each of the first and second calendar years of each control period. The first interim control period for the fifth control period starts on January 1, 2021, and ends on December 31, 2021, inclusive. The second interim control period for the fifth control period starts on January 1, 2022, and ends on December 31, 2022, inclusive.

Each successive 3-year control period will have 2 interim control periods, comprised of each of the first 2 calendar years of that control period.

Legacy emissions—The amount of CO₂ emissions in tons equal to the highest year of CO₂ emissions from a waste coal-fired unit during the 5-year period beginning January 1, 2015 through December 31, 2019, as determined by the Department.

Life-of-the-unit contractual arrangement—A unit participation power sales agreement under which a customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity or associated energy from any specified unit under a contract for:

(i) The life of the unit.

(ii) A cumulative term of no less than 30 years, including a contract that permits an election for early termination.

(iii) A period equal to or greater than 25 years or 70% of the economic useful life of the unit determined as of the time the unit is built, with option rights to purchase or release some portion of the nameplate capacity and associated energy generated by the unit at the end of the period.

Maximum potential hourly heat input—An hourly heat input used for reporting purposes when a unit lacks certified monitors to report heat input. If the unit intends to use 40 CFR Part 75, Appendix D (relating to optional SO₂ emissions data protocol for gas-fired and oil-fired units) to report heat input, this value shall be calculated, in accordance with 40 CFR Part 75, using the maximum fuel flow rate and the maximum gross calorific value. If the unit intends to use a flow monitor and a diluent gas monitor, this value shall be reported, in accordance with 40 CFR Part 75, using the maximum potential flow rate and either the maximum CO₂ concentration in percent CO₂ or the minimum O₂ concentration in percent O₂.

Minimum reserve price—The price for calendar year 2020 is \$2.32. Each calendar year thereafter, the minimum reserve price shall be 1.025 multiplied by the minimum reserve price from the previous calendar year, rounded to the nearest whole cent.

Monitoring system—A monitoring system that meets the requirements of this subchapter, including a CEMS, an excepted monitoring system or an alternative monitoring system.

Nameplate capacity—The maximum electrical output in MWe that a generator can sustain over a specified period of time when not restricted by seasonal or other de-ratings as measured in accordance with the United States Department of Energy standards.

Notice of CO₂ allowance auction—The notification for a specific auction or auctions issued under § 145.404 (relating to auction notice).

Operator—A person who operates, controls or supervises a CO₂ budget unit or a CO₂ budget source and shall include, but not be limited to, a holding company, utility system or plant manager of the unit or source.

Owner—Any of the following persons:

(i) A holder of any portion of the legal or equitable title in a CO₂ budget unit or a CO₂ budget source.

(ii) A holder of a leasehold interest in a CO₂ budget unit or a CO₂ budget source, other than a passive lessor, or a person who has an equitable interest through such lessor, whose rental payments are not based, either directly or indirectly, upon the revenues or income from the CO₂ budget unit.

(iii) A purchaser of power from a CO₂ budget unit under a life-of-the-unit contractual arrangement in which the purchaser controls the dispatch of the unit.

(iv) With respect to any general account, a person who has an ownership interest with respect to the CO₂ allowances held in the general account and who is subject to the binding agreement for the CO₂ authorized account representative to represent that person's ownership interest with respect to CO₂ allowances.

Participating state—A state that has established a corresponding regulation as part of the CO₂ Budget Trading Program.

Pennsylvania CO₂ Budget Trading Program adjusted budget—The annual amount of CO₂ tons available in Pennsylvania for allocation in a given allocation year, in accordance with the CO₂ Budget Trading Program, determined in accordance with § 145.342. CO₂ offset allowances allocated to project sponsors and CO₂ CCR allowances offered for sale at an auction are separate from and additional to CO₂ allowances allocated from the Pennsylvania CO₂ Budget Trading Program adjusted budget.

Pennsylvania CO₂ Budget Trading Program base budget—The annual amount of CO₂ tons available in Pennsylvania for allocation in a given allocation year, in accordance with the CO₂ Budget Trading Program and as specified in § 145.341. CO₂ offset allowances allocated to project sponsors and CO₂ CCR allowances offered for sale at an auction are separate from and additional to CO₂ allowances allocated from the Pennsylvania CO₂ Budget Trading Program base budget.

Qualified participant—A person who has submitted a qualification application under § 145.406(a) and that the Department determines to be qualified to participate in CO₂ allowance auctions under § 145.406(e).

Receive or receipt of—When referring to the Department or its agent, to come into possession of a document, information or correspondence, whether sent in writing or by authorized electronic transmission, as indicated in an official correspondence log, or by a notation made on the

document, information or correspondence, by the Department or its agent in the regular course of business.

Recordation, record or recorded—With regard to CO₂ allowances, the movement of CO₂ allowances by the Department or its agent from one COATS account to another, for purposes of allocation, transfer or deduction.

Reserve price—The minimum acceptable price for each CO₂ allowance offered for sale in a specific auction. The reserve price at an auction is either the minimum reserve price or the CCR trigger price, as specified in § 145.382 (relating to general requirements).

Reviewer—The individual who is delegated authority by a CO₂ authorized account representative or a CO₂ authorized alternate account representative to review information in COATS under this subchapter.

Source—A governmental, institutional, commercial or industrial structure, installation, plant, building or facility that emits or has the potential to emit any air pollutant. A source, including a source with multiple units, shall be considered a single facility.

Strategic use set-aside account—A general account established by the Department for the distribution of CO₂ allowances to encourage and foster promotion of energy efficiency measures, promotion of renewable or noncarbon-emitting energy technologies, stimulation or reward of investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential.

Ton or tonnage—A short ton that is 2,000 pounds or 0.9072 metric tons.

Undistributed CO₂ allowance—A CO₂ allowance originally allocated to a set-aside account as under § 145.342 that were not distributed.

Uniform-price, sealed-bid auction—A single-round, sealed-bidding process in which a bidder may submit multiple bids at different prices. The price paid by all successful bidders will be uniform and equal to the highest rejected bid price.

Unit—A fossil fuel-fired stationary boiler, combustion turbine or combined cycle system.

Unit operating day—A calendar day in which a unit combusts any fuel.

Unsold CO₂ allowance—A CO₂ allowance that has been made available for sale in an auction conducted by the Department or its agent, but not sold.

Useful thermal energy—

(i) Energy in the form of direct heat, steam, hot water or other thermal form applied for a useful purpose in an industrial, institutional or commercial process.

(ii) This term does not include steam made available for electricity production.

Waste coal—The coal disposed or abandoned prior to July 31, 1982, or disposed of thereafter in a permitted coal refuse disposal site regardless of when disposed of and used to generate electricity, as defined under section 1648.2 of the Alternative Energy Portfolio Standards Act (73 P.S. § 1648.2).

Waste coal-fired—The combustion of waste coal or, if in combination with any other fuel, waste coal comprises 75% or greater of the annual heat input on a Btu basis. Facilities combusting waste coal shall use at a minimum a circulating fluidized bed boiler and be outfitted with a limestone injection system and a fabric filter particulate removal system.

Waste coal set-aside account—A general account established by the Department for the allocation of CO₂ allowances in an amount sufficient to provide CO₂ allowances equal to the legacy emissions from all waste coal-fired units under § 145.342(i).

§ 145.303. Measurements, abbreviations and acronyms.

Measurements, abbreviations and acronyms used in this subchapter are defined as follows:

CH₄—methane.

hr—hour.

lb—pounds.

MMBtu—Million Btu.

MW—megawatt.

MWe—megawatt electrical.

§ 145.304. Applicability.

(a) *CO₂ budget unit*. Beginning blank (*Editor's Note*: The blank refers to the effective date of this rulemaking, when published as a final-form rulemaking.), this subchapter applies to an owner or operator of a unit that, at any time on or after January 1, 2005, served or serves an electricity generator with a nameplate capacity equal to or greater than 25 MWe.

(b) *CO₂ budget source*. Any source that includes one or more CO₂ budget units shall be a CO₂ budget source, subject to the requirements of this subchapter.

§ 145.305. Limited exemption for CO₂ budget units with electrical output to the electric grid restricted by permit conditions.

(a) *Exemption.* Notwithstanding § 145.304, a CO₂ budget source that has a permit issued by the Department containing a condition restricting the supply of the CO₂ budget unit's annual electrical output to the electric grid to no more than 10% of the annual gross generation of the unit, or restricting the supply less than or equal to 15% of its annual total useful energy to any entity other than the manufacturing facility to which the CO₂ budget source is interconnected and which complies with subsection (c), shall be exempt from the requirements of this subchapter, except for the provisions of this section, § 145.302, § 145.303, § 145.304, § 145.307 (relating to definitions; measurements, abbreviations and acronyms; applicability; and computation of time). and, if applicable because of the allocation of CO₂ allowances during the pre-exemption time period, § 145.341, § 145.351 and § 145.361.

(b) *Effective date.* The exemption under subsection (a) shall become effective as of the January 1 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 subsection (a) become final.

(c) *Compliance.*

(1) The owner or operator of a CO₂ budget unit exempt under subsection (a) shall comply with the restriction on the percentage of annual gross generation that may be supplied to the electric grid described in subsection (a).

(2) The owner or operator of a CO₂ budget unit exempt under subsection (a) 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 calendar year by the following March 1.

(3) For a period of 10 years from the date the records are created, the owner or operator of a CO₂ budget unit exempt under subsection (a) shall retain, at the source that includes the unit, records demonstrating that the conditions of the permit under subsection (a) were met. The Department may, in writing, extend the 10-year period for keeping records, at any time prior to the end of the period. The owner or operator bears 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.

(4) The owner or operator and, to the extent applicable, the CO₂ authorized account representative of a CO₂ budget unit exempt under subsection (a) shall comply with the requirements of this subchapter concerning all time periods for which the exemption is not in effect, even if the requirements arise, or must be complied with, after the exemption takes effect.

(5) A CO₂ budget unit exempt under subsection (a) will lose its exemption, on the earlier of the following dates:

(i) The restriction on the percentage of annual gross generation that may be supplied to the electric grid described in subsection (a) is removed from the unit's permit or otherwise becomes no longer applicable in any year that commences on or after January 1, 2022.

(ii) The unit fails to comply or the owner or operator fails 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 subsection (a) during any year that commences on or after January 1, 2022.

(6) A unit that loses its exemption in accordance with paragraph (c)(5) shall be subject to the requirements of this subchapter. For the purposes of this subchapter, the unit shall be treated as commencing operation on the date the unit loses its exemption.

§ 145.306. Standard requirements.

(a) Permit requirements.

(1) The owner or operator of each CO₂ budget source shall have a CO₂ budget permit condition in their permit required under Chapter 127 and shall submit to the Department the following:

(i) A complete application for a new, renewed or modified permit under § 145.323 in accordance with the deadlines specified in § 145.322.

(ii) Any supplemental information that the Department determines is necessary to review the permit application and issue or deny a permit, permit renewal or permit modification that includes CO₂ Budget Trading Program requirements.

(2) The owner or operator of each CO₂ budget source required to have a permit under Chapter 127 shall ensure that the permit incorporates the requirements of the CO₂ Budget Trading Program and shall operate the CO₂ budget source and each CO₂ budget unit at the source in compliance with the permit.

(b) Monitoring requirements.

(1) The owner or operator and, to the extent applicable, the CO₂ authorized account representative of each CO₂ budget source and each CO₂ budget unit at the source, shall comply with the monitoring requirements of §§ 145.371—145.377 (relating to monitoring, reporting and recordkeeping requirements).

(2) The Department will use the emissions measurements recorded and reported in accordance with §§ 145.371—145.377 to determine the unit's compliance with the CO₂ requirements under subsection (c).

(c) *CO₂ requirements.* A CO₂ budget unit shall be subject to the CO₂ requirements starting on January 1, 2022, or the date on which the unit commences operation, whichever is later.

(1) For the purpose of determining compliance with paragraph (c)(2), total tons for a control period or an interim control period shall be calculated as the sum of all recorded hourly emissions or the tonnage equivalent of the recorded hourly emissions rates, in accordance with

§§ 145.371—145.377. The Department will round total CO₂ emissions to the nearest whole ton, so that any fraction of a ton equal to or greater than 0.50 tons is deemed to equal 1 ton and any fraction of a ton less than 0.50 tons is deemed to equal zero tons.

(2) The owner or operator of each CO₂ budget source and each CO₂ budget unit at the source shall, as of the CO₂ allowance transfer deadline, hold CO₂ allowances available for compliance deductions under § 145.355, in the source's compliance account, as follows:

(i) For a control period, the amount of CO₂ allowances held shall be no less than the total CO₂ emissions for the control period from all CO₂ budget units at the source, less the CO₂ allowances deducted to meet the requirements of subparagraph (c)(2)(ii), with respect to the previous 2 interim control periods, as determined in accordance with §§ 145.351—145.358 (relating to CO₂ allowance tracking system) and §§ 145.371—145.377.

(ii) For an interim control period, the amount of CO₂ allowances held shall be no less than the total CO₂ emissions for the interim control period from all CO₂ budget units at the source multiplied by 0.50, as determined in accordance with §§ 145.351—145.358 and §§ 145.371—145.377.

(3) Each ton of CO₂ emitted in excess of the CO₂ budget emissions limitation for a control period shall constitute a separate violation of this subchapter and the act.

(4) Each ton of excess interim emissions shall constitute a separate violation of this subchapter and the act.

(5) CO₂ allowances shall be held in, deducted from, or transferred among COATS accounts in accordance with §§ 145.341—145.343 (relating to CO₂ allowance allocations), 145.351—145.358, and 145.361—145.363 (relating to CO₂ allowance transfers) and 145.397.

(6) A CO₂ allowance shall not be deducted, in order to comply with the requirements under subsection (c), for a control period or interim control period that ends prior to the year for which the CO₂ allowance was allocated.

(7) A CO₂ offset allowance shall not be deducted, in order to comply with the requirements under subsection (c), beyond the applicable percent limitations in § 145.355(a)(3).

(8) A CO₂ allowance is a limited authorization by the Department or a participating state to emit 1 ton of CO₂ in accordance with the CO₂ Budget Trading Program. No provision of the CO₂ Budget Trading Program, this subchapter, an application for a new, renewed or modified permit to incorporate the requirements of the CO₂ Budget Trading Program, a permit that includes the requirements of the CO₂ Budget Trading Program, or any provision of law shall be construed to limit the authority of the Department or a participating state to terminate or limit the authorization.

(9) A CO₂ allowance under the CO₂ Budget Trading Program does not constitute a property right.

(d) *Excess emissions requirements.* The owner or operator of a CO₂ budget source that has excess emissions in any control period or excess interim emissions for any interim control period shall do the following:

(1) Forfeit the CO₂ allowances required for deduction under § 145.355(d)(1) and (d)(2).

(2) Pay any fine, penalty or assessment or comply with any other remedy imposed under § 145.355(d)(3).

(e) *Recordkeeping and reporting requirements.*

(1) Except as provided in subparagraph (1)(i), the owner or operator of the CO₂ budget source and each CO₂ budget unit at the source shall maintain at a central location and provide upon request by the Department the following documents for 10 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 10 years, in writing by the Department.

(i) The account certificate of representation for the CO₂ authorized account representative for the CO₂ budget source and each CO₂ budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with § 145.314 (relating to account certificate of representation). The certificate and documents shall be retained beyond the 10-year period until the documents are superseded because of the submission of a new account certificate of representation changing the CO₂ authorized account representative.

(ii) The emissions monitoring information, in accordance with §§ 145.371—145.377 and 40 CFR 75.57 (relating to general recordkeeping provisions).

(iii) Copies of all reports, compliance certifications and other submissions and all records made or required under the CO₂ Budget Trading Program.

(iv) Copies of the documents used to complete an application for a new or modified permit that incorporates the requirements of the CO₂ Budget Trading Program and any submission under the CO₂ Budget Trading Program or to demonstrate compliance with the requirements of the CO₂ Budget Trading Program.

(2) The CO₂ authorized account representative of a CO₂ budget source and each CO₂ budget unit at the source shall submit the reports and compliance certifications required under this subchapter, including the requirements under §§ 145.331—145.332 (relating to compliance certification).

(f) *Liability.*

(1) Except as provided under § 127.403 (relating to permitting of sources operating lawfully without a permit), a permit revision may not excuse any violation of the requirements of this subchapter that occurs prior to the date that the revision takes effect.

(2) Any provision of this subchapter that applies to a CO₂ authorized account representative shall apply to the owner or operator of the source and of the CO₂ budget units at the source.

(3) Any provision of this subchapter that applies to a CO₂ budget source shall also apply to the owner or operator of the source and of the CO₂ budget units at the source.

(4) Any provision of this subchapter that applies to a CO₂ budget unit shall also apply to the owner or operator of the unit.

(g) *Effect on other authorities.* No provision of this subchapter, a permit application or a permit shall be construed as exempting or excluding the owner or operator and, to the extent applicable, the CO₂ authorized account representative, from compliance with any provision of the act, the Clean Air Act or the regulations promulgated under the Clean Air Act or the act.

§ 145.307. Computation of time.

(a) Unless otherwise stated, any time period scheduled, under the CO₂ Budget Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.

(b) Unless otherwise stated, any time period scheduled, under the CO₂ Budget Trading Program, to begin before the occurrence of an act or event shall be computed so that the period ends the day before the act or event occurs.

(c) Unless otherwise stated, if the final day of any time period, under the CO₂ Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

CO₂ AUTHORIZED ACCOUNT REPRESENTATIVE FOR A CO₂ BUDGET SOURCE

Sec.

- 145.311. Authorization and responsibilities of the CO₂ authorized account representative.
- 145.312. CO₂ authorized alternate account representative.
- 145.313. Changing the CO₂ authorized account representative and the CO₂ authorized alternate account representative; changes in the owners and operators.
- 145.314. Account certificate of representation.
- 145.315. Objections concerning the CO₂ authorized account representative.
- 145.316. Delegation of authority to make electronic submissions and review information in COATS.

§ 145.311. Authorization and responsibilities of the CO₂ authorized account representative.

(a) Except as provided under § 145.312 (relating to CO₂ authorized alternate account representative), each CO₂ budget source, including all CO₂ budget units at the source, shall have only one CO₂ authorized account representative, with regard to all matters under the CO₂ Budget Trading Program concerning the source or any CO₂ budget unit at the source.

