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**Chapter 156: CO<sub>2</sub> BUDGET TRADING PROGRAM**

SUMMARY: This regulation establishes the Maine component of the CO<sub>2</sub> Budget Trading Program, which is designed to stabilize and then reduce anthropogenic emissions of CO<sub>2</sub>, a greenhouse gas, from CO<sub>2</sub> budget sources in an economically efficient manner.

**1. CO<sub>2</sub> Budget Trading Program General Provisions****A. Applicability.**

- (1) This regulation applies statewide.
- (2) The CO<sub>2</sub> Budget Trading Program will commence no earlier than January 1, 2009 and only when other states meeting the following criteria have initiated comparable CO<sub>2</sub> budget trading programs:
  - (a) such states have wholesale electricity markets that are administered and overseen by the same Regional transmission organization as are Maine's; and
  - (b) the combined CO<sub>2</sub> emissions budgets from such states total at least 35,000,000 tons per year.

The Department may initiate air emissions licensing of CO<sub>2</sub> budget sources and participate in auctions for the sale of CO<sub>2</sub> allowances prior to commencement of the CO<sub>2</sub> Budget Trading Program.

- (3) This regulation applies to any CO<sub>2</sub> budget unit except as provided for in subsection 1(A)(4) below.
- (4) Limited Exemption. A unit that supplies less than or equal to ten percent (10%) of its gross electrical generation for transmission over the facilities of a transmission and distribution utility on an annual basis shall be exempt from the requirements of this regulation, with the exception of the following sections:
  - (a) Section 1(B) - Definitions;
  - (b) Section 1(G) - Computation of Time; and, as applicable
  - (c) Section 4(H) - Monitoring, Recordkeeping, and Reporting Requirements as required by the Department to demonstrate that the unit is eligible for the limited exemption.

In determining whether or not the 10% applicability trigger is exceeded, all electricity transmitted over the facilities of a transmission and distribution utility as result of verifiable conservation and demand-side management initiatives or as a result of any emergency mandate from the Regional transmission organization or a lawful order of a governmental authority, is excluded from the calculation.

**B. Definitions.**

- (1) **Account number.** “Account number” means the identification number given by the Department or its agent to each CO<sub>2</sub> Allowance Tracking System account.
- (2) **Acid rain emissions limitation.** “Acid rain emissions limitation” as defined in 40 CFR 72.2, means a limitation on emissions of sulfur dioxide or nitrogen oxides under the Acid Rain Program under Title IV of the Clean Air Act.
- (3) **Administrator.** “Administrator” means the Administrator of the United States Environmental Protection Agency or the Administrator’s authorized representative.
- (4) **Allocate or allocation.** “Allocate” or “allocation” means the determination by the Department of the number of CO<sub>2</sub> allowances to be credited to a CO<sub>2</sub> budget unit, any general account established by the Department, the Consumer benefit account, or the general account of the sponsor of an approved CO<sub>2</sub> emissions offset project.
- (5) **Allocation year.** “Allocation year” means a calendar year for which the Department allocates CO<sub>2</sub> allowances pursuant to Sections 2 and 9. The allocation year of each CO<sub>2</sub> allowance is reflected in the unique identification number given to the allowance pursuant to subsection 7(B)(3) of this Chapter.
- (6) **Anaerobic digester.** “Anaerobic digester” means a device that promotes the decomposition of organic material to simple organics and gaseous biogas products, usually accomplished by means of controlling temperature and volume, and including a methane recovery system.
- (7) **Anaerobic digestion.** “Anaerobic digestion” means the degradation of organic material including manure brought about through the action of microorganisms in the absence of elemental oxygen.
- (8) **Anaerobic storage.** “Anaerobic storage” means storage of organic material in an oxygen-free environment, or under oxygen-free conditions, including but not limited to, holding tanks, ponds, and lagoons.
- (9) **ANSI.** “ANSI” means American National Standards Institute.
- (10) **ASHRAE.** “ASHRAE” means American Society of Heating, Refrigerating and Air-Conditioner Engineers.
- (11) **Attribute.** “Attribute” means 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, and tracked.
- (12) **Attribute credit.** “Attribute credit” means the attributes related to one megawatt-hour of electricity generation.