(b) The CO₂ authorized account representative of the CO₂ budget source shall be selected by an agreement binding on the owner or operator of the source and all CO₂ budget units at the source and must act in accordance with the certificate of representation under § 145.314.

(c) Upon receipt by the Department or its agent of a complete account certificate of representation under § 145.314, the CO₂ authorized account representative of the source shall represent and, by their representations, actions, inactions or submissions, legally bind each owner and operator of the CO₂ budget source represented and each CO₂ budget unit at the source in all matters pertaining to the CO₂ Budget Trading Program, notwithstanding any agreement between the CO₂ authorized account representative and the owner or operator. The owner or operator shall be bound by any decision or order issued to the CO₂ authorized account representative by the Department or a court regarding the source or unit.

(d) The Department will issue a permit that incorporates the requirements of the CO₂ Budget Trading Program and establish a COATS account for a CO₂ budget source only after the Department or its agent has received a complete account certificate of representation under § 145.314 for a CO₂ authorized account representative of the source and the CO₂ budget units at the source.

(e) Each submission under the CO₂ Budget Trading Program shall be submitted, signed and certified by the CO₂ authorized account representative for each CO₂ budget source on behalf of which the submission is made. Each submission shall include the following certification statement by the CO₂ authorized account representative:

“I am authorized to make this submission on behalf of the owner or operator of the CO₂ budget sources or CO₂ budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties under 18 Pa.C.S. § 4904 for submitting false statements and information or omitting required statements and information.”

(f) The Department or its agent will accept or act on a submission made on behalf of the owner or operator of a CO₂ budget source or a CO₂ budget unit only if the submission has been made, signed and certified in accordance with subsection (e).

§ 145.312. CO₂ authorized alternate account representative.

(a) An account certificate of representation may designate only one CO₂ authorized alternate account representative who may act on behalf of the CO₂ authorized account representative. The

agreement by which the CO₂ authorized alternate account representative is selected shall include a procedure for authorizing the CO₂ authorized alternate account representative to act in lieu of the CO₂ authorized account representative.

(b) Upon receipt by the Department or its agent of a complete account certificate of representation under § 145.314, any representation, action, inaction or submission by the CO₂ authorized alternate account representative shall be deemed to be a representation, action, inaction or submission by the CO₂ authorized account representative.

(c) Except in this section and §§ 145.311(a), 145.313 (relating to changing the CO₂ authorized account representative and the CO₂ authorized alternate account representative; changes in the owners and operators), 145.314 and 145.352 (relating to establishment of accounts), whenever the term “CO₂ authorized account representative” is used in this subchapter, the term shall include the CO₂ authorized alternate account representative.

§ 145.313. Changing the CO₂ authorized account representative and the CO₂ authorized alternate account representative; changes in the owner or operator.

(a) *Changing the CO₂ authorized account representative.* The CO₂ authorized account representative may be changed at any time upon receipt by the Department or its agent of a superseding complete account certificate of representation under § 145.314. Notwithstanding a change, the representations, actions, inactions and submissions by the previous CO₂ authorized account representative or CO₂ authorized alternate account representative prior to the time and date when the Department or its agent receives the superseding account certificate of representation shall be binding on the new CO₂ authorized account representative and the owner or operator of the CO₂ budget source and the CO₂ budget units at the source.

(b) *Changing the CO₂ authorized alternate account representative.* The CO₂ authorized alternate account representative may be changed at any time upon receipt by the Department or its agent of a superseding complete account certificate of representation under § 145.314. Notwithstanding a change, the representations, actions, inactions and submissions by the previous CO₂ authorized alternate account representative prior to the time and date when the Department or its agent receives the superseding account certificate of representation shall be binding on the new CO₂ authorized alternate account representative and the owner or operator of the CO₂ budget source and the CO₂ budget units at the source.

(c) *Changes in the owner or operator.*

(1) If a new owner or operator of a CO₂ budget source or a CO₂ budget unit is not included in the list of owners and operators submitted in the account certificate of representation, the new owner or operator shall be deemed to be subject to and bound by the account certificate of representation, the representations, actions, inactions and submissions of the CO₂ authorized account representative and any CO₂ authorized alternate account representative of the source or unit, and the decisions, orders, actions and inactions of the Department, as if the new owner or operator were included in the list.

(2) Within 30 days following any change in the owner or operator of a CO₂ budget source or a CO₂ budget unit, including the addition of a new owner or operator, the CO₂ authorized account representative or CO₂ authorized alternate account representative shall submit a revision to the account certificate of representation amending the list of owners and operators to include the change.

§ 145.314. Account certificate of representation.

(a) A complete account certificate of representation for a CO₂ authorized account representative or a CO₂ authorized alternate account representative shall include the following elements in a format prescribed by the Department or its agent:

(1) Identification of the CO₂ budget source and each CO₂ budget unit at the source for which the account certificate of representation is submitted.

(2) The name, address, e-mail address and telephone number of the CO₂ authorized account representative and any CO₂ authorized alternate account representative.

(3) A list of the owners and operators of the CO₂ budget source and of each CO₂ budget unit at the source.

(4) The following certification statement by the CO₂ authorized account representative and any CO₂ authorized alternate account representative:

“I certify that I was selected as the CO₂ authorized account representative or CO₂ authorized alternate account representative, as applicable, by an agreement binding on the owner or operator of the CO₂ budget source and each CO₂ budget unit at the source. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO₂ Budget Trading Program on behalf of the owner or operator of the CO₂ budget source and of each CO₂ budget unit at the source and that each owner and operator shall be fully bound by my representations, actions, inactions, or submissions and by any decision or order issued to me by the Department or a court regarding the source or unit.”

(5) The signature of the CO₂ authorized account representative and any CO₂ authorized alternate account representative and the dates signed.

(b) Unless otherwise required by the Department or its agent, documents of agreement referred to in the account certificate of representation shall not be submitted to the Department or its agent. The Department and its agent are not under any obligation to review or evaluate the sufficiency of documents of agreement, if submitted.

§ 145.315. Objections concerning the CO₂ authorized account representative.

(a) Once a complete account certificate of representation under § 145.314 has been submitted and received, the Department and its agent will rely on the account certificate of representation

unless the Department or its agent receives a superseding complete account certificate of representation under § 145.314.

(b) Except as provided in § 145.313(a) or (b), an objection or other communication submitted to the Department or its agent concerning the authorization, or any representation, action, inaction or submission of the CO₂ authorized account representative will not affect any representation, action, inaction or submission of the CO₂ authorized account representative or the finality of a decision or order by the Department or its agent under the CO₂ Budget Trading Program.

(c) The Department and its agent will not adjudicate any private legal dispute concerning the authorization or any representation, action, inaction or submission of a CO₂ authorized account representative, including private legal disputes concerning the proceeds of CO₂ allowance transfers.

§ 145.316. Delegation of authority to make electronic submissions and review information in COATS.

(a) A CO₂ authorized account representative or a CO₂ authorized alternate account representative may delegate, to one or more persons, their authority to make an electronic submission to the Department or its agent under this subchapter.

(b) In order to delegate authority to make an electronic submission to the Department or its agent, the CO₂ authorized account representative or CO₂ authorized alternate account representative must submit to the Department or its agent a notice of delegation, in a format prescribed by the Department that includes the following:

(1) The name, address, e-mail address and telephone number of the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative.

(2) The name, address, e-mail address and telephone number of each electronic submission agent.

(3) For each electronic submission agent, a list of the type of electronic submissions under subsection (a) for which authority is delegated.

(4) The following certification statements by the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative:

(i) “I agree that any electronic submission to the Department or its agent that is by the electronic submission agent identified in this notice of delegation and of a type listed for the electronic submission agent in this notice of delegation and that is made when I am a CO₂ authorized account representative or CO₂ authorized alternate account representative and before this notice of delegation is superseded by another notice of delegation under subsection (d) shall be deemed to be an electronic submission by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under subsection (d), I agree to maintain an e-mail account and to notify the Department or its agent immediately of any change in my e-mail address unless all delegation authority by me under this subsection is terminated.”

(c) A notice of delegation submitted under subsection (b) will be effective, with regard to the CO₂ authorized account representative or CO₂ authorized alternate account representative identified in the notice, upon receipt of the notice by the Department or its agent and until receipt by the Department or its agent of a superseding notice of delegation by the CO₂ authorized account representative or CO₂ authorized alternate account representative. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent or eliminate entirely any delegation of authority.

(d) Any electronic submission covered by the certification under subparagraph (b)(4) and made in accordance with a notice of delegation effective under subsection (b) shall be deemed to be an electronic submission by the CO₂ authorized account representative or CO₂ authorized alternate account representative submitting the notice of delegation.

(e) A CO₂ authorized account representative or a CO₂ authorized alternate account representative may delegate, to one or more persons, their authority to review information in COATS under this subchapter.

(f) In order to delegate authority to review information in COATS under subsection (e), the CO₂ authorized account representative or CO₂ authorized alternate account representative must submit to the Department or its agent a notice of delegation, in a format prescribed by the Department that includes the following:

(1) The name, address, e-mail address and telephone number of the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative.

(2) The name, address, e-mail address and telephone number of each reviewer.

(3) For each reviewer, a list of the type of information under subsection (e) for which authority is delegated.

(4) The following certification statements by the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative:

(i) “I agree that any information that is reviewed by the reviewer identified in this notice of delegation and of a type listed for the information accessible by the reviewer in this notice of delegation and that is made when I am a CO₂ authorized account representative or CO₂ authorized alternate account representative and before this notice of delegation is superseded by another notice of delegation under subsection (g) shall be deemed to be a review by me.”

(ii) “Until this notice of delegation is superseded by another notice of delegation under subsection (g), I agree to maintain an e-mail account and to notify the Department or its

agent immediately of any change in my e-mail address unless all delegation authority by me under this subsection is terminated.”

(g) A notice of delegation submitted under subsection (f) shall be effective, with regard to the CO₂ authorized account representative or CO₂ authorized alternate account representative identified in the notice, upon receipt of the notice by the Department or its agent and until receipt by the Department or its agent of a superseding notice of delegation by the CO₂ authorized account representative or CO₂ authorized alternate account representative. The superseding notice of delegation may replace any previously identified reviewer, add a new reviewer or eliminate entirely any delegation of authority.

PERMITS

Sec.

- § 145.321. General requirements for a permit incorporating CO₂ Budget Trading Program requirements.
- § 145.322. Submission of an application for a new, renewed or modified permit incorporating CO₂ Budget Trading Program requirements.
- § 145.323. Contents of an application for a permit incorporating CO₂ Budget Trading Program requirements.

§ 145.321. General requirements for a permit incorporating CO₂ Budget Trading Program requirements.

(a) Except as provided under § 127.403, each CO₂ budget source must have a permit issued by the Department under Chapter 127.

(b) The permit for each CO₂ budget source shall contain all applicable CO₂ Budget Trading Program requirements.

§ 145.322. Submission of an application for a new, renewed or modified permit incorporating CO₂ Budget Trading Program requirements.

(a) For any CO₂ budget source, the owner or operator shall submit a complete permit application under Chapter 127 incorporating the CO₂ Budget Trading Program requirements in this subchapter to the Department by the later of the following:

(1) 6 months after *blank* (*Editor's Note: The blank refers to the effective date of this rulemaking, when published as a final-form rulemaking.*)

(2) 12 months before the date on which the CO₂ budget source, or a new unit at the source, commences operation.

(b) If the Department approves the incorporation of CO₂ Budget Trading Program requirements into a permit, the Department will establish permit conditions in the permit that will enable the Department to readily verify whether emissions from the source operations meet the requirements of this subchapter. Such permit conditions will set forth replicable procedures,

including monitoring, source emissions testing and recordkeeping and reporting procedures, sufficient to ensure that emissions are quantified and recorded and that compliance with the emissions limitation under this subchapter is enforceable.

§ 145.323. Contents of an application for a permit incorporating CO₂ Budget Trading Program requirements.

A complete permit application shall include the following concerning the CO₂ budget source for which the application is submitted, in a format prescribed by the Department:

(1) Identification of the CO₂ budget source, including plant name and the Office of Regulatory Information Systems or facility code assigned to the source by the Energy Information Administration of the United States Department of Energy, if applicable.

(2) Identification of each CO₂ budget unit at the CO₂ budget source.

(3) The standard requirements under § 145.306.

(4) The compliance certification requirements under § 145.331 (relating to compliance certification report).

(5) The compliance requirements under § 145.355.

(6) The monitoring, recordkeeping and reporting requirements under §§ 145.371—145.377.

COMPLIANCE CERTIFICATION

Sec.

§ 145.331. Compliance certification report.

§ 145.332. Department action on compliance certifications.

§ 145.331. Compliance certification report.

(a) *Applicability and deadline.* For each control period, except for an interim control period, in which a CO₂ budget source is subject to the CO₂ requirements of § 145.306(c), the CO₂ authorized account representative of the source shall submit to the Department by March 1 of that year, a compliance certification report.

(b) *Contents of report.* The CO₂ authorized account representative shall include in the compliance certification report under subsection (a) the following:

(1) Identification of the CO₂ budget source and each CO₂ budget unit at the source.

(2) At the CO₂ authorized account representative's option, the serial numbers of the CO₂ allowances that are to be deducted from the source's compliance account under § 145.355 for the control period or an interim control period, including the serial numbers of any CO₂ offset

allowances that are to be deducted subject to the limitations of § 145.355(a)(3).

(3) The compliance certification under subsection (c).

(c) *Compliance certification.* In the compliance certification report under subsection (a), the CO₂ authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the CO₂ budget units at the source in compliance with the CO₂ Budget Trading Program, whether the source and each CO₂ budget unit at the source for which the compliance certification is submitted was operated during the calendar years covered by the report in compliance with the requirements of the CO₂ Budget Trading Program, including the following:

(1) Whether the CO₂ budget source was operated in compliance with the CO₂ requirements of § 145.306(c).

(2) Whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit and contains the information necessary to attribute CO₂ emissions to the unit, in accordance with §§ 145.371—145.377.

(3) Whether all the CO₂ emissions from the units at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with §§ 145.371—145.377. If conditional data were reported, the owner or operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made.

(4) Whether the facts that form the basis for certification under §§ 145.371—145.377 of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under §§ 145.371—145.377, if any, have changed.

(5) If a change is required to be reported under paragraph (c)(4), specify the nature of the change, the reason for the change, when the change occurred and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification.

§ 145.332. Department action on compliance certifications.

(a) The Department or its agent may review and conduct independent audits concerning any compliance certification or any other submission under the CO₂ Budget Trading Program and make appropriate adjustments of the information in the compliance certification or other submission.

(b) The Department or its agent may deduct CO₂ allowances from or transfer CO₂ allowances to a CO₂ budget source's compliance account based on the information in the compliance certification or other submission, as adjusted under subsection (a).

CO₂ ALLOWANCE ALLOCATIONS

Sec.

- § 145.341. Pennsylvania CO₂ Budget Trading Program base budget.
- § 145.342. CO₂ allowance allocations.
- § 145.343. Distribution of CO₂ allowances in the air pollution reduction account.

§ 145.341. Pennsylvania CO₂ Budget Trading Program base budget.

- (a) For 2022, the Pennsylvania CO₂ Budget Trading Program base budget is 78,000,000 tons.
- (b) For 2023, the Pennsylvania CO₂ Budget Trading Program base budget is 75,510,630 tons.
- (c) For 2024, the Pennsylvania CO₂ Budget Trading Program base budget is 73,021,260 tons.
- (d) For 2025, the Pennsylvania CO₂ Budget Trading Program base budget is 70,531,890 tons.
- (e) For 2026, the Pennsylvania CO₂ Budget Trading Program base budget is 68,042,520 tons.
- (f) For 2027, the Pennsylvania CO₂ Budget Trading Program base budget is 65,553,150 tons.
- (g) For 2028, the Pennsylvania CO₂ Budget Trading Program base budget is 63,063,780 tons.
- (h) For 2029, the Pennsylvania CO₂ Budget Trading Program base budget is 60,574,410 tons.
- (i) For 2030 and each succeeding calendar year, the Pennsylvania CO₂ Budget Trading Program base budget is 58,085,040 tons.

§ 145.342. CO₂ allowance allocations.

(a) *General allocations.* The Department will allocate CO₂ allowances representing 100% of the tons for each allocation year from the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341 to the air pollution reduction account, less those CO₂ allowances set aside each allocation year under subsection (b).

(b) *Set-aside allocations.*

(1) *Waste coal set-aside account.* The Department will allocate CO₂ allowances to a waste coal set-aside account for each allocation year from the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341, as provided under subsection (i).

(2) *Strategic use set-aside account.* The Department will allocate undistributed CO₂ allowances to the strategic use set-aside account for each allocation year from the waste coal set-aside account, as provided under subsection (j).

(3) *Cogeneration set-aside account.* The Department will allocate CO₂ allowances to a cogeneration set-aside account for each allocation year from the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341, as provided under subsection (k).

(c) *CO₂ allowances available for allocation.* For the allocation year 2022 and each succeeding calendar year, the Pennsylvania CO₂ Budget Trading Program adjusted budget shall be the maximum number of CO₂ allowances available for allocation in a given allocation year, except for CO₂ offset allowances and CO₂ CCR allowances. In any year in which there is no adjusted budget, the adjusted budget shall equal the base budget.

(d) *Cost Containment Reserve (CCR) allocation.* To contain the cost of CO₂ allowances, the Department will allocate CO₂ CCR allowances, separate from and additional to the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341, to the air pollution reduction account. The Department will allocate CO₂ CCR allowances by doing the following:

(1) The Department will initially allocate CCR allowances for calendar year 2022 in an amount equal to 10% of the Pennsylvania CO₂ Budget Trading Program base budget for 2022 set forth in § 145.341(a).

(2) On or before January 1, 2023, and on or before January 1 of each calendar year thereafter, the Department will allocate current vintage year CCR allowances equal to 10% of the Pennsylvania CO₂ Budget Trading Program base budget for the calendar year and withdraw the number of CO₂ CCR allowances that remain in the air pollutant reduction account at the end of the prior calendar year.

(e) *Emissions Containment Reserve (ECR) Withholding.* To provide additional emissions reductions in the event of lower than anticipated emissions reduction costs, the Department will convert and transfer any CO₂ allowances that have been withheld from any auction into the Pennsylvania ECR account. The Department will withhold CO₂ ECR allowances by doing the following:

(1) If the condition in § 145.382(d)(1) is met at an auction, then the maximum number of CO₂ ECR allowances that will be withheld from that auction will be equal to 10% of the Pennsylvania CO₂ Budget Trading Program base budget for that calendar year minus the total quantity of CO₂ ECR allowances that have been withheld from any prior auction in that calendar year. Any CO₂ ECR allowances withheld from an auction will be transferred into the Pennsylvania ECR account.

(2) Allowances that have been transferred into the Pennsylvania ECR account will not be withdrawn.

(f) *Adjustment for banked allowances.* The Department may determine whether any adjustments for banked allowances will be made by using the following formula:

$$ABA = ((A - AE)/Y) \times RS\%$$

Where:

ABA = The adjustment for banked allowances quantity in tons.

A (adjustment) = The total quantity of CO₂ allowances of vintage years held in general and compliance accounts, including compliance accounts established under the CO₂ Budget Trading Program, but not including accounts opened by participating states, as reflected in COATS.

AE (adjustment emissions) = The total quantity of emissions from all CO₂ budget sources in all participating states, reported under the CO₂ Budget Trading Program as reflected in COATS prior to the year of the adjustment.

RS% = Pennsylvania's adjustment year budget divided by the adjustment year regional budget.

Y = The time period in years over which the adjustment occurs.

(g) *CO₂ Budget Trading Program adjusted budget.* The Department may establish the Pennsylvania CO₂ Budget Trading Program adjusted budget for an allocation year by the following formula:

$$AB = BB - ABA$$

Where:

AB = The Pennsylvania CO₂ Budget Trading Program adjusted budget.

BB = The Pennsylvania CO₂ Budget Trading Program base budget.

ABA = The adjustment for banked allowances quantity in tons.

(h) If the Department determines to adjust the budget for banked allowances under subsections (f) and (g), the Department will publish in the *Pennsylvania Bulletin* the CO₂ Budget Trading Program adjusted budget for the allocation year.

(i) *Waste coal set-aside allocation.* The waste coal set-aside allocation will consist of tons from the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341, as applicable. The Department will administer the waste coal set-aside account in accordance with the following:

(1) *Applicability.* This subsection applies to waste coal-fired units located in Pennsylvania that commenced operation on or before blank (*Editor's Note: The blank refers to the effective date of this rulemaking, when published as a final-form rulemaking.*), that are subject to the CO₂ Budget Trading Program requirements under § 145.304.

(2) *General account.* The Department will open and manage a general account for the waste coal set-aside account.

(3) *Allowance transfer.* By March 1 of each calendar year, the Department may transfer a portion of the CO₂ allowances allocated to the air pollution reduction account to the waste coal set-aside account in an amount equal to legacy emissions from waste coal-fired units applicable under paragraph (i)(1). The Department has determined that the total amount of legacy emissions equal 9,300,000 tons.

(4) *Compliance allocation.* Except for a year with an exceedance of legacy emissions under paragraph (i)(5), by March 1 of each calendar year, the Department will allocate CO₂ allowances from the waste coal set-aside account to the compliance account of each waste coal-fired unit in an amount equal to the actual number of CO₂ emissions in tons emitted from the waste coal-fired unit during the previous year.

(i) After allocating CO₂ allowances under paragraph (i)(4), the Department will transfer any undistributed CO₂ allowances from the waste coal set-aside account to the strategic use set-aside account.

(ii) CO₂ allowances allocated under this subsection must only be used for compliance with the CO₂ budget emissions limitation for the waste coal-fired unit. The sale or transfer of CO₂ allowances from the unit's compliance account will be considered a violation of this subchapter.

(5) *Exception for exceedance of legacy emissions.* If the total actual CO₂ emissions from waste coal-fired units exceed 9,300,000 tons during a calendar year, the Department will account for the exceedance as follows:

(i) By February 15 of the year following the exceedance, the Department will determine the difference between each unit's legacy emissions and the unit's actual emissions during the previous year.

(ii) By February 15 of the year following the exceedance, the Department will allocate CO₂ allowances from the waste coal set-aside account to the compliance account of each waste coal-fired unit in an amount equal to the actual number of CO₂ emissions in tons emitted from the waste coal-fired unit during the previous year minus the exceedance of legacy emissions.

(iii) After the allocation under subparagraph (i)(5)(ii), if there are CO₂ allowances remaining in the waste coal set-aside account, the Department may distribute CO₂ allowances to each waste coal-fired unit requiring CO₂ allowances to meet the CO₂ requirements under § 145.306(c) in an amount proportionate to the exceedance.

(iv) By the CO₂ allowance transfer deadline of the year following the exceedance, the owner or operator of each waste coal-fired unit requiring additional CO₂ allowances to satisfy the CO₂ requirements under § 145.306(c) must transfer CO₂ allowances for compliance deductions under § 145.355 to the compliance account of the unit.

(6) *Set-aside termination.* If no CO₂ allowances are allocated under paragraph (i)(4) in any calendar year due to the fact that there were no actual CO₂ emissions from waste coal-fired units subject to this subsection, then the CO₂ allowances remaining in the waste coal set-aside account will be transferred to the strategic use set-aside account. No additional CO₂ allowances will be allocated to the waste coal set-aside account under paragraph (i)(3) and the Department will close the waste coal set-aside account.

(j) *Strategic use set-aside allocation.* The strategic use set-aside allocation will consist of undistributed CO₂ allowances from the waste coal set-aside account. The Department will administer the strategic use set-aside account in accordance with the following:

(1) *General account.* The Department will open and manage a general account for the strategic use set-aside account.

(2) *Allowance transfer.* By April 1 of each calendar year, the Department will transfer undistributed CO₂ allowances allocated to the waste coal set-aside account to the strategic use set-aside account.

(3) *Allocation to eligible projects.* The Department may distribute CO₂ allowances from the strategic use set-aside account for the use in the elimination of air pollution including the following:

(i) Encourage and foster promotion of energy efficiency measures.

(ii) Promotion of renewable or noncarbon-emitting energy technologies.

(iii) Stimulation or reward of investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential.

(k) *Cogeneration set-aside allocation.* The cogeneration set-aside allocation will consist of tons from the Pennsylvania CO₂ Budget Trading Program base budget set forth in § 145.341, as applicable. The Department will administer the cogeneration set-aside account in accordance with the following:

(1) *Applicability.* The Department will adjust the compliance obligation of a CO₂ budget unit that is a cogeneration unit for which a complete application has been filed under paragraph (k)(3).

(2) *General account.* The Department will open and manage a general account for the cogeneration set-aside account.

(3) *Compliance obligation adjustment application.* By January 30 of the year following the allocation year for which the compliance obligation adjustment is being requested, the CO₂ authorized account representative seeking the compliance obligation adjustment for a cogeneration unit shall submit to the Department a complete application, in a format prescribed by the Department, that includes the following:

- (i) Documentation that the CO₂ budget unit is a cogeneration unit.
- (ii) Identification of the compliance account for the CO₂ budget unit.
- (iii) Identification of the allocation year for which an adjustment request is being made.
- (iv) Specification of the amount of the adjustment being requested, as determined under paragraph (k)(4).
- (v) The calculations and supporting data used to determine the compliance obligation adjustment being requested and an explanation of the data and the methods on which the calculations are based.

(4) *Compliance obligation adjustment determination.* After verifying that the information submitted in the application under paragraph (k)(3) is complete and accurate, the Department will determine the compliance obligation adjustment for a CO₂ budget unit that meets the applicability requirements under paragraph (k)(1) based on the CO₂ emissions from the CO₂ budget unit during the allocation year for which an adjustment request is being submitted. The Department will adjust the compliance obligation by reducing the total CO₂ emissions by an amount equal to the CO₂ that is emitted as a result of providing useful thermal energy or electricity, or both, supplied directly to the co-located facility during the allocation year. The compliance obligation will include CO₂ emissions associated with the production of electricity that is supplied to a regional electric grid, transmission and related distribution systems and the cogeneration unit will be responsible for securing CO₂ allowances for those emissions.

(5) *Retirement and transfer of CO₂ allowances.* At the end of each control period, the Department will retire CO₂ allowances from the cogeneration set-aside account in an amount equal to the CO₂ emissions deducted from one or more compliance obligations under paragraph (k)(4). The Department will transfer any remaining CO₂ allowances to the air pollution reduction account to be available for auction.

§ 145.343. Distribution of CO₂ allowances in the air pollution reduction account.

(a) Except for the CO₂ allowances allocated to the waste coal set-aside account under § 145.342(i), the strategic use set-aside account under § 145.342(j) and the cogeneration set-aside account under § 145.342(k), the Department will make all CO₂ allowances for an allocation year that are held in the air pollution reduction account for that allocation year available for purchase or auction by no later than the December 31 of the calendar year that corresponds to that allocation year.

(b) The Department will administer the air pollution reduction account so that CO₂ allowances will be sold in a transparent allowance auction. The proceeds of the auction will be used in the elimination of air pollution in accordance with the act and Chapter 143 and for programmatic costs associated with the CO₂ Budget Trading Program.

(c) The Department or its agent, will not be obligated to sell any CO₂ allowances for less than the reserve price.

(d) The Department may transfer to the air pollution reduction account undistributed or unsold CO₂ allowances at the end of each control period, including CO₂ allowances allocated to the waste coal set-aside account under § 145.342(i), the strategic use set-aside account under § 145.342(j) and the cogeneration set-aside account under § 145.342(k).

CO₂ ALLOWANCE TRACKING SYSTEM

Sec.

- § 145.351. CO₂ Allowance Tracking System (COATS) accounts.
- § 145.352. Establishment of accounts.
- § 145.353. COATS responsibilities of CO₂ authorized account representative and CO₂ authorized alternate account representative.
- § 145.354. Recordation of CO₂ allowance allocations.
- § 145.355. Compliance.
- § 145.356. Banking.
- § 145.357. Account error.
- § 145.358. Closing of general accounts.

§ 145.351. CO₂ Allowance Tracking System (COATS) accounts.

(a) *Nature and function of compliance accounts.* Consistent with § 145.352(a), the Department or its agent will establish one compliance account for each CO₂ budget source. Allocations of CO₂ allowances under §§ 145.341—145.343 and deductions or transfers of CO₂ allowances under § 145.332 (relating to department action on compliance certifications), § 145.355, § 145.357 (relating to account error) or §§ 145.361—145.363 will be recorded in the compliance accounts.

(b) *Nature and function of general accounts.* Consistent with § 145.352(b), the Department or its agent will establish, upon request, a general account for any person. Transfers of CO₂ allowances under §§ 145.361—145.363 will be recorded in the general account.

§ 145.352. Establishment of accounts.

(a) *Compliance accounts.* Upon receipt of a complete account certificate of representation under § 145.314, the Department or its agent will establish a compliance account for each CO₂ budget source for which the account certificate of representation was submitted.

(b) *General accounts.*

(1) Any person may apply to open a general account for the purpose of holding and transferring CO₂ allowances by submitting a complete application for a general account to the Department or its agent that includes the following:

(i) The name, mailing address, e-mail address and telephone number of the CO₂ authorized account representative and any CO₂ authorized alternate account representative.

(ii) The organization name and type of organization.

(iii) A list of all persons subject to a binding agreement for the CO₂ authorized account representative or any CO₂ authorized alternate account representative to represent their ownership interest with respect to the CO₂ allowances held in the general account.

(iv) The following certification statement by the CO₂ authorized account representative and any CO₂ authorized alternate account representative:

“I certify that I was selected as the CO₂ authorized account representative or the CO₂ authorized alternate account representative by an agreement that is binding on all persons who have an ownership interest with respect to CO₂ allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO₂ Budget Trading Program on behalf of all persons and that each person shall be fully bound by my representations, actions, inactions or submissions and by any order or decision issued to me by the Department or its agent or a court regarding the general account.”

(v) The signature of the CO₂ authorized account representative and any CO₂ authorized alternate account representative and the dates signed.

(vi) Unless otherwise required by the Department or its agent, documents of agreement referred to in the application for a general account should not be submitted to the Department or its agent. The Department and its agent are not under any obligation to review or evaluate the sufficiency of any documents of agreement, if submitted.

(2) Authorization of CO₂ authorized account representative.

(i) Upon receipt by the Department or its agent of a complete application for a general account under paragraph (b)(1), the Department or its agent will establish a general account for the person for whom the application is submitted.

(ii) The CO₂ authorized account representative and any CO₂ authorized alternate account representative for the general account shall represent and, by their representations, actions, inactions or submissions, legally bind each person who has an ownership interest with respect to CO₂ allowances held in the general account in all matters pertaining to the CO₂ Budget Trading Program, notwithstanding an agreement between the CO₂ authorized account representative or any CO₂ authorized alternate account representative and the person. This person shall be bound by any order or decision issued to the CO₂ authorized account representative or any CO₂ authorized alternate account representative by the Department or its agent or a court regarding the general account.

(iii) Any representation, action, inaction or submission by any CO₂ authorized alternate account representative shall be deemed to be a representation, action, inaction or submission by the CO₂ authorized account representative.

(iv) Each submission concerning the general account shall be submitted, signed and certified by the CO₂ authorized account representative or any CO₂ authorized alternate account representative for the persons having an ownership interest with respect to CO₂ allowances held in the general account. Each submission shall include the following certification statement by the CO₂ authorized account representative or any CO₂ authorized alternate account representative:

“I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CO₂ allowances held in the general account. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties under 18 Pa.C.S. § 4904 for submitting false statements and information or omitting required statements and information.”

(v) The Department or its agent will accept or act on a submission concerning the general account only if the submission has been made, signed and certified in accordance with subparagraph (b)(2)(iv).

(3) Changing CO₂ authorized account representative and CO₂ authorized alternate account representative; changes in persons with ownership interest.

(i) The CO₂ authorized account representative or the CO₂ authorized alternate account representative for a general account may be changed at any time upon receipt by the Department or its agent of a superseding complete application for a general account under paragraph (b)(1). Notwithstanding a change, the representations, actions, inactions and submissions by the previous CO₂ authorized account representative, or the previous CO₂ authorized alternate account representative, prior to the time and date when the Department or its agent receives the superseding application for a general account shall be binding on the new CO₂ authorized account representative or the new CO₂ authorized alternate account representative and the persons with an ownership interest with respect to the CO₂ allowances in the general account.

(ii) A revision of ownership listing shall include the following:

(A) If a new person having an ownership interest with respect to CO₂ allowances in the general account is not included in the list of persons in the application for a general account, the new person shall be deemed to be subject to and bound by the application for a general account, the representations, actions, inactions and submissions of the CO₂ authorized account representative and any CO₂ authorized alternate account representative, and the decisions, orders, actions and inactions of the Department or its agent, as if the new person were included in the list.

(B) Within 30 days following any change in the persons having an ownership interest with respect to CO₂ allowances in the general account, including the addition or deletion of persons, the CO₂ authorized account representative or any CO₂ authorized alternate account representative shall submit a revision to the application for a general account amending the list of persons having

an ownership interest with respect to the CO₂ allowances in the general account to include the change.

(4) Objections concerning CO₂ authorized account representative.

(i) Once a complete application for a general account under paragraph (b)(1) has been submitted and received, the Department or its agent will rely on the application until a superseding complete application for a general account under subparagraph (b)(3)(i) is received by the Department or its agent.

(ii) Except as provided in subparagraphs (b)(3)(i) and (ii), no objection or other communication submitted to the Department or its agent concerning the authorization, or any representation, action, inaction or submission of the CO₂ authorized account representative or any CO₂ authorized alternate account representative for a general account will affect any representation, action, inaction or submission of the CO₂ authorized account representative or any CO₂ authorized alternate account representative or the finality of any decision or order by the Department or its agent under the CO₂ Budget Trading Program.

(iii) The Department or its agent will not adjudicate a private legal dispute concerning the authorization or any representation, action, inaction or submission of the CO₂ authorized account representative or any CO₂ authorized alternate account representative for a general account, including private legal disputes concerning the proceeds of CO₂ allowance transfers.

(5) Delegation by CO₂ authorized account representative and CO₂ authorized alternate account representative.

(i) A CO₂ authorized account representative or a CO₂ authorized alternate account representative may delegate, to one or more persons, their authority to make an electronic submission to the Department or its agent under § 145.361.

(ii) In order to delegate authority to make an electronic submission to the Department or its agent in accordance with subparagraph (b)(5)(i), the CO₂ authorized account representative or CO₂ authorized alternate account representative must submit to the Department or its agent a notice of delegation, in a format prescribed by the Department that includes the following:

(A) The name, address, e-mail address and telephone number of the CO₂ authorized account representative or CO₂ authorized alternate account representative.

(B) The name, address, e-mail address and telephone number of each electronic submission agent.

(C) For each electronic submission agent, a list of the type of electronic submissions under subparagraph (b)(5)(i) for which authority is delegated.

(D) The following certification statements by the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative:

(I) “I agree that any electronic submission to the Department or its agent that is by an electronic submission agent identified in this notice of delegation and of a type listed for the electronic submission agent in this notice of delegation and that is made when I am a CO₂ authorized account representative or CO₂ authorized alternate account representative before this notice of delegation is superseded by another notice of delegation under subparagraph (b)(5)(ii) shall be deemed to be an electronic submission by me.”

(II) “Until this notice of delegation is superseded by another notice of delegation under subparagraph (b)(5)(ii), I agree to maintain an e-mail account and to notify the Department or its agent immediately of any change in my e-mail address unless all delegation authority by me under subparagraph (b)(5)(ii) is terminated.”

(iii) A notice of delegation submitted under subparagraph (b)(5)(ii) shall be effective, with regard to the delegating CO₂ authorized account representative or CO₂ authorized alternate account representative identified in the notice, upon receipt of the notice by the Department or its agent and until receipt by the Department or its agent of a superseding notice of delegation by the CO₂ authorized account representative or CO₂ authorized alternate account representative. The superseding notice of delegation may replace any previously identified electronic submission agent, add a new electronic submission agent, or eliminate entirely any delegation of authority.

(iv) Any electronic submission covered by the certification in clause (b)(5)(ii)(D) and made in accordance with a notice of delegation effective under subparagraph (b)(5)(ii) shall be deemed to be an electronic submission by the CO₂ authorized account representative or CO₂ authorized alternate account representative submitting the notice of delegation.