- (13) **Automated data acquisition and handling system or DAHS.** “Automated data acquisition and handling system” or “DAHS” means that component of the continuous emissions monitoring system, or other emissions monitoring system approved for use under Section 4 of this Chapter, 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 Section 4 of this Chapter.
- (14) **Behind-the-meter CO<sub>2</sub> emissions.** “Behind-the-meter CO<sub>2</sub> emissions” means the difference between the total annual CO<sub>2</sub> emissions from a CO<sub>2</sub> budget unit that is a Combined heat and power unit at an Integrated manufacturing facility and the annual CO<sub>2</sub> emissions associated with the Net electricity that is transmitted over the facilities of a Transmission and distribution utility from such a unit.
- (15) **Billing meter.** “Billing meter” means a measurement device used to measure electric or thermal output for commercial billing under a contract.
- (16) **Biogas.** “Biogas” means gas resulting from the decomposition of organic matter under anaerobic conditions. The principle constituents are methane and CO<sub>2</sub>.
- (17) **Boiler.** “Boiler” means an enclosed fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.
- (18) **Boiler (commercial).** “Boiler (commercial)” means a self contained, low-pressure appliance for supplying steam or hot water to a commercial building.
- (19) **Boiler (residential).** “Boiler (residential)” means a self contained, low-pressure appliance for supplying steam or hot water to a residential building.
- (20) **British thermal unit or Btu.** “British thermal unit” or “Btu” is a measure of energy. One Btu means the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.
- (21) **Building envelope.** “Building envelope” means the elements of a building that separate conditioned space from unconditioned space, or that enclose semi-heated space, through which thermal energy may be transferred to or from the exterior, unconditioned space, or conditioned space. Includes all elements that separate the interior of a building from the outdoor environment, including walls, windows, foundation, basement slab, ceiling, roof, and insulation.
- (22) **CO<sub>2</sub>.** “CO<sub>2</sub>” means carbon dioxide.
- (23) **CO<sub>2</sub> allowance.** “CO<sub>2</sub> allowance” means a limited authorization by the Department under the CO<sub>2</sub> Budget Trading Program to emit up to one ton of CO<sub>2</sub>, subject to all applicable limitations contained in this regulation. No provision of this regulation shall be construed to limit the authority of the Department to terminate or limit such authorization to emit. This limited authorization does not constitute a property right.
- (24) **CO<sub>2</sub> allowance deduction or deduct CO<sub>2</sub> allowances.** “CO<sub>2</sub> allowance deduction or deduct CO<sub>2</sub> allowances” means the permanent withdrawal of CO<sub>2</sub> allowances by the

- Department or its agent from a CO<sub>2</sub> Allowance Tracking System compliance account to account for the number of tons of CO<sub>2</sub> emitted from a CO<sub>2</sub> budget source for a control period, determined in accordance with Section 4, or for the forfeit or retirement of CO<sub>2</sub> allowances as provided by this regulation.
- (25) **CO<sub>2</sub> allowance price.** “CO<sub>2</sub> allowance price” means the price for CO<sub>2</sub> allowances in the CO<sub>2</sub> Budget Trading Program for a particular time period as determined by the Department or its agent, calculated based on a volume-weighted average of transaction prices reported to the Department or its agent, and taking into account prices as reported publicly through reputable sources.
- (26) **CO<sub>2</sub> allowances held or hold CO<sub>2</sub> allowances.** “CO<sub>2</sub> allowances held” or “hold CO<sub>2</sub> allowances” means the CO<sub>2</sub> allowances recorded by the Department or its agent, or submitted to the Department or its agent for recordation, in accordance with Sections 7 and 8 of this Chapter, in a CO<sub>2</sub> Allowance Tracking System account.
- (27) **CO<sub>2</sub> allowance tracking system.** “CO<sub>2</sub> allowance tracking system” means the system by which the Department or its agent records allocations, deductions, and transfers of CO<sub>2</sub> allowances under the CO<sub>2</sub> Budget Trading Program. The tracking system may also be used to track CO<sub>2</sub> emissions offset projects, CO<sub>2</sub> allowance prices, and emissions from affected sources.
- (28) **CO<sub>2</sub> allowance tracking system account.** “CO<sub>2</sub> allowance tracking system account” means an account in the CO<sub>2</sub> allowance tracking system established by the Department or its agent for purposes of recording the allocation, holding, transferring, retiring, or deducting of CO<sub>2</sub> allowances.
- (29) **CO<sub>2</sub> allowance transfer deadline.** “CO<sub>2</sub> allowance transfer deadline” means midnight of the March 1 occurring after the end of the relevant 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 CO<sub>2</sub> allowances must be submitted for recordation in a CO<sub>2</sub> budget source’s compliance account in order to meet the source’s CO<sub>2</sub> budget emissions limitation for the control period immediately preceding such deadline.
- (30) **CO<sub>2</sub> authorized account representative.** “CO<sub>2</sub> authorized account representative” means, for a CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source, the natural person who is authorized by the owners and operators of the source and all CO<sub>2</sub> budget units at the source, in accordance with Section 6 of this Chapter, to represent and legally bind each owner and operator in matters pertaining to the CO<sub>2</sub> Budget Trading Program or, for a general account, the natural person who is authorized, under Section 7 of this Chapter, to transfer or otherwise dispose of CO<sub>2</sub> allowances held in the general account.
- (31) **CO<sub>2</sub> budget emissions limitation.** “CO<sub>2</sub> budget emissions limitation” means the tonnage equivalent of the CO<sub>2</sub> allowances required for compliance deduction in subsection 5(D)(3) of this Chapter for a CO<sub>2</sub> budget source for a control period.
- (32) **CO<sub>2</sub> budget license.** “CO<sub>2</sub> budget license” means the portion of the legally binding license issued by the Department pursuant to *Major and Minor Source Air Emission License*

*Regulations*, 06-096 CMR 115 (effective December 24, 2005) of the Department's Regulations to a CO<sub>2</sub> budget source.

- (33) **CO<sub>2</sub> budget source.** “CO<sub>2</sub> budget source” means a source that includes one or more CO<sub>2</sub> budget units.
- (34) **CO<sub>2</sub> budget source compliance account or Compliance account.** “CO<sub>2</sub> budget unit compliance account” or “Compliance account” means the account established by the Department for a CO<sub>2</sub> budget source wherein CO<sub>2</sub> allowances are held and available for compliance purposes under this CO<sub>2</sub> Budget Trading Program.
- (35) **CO<sub>2</sub> Budget Trading Program.** “CO<sub>2</sub> Budget Trading Program” means a multi-state CO<sub>2</sub> air pollution control and emissions reduction program established pursuant to this regulation and corresponding regulations in other states as a means of reducing emissions of CO<sub>2</sub> from CO<sub>2</sub> budget sources.
- (36) **CO<sub>2</sub> budget unit.** “CO<sub>2</sub> budget unit” means any single fossil fuel-fired unit that serves a generator with a nameplate capacity equal to or greater than 25 MW electrical output.
- (37) **CO<sub>2</sub> emissions budget.** “CO<sub>2</sub> emissions budget” means the total amount of CO<sub>2</sub> allowances allotted to Maine on an annual basis. CO<sub>2</sub> offset allowances allocated to project sponsors are separate from and additional to Maine's CO<sub>2</sub> emissions budget.
- (38) **CO<sub>2</sub> emissions credit retirement(s).** “CO<sub>2</sub> emissions credit retirement(s)” means the permanent retirement of greenhouse gas allowances or credits issued pursuant to any governmental mandatory carbon constraining program outside the United States that places a specific tonnage limit on greenhouse gas emissions, or certified greenhouse gas emissions reduction credits issued pursuant to the United Nations Framework Convention on Climate Change (UNFCCC) or protocols adopted through the UNFCCC process.
- (39) **CO<sub>2</sub> emissions offset project or Offset project.** “CO<sub>2</sub> emissions offset project” or “Offset project” means a project that reduces greenhouse gas emissions from a source that is not a CO<sub>2</sub> budget unit. “CO<sub>2</sub> emissions offset project” includes: landfill and agricultural methane capture and destruction, reduction in emissions of sulfur hexafluoride, sequestration of carbon due to afforestation, and reduction or avoidance of CO<sub>2</sub> emissions from natural gas, oil or propane end-use combustion due to end-use energy efficiency. A CO<sub>2</sub> offset project includes all equipment, materials, items, or actions directly related to the reduction of CO<sub>2</sub> equivalent emissions or the sequestration of carbon specified in a consistency application submitted pursuant to subsection 9(C)(3). Equipment, materials, items, or actions unrelated to an offset project reduction of CO<sub>2</sub> equivalent emissions or the sequestration of carbon, but occurring at a location where an offset project occurs, shall not be considered part of a CO<sub>2</sub> offset project, unless specified at subsection 9(D).
- (40) **CO<sub>2</sub> equivalent or CO<sub>2</sub>e.** “CO<sub>2</sub> equivalent” or “CO<sub>2</sub>e” means the quantity, in tons, of a given greenhouse gas multiplied by its global warming potential (GWP).
- (41) **CO<sub>2</sub> offset allowance(s).** “CO<sub>2</sub> offset allowance(s)” means a CO<sub>2</sub> allowance that is awarded to the sponsor of a CO<sub>2</sub> emissions offset project pursuant to subsection 9(F) and is subject to the relevant compliance deduction limitations of subsection 5(D)(1)(c).

- (42) **Combined cycle system.** “Combined cycle system” means a system comprised of one or more combustion turbines, heat recovery steam generators, and steam turbines configured to improve overall efficiency of electricity generation or steam production.
- (43) **Combined heat and power unit.** “Combined heat and power unit” means a device that simultaneously generates electricity and thermal power and that operates at a high level of output efficiency by utilizing the waste heat created as a by-product of electricity generation for domestic, commercial or industrial heating or cooling purposes, and whose useful thermal output equals at least 10% of the fossil fuel energy input of the unit.
- (44) **Combustion turbine.** “Combustion turbine” means 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 shaft to a generator.
- (45) **Commence commercial operation.** “Commence commercial operation” means, with regard to a unit that serves a generator, the date the unit began to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation. Such date shall remain the unit’s date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered.
- (46) **Commence operation.** “Commence operation” means the date a unit began any mechanical, chemical, or electronic process, including start-up of a unit’s combustion chamber. Such date shall remain the unit’s date of commencement of operation even if the unit is subsequently modified, reconstructed, or repowered.
- (47) **Commercial building.** “Commercial building” means a building to which the provisions of ANSI/ASHRAE/IESNA Standard 90.1 apply, which includes buildings except low-rise residential buildings. Low-rise residential buildings include single family homes, multifamily structures of three stories or fewer above grade, and manufactured homes (modular and mobile).
- (48) **Condensing mode.** “Condensing mode” means the design and operation of furnaces or boilers in a mode that leads to the production of condensate in flue gases.
- (49) **Conflict of Interest.** “Conflict of Interest” means a situation that may arise with respect to an individual in relation to any specific project sponsor, CO<sub>2</sub> 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.
- (50) **Consumer benefit account.** “Consumer benefit account” means a general account established by the Department or its agent from which CO<sub>2</sub> allowances will be sold or distributed in order to provide funds to encourage and foster the following: promotion of energy efficiency measures, direct mitigation of electricity ratepayer impacts attributable to the implementation of the CO<sub>2</sub> Budget Trading Program, promotion of renewable or non-carbon-emitting energy technologies, stimulation or reward of investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction

potential, promotion and reward for combined heat and power projects, and/or the administration of Maine's component of the CO<sub>2</sub> Budget Trading Program.