(c) *Account identification.* The Department or its agent will assign a unique identifying number to each account established under subsections (a) or (b).

§ 145.353. COATS responsibilities of CO₂ authorized account representative and CO₂ authorized alternate account representative.

Following the establishment of a COATS account, the submissions to the Department or its agent pertaining to the account, including submissions concerning the deduction or transfer of CO₂ allowances in the account, shall be made only by the CO₂ authorized account representative or CO₂ authorized alternate account representative for the account.

§ 145.354. Recordation of CO₂ allowance allocations.

(a) By January 1 of each calendar year, the Department or its agent will record the CO₂ allowances allocated for the air pollution reduction account under § 145.342(a).

(b) By January 1 of each calendar year, the Department or its agent will record the CO₂ allowances allocated for the waste coal set-aside account under § 145.342(b)(1), for the strategic use set-aside account under § 145.342(b)(2) and for the cogeneration set-aside account under § 145.342(b)(3) for the year after the last year for which CO₂ allowances were previously allocated

to the set-aside account.

(c) The Department or its agent will assign each CO₂ allowance a serial number that will include digits identifying the year for which the CO₂ allowance is allocated.

§ 145.355. Compliance.

(a) *Allowances available for compliance deduction.* The CO₂ allowances are available to be deducted for compliance with the CO₂ requirements under § 145.306(c) for a control period or an interim control period only if the CO₂ allowances meet the following:

(1) The CO₂ allowances, other than CO₂ offset allowances, are allocated for a prior control period, the same control period or the interim control period for which the allowances will be deducted.

(2) The CO₂ allowances are held in the CO₂ budget source's compliance account as of the CO₂ allowance transfer deadline for that control period or the interim control period or are transferred into the compliance account by a CO₂ allowance transfer correctly submitted for recordation under § 145.361 by the CO₂ allowance transfer deadline for that control period or the interim control period.

(3) For CO₂ offset allowances, the number of CO₂ offset allowances available to be deducted in order for a CO₂ budget source to comply with the CO₂ requirements under § 145.306(c) for a control period or an interim control period may not exceed 3.3% of the CO₂ budget source's CO₂ emissions for that control period or 3.3% of 0.50 times the CO₂ budget source's CO₂ emissions for an interim control period, as determined in accordance with §§ 145.351—145.358 and §§ 145.371—145.377.

(4) The CO₂ allowances are not necessary for deductions for excess emissions for a prior control period under subsection (d).

(b) *Deductions for compliance.* Following the recordation, in accordance with § 145.362 (relating to recordation), of CO₂ allowance transfers submitted for recordation in the CO₂ budget source's compliance account by the CO₂ allowance transfer deadline for a control period or interim control period, the Department or its agent will deduct CO₂ allowances available under subsection (a) to cover the source's CO₂ emissions for the control period or interim control period, as follows:

(1) Until the amount of CO₂ allowances deducted equals the number of tons of total CO₂ emissions, or 0.50 times the number of tons of total CO₂ emissions for an interim control period, less any CO₂ emissions attributable to the burning of eligible biomass, determined in accordance with §§ 145.371—145.377, from all CO₂ budget units at the CO₂ budget source for the control period or interim control period.

(2) Until there are no more CO₂ allowances remaining in the compliance account that are available to be deducted under subsection (a), if there are insufficient CO₂ allowances to complete the deductions in paragraph (b)(1).

(c) Allowance identification.

(1) The CO₂ authorized account representative for a CO₂ budget source's compliance account may identify by serial number the CO₂ allowances to be deducted from the compliance account for emissions or excess emissions for a control period or an interim control period in accordance with subsection (b) or (d). The identification shall be made in the compliance certification report submitted in accordance with § 145.331.

(2) The Department or its agent will deduct CO₂ allowances for a control period or an interim control period from the CO₂ budget source's compliance account, in the absence of an identification or in the case of a partial identification of available CO₂ allowances by serial number under paragraph (c)(1), in the following order:

(i) CO₂ offset allowances subject to the relevant compliance deduction limitations under paragraph (a)(3) will be deducted in chronological order. In the event that some, but not all, CO₂ offset allowances from a particular allocation year are to be deducted, CO₂ offset allowances will be deducted by serial number, with lower serial number allowances deducted before higher serial number allowances.

(ii) CO₂ allowances, other than CO₂ offset allowances, that are available for deduction under subsection (a) will be deducted in chronological order. In the event that some, but not all, CO₂ allowances from a particular allocation year are to be deducted, CO₂ allowances will be deducted by serial number, with lower serial number allowances deducted before higher serial number allowances.

(d) Deductions for excess emissions.

(1) After making the deductions for compliance under subsection (b), the Department or its agent will deduct from the CO₂ budget source's compliance account a number of CO₂ allowances, equal to 3 times the number of the CO₂ budget source's excess emissions.

(2) If the compliance account does not contain sufficient CO₂ allowances to cover 3 times the number of the CO₂ budget source's excess emissions, the CO₂ budget source shall immediately transfer CO₂ allowances into its compliance account in an amount equal to 3 times the number of the CO₂ budget source's excess emissions. No CO₂ offset allowances may be deducted to account for the source's excess emissions.

(3) A CO₂ allowance deduction required under paragraph (d)(1) will not affect the liability of the owner or operator of the CO₂ budget source or the CO₂ budget units at the source for any fine, penalty or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under the Clean Air Act or the act. The following guidelines will be followed by the Department in assessing fines, penalties or other obligations:

(i) For purposes of determining the number of days of violation, if a CO₂ budget source has excess emissions for a control period or an interim control period, each day in the control period

or an interim control period constitutes a day of violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.

(ii) Each ton of excess emissions is a separate violation.

(e) *Recordation.* The Department or its agent will record in the appropriate compliance account all deductions from the account under subsections (b) and (c) and (d).

(f) *Action by the Department on submissions.*

(1) The Department may review and conduct independent audits concerning any submission under the CO₂ Budget Trading Program and make appropriate adjustments of the information in the submissions.

(2) The Department may deduct CO₂ allowances from or transfer CO₂ allowances to a CO₂ budget source's compliance account based on information in the submissions, as adjusted under paragraph (f)(1).

§ 145.356. Banking.

A CO₂ allowance that is held in a compliance account or a general account will remain in the account until the CO₂ allowance is deducted or transferred under § 145.332, § 145.355, § 145.357 or §§ 145.361—145.363.

§ 145.357. Account error.

The Department or its agent may correct any error in a COATS account. Within 10 business days of making the correction, the Department or its agent will notify the CO₂ authorized account representative for the account.

§ 145.358. Closing of general accounts.

(a) The CO₂ authorized account representative of a general account may instruct the Department or its agent to close the account by submitting a statement requesting deletion of the account from COATS and by correctly submitting for recordation under § 145.361 a CO₂ allowance transfer of all CO₂ allowances in the account to one or more other COATS account.

(b) If a general account shows no activity for 1 year or more and does not contain any CO₂ allowances, the Department or its agent may notify the CO₂ authorized account representative for the account that the account will be closed in COATS following 30 business days after the notice is sent. The Department or its agent will close the account after the 30-day period unless before the end of the 30-day period the Department or its agent receives a correctly submitted transfer of CO₂ allowances into the account under § 145.361 or a statement submitted by the CO₂ authorized account representative requesting that the account should not be closed. The Department or its agent will have sole discretion to determine if the owner or operator of the unit demonstrated that the account should not be closed.

CO₂ ALLOWANCE TRANSFERS

Sec.

§ 145.361 Submission of CO₂ allowance transfers.

§ 145.362 Recordation.

§ 145.363 Notification.

§ 145.361. Submission of CO₂ allowance transfers.

The CO₂ authorized account representatives seeking recordation of a CO₂ allowance transfer shall submit the transfer to the Department or its agent. The CO₂ allowance transfer shall include the following, in a format prescribed by the Department:

- (1) The numbers identifying the accounts of the transferor and transferee.
- (2) A specification by serial number of each CO₂ allowance to be transferred.
- (3) The printed name and signature of the CO₂ authorized account representative of the transferor account and the date signed.
- (4) The date of the completion of the last sale or purchase transaction for the CO₂ allowance, if any.
- (5) The purchase or sale price of the CO₂ allowance that is the subject of a sale or purchase transaction under paragraph (4).

§ 145.362. Recordation.

(a) Within 5 business days of receiving a CO₂ allowance transfer, except as provided in subsection (b), the Department or its agent will record a CO₂ allowance transfer by moving each CO₂ allowance from the account of the transferor to the account of the transferee as specified by the request, if the following are met:

- (1) The transfer is correctly submitted under § 145.361.
- (2) The account of the transferor includes each CO₂ allowance identified by serial number in the transfer.

(b) A CO₂ allowance transfer into or out of a compliance account that is submitted for recordation following the CO₂ allowance transfer deadline and that includes any CO₂ allowance allocated for a control period or interim control period prior to or the same as the control period or interim control period to which the CO₂ allowance transfer deadline applies will not be recorded until after completion of the process in § 145.355(b).

(c) A CO₂ allowance transfer submitted for recordation that fails to meet the requirements of subsection (a) will not be recorded.

§ 145.363. Notification.

(a) *Notification of recordation.* Within 5 business days of recordation of a CO₂ allowance transfer under § 145.362, the Department or its agent will notify each party to the transfer. Notice will be given to the CO₂ authorized account representative of the account of the transferor and the CO₂ authorized account representative of the account of the transferee.

(b) *Notification of non-recordation.* Within 10 business days of receipt of a CO₂ allowance transfer that fails to meet the requirements of § 145.362(a), the Department or its agent will notify the CO₂ authorized account representative of the account of the transferor and the CO₂ authorized account representative of the account of the transferee of the following:

- (1) A decision not to record the transfer.
- (2) The reasons for the non-recordation.

(c) *Resubmission.* Nothing in this section precludes the resubmission of a CO₂ allowance transfer for recordation following notification under subsection (b).

MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

Sec.

- § 145.371 General monitoring requirements.
- § 145.372 Initial certification and recertification procedures.
- § 145.373 Out-of-control periods.
- § 145.374 Notifications.
- § 145.375 Recordkeeping and reporting.
- § 145.376 Petitions.
- § 145.377 CO₂ budget units that co-fire eligible biomass.

§ 145.371. General monitoring requirements.

The owner or operator, and to the extent applicable, the CO₂ authorized account representative of a CO₂ budget unit, shall comply with the monitoring, recordkeeping and reporting requirements as provided in this section and §§ 145.372—145.377 (relating to monitoring, reporting, and recordkeeping requirements) and all applicable sections of 40 CFR Part 75. Where referenced in §§ 145.371—145.377, the monitoring requirements of 40 CFR Part 75 shall be adhered to in a manner consistent with the purpose of monitoring and reporting CO₂ mass emissions under this subchapter. For purposes of complying with these requirements, the definitions in § 145.302 and in 40 CFR 72.2 (relating to definitions) apply, and the terms “affected unit,” “designated representative” and “continuous emissions monitoring system” in 40 CFR Part 75 shall be replaced by the terms “CO₂ budget unit,” “CO₂ authorized account representative” and “continuous emissions monitoring system,” respectively, as defined in § 145.302. For units not

subject to an acid rain emissions limitation, the term “Administrator” in 40 CFR Part 75 shall be replaced with “the Administrator, Department or its agent.” The owner or operator of a unit that is not a CO₂ budget unit but that is monitored under 40 CFR 75.72(b)(2)(ii) (relating to determination of NO_x mass emissions for common stack and multiple stack configurations) shall comply with the monitoring, reporting and recordkeeping requirements for a CO₂ budget unit under this subchapter.

(1) *Requirements for installation, certification and data accounting.* The owner or operator of each CO₂ budget unit must meet the following:

(i) Install all monitoring systems necessary to monitor CO₂ mass emissions in accordance with 40 CFR Part 75, except for equation G-1. This includes all systems required to monitor CO₂ concentration, stack gas flow rate, O₂ concentration, heat input and fuel flow rate, in accordance with 40 CFR Part 75, Subpart H (relating to NO_x mass emissions provisions).

(ii) Successfully complete all certification tests required under § 145.372 (relating to initial certification and recertification procedures) and meet all other provisions of this subchapter and 40 CFR Part 75 applicable to the monitoring systems under subparagraph (a)(1)(i).

(iii) Record, report and quality-assure the data from the monitoring systems under subparagraph (a)(1)(i).

(2) *Compliance dates.* The owner or operator of a CO₂ budget unit shall meet the monitoring system certification and other requirements of paragraph (a)(1) and shall record, report and quality-assure data from the monitoring systems under subparagraph (a)(1)(i) according to the following schedule:

(i) Except for a CO₂ budget unit under subparagraph (a)(2)(ii), a CO₂ budget unit that commences commercial operation before July 1, 2021, shall comply with this section and §§ 145.372—145.377 by January 1, 2022.

(ii) A CO₂ budget unit that commences commercial operation on or after July 1, 2021, shall comply with the requirements of this section and §§ 145.372—145.377 by the later of the following dates:

(A) January 1, 2022.

(B) The earlier of:

(I) 90-unit operating days after the date on which the unit commences commercial operation.

(II) 180 calendar days after the date on which the unit commences commercial operation.

(iii) The owner or operator of a CO₂ budget unit for which construction of a new stack or flue installation is completed after the applicable deadline under paragraph (a)(2)(i) or (a)(2)(ii)

by the earlier of:

(A) 90-unit operating days after the date on which emissions first exit to the atmosphere through the new stack or flue.

(B) 180 calendar days after the date on which emissions first exit to the atmosphere through the new stack or flue.

(3) *Reporting data.*

(i) Except as provided in subparagraph (a)(3)(ii), the owner or operator of a CO₂ budget unit that does not meet the applicable compliance date set forth in paragraph (a)(2) for any monitoring system under subparagraph (a)(1)(i) shall, for each monitoring system, determine, record and report maximum potential, or as appropriate minimum potential, values for CO₂ concentration, CO₂ emissions rate, stack gas moisture content, fuel flow rate, heat input and any other parameter required to determine CO₂ mass emissions under 40 CFR 75.31(b)(2) or (c)(3) (relating to initial missing data procedures), or 40 CFR Part 75, Appendix D, Section 2.4, as applicable.

(ii) The owner or operator of a CO₂ budget unit that does not meet the applicable compliance date set forth in subparagraph (a)(2)(iii) for any monitoring system under subparagraph (a)(1)(i) shall, for each monitoring system, determine, record and report substitute data using the applicable missing data procedures in 40 CFR Part 75, Subpart D (relating to missing data substitution procedures) or Appendix D, in lieu 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 under subparagraph (a)(2)(iii).

(A) A CO₂ budget unit subject to an acid rain emissions limitation that qualifies for the optional SO₂, NO_x and CO₂ emissions calculations for low mass emissions (LME) units under 40 CFR 75.19 (relating to optional SO₂, NO_x, and CO₂ emissions calculation for low mass emissions (LME) units) and report emissions for the acid rain program using the calculations under 40 CFR 75.19, shall also use the CO₂ emissions calculations for LME units under 40 CFR 75.19 for purposes of compliance with this subchapter.

(B) A CO₂ budget unit subject to an acid rain emissions limitation that does not qualify for the optional SO₂, NO_x and CO₂ emissions calculations for LME units under 40 CFR 75.19, shall not use the CO₂ emissions calculations for LME units under 40 CFR 75.19 for purposes of compliance with this subchapter.

(C) A CO₂ budget unit not subject to an acid rain emissions limitation shall qualify for the optional CO₂ emissions calculation for LME units under 40 CFR 75.19, if the unit emits less than 100 tons of NO_x annually and no more than 25 tons of SO₂ annually.

(4) *Prohibitions.*

(i) An owner or operator of a CO₂ budget unit may not use an alternative monitoring system, alternative reference method or another alternative for the required CEMS without having obtained prior written approval in accordance with § 145.376 (relating to petitions).

(ii) An owner or operator of a CO₂ budget unit may not operate the unit so as to discharge, or allow to be discharged, CO₂ emissions to the atmosphere without accounting for the emissions in accordance with the applicable provisions of this subchapter and 40 CFR Part 75.

(iii) An owner or operator of a CO₂ budget unit may not disrupt the CEMS, a portion thereof or another approved emissions monitoring method, and thereby avoid monitoring and recording CO₂ 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 subchapter and 40 CFR Part 75.

(iv) An owner or operator of a CO₂ budget unit may not retire or permanently discontinue use of the CEMS, any component thereof or another approved emissions monitoring system under this subchapter, except under one of the following circumstances:

(A) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this subchapter and 40 CFR Part 75, by the Department for use at the unit that provides emissions data for the same pollutant or parameter as the retired or discontinued monitoring system.

(B) The CO₂ authorized account representative submits notification of the date of certification testing of a replacement monitoring system in accordance with § 145.372(d)(3)(i) (relating to initial certification and recertification procedures).

§ 145.372. Initial certification and recertification procedures.

(a) *Exemption.* The owner or operator of a CO₂ budget unit shall be exempt from the initial certification requirements for a monitoring system under § 145.371(a)(1)(i) if the following conditions are met:

(1) The monitoring system has been previously certified in accordance with 40 CFR Part 75.

(2) The applicable quality-assurance and quality-control requirements of 40 CFR 75.21 (relating to quality assurance and quality control requirements) and 40 CFR Part 75, Appendix B (relating to quality assurance and quality control procedures) and Appendix D are fully met for the certified monitoring system described in paragraph (a)(1).

(b) *Applicability.* The recertification provisions of this section shall apply to a monitoring system under § 145.371(a)(1)(i) that is exempt from initial certification requirements under subsection (a).

(c) *Petitions.* Notwithstanding subsection (a), if the Administrator approved a petition under 40 CFR 75.72(b)(2)(ii) or 40 CFR 75.16(b)(2)(ii)(B) (relating to special provisions for monitoring

emissions from common, bypass, and multiple stacks for SO₂ emissions and heat input determinations) as pursuant to 40 CFR 75.13 (relating to specific provisions for monitoring CO₂ emissions) for apportioning the CO₂ emissions rate measured in a common stack or a petition under 40 CFR 75.66 (relating to petitions to the administrator) for an alternative requirement in 40 CFR Part 75, the CO₂ authorized account representative shall submit the petition to the Department under § 145.376(a) to determine if the approval applies under the CO₂ Budget Trading Program.