- (51) **Continuous emissions monitoring system or CEMS.** “Continuous emissions monitoring system or CEMS” means the equipment required under Section 4 of this Chapter to sample, analyze, measure, and provide, by means of readings recorded at least once every 15 minutes (using an automated DAHS), a permanent record of stack gas volumetric flow rate, stack gas moisture content, and oxygen or CO<sub>2</sub> concentration (as applicable), in a manner consistent with 40 CFR Part 75 and Section 4 of this Chapter. The following systems are the principal types of continuous emissions monitoring systems required under Section 4 of this Chapter.
- (a) 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);
  - (b) A nitrogen oxides emissions rate (or NO<sub>x</sub>-diluent) monitoring system, consisting of a NO<sub>x</sub> pollutant concentration monitor, a diluent gas (CO<sub>2</sub> or O<sub>2</sub>) monitor, and an automated data acquisition and handling system and providing a permanent, continuous record of NO<sub>x</sub> concentration, in parts per million (ppm), diluent gas concentration, in percent CO<sub>2</sub> or O<sub>2</sub>; and NO<sub>x</sub> emissions rate, in pounds per million British thermal units (lb/MMBtu);
  - (c) A moisture monitoring system, as defined in 40 CFR 75.11(b)(2) and providing a permanent, continuous record of the stack gas moisture content, in percent water;
  - (d) A CO<sub>2</sub> monitoring system, consisting of a CO<sub>2</sub> pollutant concentration monitor (or an oxygen monitor plus suitable mathematical equations from which the CO<sub>2</sub> concentration is derived) and an automated data acquisition and handling system and providing a permanent, continuous record of CO<sub>2</sub> emissions, in percent CO<sub>2</sub>; and
  - (e) An oxygen monitoring system, consisting of an oxygen concentration monitor and an automated data acquisition and handling system and providing a permanent, continuous record of oxygen, in percent oxygen.
- (52) **Control period.** “Control period” means a three-calendar-year time period, unless extended to four years upon occurrence of a stage two trigger event. The first control period is from January 1, 2009 to December 31, 2011, inclusive, provided if a stage two trigger event occurs during the first control period, then the first control period will be extended one-year to December 31, 2012, inclusive. Each subsequent sequential three-calendar-year period is a separate control period that is subject to one one-year extension upon occurrence of a stage two trigger event during the control period. In no event may a control period be longer than four calendar years.
- (53) **Cooperating Regulatory Agency.** “Cooperating Regulatory Agency” means a regulatory agency in a state or United States jurisdiction that is not a Participating State that has entered into a memorandum of understanding with the Department to carry out certain obligations relative to CO<sub>2</sub> emissions offset projects in that state or United States jurisdiction, including but not limited to the obligation to perform audits of offset project sites, and report violations of this Chapter.

- (54) **DAHS.** “DAHS” means data acquisition and handling system.
- (55) **Eligible Biomass.** [Reserved]
- (56) **Energy conservation measure (ECM) or energy efficiency measure (EEM).** “Energy conservation measure (ECM) or energy efficiency measure (EEM)” means a set of activities designed to increase the energy efficiency of a building or improve the management of energy demand. An ECM/EEM may involve one or more of the following: physical changes to facility equipment, modifications to a building, revisions to operating and maintenance procedures, software changes, or new means of training or managing users of the building or operations and maintenance staff.
- (57) **Energy performance.** “Energy performance” means a measure of the relative energy efficiency of a building, building equipment, or building components, as measured by the amount of energy required to provide building services. For building equipment and components, a relative measure of the impact of equipment or components on building energy usage.
- (58) **Energy services.** “Energy services” means provision of useful services to building occupants, such as heating and hot water, cooling, and lighting.
- (59) **Excess emissions.** “Excess emissions” means any tonnage of CO<sub>2</sub> emitted by a CO<sub>2</sub> budget source during a control period that exceeds the CO<sub>2</sub> budget emissions limitation for the source.
- (60) **Forested condition.** “Forested condition” means land that:
- (a) is at least 1.0 acre in size and 120.0 feet wide measured stem-to-stem from the outer-most edge. Forested strips must be 120.0 feet wide for a continuous length of at least 363.0 feet in order to meet the acre threshold; and
  - (b) meets at least one of the two following stocking criteria:
    - (i) the land is at least 10-percent stocked by trees of any size or has been at least 10-percent stocked in the past, and is not subject to non-forest use(s) that prevent normal tree regeneration and succession such as regular mowing, intensive grazing, or recreation activities; or
    - (ii) in several western woodland species where stocking cannot be determined, the land has at least 5-percent crown cover by trees of any size, or has had at least 5-percent cover in the past, and the land is not subject to non-forest use that prevents normal regeneration and succession such as regular mowing, chaining, or recreation activities.
- (61) **Fossil fuel.** “Fossil fuel” means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.
- (62) **Fossil fuel-fired unit.** “Fossil fuel-fired unit” means:

- (a) With regard to a unit that commenced operation prior to January 1, 2005, a unit fueled by the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted constitutes, or is projected to comprise, more than 50% of the annual heat input on a British Thermal Unit basis during any calendar year; or
- (b) With regard to a unit that commenced operation on or after January 1, 2005, a unit fueled by the combustion of fossil fuel, alone or in combination with any other fuel, where the fossil fuel combusted constitutes, or is projected to comprise, more than 5% of the annual heat input on a British Thermal Unit basis during any calendar year.
- (63) **Furnace (residential).** “Furnace (residential)” means a self-contained, indirect-fired appliance that supplies heated air to a residential building through ducts to conditioned spaces.
- (64) **General account.** “General account” means a CO<sub>2</sub> allowance tracking system account, established under Section 7, that is not a compliance account.
- (65) **Generator.** “Generator” means a device that produces electricity and is required to be reported as a generating unit pursuant to the United States Department of Energy’s form 860.
- (66) **Global warming potential (GWP).** “Global warming potential (GWP)” means a measure of the radiative efficiency (heat-absorbing ability) of a particular gas relative to that of CO<sub>2</sub> after taking into account the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. Global warming potentials used in this regulation are consistent with the values used in the Intergovernmental Panel on Climate Change, Third Assessment Report.
- (67) **Gross electrical generation or Gross generation.** “Gross electrical generation” or “Gross generation” means the electrical output (in MW or MWe) at the terminals of the generator.
- (68) **HVAC system.** “HVAC system” means the system or systems that provide, either collectively or individually, heating, ventilation, or air conditioning to a building, including the equipment, distribution network, and terminals.
- (69) **IESNA.** “IESNA” means Illuminating Engineering Society of North America.
- (70) **Independent verifier.** “Independent verifier” means an individual that has been approved by the Department or its agent to conduct verification activities with regard to CO<sub>2</sub> emissions offset projects.
- (71) **Initiated.** “Initiated” with respect Section 1(A)(2) means that a state has signed the Regional Greenhouse Gas Initiative Memorandum of Understanding and initiated rulemaking to implement the program.
- (72) **Integrated manufacturing facility.** “Integrated manufacturing facility” means a facility that :
- (a) Received an air emissions license from the Department prior to July 1, 2007;

- (b) Produces electricity from one or more CO<sub>2</sub> budget units, including one or more combined heat and power units, for transmission over the facilities of a transmission and distribution utility; and
  - (c) Routinely produces one or more other products for sale.
- (73) **Integrated manufacturing facility pre-retirement account.** “Integrated manufacturing facility pre-retirement account” means a general account that the Department opens and manages in accordance with the incentive program under this regulation for CO<sub>2</sub> budget units that are Combined heat and power units at Integrated manufacturing facilities.
- (74) **Integrated manufacturing facility retirement account.** “Integrated manufacturing facility retirement account” means a general account that the Department opens and manages in order to permanently retire the CO<sub>2</sub> allowances associated with the incentive program under this regulation for CO<sub>2</sub> budget units that are Combined heat and power units at Integrated manufacturing facilities.
- (75) **Life-of-the-unit contractual arrangement.** “Life-of-the-unit contractual arrangement” means a unit participation power sales agreement under which a customer reserves, or is entitled to receive, a specified amount or percentage of nameplate capacity and/or associated energy from any specified unit pursuant to a contract:
- (a) for the life of the unit;
  - (b) for a cumulative term of no less than 25 years, including contracts that permit an election for early termination; or
  - (c) for a period equal to or greater than 20 years or 70 percent 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.
- (76) **Long-term electricity contract.** “Long-term electricity contract” means, with regards to a CO<sub>2</sub> budget unit at an integrated manufacturing facility, a contract for a period of 3 years or more for the purchase of electricity from that CO<sub>2</sub> budget unit.
- (77) **Market penetration rate.** “Market penetration rate” means 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. The Department may determine an appropriate market definition and market penetration metric for a category of technology, product or practice, and may issue guidance specifying the technologies, products or practices that meet a specified market penetration rate.
- (78) **Market settling period.** “Market settling period” means the first fourteen months of any control period.
- (79) **Maximum potential hourly heat input.** “Maximum potential hourly heat input” means an hourly heat input used for reporting purposes when a unit lacks certified monitors to report heat input. If the unit intends to use appendix D of 40 CFR Part 75 to report heat input, this

- value should 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 should be reported, in accordance with 40 CFR Part 75, using the maximum potential flow rate and either the maximum CO<sub>2</sub> concentration (in percent CO<sub>2</sub>) or the minimum oxygen concentration (in percent O<sub>2</sub>).
- (80) **Megawatt or MW.** “Megawatt” or “MW” means a unit of energy equal to 1000 kilowatts or 1,000,000 watts.
- (81) **Memorandum of understanding or MOU.** “Memorandum of understanding” or “MOU” means the Regional Greenhouse Gas Initiative Memorandum of Understanding dated December 20, 2005 that establishes an electric power sector carbon emissions cap-and-trade program within the northeast region of the United States.
- (82) **MMBtu.** “MMBtu” means one million British thermal units.
- (83) **Monitoring system.** “Monitoring system” means any monitoring system that meets the requirements of Section 4, including a continuous emissions monitoring system, an excepted monitoring system, or an alternative monitoring system.
- (84) **MWe.** “MWe” means megawatt electrical.
- (85) **MWh or Megawatt-hour.** “MWh or “Megawatt-hour” means the amount of power (in megawatts) used or produced over a certain period of time (in hours).
- (86) **Nameplate capacity.** “Nameplate capacity” means the maximum electrical generating output, expressed in megawatts, that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy standards.
- (87) **Net electricity.** “Net electricity” means the difference between the electricity that is produced at an integrated manufacturing facility and transmitted over the facilities of a Transmission and distribution utility and the electricity that is purchased over the facilities of a Transmission and distribution utility and used at the Integrated manufacturing facility.
- (88) **Non-forested condition.** “Non-forested condition” means land that does not meet the definition of “forested condition.” Non-forested land includes areas used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining rights-of-way, power line clearings of any width, and non-census water. If intermingled in forest areas, unimproved roads and non-forest strips must be more than 120.0 feet wide, and clearings more than one acre in size, to qualify as non-forest land.
- (89) **On-site combustion.** “On-site combustion” means the combustion of fossil fuel at a building to provide building services, such as heating, hot water, or electricity.
- (90) **Operator.** “Operator” means any person who operates, controls, or supervises a CO<sub>2</sub> budget unit or a CO<sub>2</sub> budget source and shall include, but not be limited to, any holding company, utility system, or plant manager of such a unit or source.
- (91) **Owner.** “Owner” means:

- (a) The definition of “owner” associated with the licensing, monitoring, recordkeeping, reporting, and compliance related requirements except those under section 5 of this Chapter means:
- (i) any holder of any portion of the legal or equitable title in a CO<sub>2</sub> budget unit;
  - (ii) any holder of a leasehold interest in a CO<sub>2</sub> budget unit, 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 CO<sub>2</sub> budget unit; or
  - (iii) if no person has title or interest in the CO<sub>2</sub> budget unit as described in subparagraphs (i) or (ii) above, the owner is any holder of any portion of the legal or equitable title to the electrical output of a CO<sub>2</sub> budget unit.
- (b) The definition of “owner” for the purpose of obtaining and making available CO<sub>2</sub> allowances for compliance deduction purposes under subsection 5 means:
- (i) any purchaser of electricity transmitted for purposes of resale over the facilities of a transmission and distribution utility who purchases such electricity under a long-term electricity contract from a CO<sub>2</sub> budget unit located at an Integrated Manufacturing Facility;
  - (ii) any purchaser of electricity transmitted for purposes of resale over the facilities of a transmission and distribution utility who purchases such electricity under a life-of-the-unit contractual arrangement in which the purchaser controls the dispatch of the unit from a CO<sub>2</sub> budget unit which is not located at an Integrated Manufacturing Facility; or
  - (iii) if in the instance there exists no purchaser of electricity under a long-term electricity contract, and there exists no purchaser of electricity under a life-of-the-unit contractual arrangement, the “owner” for the purpose of obtaining and making available CO<sub>2</sub> allowances for compliance deduction purposes under section 5 is defined as under subparagraphs (a)(i)-(iii) of this definition.
- (c) The definition of “owner” associated with any general account means any person who has an ownership interest with respect to the CO<sub>2</sub> allowances held in the general account and who is subject to the binding agreement for the CO<sub>2</sub> authorized account representative to represent that person’s ownership interest with respect to the CO<sub>2</sub> allowances.
- (d) The definition of “owner” associated with any offset project means any person who has legal or rightful title to the equipment, building, property, or operations associated with the offset project.
- (92) **Participating state.** “Participating state” means a state that has established a corresponding regulation as part of the CO<sub>2</sub> Budget Trading Program.

- (93) **Passive solar.** “Passive solar” means a combination of building design features and building components that utilize solar energy to reduce or eliminate the need for mechanical heating and cooling and daytime artificial lighting.
- (94) **Permanently retired.** “Permanently retired” means a greenhouse gas allowance or credit has been “permanently retired” if it has been placed in a retirement account controlled by the jurisdiction that generated the allowance or credit, or has been placed in an allowance retirement account controlled by the Department, or is otherwise deemed unusable by the Department.
- (95) **Project commencement.** “Project commencement” means, 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 such activity. For an offset project that involves the implementation of a management activity or protocol, the date on which such activity is first implemented or such protocol first utilized.
- (96) **Receive or receipt of.** “Receive” or “receipt of” means, 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.
- (97) **Recordation, record, or recorded.** “Recordation,” “record,” or “recorded” means, with regard to CO<sub>2</sub> allowances, the movement of CO<sub>2</sub> allowances by the Department or its agent from one CO<sub>2</sub> Allowance Tracking System account to another, for purposes of allocation, transfer, retirement, or deduction.
- (98) **Regional Greenhouse Gas Initiative.** “Regional Greenhouse Gas Initiative” means the ongoing cooperative effort by the states of Maine, New Hampshire, Vermont, Connecticut, New York, New Jersey, Massachusetts, Rhode Island, Maryland and Delaware and such others states as may in the future become a part of the program to design and implement a regional CO<sub>2</sub> cap-and-trade program covering CO<sub>2</sub> emissions from CO<sub>2</sub> budget units in the signatory states.
- (99) **Regional Transmission Organization or RTO.** “Regional Transmission Organization” or “RTO” means the independent systems operator that administers and oversees wholesale electricity markets.
- (100) **Regional-type anaerobic digester.** “Regional-type anaerobic digester” means an anaerobic digester using feedstock from more than one agricultural operation, or importing feedstock from more than one agricultural operation. Also referred to as a “community digester” or “centralized digester.”
- (101) **Renewable energy.** “Renewable energy” means electricity generated from any resource that meets the resource type and vintage for Class I of the Maine Portfolio Requirement 65-407 CMR Chapter 311.
- (102) **Renewable energy credits or RECs.** “Renewable energy credits” or “RECs” means the characteristics associated with the generation of one megawatt-hour of electricity from a