(d) *Certification and recertification.* Except as provided in subsection (a), the owner or operator of a CO₂ budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D and under § 145.371(a)(1)(i). The owner or operator of a CO₂ budget unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR 75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E (relating to alternative monitoring systems) shall comply with the procedures in subsections (e) or (f), respectively.

(1) *Requirements for initial certification.* The owner or operator of a CO₂ budget unit shall ensure that each CEMS required under § 145.371(a)(1)(i), including the automated data acquisition and handling system, successfully completes all of the initial certification testing required under 40 CFR 75.20 (relating to initial certification and recertification procedures) by the applicable deadlines specified in § 145.371(a)(2). In addition, whenever the owner or operator installs a monitoring system to meet the requirements of this subchapter in a location where no monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required.

(2) *Requirements for recertification.*

(i) Whenever the owner or operator makes a replacement, modification or change to a certified CEMS under § 145.371(a)(1)(i) that the Administrator or the Department determines significantly affects the ability of the system to accurately measure or record CO₂ mass emissions or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or 40 CFR Part 75, Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR 75.20(b).

(ii) For a system using stack measurements including stack flow, stack moisture content, CO₂ or O₂ monitors, whenever the owner or operator makes a replacement, modification or change to the flue gas handling system or the unit's operation that the Administrator or the Department determines to significantly change the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR 75.20(b).

(3) *Approval process for initial certification and recertification.*

(i) *Notification of certification.* The CO₂ authorized account representative shall submit to the Department and the appropriate EPA Regional Office a written notice of the dates of certification in accordance with § 145.374 (relating to notifications).

(ii) *Certification application.* The CO₂ authorized account representative shall submit to the Department a certification application for each monitoring system required under 40 CFR 75.63 (relating to initial certification or recertification application). A complete certification application shall include the information specified in 40 CFR 75.63.

(iii) *Provisional certification data.* The provisional certification date for a monitor shall be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitor may be used under the CO₂ budget Trading Program for a period not to exceed 120 days after receipt by the Department of the complete certification application for the monitoring system or component thereof under subparagraph (d)(3)(ii). Data measured and recorded by the provisionally certified monitoring system or component thereof, in accordance with the requirements of 40 CFR Part 75, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), if the Department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of receipt of the complete certification application by the Department.

(iv) *Certification application approval process.* The Department will issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application under subparagraph (d)(3)(ii). If the Department does not issue the notice within the 120-day period, each monitoring system which meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application will be deemed certified for use under the CO₂ Budget Trading Program.

(A) *Approval notice.* If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department will issue a written notice of approval of the certification application within 120 days of receipt.

(B) *Incomplete application notice.* If the certification application is not complete, the Department will issue a written notice of incompleteness that sets a date by which the CO₂ authorized account representative must submit the additional information required to complete the certification application. If the CO₂ authorized account representative does not comply with the notice of incompleteness by the specified date, then the Department may issue a notice of disapproval under clause (d)(3)(iv)(C). The 120-day review period may not begin prior to receipt of a complete certification application.

(C) *Disapproval notice.* If the certification application shows that any monitoring system or component thereof does not meet the performance requirements of 40 CFR Part 75, or if the certification application is incomplete and the requirement for disapproval under clause (d)(3)(iv)(B) is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of the notice of disapproval, the provisional certification is invalidated by the Department and the data measured and recorded by each uncertified monitoring system or component thereof will not be considered valid quality-assured data beginning with the date and hour of provisional certification. The owner or operator shall follow the procedures for loss of certification in subparagraph (d)(3)(v) for each monitoring system or component thereof which is disapproved for initial certification.

(D) *Audit decertification.* The Department may issue a notice of disapproval of the certification status of a monitor in accordance with § 145.373(b) (relating to out-of-control periods).

(v) *Procedures for loss of certification.* If the Department issues a notice of disapproval of a certification application under clause (d)(3)(iv)(C) or a notice of disapproval of certification status under clause (d)(3)(iv)(D), the following apply:

(A) The owner or operator shall substitute the following values, for each disapproved monitoring system, for each hour of unit operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date and hour specified under 40 CFR 75.20(a)(5)(i) or 40 CFR 75.20(g)(7):

(I) For a unit using or intending to monitor for CO₂ mass emissions using heat input or for a unit using the low mass emissions excepted methodology under 40 CFR 75.19, the maximum potential hourly heat input of the unit.

(II) For a unit intending to monitor for CO₂ mass emissions using a CO₂ pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO₂ and the maximum potential flow rate of the unit under 40 CFR Part 75, Appendix A, Section 2.1 (relating to specifications and test procedures).

(B) The CO₂ authorized account representative shall submit a notification of certification retest dates and a new certification application in accordance with subparagraphs (d)(3)(i) and (ii).

(C) The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, no later than 30-unit operating days after the date of issuance of the notice of disapproval.

(e) *Initial certification and recertification procedures for low mass emissions units using the excepted methodologies under § 145.371(a)(3)(ii).* The owner or operator of a unit qualified to use the low mass emissions excepted methodology under § 145.371(a)(3)(ii) shall meet the applicable certification and recertification requirements of 40 CFR 75.19(a)(2), 40 CFR 75.20(h) and this section. If the owner or operator of the unit elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR 75.20(g).

(f) *Certification and recertification procedures for an alternative monitoring system.* The CO₂ authorized account representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator and, if applicable, by the Department under 40 CFR Part 75, Subpart E shall comply with the applicable notification and application procedures of 40 CFR 75.20(f).

§ 145.373. Out-of-control periods.

(a) *Quality assurance requirements.* Whenever a monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D or Appendix D.

(b) *Audit decertification.* Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under § 145.372 or the applicable provisions of 40 CFR Part 75, 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. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the Department or the Administrator. 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. The owner or operator shall follow the initial certification or recertification procedures in § 145.372 for each disapproved monitoring system.

§ 145.374. Notifications.

The CO₂ authorized account representative for a CO₂ budget unit shall submit written notice to the Department and the Administrator in accordance with 40 CFR 75.61 (relating to notifications).

§ 145.375. Recordkeeping and reporting.

(a) *General provisions.* The CO₂ authorized account representative shall comply with the recordkeeping and reporting requirements in this section, the applicable recordkeeping and reporting requirements under 40 CFR 75.73 (relating to recordkeeping and reporting) and with the requirements of § 145.311(e).

(b) *Monitoring plans.* The owner or operator of a CO₂ budget unit shall submit a monitoring plan in the manner prescribed in 40 CFR 75.62 (relating to monitoring plan submittals).

(c) *Certification applications.* The CO₂ authorized account representative shall submit an application to the Department within 45 days after completing all CO₂ monitoring system initial certification or recertification tests required under § 145.372 including the information required under 40 CFR 75.63 (relating to initial certification or recertification application) and 40 CFR 75.53(g) and (h) (relating to monitoring plan).

(d) *Quarterly reports.* The CO₂ authorized account representative shall submit quarterly reports, as follows:

(1) The CO₂ mass emissions data for the CO₂ budget unit, in an electronic format prescribed by the Administrator unless otherwise prescribed by the Administrator or the Department for each calendar quarter beginning with one of the following:

(i) For a unit that commenced commercial operation before January 1, 2022, the calendar quarter covering January 1, 2022 through March 31, 2022.

(ii) For a unit that commenced commercial operation on or after January 1, 2022, the calendar quarter corresponding to, the earlier of the date of provisional certification or the applicable deadline for initial certification under § 145.371(2).

(2) The CO₂ authorized account representative shall submit each quarterly report to the Administrator and the Department or its agent within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR Part 75, Subpart H and 40 CFR 75.64 (relating to quarterly reports).

(i) Quarterly reports shall be submitted for each CO₂ budget unit, or group of units using a common stack, and shall include all the data and information required in 40 CFR Part 75, Subpart G (relating to reporting requirements) except for opacity, heat input, NO_x and SO₂ provisions.

(3) The CO₂ authorized account representative shall submit to the Administrator or the Department a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all the unit's emissions are correctly and fully monitored. The certification shall state that the following conditions have been met:

(i) The monitoring data submitted were recorded in accordance with the applicable requirements of this subchapter and 40 CFR Part 75, including the quality assurance procedures and specifications.

(ii) For a unit with add-on CO₂ emissions controls and for all hours where data are substituted in accordance with 40 CFR 75.34(a)(1) (relating to units with add-on emission controls), the add-on emissions controls were operating within the range of parameters listed in the quality assurance/quality control program under 40 CFR Part 75, Appendix B and the substitute values do not systematically underestimate CO₂ emissions.

(iii) The CO₂ concentration values substituted for missing data under 40 CFR Part 75, Subpart D do not systematically underestimate CO₂ emissions.

§ 145.376. Petitions.

(a) Except as provided in subsection (c), the CO₂ authorized account representative of a CO₂ budget unit that is subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the Department requesting approval to apply an alternative to any requirement of 40 CFR Part 75.

(b) Application of an alternative to any requirement of 40 CFR Part 75 is in accordance with this subchapter only to the extent that the petition is approved in writing by the Administrator and subsequently approved in writing by the Department.

(c) The CO₂ authorized account representative of a CO₂ budget unit that is not subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the Department requesting approval to apply an alternative to any requirement of 40 CFR Part 75. Application of an alternative to any requirement of 40 CFR Part 75 is in accordance with this subchapter only to the extent that the petition is approved in writing by the Administrator and subsequently approved in writing by the Department.

(d) In the event that the Administrator declines to review a petition under subsection (c), the CO₂ authorized account representative of a CO₂ budget unit that is not subject to an acid rain emissions limitation may submit a petition to the Department requesting approval to apply an alternative to any requirement of §§ 145.371—145.377. That petition shall contain all of the relevant information specified in 40 CFR 75.66. Application of an alternative to any requirement of §§ 145.371—145.377 is in accordance with §§ 145.371—145.377 only to the extent that the petition is approved in writing by the Department.

(e) The CO₂ authorized account representative of a CO₂ budget unit that is subject to an acid rain emissions limitation may submit a petition to the Administrator under 40 CFR 75.66 and to the Department requesting approval to apply an alternative to a requirement concerning any additional CEMS required under the common stack provisions of 40 CFR 75.72 or a CO₂ concentration CEMS used under 40 CFR 75.71(a)(2) (relating to specific provisions for monitoring NO_x and heat input for the purpose of calculating NO_x mass emissions). Application of an alternative to any requirement is in accordance with §§ 145.371—145.377 only to the extent the petition is approved in writing by the Administrator and subsequently approved in writing by the Department.

§ 145.377. CO₂ budget units that co-fire eligible biomass.

(a) The CO₂ authorized account representative of a CO₂ budget unit that co-fires eligible biomass as a compliance mechanism under this subchapter shall report the following information to the Department or its agent for each calendar quarter:

(1) For each shipment of solid eligible biomass fuel fired at the CO₂ budget unit:

- (i) The total eligible biomass fuel input, on an as-fired basis, in pounds.
- (ii) The moisture content, on an as-fired basis, as a fraction by weight.

(2) For each distinct type of gaseous eligible biomass fuel fired at the CO₂ budget unit:

- (i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot.
- (ii) The moisture content of the biogas, on an as-fired basis, as a fraction by total weight.

(iii) The total eligible biomass fuel input, in standard cubic feet.

(3) For each distinct type of eligible biomass fuel fired at the CO₂ budget unit:

(i) The dry basis carbon content of the fuel type, as a fraction by dry weight.

(ii) The dry basis higher heating value, in MMBtu per dry pound.

(iii) The total dry basis eligible biomass fuel input, in pounds, calculated in accordance with subsection (b).

(iv) The total eligible biomass fuel heat input, in MMBtu, calculated in accordance with paragraph (d)(1).

(v) A chemical analysis, including heating value and carbon content.

(4) The total amount of CO₂ emitted from the CO₂ budget unit due to firing eligible biomass fuel, in tons, calculated in accordance with subsection (c).

(5) The total amount of heat input to the CO₂ budget unit due to firing eligible biomass fuel, in MMBtu, calculated in accordance with paragraph (d)(2).

(6) A description and documentation of the monitoring technology employed, and a description and documentation of the fuel sampling methodology employed, including sampling frequency.

(b) An owner or operator of a CO₂ budget unit shall calculate and submit to the Department or its agent on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO₂ budget unit during the reporting quarter. The total dry weight shall be determined for each fuel type as follows:

(1) For solid fuel types:

$$F_j = \sum_{i=1}^m (1 - M_i) \times F_i$$

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j.

F_i = Eligible biomass as fired fuel input (lbs) for fired shipment i.

M_i = Moisture content (fraction) for fired shipment i.

i = Fired fuel shipment.

j = Fuel type.

m = Number of shipments.

(2) For gaseous fuel types:

$$F_j = D_j \times V_j \times (1 - M_j)$$

Where:

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j.

D_j = Density of biogas (lbs/scf) for fuel type j.

V_j = Total volume (scf) for fuel type j.

M_j = Moisture content (fraction) for fuel type j.

j = Fuel type.

(c) CO₂ emissions due to firing of eligible biomass shall be determined as follows:

(1) For any full calendar quarter during which no fuel other than eligible biomass is combusted at the CO₂ budget unit, as measured and recorded in accordance with §§ 145.371—145.376 or for any full calendar quarter during which fuels other than eligible biomass are combusted at the CO₂ budget unit, as determined using the following equation:

$$CO_2 \text{ tons} = \sum_{j=1}^n F_j \times C_j \times O_j \times \frac{44}{12} \times 0.0005$$

Where:

CO₂ tons = CO₂ emissions due to firing of eligible biomass for the reporting quarter.

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j, as calculated in subsection (b).

C_j = Carbon fraction (dry basis) for fuel type j.

O_j = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash, as determined under paragraph (a)(6); for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used.

44/12 = The number of tons of carbon dioxide that are created when one ton of carbon is combusted

0.0005 = The number of short tons which is equal to one pound.

j = Fuel type.

n = Number of distinct fuel types.

(d) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(1) For each distinct fuel type:

$$H_j = F_j \times HHV_j$$

Where:

H_j = Heat input (MMBtu) for fuel type j.

F_j = Total eligible biomass dry basis fuel input (lbs) for fuel type j, as calculated in subsection (b).

HHV_j = Higher heating value (MMBtu/lb), dry basis, for fuel type j, as determined through chemical analysis.

j = Fuel type.

(2) For all fuel types:

$$\text{Heat input MMBtu} = \sum_{i=1}^n H_j$$

Where:

H_j = Heat input (MMBtu) for fuel type j.

j = Fuel type.

n = Number of distinct fuel types.

AUCTION OF CO₂ CCR AND ECR ALLOWANCES

Sec.

145.381. Purpose.

145.382. General requirements.

§ 145.381. Purpose.

The following requirements shall apply to each allowance auction. The Department or its agent may specify additional information in the auction notice for each auction. Such additional information may include the time and location of the auction, auction rules, registration deadlines and any additional information deemed necessary or useful.

§ 145.382. General Requirements.

(a) In the auction notice for each auction, the Department or its agent shall include the following:

(1) The number of CO₂ allowances offered for sale at the auction, not including any CO₂ CCR allowances.

(2) The number of CO₂ CCR allowances that will be offered for sale at the auction if the condition in paragraph (b)(1) is met.

(3) The minimum reserve price for the auction.

(4) *The CCR trigger price for the auction.* The CCR trigger price in calendar year 2022 shall be \$13.91. Each calendar year after 2022, the CCR trigger price shall be 1.07 multiplied by the CCR trigger price from the previous calendar year, rounded to the nearest whole cent, as shown in Table 1.

Table 1. CO₂ CCR Trigger Price

2023	2024	2025	2026	2027	2028	2029	2030
\$14.88	\$15.92	\$17.03	\$18.22	\$19.50	\$20.87	\$22.33	\$23.89

(5) The maximum number of CO₂ allowances that may be withheld from sale at the auction if the condition in paragraph (d)(1) is met.

(6) *The ECR trigger price for the auction.* The ECR trigger price in calendar year 2022 shall be \$6.42. Each calendar year after 2022, the ECR trigger price shall be 1.07 multiplied by the ECR trigger price from the previous calendar year, rounded to the nearest whole cent, as shown in Table 2.

Table 2. CO₂ ECR Trigger Price

2023	2024	2025	2026	2027	2028	2029	2030
\$ 6.87	\$ 7.35	\$ 7.86	\$ 8.41	\$ 9.00	\$ 9.63	\$10.30	\$11.02

(b) For the sale of CO₂ CCR allowances, the Department or its agent will do the following:

(1) CO₂ CCR allowances will only be sold at an auction in which the total demand for

allowances, above the CCR trigger price, exceeds the number of CO₂ allowances available for purchase at the auction, not including any CO₂ CCR allowances.

(2) If the condition in paragraph (b)(1) is met at an auction, then the number of CO₂ CCR allowances offered for sale by the Department or its agent at the auction will be equal to the number of CO₂ CCR allowances in the air pollution reduction account at the time of the auction.

(3) After all of the CO₂ CCR allowances in the air pollution reduction account have been sold in a given calendar year, no additional CO₂ CCR allowances will be sold at any auction for the remainder of that calendar year, even if the condition in paragraph (b)(1) is met at an auction.

(4) At an auction in which CO₂ CCR allowances are sold, the reserve price for the auction shall be the CCR trigger price.

(5) If the condition in paragraph (b)(1) is not satisfied, no CO₂ CCR allowances will be offered for sale at the auction and the reserve price for the auction will be equal to the minimum reserve price.

(c) The Department or its agent will implement the reserve price in the following manner:

(1) No CO₂ allowances will be sold at any auction for a price below the reserve price for that auction.

(2) If the total demand for CO₂ allowances at an auction is less than or equal to the total number of CO₂ allowances made available for sale in that auction, then the auction clearing price for the auction shall be the reserve price.

(d) For the withholding of CO₂ ECR allowances from an auction, the Department or its agent will do the following:

(1) CO₂ ECR allowances will only be withheld from an auction if the demand for allowances would result in an auction clearing price that is less than the ECR trigger price prior to the withholding from the auction of any ECR allowances.