- renewable energy source, such as its generation date, facility geographic location, unit vintage, emissions output, fuel, state program eligibility, or other characteristic that can be identified, accounted, and tracked.
- (103) **Renewable portfolio standard or RPS.** “Renewable portfolio standard” or “RPS” means a statutory or regulatory requirement that a load-serving entity provide a certain portion of the electricity it supplies to its customers from renewable energy sources, or any other statutory or regulatory requirement that a certain portion of electricity supplied to the electricity grid be generated from renewable energy sources.
- (104) **Residential building.** “Residential building” means a low-rise residential building to which the provisions of ANSI/ASHRAE/IESNA Standard 90.1 do not apply. Includes, *inter alia*, single family homes, multifamily structures of three stories or fewer above grade, and manufactured homes (modular and mobile).
- (105) **RESNET.** “RESNET” means Residential Energy Services Network.
- (106) **Serial number.** “Serial number” means, when referring to CO<sub>2</sub> allowances, the unique identification number assigned to each CO<sub>2</sub> allowance by the Department or its agent under subsection 7(B)(3) of this Chapter.
- (107) **SF<sub>6</sub>.** “SF<sub>6</sub>” means sulfur hexafluoride.
- (108) **SF<sub>6</sub>-containing operating equipment.** “SF<sub>6</sub>-containing operating equipment” means any equipment used for the transmission and distribution of electricity that contains SF<sub>6</sub>.
- (109) **Source.** “Source” means any 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.”
- (110) **Sponsor or Project sponsor.** “Sponsor” or “Project sponsor” means any person who meets the requirements of the CO<sub>2</sub> authorized account representative for the general account of an eligible CO<sub>2</sub> emissions offset project or CO<sub>2</sub> emissions credit retirement.
- (111) **Stage one threshold price.** “Stage one threshold price” means the monetary amount, established as of the first day of each calendar year, derived annually from use of the following formula:  

$$S1TP(2005+n) = S1TP(2005) \times \{[1+(CPI(2005+n) - CPI(2005))]/CPI(2005)\}$$
where:  
“S1TP” is the stage one threshold price;  
“S1TP(2005)” is \$7;  
“n” is the number of years since 2005; and  
“CPI” means, for purposes of the CO<sub>2</sub> Budget Trading Program, the U.S. Department of Labor, Bureau of Labor Statistics unadjusted Consumer Price Index for All Urban Consumers for the U.S. city average, for All Items on the latest reference base, or if such index is no longer published, such other index as the Department determines is appropriate. The CPI for any calendar year is the twelve-month average of the CPI published by the United States

Department of Labor, as of the close of the twelve-month period ending on August thirty-first of each calendar year.

(112) **Stage one trigger event.** “Stage one trigger event” means the occurrence of any twelve month period that completely transpires following the market settling period and is characterized by an average CO<sub>2</sub> allowance price that is equal to or greater than the stage one threshold price.

(113) **Stage two threshold price.** “Stage two threshold price” means the monetary amount, established as of the first day of each calendar year, derived annually from use of the following formula:

$$S2TP(2005+n) = [ S2TP(2005+(n-1)) \times \left[ \frac{CPI(2005+(n-1)) - CPI(2005 + (n-2))}{CPI(2005+(n-2))} \right] + 0.02 ] + S2TP(2005+(n-1))$$

where:

“S2TP” is the stage two threshold price;

“S2TP(2005)” is \$10; and

“n” is the number of years since 2005.

“CPI” means, for purposes of the CO<sub>2</sub> Budget Trading Program, the U.S. Department of Labor, Bureau of Labor Statistics unadjusted Consumer Price Index for All Urban Consumers for the U.S. city average, for All Items on the latest reference base, or if such index is no longer published, such other index as the Department determines is appropriate. The CPI for any calendar year is the twelve-month average of the CPI published by the United States Department of Labor, as of the close of the twelve-month period ending on August thirty-first of each calendar year.

(114) **Stage two trigger event.** “Stage two trigger event” means the occurrence of any twelve-month period that completely transpires following the market settling period and is characterized by an average CO<sub>2</sub> allowance price that is equal to or greater than the stage two threshold price.

(115) **State.** “State” means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa and includes the Commonwealth of the Northern Mariana Islands.

(116) **Submit or serve.** “Submit” or “serve” means to send or transmit a document, information, or correspondence to the person specified in accordance with the applicable regulation:

(a) in person;

(b) by United States Postal Service; or

(c) by other means of dispatch or transmission and delivery.

Compliance with any “submission,” “service,” or “mailing” deadline shall be determined by the date of dispatch, transmission, or mailing and not the date of receipt.

- (117) **System benefit fund.** “System benefit fund” means any fund collected directly from retail electricity or natural gas ratepayers.
- (118) **Ton or tonnage.** “Ton” or “tonnage” means any “short ton,” or 2,000 pounds. For the purpose of determining compliance with the CO<sub>2</sub> budget emissions limitation, total tons for a 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 Section 4, with any remaining fraction of a ton equal to or greater than 0.50 ton deemed to equal one ton and any fraction of a ton less than 0.50 ton deemed to equal zero tons. A short ton is equal to 0.9072 metric tons.
- (119) **Total solids.** “Total solids” means the total of all solids in a sample. They include the total suspended solids, total dissolved solids, and volatile suspended solids.
- (120) **Transmission and distribution utility.** “Transmission and distribution utility” means a transmission and distribution utility as defined in 35-A MRS §3201, subsections 6, 12 or 16.
- (121) **Twelve month period.** “Twelve month period” means a period of twelve consecutive months determined on a rolling basis where a new twelve month period begins on the first day of each calendar month.
- (122) **Unit.** “Unit” means a stationary boiler, combustion turbine, or combined cycle system.
- (123) **Unit operating day.** “Unit operating day” means a calendar day in which a unit combusts any fuel.
- (124) **Verification.** “Verification” means the determination by an independent verifier that certain parts of a CO<sub>2</sub> emissions offset project application and/or measurement, monitoring or verification report conforms to the requirements of Section 9 of this Chapter.
- (125) **Volatile solids.** “Volatile solids” means the fraction of total solids that is comprised primarily of organic matter.
- (126) **Voluntary renewable energy purchases.** “Voluntary renewable energy purchases” means the purchase of renewable energy credits (RECs) by a retail electricity customer on a voluntary basis. The renewable energy or RECs related to such purchases may not be used by the generator or purchaser to meet any regulatory mandate, such as a renewable portfolio standard (RPS).
- (127) **Voluntary renewable energy retirement account.** “Voluntary renewable energy retirement account” means a general account that the Department opens and manages in order to permanently retire CO<sub>2</sub> allowances associated with the Voluntary renewable energy purchase provisions contained in Section 2(B)(4) of this regulation.
- (128) **Voluntary renewable energy set-aside account.** “Voluntary renewable energy set-aside account” means a general account that the Department opens and manages in accordance with the Voluntary renewable energy purchase provisions contained in Section 2(B)(4) of this regulation.