(2) If the condition in paragraph (d)(1) is met at an auction, then the maximum number of CO₂ ECR allowances that may be withheld from that auction will be equal to the quantity in § 145.342(e)(1) minus the total quantity of CO₂ ECR allowances that have been withheld from any prior auction in that calendar year. The Department will transfer any CO₂ ECR allowances withheld from an auction into the Pennsylvania ECR Account.

CO₂ EMISSIONS OFFSET PROJECTS

Sec.

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§ 145.391. Purpose.

The Department may award CO₂ offset allowances to sponsors of CO₂ emissions offset projects that have reduced or avoided atmospheric loading of CO₂, CO₂ equivalent or sequestered carbon as demonstrated in accordance with the applicable provisions of §§ 145.391—145.397. The requirements of §§ 145.391—145.397 seek to ensure that CO₂ offset allowances awarded represent CO₂ equivalent emission reductions or carbon sequestration that are real, additional, verifiable, enforceable and permanent within the framework of a standards-based approach. Subject to the relevant compliance deduction limitations of § 145.355(a)(3), CO₂ offset allowances may be used by any CO₂ budget source for compliance purposes.

§ 145.392. Definitions.

The following words and terms, when used in §§ 145.391—145.397, have the following meanings, unless the context clearly indicates otherwise:

AEPS—Alternative energy portfolio standards—Standards establishing that a certain amount of energy sold from alternative energy sources, as defined under section 1648.2 of the Alternative Energy Portfolio Standards Act (73 P.S. § 1648.2), is included as part of the sources of electric generation by electric utilities within this Commonwealth.

Anaerobic digester—A device that promotes the decomposition of organic material to simple organics and gaseous biogas products, in the absence of elemental oxygen, usually accomplished by means of controlling temperature and volume, and that includes a methane recovery system.

Anaerobic digestion—The decomposition of organic material including manure brought about through the action of microorganisms in the absence of elemental oxygen.

Anaerobic storage—Storage of organic material in an oxygen-free environment, or under oxygen-free conditions, including holding tanks, ponds and lagoons.

Biogas—Gas resulting from the decomposition of organic matter under anaerobic conditions, the principle constituents of which are methane and carbon dioxide.

Conflict of interest—A situation that may arise with respect to an individual in relation to any specific project sponsor, CO₂ emissions offset project or category of offset projects, such that the individual's other activities or relationships with other persons or organizations render or may render the individual incapable of providing an impartial certification opinion, or otherwise compromise the individual's objectivity in performing certification functions.

Forest offset project—An offset project involving reforestation, improved forest management or avoided conversion.

Forest offset project data report—The report prepared by a project sponsor each year that provides the information and documentation required by §§ 145.391—145.397 or the forest offset protocol.

Forest offset protocol—The protocol titled “Regional Greenhouse Gas Initiative Offset Protocol U.S. Forest Projects,” published by the participating states on June 12, 2013.

Independent verifier—An individual that has been approved by the Department or its agent to conduct verification activities.

Intentional Reversal—Any reversal caused by a forest owner's negligence, gross negligence or willful intent, including harvesting, development and harm to the area within the offset project boundary.

Market penetration rate—A measure of the diffusion of a technology, product or practice in a defined market, as represented by the percentage of annual sales for a product or practice, or as a percentage of the existing installed stock for a product or category of products, or as the percentage of existing installed stock that utilizes a practice.

Offset project—

(i) All equipment, materials, items or actions directly related to the reduction of CO₂ equivalent emissions or the sequestration of carbon specified in a consistency application submitted under § 145.394 (relating to application process).

(ii) This term does not include equipment, materials, items or actions unrelated to an offset project reduction of CO₂ equivalent emissions or the sequestration of carbon but occurring at a location where an offset project occurs, unless specified in § 145.395 (relating to CO₂ emissions offset project standards).

Project commencement—

(i) For an offset project involving physical construction, other work at an offset project site or installation of equipment or materials, the date of the beginning of the activity.

(ii) For an offset project that involves the implementation of a management activity or protocol, the date on which the activity is first implemented or the protocol is first utilized.

(iii) For an offset project involving reforestation, improved forest management or avoided conversion, the date specified in section 3.2 of the forest offset protocol.

Project sponsor—The sponsor of an offset project under §§ 145.391—145.397.

Regional-type anaerobic digester—An anaerobic digester using feedstock from more than one agricultural operation or importing feedstock from more than one agricultural operation.

Reporting Period—The period of time covered by a forest offset project data report. The first reporting period for a forest offset project in an initial crediting period may consist of 6 to 24 consecutive months; all subsequent reporting periods in an initial crediting and all reporting periods in any renewed crediting period must consist of 12 consecutive months.

Reversal—A greenhouse gas emission reduction or greenhouse gas removal enhancement for which CO₂ offset allowances have been issued that is subsequently released or emitted back into the atmosphere due to any intentional or unintentional circumstance.

System benefit fund—Any fund collected directly from retail electricity or natural gas ratepayers.

Total solids—The total of all solids in a sample, including the total suspended solids, total dissolved solids and volatile suspended solids.

Unintentional Reversal—Any reversal, including, wildfires, insects or disease that is not the result of the forest owner's negligence, gross negligence or willful intent.

Verification—The confirmation by an independent verifier that certain parts of a CO₂ emissions offset project consistency application and measurement, monitoring or verification report conforms to the requirements of §§ 145.391—145.397.

Volatile solids—The fraction of total solids that is comprised primarily of organic matter as defined in EPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020).

§ 145.393. General requirements.

(a) *Eligibility.* To qualify for the award of CO₂ offset allowances, offset projects shall satisfy all the applicable requirements of §§ 145.391—145.397.

(1) *Offset project types.* The following types of offset projects are eligible for the award of CO₂ offset allowances:

(i) Landfill methane capture and destruction.

(ii) Sequestration of carbon due to reforestation, improved forest management or avoided conversion.

(iii) Avoided methane emissions from agricultural manure management operations.

(2) *Offset project locations.* To qualify for the award of CO₂ offset allowances, an offset project must be located in:

(i) Pennsylvania.

(ii) Partly in Pennsylvania and partly in one or more other participating states, provided that more of the CO₂-equivalent emissions reduction or carbon sequestration due to the offset project is projected to occur in Pennsylvania than in any other participating state.

(b) *Project sponsor.* Any person may act as the sponsor of an offset project, provided that person meets the requirements under § 145.394.

(c) *General additionality requirements.* Except as provided under § 145.395, the Department will not award CO₂ offset allowances to an offset project that meets the following:

(1) An offset project that is required under any local, state or federal law, regulation, or administrative or judicial order. If an offset project receives a consistency determination under § 145.394 and is later required by local, state or federal law, regulation, or administrative or judicial order, then the offset project will remain eligible for the award of CO₂ offset allowances until the end of its current allocation period but its eligibility will not be extended for an additional allocation period.

(2) An offset project that includes an electric generation component, unless the project sponsor transfers legal rights to any and all attribute credits, other than the CO₂ offset allowances awarded under § 145.397, generated from the operation of the offset project that may be used for compliance with AEPS or a regulatory requirement, to the Department or its agent.

(3) An offset project that receives funding or other incentives from any system benefit fund or other incentives provided through revenue from the auction or sale of CO₂ allowances in the air pollution reduction account under § 145.342(a).

(4) An offset project that is awarded credits or allowances under any other mandatory or voluntary greenhouse gas program, except as described in § 145.395(b)(10).

(d) *Maximum allocation periods for offset projects.*

(1) *Maximum allocation periods.* Except as provided in paragraph (d)(2), the Department may award CO₂ offset allowances under § 145.397 for an initial 10-year allocation period. At the end of the initial 10-year allocation period, the Department may award CO₂ offset allowances for a second 10-year allocation period, provided the project sponsor has submitted a consistency application under § 145.394 prior to the expiration of the initial allocation period, and the Department has issued a consistency determination under § 145.394(e)(2).

(2) *Maximum allocation period for sequestration of carbon due to reforestation, improved forest management or avoided conversion.* The Department may award CO₂ offset allowances under § 145.397 for any project involving reforestation, improved forest management or avoided conversion for an initial 25-year allocation period. At the end of the initial 25-year allocation period, or any subsequent crediting period, the Department may award CO₂ offset allowances for a subsequent 25-year allocation period, provided the project sponsor has submitted a consistency

application for the offset project under § 145.394 prior to the expiration of the initial allocation period, and the Department has issued a consistency determination under § 145.394(e)(2).

(e) *Offset project audit.* A project sponsor shall provide in writing, an access agreement to the Department granting the Department or its agent access to the physical location of the offset project to inspect for compliance with §§ 145.391—145.397.

(f) *Ineligibility due to noncompliance.*

(1) If at any time the Department determines that a project sponsor has not complied with the requirements of §§ 145.391—145.397, then the Department may revoke and retire any and all CO₂ offset allowances in the project sponsor's account.

(2) If at any time the Department determines that an offset project does not comply with the requirements of §§ 145.391—145.397, then the Department may revoke any approvals it has issued relative to the offset project.

§ 145.394. Application process.

(a) *Establishment of general account.* The sponsor of an offset project must establish a general account under § 145.352(b). All submissions to the Department required for the award of CO₂ offset allowances under §§ 145.391—145.397 must be from the CO₂ authorized account representative for the general account of the project sponsor.

(b) *Consistency application deadlines.* A consistency application for an offset project shall be submitted, in a format prescribed by the Department and consistent with the requirements of this section by the following deadlines:

(1) For an offset project not involving reforestation, improved forest management or avoided conversion, by the date that is 6 months after the offset project is commenced.

(2) For an offset project involving reforestation, improved forest management or avoided conversion the consistency application, by the date that is one year after the offset project is commenced, except as provided under § 145.395(b)(9).

(3) The Department will deny any consistency application that fails to meet the deadlines in subsection (b).

(c) *Consistency application contents.* For an offset project, the consistency application must include the following:

(1) The project's sponsor's name, address, e-mail address, telephone number, facsimile transmission number and account number.

(2) The offset project description as required by the relevant provisions under § 145.395.

(3) A demonstration that the offset project meets all applicable requirements in §§ 145.391—145.397.

(4) The emissions baseline determination as required by the relevant provisions under § 145.395.

(5) An explanation of how the projected reduction or avoidance of atmospheric loading of CO₂ or CO₂ equivalent or the sequestration of carbon is to be quantified, monitored and verified as required by the relevant provisions under § 145.395.

(6) A completed consistency application agreement signed by the project sponsor that reads as follows:

“The undersigned project sponsor recognizes and accepts that the application for, and the receipt of, CO₂ offset allowances under the CO₂ Budget Trading Program is predicated on the project sponsor following all the requirements of §§ 145.391—145.397. The undersigned project sponsor holds the legal rights to the offset project or has been granted the right to act on behalf of a party that holds the legal rights to the offset project. I understand that eligibility for the award of CO₂ offset allowances under §§ 145.391—145.397 is contingent on meeting the requirements of §§ 145.391—145.397. I authorize the Department or its agent to audit this offset project for purposes of verifying that the offset project, including the monitoring and verification plan, has been implemented as described in this application. I understand that this right to audit shall include the right to enter the physical location of the offset project. I submit to the legal jurisdiction of the Commonwealth of Pennsylvania.”

(7) A statement and certification report signed by the offset project sponsor certifying that all offset projects for which the sponsor has received CO₂ offset allowances under §§ 145.391—145.397, under the sponsor’s ownership or control or under the ownership or control of any entity which controls, is controlled by, or has common control with the sponsor are in compliance with all applicable requirements of the CO₂ Budget Trading Program in all participating states.

(8) A verification report and certification statement signed by an independent verifier accredited under § 145.396 (relating to accreditation of independent verifiers) that expresses that the independent verifier has reviewed the entire application and evaluated the following in relation to the applicable requirements at § 145.393 (relating to general requirements) and § 145.395, and any applicable guidance issued by the Department:

(i) The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements of § 145.393 and § 145.395.

(ii) The adequacy and validity of information supplied by the project sponsor to demonstrate baseline emissions under the applicable requirements under § 145.395.

(iii) The adequacy of the monitoring and verification plan submitted under the applicable requirements under § 145.395.

(iv) Any other evaluations and statements as may be required by the Department.

(9) Disclosure of any voluntary or mandatory programs, other than the CO₂ Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been or will be reported.

(d) The Department will not accept as submitted a consistency application for an offset project if a consistency application has already been submitted for the same project, or any portion of the same project, in another participating state, unless the consistency application was rejected by another participating state solely because more of the CO₂ equivalent emissions reduction or carbon sequestration resulting from the offset project is projected to occur in Pennsylvania than in any other participating state.

(e) *Department action on consistency applications.*

(1) *Completeness determination.* Within 30 days following receipt of the consistency application submitted under subsection (b), the Department will notify the project sponsor whether the consistency application is complete. A complete consistency application is one that is in a form prescribed by the Department and is determined by the Department to contain all applicable information and documentation required by §§ 145.391—145.397. In no event will a completeness determination prevent the Department from requesting additional information in order to make a consistency determination under paragraph (e)(2).

(2) *Consistency determination.* Within 90 days of making the completeness determination under paragraph (e)(1), the Department will issue a determination as to whether the offset project is consistent with the requirements of § 145.393 and this section and the requirements of the applicable offset project standard of § 145.395. For any offset project found to lack consistency with these requirements, the Department will inform the project sponsor of the offset project's deficiencies.

§ 145.395. CO₂ emissions offset project standards.

(a) *Landfill methane capture and destruction.* To qualify for the award of CO₂ offset allowances under §§ 145.391—145.397, an offset project that captures and destroys methane from a landfill shall meet the requirements of this subsection and all other applicable requirements of §§ 145.391—145.397.

(1) *Eligibility.* An offset project shall occur at a landfill that is not subject to the New Source Performance Standards for municipal solid waste landfills, 40 CFR Part 60, Subpart Cc and Subpart WWW (relating to emission guidelines and compliance times for municipal solid waste landfills; and standards of performance for municipal solid waste landfills).

(2) *Offset project description.* The project sponsor shall provide a detailed narrative of the offset project actions to be taken, including documentation that the offset project meets the eligibility requirements of paragraph (a)(1). The project narrative shall include the following:

(i) Identification of the owner or operator of the offset project.

(ii) Location and specifications of the landfill where the offset project will occur, including waste in place.

(iii) Identification of the owner or operator of the landfill where the offset project will occur.

(iv) Specifications of the equipment to be installed and a technical schematic of the offset project.

(3) *Emissions baseline determination.* The emissions baseline shall represent the potential fugitive landfill emissions of CH₄, in tons of CO₂e, as represented by the CH₄ collected and metered for thermal destruction as part of the offset project and calculated as follows:

$$\text{Emissions (tons CO}_2\text{e)} = (\text{V} \times \text{M} \times (1 - \text{OX}) \times \text{GWP}) / 2000$$

Where:

V = volume of CH₄ collected (ft³).

M = Mass of CH₄ per cubic foot (0.04246 lbs/ft³ default value at 1 atmosphere, 20° C).

OX = Oxidation factor (0.10), representing estimated portion of collected CH₄ that would have eventually oxidized to CO₂ if not collected.

GWP = CO₂e global warming potential of CH₄ (28).

(4) *Calculating emissions reductions.* Emissions reductions shall be determined based on potential fugitive CH₄ emissions that would have occurred at the landfill if metered CH₄ collected from the landfill for thermal destruction as part of the offset project was not collected and destroyed. CO₂e emissions reductions shall be calculated as follows:

$$\text{Emissions (tons CO}_2\text{e)} = (\text{V} \times \text{M} \times (1 - \text{OX}) \times \text{C}_{ef} \times \text{GWP}) / 2000$$

Where:

V = Volume of CH₄ collected (ft³).

M = Mass of CH₄ per cubic foot (0.04246 lbs/ft³ default value at 1 atmosphere and 20° C).

OX = Oxidation factor (0.10), representing estimated portion of collected CH₄ that would have eventually oxidized to CO₂ if not collected.

C_{ef} = Combustion efficiency of methane control technology (0.98).

GWP = CO₂e global warming potential of CH₄ (28).

(5) *Monitoring and verification requirements.* An offset project shall employ a landfill gas collection system that provides continuous metering and data computation of landfill gas volumetric flow rate and CH₄ concentration. Annual monitoring and verification reports shall include monthly volumetric flow rate and CH₄ concentration data, including documentation that the CH₄ was actually supplied to the combustion source. Monitoring and verification is also subject to the following:

(i) As part of the consistency application, the project sponsor shall submit a monitoring and verification plan that includes a quality assurance and quality control program associated with equipment used to determine landfill gas volumetric flow rate and CH₄ composition. The monitoring and verification plan shall also include provisions for ensuring that measuring and monitoring equipment is maintained, operated and calibrated based on manufacturer recommendations, as well as provisions for the retention of maintenance records for audit purposes. The monitoring and verification plan shall be certified by an independent verifier accredited under § 145.396.

(ii) The project sponsor shall annually verify landfill gas CH₄ composition through landfill gas sampling and independent laboratory analysis using applicable EPA laboratory test methods.

(b) *Sequestration of carbon due to reforestation, improved forest management or avoided conversion.* To qualify for the award of CO₂ offset allowances under §§ 145.391—145.397, an offset project that involves reforestation, improved forest management, or avoided conversion shall meet all requirements of this subsection and the forest offset protocol, and all other applicable requirements of §§ 145.391—145.397.

(1) *Eligibility.* A forest offset project shall satisfy all eligibility requirements of the forest offset protocol and this subsection.

(2) *Offset project description.* The project sponsor shall provide a detailed narrative of the offset project actions to be taken, including documentation that the offset project meets the eligibility requirements of paragraph (b)(1). The offset project description must include all information identified in sections 8.1 and 9.1 of the forest offset protocol, and any other information deemed necessary by the Department.

(3) *Carbon sequestration baseline determination.* Baseline onsite carbon stocks shall be determined as required by sections 6.1.1, 6.1.2, 6.2.1, 6.2.2, 6.2.3, 6.3.1, and 6.3.2 of the forest offset protocol, as applicable.

(4) *Calculating carbon sequestered.* Net greenhouse gas reductions and greenhouse gas removal enhancements shall be calculated as required by section 6 of the forest offset protocol. The project's risk reversal rating shall be calculated using the forest offset protocol Determination of a Forest Project's Reversal Risk Rating assessment worksheet.

(5) *Monitoring and verification requirements.* Monitoring and verification are subject to the following:

(i) Monitoring and verification reports shall include all forest offset project data reports submitted to the Department, including any additional data required by section 9.2.2 of the forest offset protocol.

(ii) The consistency application shall include a monitoring and verification plan certified by an independent verifier accredited under § 145.396 and shall consist of a forest carbon inventory program, as required by section 8.1 of the forest offset protocol.

(iii) Monitoring and verification reports shall be submitted not less than every 6 years, except that the first monitoring and verification report for reforestation projects must be submitted within 12 years of project commencement.

(6) *Forest Offset Project Data Reports.* A project sponsor shall submit a forest offset project data report to the Department for each reporting period. Each forest offset project data report must cover a single reporting period. Reporting periods must be contiguous and there must be no gaps in reporting once the first reporting period has commenced.

(7) Prior to the award of CO₂ offset allowances under § 145.397, or to any surrender of allowances under § 145.395(b)(8)(ii)(C), any quantity expressed in metric tons, or metric tons of CO₂ equivalent, shall be converted to tons using the conversion factor specified in § 145.302.

(8) *Carbon sequestration permanence.* The project sponsor shall meet the following requirements to address reversals of sequestered carbon.

(i) *Unintentional reversals.* The project sponsor shall address an unintentional reversal of sequestered carbon as follows:

(A) Notify the Department of the reversal and provide an explanation for the nature of the unintentional reversal within 30 calendar days of its discovery.

(B) Submit to the Department a verified estimate of current carbon stocks within the offset project boundary within one year of the discovery of the unintentional reversal.

(ii) *Intentional Reversals.* The project sponsor shall address an intentional reversal of sequestered carbon as follows:

(A) Notify the Department in writing of the intentional reversal and provide a written description and explanation of the intentional reversal within 30 calendar days of the intentional reversal.

(B) Submit to the Department a verified estimate of current carbon stocks within the offset project boundary within one year of the occurrence of an intentional reversal

(C) If an intentional reversal occurs, and CO₂ offset allowances have been awarded to the

offset project, the forest owner must surrender to the Department or its agent for retirement a quantity of CO₂ allowances corresponding to the quantity of CO₂ equivalent tons reversed within 6 months of notification by the Department.

(I) The Department will provide notification after the project sponsor has submitted a verified estimate of carbon stocks to the Department, or if the project sponsor fails to submit verified estimate of carbon stocks after one year has elapsed since the occurrence of the intentional reversal.

(II) If the forest owner does not surrender valid CO₂ allowances to the Department within 6 months of notification by the Department, the forest owner will be subject to enforcement action and each CO₂ equivalent ton of carbon sequestration intentionally reversed will constitute a separate violation of this subchapter and the act.

(D) Project Termination Requirements.

(I) The project sponsor must surrender to the Department or its agent for retirement a quantity of CO₂ allowances in the amount calculated under project termination provisions in the forest offset protocol within 6 months of project termination.

(II) If the project sponsor does not surrender to the Department or its agent a quantity of CO₂ allowances in the amount calculated under project termination provisions in the forest offset protocol within 6 months of project termination, the project sponsor will be subject to enforcement action and each CO₂ offset allowance not surrendered will constitute a separate violation of this subchapter and the act.

(iii) Disposition of Forest Sequestration Projects After a Reversal. The Department will terminate a forest offset project if a reversal lowers the forest offset project's actual standing live carbon stocks below its project baseline standing live carbon stocks.

(9) Timing of forest offset projects. The Department may award CO₂ offset allowances under § 145.397 only for forest offset projects that are initially commenced on or after January 1, 2014.

(10) Projects that Have Been Awarded Credits by a Voluntary Greenhouse Gas Reduction Program. The provisions of § 145.393(c)(4) and § 145.394(b)(2) shall not apply to forest projects that have been awarded credits under a voluntary greenhouse gas reduction program. For those projects, the number of CO₂ offset allowances will be calculated under the requirements of this subsection, without regard to quantity of credits that were awarded to the project under the voluntary program, provided that the project satisfies the following:

(i) All other general requirements of §§ 145.391—145.397, including all specific requirements of this subsection, for all reporting periods for which the project has been awarded credits under a voluntary greenhouse gas program and also intends to be awarded CO₂ offset allowances under § 145.397.

(ii) At the time of submittal of the consistency application for the project, the project sponsor

submits forest offset data reports and a monitoring and verification report covering all reporting periods for which the project has been awarded credits under a voluntary greenhouse gas program and also intends to be awarded CO₂ offset allowances under § 145.397. Forest offset data reports and monitoring and verification reports must meet all requirements of paragraphs (b)(5) and (b)(6).

(iii) The voluntary greenhouse gas program has published information to allow the Department to verify the information included in the consistency application and the consistency application includes information sufficient to allow the Department to determine the following:

(A) The offset project has met all legal and contractual requirements to allow it to terminate its relationship with the voluntary greenhouse gas program and the termination has been completed.

(B) The project sponsor or voluntary greenhouse gas program has cancelled or retired all credits that were awarded for carbon sequestration that occurred during the time periods for which the project intends to be awarded CO₂ offset allowances under § 145.397, and the credits were cancelled or retired for the sole purpose of allowing the project to be awarded CO₂ offset allowances under § 145.397.

(c) *Avoided methane emissions from agricultural manure management operations.* To qualify for the award of CO₂ offset allowances under §§ 145.391—145.397, an offset project that captures and destroys methane from animal manure and organic food waste using anaerobic digesters shall meet the requirements of this subsection and all other applicable requirements of §§ 145.391—145.397.

(1) *Eligibility.* To be eligible for CO₂ offset allowances, an offset project under subsection (c) shall:

(i) Consist of the destruction of that portion of methane generated by an anaerobic digester that would have been generated in the absence of the offset project through the uncontrolled anaerobic storage of manure or organic food waste.

(ii) Employ only manure-based anaerobic digester systems using livestock manure as the majority of digester feedstock, defined as more than 50% of the mass input into the digester on an annual basis. Organic food waste used by an anaerobic digester shall only be that which would have been stored in anaerobic conditions in the absence of the offset project.

(2) *Exceptions to the general requirements.* The provisions of § 145.393(c)(2) and (c)(3) shall not apply to an agricultural manure management offset project that meets the following:

(i) The offset project is located in a participating state that has a market penetration rate for anaerobic digester projects of 5% or less. The market penetration determination shall utilize the most recent market data available at the time of submission of the consistency application under § 145.394 and shall be determined as follows:

$$MP (\%) = MGAD / MG STATE$$

Where:

MGAD = Average annual manure generation for the number of dairy cows and swine serving all anaerobic digester projects in the applicable state at the time of submission of a consistency application under § 145.394.

MG STATE = Average annual manure production of all dairy cows and swine in the participating state at the time of submission of a consistency application under § 145.394.

(ii) The offset project is located at a farm with 4,000 or less head of dairy cows, or a farm with equivalent animal units, assuming an average live weight for dairy cows in pounds per cow of 1,400 pounds, or, if the project is a regional-type anaerobic digester, total annual manure input to the digester is designed to be less than the average annual manure produced by a farm with 4,000 or less head of dairy cows, or a farm with equivalent animal units, assuming an average live weight for dairy cows in pounds per cow of 1,400 pounds.

(3) *Offset project description.* The project sponsor shall provide a detailed narrative of the offset project actions to be taken, including documentation that the offset project meets the eligibility requirements of paragraph (c)(1). The offset project narrative shall include the following:

(i) Identification of the owner or operator of the offset project.

(ii) Location and specifications of the facility where the offset project will occur.

(iii) Identification of the owner or operator of the facility where the offset project will occur.

(iv) Specifications of the equipment to be installed and a technical schematic of the offset project.

(v) Location and specifications of the facilities from which anaerobic digester influent will be received, if different from the facility where the offset project will occur.

(4) *Emissions baseline determination.* The emissions baseline shall represent the potential emissions of the CH₄ that would have been produced in a baseline scenario under uncontrolled anaerobic storage conditions and released directly to the atmosphere in the absence of the offset project.

(i) Baseline CH₄ emissions shall be calculated as follows:

$$E_b = (V_m \times M) / 2000 \times GWP$$

Where:

E_b = Potential CO₂e emissions due to calculated CH₄ production under site-specific anaerobic storage and weather conditions (tons).

V_m = Volume of CH₄ produced each month from decomposition of volatile solids in a baseline uncontrolled anaerobic storage scenario under site-specific storage and weather conditions for the facility at which the manure or organic food waste is generated (ft³).

M = Mass of CH₄ per cubic foot (0.04246 lb/ft³ default value at one atmosphere and 20°C).

GWP = Global warming potential of CH₄ (28).

(ii) The estimated amount of volatile solids decomposed each month under the uncontrolled anaerobic storage baseline scenario in kilograms (kg) shall be calculated as follows:

$$VS_{dec} = VS_{avail} \times f$$

Where:

VS = Volatile solids as determined from the equation:

$$VS = M_m \times TS\% \times VS\%$$

Where:

M_m = Mass of manure or organic food waste produced per month (kg).

TS% = Concentration (%) of total solids in manure or organic food waste as determined through EPA 160.3 testing method (EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (EPA/600/4-79/020)).

VS% = Concentration (%) of volatile solids in total solids as determined through EPA 160.4 testing method (EPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (EPA/600/4-79/020)).

VS_{avail} = Volatile solids available for decomposition in manure or organic food waste storage each month as determined from the equation:

$$VS_{avail} = VS_p + \frac{1}{2} VS_{in} - VS_{out}$$

Where:

VS_p = Volatile solids present in manure or organic food waste storage at beginning of month (left over from previous month) (kg).

VS_{in} = Volatile solids added to manure or organic food waste storage during the course of the month (kg). The factor of 1/2 is multiplied by this number to represent the average mass of volatile solids available for decomposition for the entire duration of the month.

VS_{out} = Volatile solids removed from the manure or organic food waste storage for land application or export (assumed value based on standard farm practice).

f = van't Hoff-Arrhenius factor for the specific month as determined using the equation below. Using a base temperature of 30° C, the equation is as follows:

$$f = \exp\{[E(T_2 - T_1)]/[GC \times T_1 \times T_2]\}$$

Where:

f = Conversion efficiency of VS to CH₄ per month.

E = Activation energy constant (15,175 cal/mol).

T₂ = Average monthly ambient temperature for facility where manure or organic food waste is generated (converted from degrees Celsius to degrees Kelvin) as determined from the nearest National Weather Service certified weather station (if reported temperature °C > 5° C; if reported temperature °C < 5° C, then f = 0.104).

T₁ = 303.15 (30° C converted to °K).

GC = Ideal gas constant (1.987 cal/K mol).

(iii) The volume of CH₄ produced in cubic feet (ft³) from decomposition of volatile solids shall be calculated as follows:

$$V_m = (VS_{dec} \times B_o) \times 35.3147$$

Where:

V_m = Volume of CH₄ (ft³).

VS_{dec} = Volatile solids decomposed (kg).

B_o = Manure or organic food waste type-specific maximum methane generation constant (m³ CH₄/kg VS decomposed). For dairy cow manure, B_o = 0.24 m³ CH₄/kg VS decomposed. The methane generation constant for other types of manure shall be those cited at the EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010, Annex 3, Table A 180 (EPA, February 2017), unless the project sponsor proposes an alternate methane generation constant and that alternate is approved by the Department. If the project sponsor proposes to use a methane generation constant other than the ones found in the above-cited reference, the project sponsor must provide justification and documentation to the Department.

(5) *Calculating emissions reductions.* Emissions reductions shall be calculated as follows:

$$ER_t = E_b - E_p$$

Where:

ER_t = CO₂e emissions reductions due to project activities (tons).

E_b = Potential CO₂e emissions due to calculated CH₄ production under site-specific anaerobic storage and weather conditions (tons).

E_p = CO₂e emissions due to project activities additional to baseline (tons), including manure transportation, flaring, venting and effluent management.

(6) *Transport CO₂ emissions.* Emissions reductions may not exceed the potential emissions of the anaerobic digester, as represented by the annual volume of CH₄ produced by the anaerobic digester, as monitored under paragraph (c)(5). CO₂ emissions due to transportation of manure and organic food waste from the site where the manure and organic food waste was generated to the anaerobic digester shall be subtracted from the emissions reduction calculated under subparagraphs (c)(4)(i)—(iii). Transport CO₂ emissions shall be determined through one of the following methods:

(i) Documentation of transport fuel use for all shipments of manure and organic food waste from off-site to the anaerobic digester during each reporting year and a log of transport miles for each shipment. Off-site is defined as a location that is not contiguous with the property where the anaerobic digester is located. CO₂ emissions shall be determined through the application of an emissions factor for the fuel type used. If this option is chosen, the following emissions factors shall be applied as appropriate:

(A) Diesel fuel: 22.912 lbs. CO₂/gallon.

(B) Gasoline: 19.878 lbs. CO₂/gallon.

(C) Other fuel: submitted emissions factor approved by the Department.

(ii) Documentation of total tons of manure and organic food waste transported from off-site for input into the anaerobic digester during each reporting year, as monitored under subparagraph (c)(7)(i), and a log of transport miles and fuel type used for each shipment. CO₂ emissions shall be determined through the application of a ton-mile transport emission factor for the fuel type used. If this option is chosen, the following emissions factors shall be applied as appropriate for each ton of manure delivered and multiplied by the number of miles transported:

(A) Diesel fuel: 0.131 lbs. CO₂ per ton-mile.

(B) Gasoline: 0.133 lbs. CO₂ per ton-mile.

(C) Other fuel: submitted emissions factor approved by the Department.

(7) *Monitoring and verification requirements.* An offset project shall employ a system that provides metering of biogas volumetric flow rate and determination of CH₄ concentration. Annual monitoring and verification reports shall include monthly biogas volumetric flow rate and CH₄ concentration determination. Monitoring and verification shall also meet the following:

(i) If the offset project is a regional-type anaerobic digester, manure and organic food waste from each distinct source supplying to the anaerobic digester shall be sampled monthly to determine the amount of volatile solids present. Any emissions reduction will be calculated according to mass of manure and organic food waste in kilograms (kg) being digested and percentage of volatile solids present before anaerobic digestion, consistent with the requirements at paragraph (c)(4) and subparagraph (c)(7)(iii) and apportioned accordingly among sources. The project sponsor shall provide supporting material and receipts tracking the monthly receipt of manure and organic food waste in kilograms (kg) used to supply the anaerobic digester from each supplier.

(ii) If the offset project includes the anaerobic digestion of organic food waste eligible under subparagraph (c)(1)(ii), organic food waste shall be sampled monthly to determine the amount of volatile solids present before anaerobic digestion, consistent with the requirements at paragraph (c)(4) and subparagraph (c)(7)(iii), and apportioned accordingly.

(iii) The project sponsor shall submit a monitoring and verification plan as part of the consistency application that includes a quality assurance and quality control program associated with equipment used to determine biogas volumetric flow rate and CH₄ composition. The monitoring and verification plan shall be specified in accordance with the applicable monitoring requirements listed in Table 3. The monitoring and verification plan shall also include provisions for ensuring that measuring and monitoring equipment is maintained, operated and calibrated based on manufacturer's recommendations, as well as provisions for the retention of maintenance records for audit purposes. The monitoring and verification plan shall be certified by an independent verifier accredited under § 145.396.

Table 3. Monitoring requirements

<i>Parameter</i>	<i>Measurement Unit</i>	<i>Frequency of Sampling</i>	<i>Sampling Method(s)</i>
Influent flow (mass) into the digester	Kilograms (kg) per month (wet mass)	Monthly total into the digester	In descending order of preference: 1) Recorded mass 2) Digester influent pump flow 3) Livestock population and application of American Society of Agricultural and Biological Engineers (ASABE) standard (ASAE D384.2, March 2005)
Influent total solids concentration (TS)	Percent (of sample)	Monthly, depending upon recorded variations	EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (EPA/600/4-79/020)
Influent volatile solids (VS) concentration	Percent (of TS)	Monthly, depending upon recorded variations	EPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (EPA/600/4-79/020)
Average monthly ambient temperature	Temperature °C	Monthly (based on farm averages)	Closest National Weather Service-certified weather station
Volume of biogas produced by digester	Standard cubic feet (scf)	Continuous, totalized monthly	Flow meter
Methane composition of biogas produced by digester	Percent (of sample)	Quarterly	Bag sampling and third party laboratory analysis using applicable EPA test methods

§ 145.396. Accreditation of independent verifiers.

(a) *Standards for accreditation.* An independent verifier may be accredited by the Department to provide verification services as required of a project sponsor under this subchapter, provided that an independent verifier meets all the requirements of this section.

(1) *Verifier minimum requirements.* Each accredited independent verifier shall demonstrate knowledge of the following:

- (i) Utilizing engineering principles.
- (ii) Quantifying greenhouse gas emissions.
- (iii) Developing and evaluating air emissions inventories.
- (iv) Auditing and accounting principles.
- (v) Information management systems.
- (vi) The requirements of this subchapter.

(vii) Such other qualifications as may be required by the Department to provide competent verification services as required for individual offset categories under § 145.395.

(2) *Organizational qualifications.* An accredited independent verifier shall demonstrate that they meet the following:

(i) No direct or indirect financial relationship, beyond a contract for provision of verification services, with any offset project developer or project sponsor.

(ii) Employ staff with professional licenses, knowledge and experience appropriate to the specific category of offset projects under § 145.395 that they seek to verify.

(iii) Hold a minimum of one million U.S. dollars of professional liability insurance. If the insurance is in the name of a related entity, the verifier shall disclose the financial relationship between the verifier and the related entity, and provide documentation supporting the description of the relationship.

(iv) Implementation of an adequate management protocol to identify potential conflicts of interest with regard to an offset project, offset project developer or project sponsor, or any other party with a direct or indirect financial interest in an offset project that is seeking or has been granted approval of a consistency application under § 145.394(e), and remedy any conflicts of interest prior to providing verification services.

(3) *Pre-qualification of verifiers.* The Department may require prospective verifiers to successfully complete a training course, workshop or test developed by the Department or its agent, prior to submitting an application for accreditation.

(b) *Application for accreditation.* An application for accreditation shall not contain any proprietary information, and shall include the following:

(1) The applicant's name, address, e-mail address, telephone number and facsimile transmission number.

(2) Documentation that the applicant has at least 2 years of experience in each of the

knowledge areas specified at subparagraphs (a)(1)(i)—(v), and as may be required under subparagraph (a)(1)(vii).

(3) Documentation that the applicant has successfully completed the requirements at paragraph (a)(3), as applicable.

(4) A sample of at least one work product that provides supporting evidence that the applicant meets the requirements at paragraphs (a)(1) and (2). The work product shall have been produced, in whole or part, by the applicant and shall consist of a final report or other material provided to a client under contract in previous work. For a work product that was jointly produced by the applicant and another entity, the role of the applicant in the work product shall be clearly explained.

(5) Documentation that the applicant holds professional liability insurance as required under subparagraph (a)(2)(iii).

(6) Documentation that the applicant has implemented an adequate management protocol to address and remedy any conflict of interest issues that may arise, as required under subparagraph (a)(2)(iv).

(c) *Department action on applications for accreditation.* The Department will approve or deny a complete application for accreditation within 45 days after submission. Upon approval of an application for accreditation, the independent verifier shall be accredited for a period of 3 years from the date of application approval.

(d) *Reciprocity.* Independent verifiers accredited in other participating states may be deemed to be accredited in Pennsylvania, at the discretion of the Department.

(e) *Conduct of an accredited verifier.*

(1) Prior to engaging in verification services for an offset project sponsor, the accredited verifier shall disclose all relevant information to the Department to allow for an evaluation of potential conflict of interest with respect to an offset project, offset project developer or project sponsor. The accredited verifier shall disclose information concerning its ownership, past and current clients, related entities, as well as any other facts or circumstances that have the potential to create a conflict of interest.

(2) An accredited verifier shall have an ongoing obligation to disclose to the Department any facts or circumstances that may give rise to a conflict of interest with respect to an offset project, offset project developer or project sponsor.

(3) The Department may reject a verification report and certification statement from an accredited verifier, submitted as part of a consistency application required under § 145.394(b) or submitted as part of a monitoring and verification report submitted under § 145.397(b), if the Department determines that the accredited verifier has a conflict of interest related to the offset project, offset project developer or project sponsor.

(4) The Department may revoke the accreditation of a verifier at any time for the following:

(i) Failure to fully disclose any issues that may lead to a conflict of interest situation with respect to an offset project, offset project developer or project sponsor.

(ii) The verifier is no longer qualified due to changes in staffing or other criteria.

(iii) Negligence or neglect of responsibilities pursuant to the requirements of this subchapter.

(iv) Intentional misrepresentation of data or other intentional fraud.

§ 145.397. Award and Recordation of CO₂ offset allowances.

(a) *Award of CO₂ offset allowances.* Following the issuance of a consistency determination under § 145.394(e)(2) and the approval of a monitoring and verification report under the provisions of subsection (e), the Department will award one CO₂ offset allowance for each ton of demonstrated reduction in CO₂ or CO₂ equivalent emissions or sequestration of CO₂.

(b) *Recordation of CO₂ offset allowances.* After CO₂ offset allowances are awarded under paragraph (a)(1), the Department will record the CO₂ offset allowances in the project sponsor's general account.

(c) *Deadlines for submittal of monitoring and verification reports.*

(1) For an offset project undertaken prior to January 1, 2022, the project sponsor shall submit the monitoring and verification report covering the pre-2022 period by June 30, 2022.

(2) For an offset project undertaken on or after January 1, 2022, the project sponsor shall submit the monitoring and verification report within 6 months following the completion of the last calendar year during which the offset project achieved CO₂ equivalent reductions or sequestration of CO₂ for which the project sponsor seeks the award of CO₂ offset allowances.

(d) *Contents of monitoring and verification reports.* For an offset project, the monitoring and verification report must include the following:

(1) The project sponsor's name, address, e-mail address, telephone number, facsimile transmission number and account number.

(2) The CO₂ emissions reduction or CO₂ sequestration determination as required by the relevant provisions of § 145.395, including a demonstration that the project sponsor complied with the required quantification, monitoring and verification procedures under § 145.395, as well as those outlined in the consistency application approved under § 145.394(e)(2).

(3) A signed certification statement that reads "The undersigned project sponsor hereby

confirms and attests that the offset project upon which this monitoring and verification report is based is in full compliance with all of the requirements of §§ 145.391—145.397. The project sponsor holds the legal rights to the offset project or has been granted the right to act on behalf of a party that holds the legal rights to the offset project. I understand that eligibility for the award of CO₂ offset allowances under §§ 145.391—145.397 is contingent on meeting the requirements of §§ 145.391—145.397. I authorize the Department or its agent to audit this offset project for purposes of verifying that the offset project, including the monitoring and verification plan, has been implemented as described in the consistency application that was the subject of a consistency determination by the Department. I understand that this right to audit shall include the right to enter the physical location of the offset project and to make available to the Department or its agent any and all documentation relating to the offset project at the Department's request. I submit to the legal jurisdiction of the Commonwealth of Pennsylvania.”

(4) A certification signed by the project sponsor certifying that all offset projects for which the sponsor has received CO₂ offset allowances under this subchapter or similar provisions in the rules of other participating states, under the sponsor's ownership or control or under the ownership or control of any entity which controls, is controlled by, or has common control with the sponsor are in compliance with all applicable requirements of the CO₂ Budget Trading Program in all participating states.

(5) A verification report and certification statement signed by an independent verifier accredited under § 145.396 that documents that the independent verifier has reviewed the monitoring and verification report and evaluated the following in relation to the applicable requirements at § 145.395, and any applicable guidance issued by the Department:

(i) The adequacy and validity of information supplied by the project sponsor to determine CO₂ emissions reductions or CO₂ sequestration under the applicable requirements at § 145.395.

(ii) The adequacy and consistency of methods used to quantify, monitor and verify CO₂ emissions reductions and CO₂ sequestration in accordance with the applicable requirements at § 145.395 and as outlined in the consistency application approved under § 145.394(e)(2).

(iii) The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements under § 145.395.

(iv) Other evaluations and verification reviews as may be required by the Department.

(6) Disclosure of any voluntary or mandatory programs, other than the CO₂ Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been or will be reported.

(e) *Prohibition against filing monitoring and verification reports in more than one participating state.* The Department will only accept a monitoring and verification report for an offset project that has received a consistency determination under § 145.394(e)(2) and will not accept a monitoring and verification report for an offset project that has received a consistency determination in other participating states.

(f) *Department action on monitoring and verification reports.*

(1) A complete monitoring and verification report is one that is in an approved form and is determined by the Department to be complete for the purpose of commencing review of the monitoring and verification report. In no event shall a completeness determination prevent the Department from requesting additional information needed by the Department to approve or deny a monitoring and verification report.

(2) Within 45 days following receipt of a complete report, the Department will approve or deny a complete monitoring and verification report, in a format approved by the Department, filed with the Department under subsections (c) and (d).

CO₂ ALLOWANCE AUCTIONS

Sec.

145.401	Auction of CO ₂ allowances.
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§ 145.401. Auction of CO₂ allowances.

(a) Except as provided under subsection (b), the Department will participate in a multistate CO₂ allowance auction in coordination with other participating states based on the following:

(1) A multistate auction capability and process is in place for the participating states.

(2) The multistate auction can provide benefits to Pennsylvania that meet or exceed the benefits conferred on Pennsylvania through its own Pennsylvania-run auction process.

(3) The multistate auction process is consistent with the process described in §§ 145.401-145.409.

(4) The multistate auction process includes monitoring of each CO₂ allowance auction by an independent monitor to identify any collusion, market power or price manipulation.

(b) Should the Department find that the conditions in subsection (a) are no longer met, the Department may determine to conduct a Pennsylvania-run auction in accordance with §§ 145.341—145.343 and §§ 145.401-145.409.

(c) The Department may delegate the implementation and administrative support functions for any CO₂ allowance auction conducted under §§ 145.401-145.409 to an agent qualified to conduct auctions, including a regional entity, provided that the agent shall perform all functions under the direction and oversight of the Department.

(d) The Department will retain its authority to enforce compliance with all sections of this subchapter and will retain control over the proceeds associated with the sale of Pennsylvania CO₂ allowances, whether sold in a multistate or Pennsylvania CO₂ allowance auction and will credit the proceeds to the Clean Air Fund established under the act.

§ 145.402. Auction format.

(a) The format of a CO₂ allowance auction will be one or more of the following:

- (1) Uniform-price sealed-bid.
- (2) Discriminatory-price sealed-bid.
- (3) Ascending price, multiple-round.
- (4) Descending price, multiple-round.

(b) CO₂ allowances will be auctioned in lots of 1,000 CO₂ allowances, unless the volume of CO₂ allowances auctioned requires an individual lot size smaller than 1,000.

(c) The Department will establish a reserve price for each CO₂ allowance auction, which will be either the minimum reserve price or the CCR trigger price, as specified under § 145.382, Table 1 and §§ 145.381—145.382 (relating to auction of CO₂ CCR and ECR allowances).

§ 145.403. Auction timing and CO₂ allowance submission schedule.

(a) A CO₂ allowance auction will be held no less frequently than annually, and as frequently as the Department determines is necessary and practical to ensure the availability of CO₂ allowances to CO₂ budget units and CO₂ budget sources and to support the effective functioning of the CO₂ allowance market.

(b) Prior to the end of each control period or interim control period, the Department will make available for sale by auction, all CO₂ allowances held in the air pollution reduction account that are designated for the allocation years associated with that control period or interim control period. This will not include CO₂ allowances set aside in the waste coal set-aside account under § 145.342(i), the strategic use set-aside account under § 145.342(j) or the cogeneration set-aside account under § 145.342(k).

(c) The number of CO₂ allowances to be made available for sale in an auction will be disclosed in the notice of CO₂ allowance auction issued under § 145.404.

(d) An auction of CO₂ allowances will include a CO₂ cost containment reserve and a CCR trigger price, as provided under § 145.342.

§ 145.404. Auction notice.

(a) A notice of each CO₂ allowance auction will be provided no later than 45 days prior to the date upon which the auction will be conducted.

(b) In addition to the information specified under § 145.382(a), the notice of a CO₂ allowance auction will include the following:

(1) The date, time and location of the CO₂ allowance auction.

(2) The format for the CO₂ allowance auction.

(3) The categories of bidders who will be eligible to bid.

(4) The number and allocation years of Pennsylvania CO₂ allowances to be auctioned.

(5) The minimum reserve price.

(6) All information regarding the CO₂ cost containment reserve, required to be in the notice under § 145.382(a).

(7) The procedures for conducting the CO₂ allowance auction, including the required bid submission format and process, and information regarding financial settling of CO₂ allowance payments.

(8) All CO₂ allowance auction participation requirements.

(9) The amount and type of financial security required and instructions for submitting acceptable financial surety.

(10) Participation limits, including bidding limits that may apply to an individual bidder or a group of related bidders.

(11) Application instructions for applying to participate in the CO₂ allowance auction.

(12) Identification of a Pennsylvania auction contact person for further information.

(13) Other pertinent rules or procedures of the auction as may be required to ensure a transparent, fair and competitive auction.

§ 145.405. Auction participant requirements.

(a) To be classified by the Department as a bidder eligible to participate in a specific CO₂ allowance auction, a qualified participant must meet the following:

(1) Be a member of a category of those eligible to participate in the specified CO₂ allowance auction as indicated by the notice of CO₂ allowance auction issued under § 145.404(b).

(2) Open and maintain a compliance account or general account, established under § 145.351.

(3) Submit financial security, such as a bond, cash, certified funds or an irrevocable stand-by letter of credit, in a manner and form acceptable to the Department, as specified in the notice of CO₂ allowance auction issued under § 145.404(b).

(b) The Department will announce the categories of parties that are eligible to participate in a specific CO₂ allowance auction as part of the notice of the CO₂ allowance auction, provided that an owner or operator of a CO₂ budget unit located in Pennsylvania is always eligible to participate in a CO₂ allowance auction.

(c) For a CO₂ allowance auction, the following categories of parties may be eligible to participate:

(1) The owner or operator of a CO₂ budget unit located in Pennsylvania.

(2) The owner or operator of a CO₂ budget unit located in a participating state.

(3) A broker.

(4) An environmental organization.

(5) A financial or investment institution.

(6) Any other market participant, as may be specified in the notice of the CO₂ allowance auction.

§ 145.406. Auction participant qualification.

(a) A person who intends to participate in a CO₂ allowance auction shall submit a qualification application to the Department, in the form and manner specified in the notice of the CO₂ allowance auction.

(b) The deadline for submitting a qualification application will be established in the notice of the CO₂ allowance auction.

(c) As part of a qualification application, an applicant shall provide information and documentation relating to the ability and authority of the applicant to execute bids and honor contractual obligations, including the following:

- (1) Identification by the applicant of either a compliance account or general account established under § 145.351 and identification of the CO₂ authorized account representative for the compliance account or general account.
- (2) Information and documentation regarding the corporate identity, ownership, affiliations and capital structure of the entity represented by the applicant.
- (3) Identification of any indictment or felony conviction of the applicant or any member, director, principal, partner or officer of the entity represented by the applicant or any affiliate or related entity.
- (4) Identification of any previous or pending investigation of the applicant or the entity represented by the applicant or any affiliate or related entity, with respect to any alleged violation of any rule, regulation or law associated with any commodity market or exchange.
- (5) Other information and declarations as the Department determines may be required of an applicant to ensure the integrity of the CO₂ allowance auction process.
- (d) The Department will determine whether a qualification application is complete, or incomplete, or otherwise deficient. If the Department determines that an application is incomplete or otherwise deficient, the applicant will be given 10 business days to provide additional information to the Department in order to complete the application or remedy any application deficiency.
- (e) The Department will review a complete qualification application, make a determination as to whether the applicant is qualified to participate in the CO₂ allowance auction and notify the applicant in writing not later than 15 days before the CO₂ allowance auction.
- (f) The Department may deny qualification to an applicant based on information submitted in a qualification application to ensure the integrity of the CO₂ allowance auction process in accordance with the requirements and procedures for auctions established under § 145.405, § 145.407 (relating to submission of financial security) and § 145.408 (relating to bid submittal requirements).
- (g) The Department may revoke the qualification status of a qualified participant, if the participant fails to comply with the applicable requirements of this subchapter, or if the Department determines that they have knowingly provided false or misleading information or withheld pertinent information from the qualification application submitted under subsection (a). The Department may also prohibit the qualified participant from participating in a future CO₂ allowance auction where the Department determines that the prior conduct could compromise the integrity of a subsequent CO₂ allowance auction.
- (h) A qualified participant will remain qualified to participate in future CO₂ allowance auctions after the Department's qualification determination, provided that there has been no

material change to the information supplied to the Department in the qualification application submitted under subsection (a). If there is a material change to the information in the qualification application submitted under subsection (a), the qualification status will expire as of the date of the change, pending the submission of a new qualification application under subsection (a) and a determination by the Department that the applicant is qualified to participate in a CO₂ allowance auction.

(i) Prior to each CO₂ allowance auction, a qualified participant who intends to participate in the auction shall notify the Department, through a notice of intent to bid, that they intend to participate in the upcoming CO₂ allowance auction. The notice shall be submitted to the Department by the same date as that required for submitting a qualification application established in the notice of the CO₂ allowance auction.

(j) As part of a notice of intent to bid submitted to the Department under subsection (i), a qualified participant shall notify the Department whether there has been a material change to the information supplied in the qualification application submitted under subsection (a).

§ 145.407. Submission of financial security.

(a) To participate in a CO₂ allowance auction, a qualified participant shall provide financial security to the Department, including a bond, cash, certified funds or an irrevocable stand-by letter of credit, in a form and manner prescribed by the Department in the notice of the CO₂ allowance auction.

(b) The Department will approve the qualified participant to participate as a bidder in the specified CO₂ allowance auction after the Department has approved the financial security submitted under subsection (a). The eligibility to bid in any auction shall be limited to the level of financial security provided.

(c) A qualified participant who submits financial security may request return of the financial security at any time prior to or following a CO₂ allowance auction, subject to the following limitations:

(1) A request for the return of financial security prior to a CO₂ allowance auction will result in the Department revoking approval to participate in the CO₂ allowance auction, as of the date of the request.

(2) The Department will not return the financial security if the Department has a current or pending claim to the financial security as a result of the failure of the bidder to abide by the requirements of this subchapter or to pay the full amount of a submitted bid when payment is due.

§ 145.408. Bid submittal requirements.

(a) A bidder shall submit a bid, in a form and manner prescribed by the Department, in an amount that does not exceed the amount of financial security provided to the Department.

(b) A bidder, including any affiliate or agent of the bidder, or any combination of bidders with related beneficial interests, shall purchase no more than 25% of the CO₂ allowances offered for sale in a CO₂ allowance auction. The limitation, which will not be increased by CCR allowances, will be published in the auction notice under § 145.404(b).

(c) A bidder shall not use or employ any manipulative, misleading or deceptive practice in connection with its prequalification application or purchase of CO₂ allowances from the Department, including, any practice that contravenes or violates any applicable Federal or participating state law, rules or regulation.

(d) A bid submitted at a CO₂ allowance auction is a binding offer for the purchase of CO₂ allowances.

§ 145.409. Approval of auction results.

(a) An independent monitor, such as a certified public accounting firm or similar entity, shall observe the conduct and outcome of each auction and issue a report to the Department in accordance with professional auditing standards addressing whether the auction was conducted in accordance with the procedures and requirements under §§ 145.341—145.343 and §§ 145.401-145.409 and whether there was any indication of collusive behavior among auction participants or attempts at market manipulation that impacted the results of the auction.

(b) The independent monitor shall monitor allowance market data and information known to the Department, including CO₂ allowance transactions and associated pricing reported in COATS, and other relevant data and information to ensure fair competition, efficient pricing and protection against collusive or manipulative behavior in the CO₂ allowance auctions and the CO₂ Budget Trading Program.

(c) The Department will approve or disapprove the outcome of a CO₂ allowance auction following the completion of the auction, based on an evaluation of the report from the independent monitor.

(d) Upon receipt and approval by the Department of the report and upon payment in full by successful bidders, the Department or its agent shall transfer and record the corresponding CO₂ allowances to the compliance or general account of each successful bidder.

(e) After the Department has approved the results of a CO₂ allowance auction, the Department will make available the auction clearing price and the number of CO₂ allowances sold in the auction.