- (129) **Whole-building energy performance.** “Whole-building energy performance” means the overall energy performance of a building, taking into account the integrated impact on energy usage of all building components and systems.
- (130) **Whole-building retrofit.** “Whole-building retrofit” means any building project that involves the replacement of more than one building system, or set of building components, and also requires a building permit.
- (131) **Zero net energy building.** “Zero net energy building” means a building designed to produce as much energy as the building is projected to use, as measured on an annual basis.

**C. Liability.**

- (1) No license revision shall excuse any violation of the requirements of the CO<sub>2</sub> Budget Trading Program that occurs prior to the date that the revision takes effect.
- (2) Any provision of the CO<sub>2</sub> Budget Trading Program that applies to a CO<sub>2</sub> budget source (including a provision applicable to the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget source) shall also apply to the owners and operators of such source and of the CO<sub>2</sub> budget units at the source.
- (3) Any provision of the CO<sub>2</sub> Budget Trading Program that applies to a CO<sub>2</sub> budget unit (including a provision applicable to the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit) shall also apply to the owners and operators of such unit.

**D. Effect on other authorities.** No provision of the CO<sub>2</sub> Budget Trading Program, a CO<sub>2</sub> budget license application, or a CO<sub>2</sub> budget license, shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget source or CO<sub>2</sub> budget unit from compliance with any other provisions of applicable State and federal law and regulations.

**E. Severability.** If any provision of this Regulation, or its application to any particular person or circumstances, is held invalid, the remainder of this Regulation, and the application thereof to other persons or circumstances, shall not be affected thereby.

**F. Enforcement.** Except as provided in CO<sub>2</sub> Budget Trading Program Waiver and Suspension, 06-096, Chapter 157, violations of this chapter are enforceable, and penalties may be imposed in accordance with 38 M.R.S.A. sections 347-A, 348, and 349.

**G. Computation of time.**

- (1) Unless otherwise stated, any time period scheduled, under the CO<sub>2</sub> Budget Trading Program, to begin on the occurrence of an act or event shall begin on the day the act or event occurs.
- (2) Unless otherwise stated, any time period scheduled, under the CO<sub>2</sub> 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.

- (3) Unless otherwise stated, if the final day of any time period, under the CO<sub>2</sub> Budget Trading Program, falls on a weekend or a State or Federal holiday, the time period shall be extended to the next business day.

## 2. CO<sub>2</sub> Allowance Allocation Provisions

### A. Maine's CO<sub>2</sub> emissions budget.

- (1) For the 2009 through 2014 allocation years, Maine's annual CO<sub>2</sub> emissions budget is 5,948,902 tons.
- (2) For the 2015 allocation year, Maine's CO<sub>2</sub> emissions budget is 5,800,180 tons.
- (3) For the 2016 allocation year, Maine's CO<sub>2</sub> emissions budget is 5,651,458 tons.
- (4) For the 2017 allocation year, Maine's CO<sub>2</sub> emissions budget is 5,502,736 tons.
- (5) For the 2018 allocation year and each succeeding allocation year, Maine's CO<sub>2</sub> emissions budget is 5,354,014 tons.

### B. Consumer benefit account allocation.

The Department will allocate one hundred percent (100%) of Maine's CO<sub>2</sub> emissions budget to the Consumer benefit account. A portion of the CO<sub>2</sub> allowances held in the Consumer benefit account will be transferred to an Integrated manufacturing facility pre-retirement account and handled as described in subsections 2(B)(1), (2), and (3) below. A portion, not to exceed 2% of the CO<sub>2</sub> emissions budget, of the CO<sub>2</sub> allowances held in the Consumer benefit account will be transferred to a Voluntary renewable energy set-aside account and handled as described in subsection 2(B)(4) below. CO<sub>2</sub> allowances remaining in the Consumer benefit account will be auctioned for sale by the Department or its agent.

- (1) *Incentive for CO<sub>2</sub> budget units that are Combined heat and power units at Integrated manufacturing facilities.* Annually, the Department will transfer a portion of the CO<sub>2</sub> allowances allocated to the Consumer benefit account to an Integrated manufacturing facility pre-retirement account. Such CO<sub>2</sub> allowances are intended to promote and reward the operation of CO<sub>2</sub> budget units that are Combined heat and power units at Integrated manufacturing facilities by using the CO<sub>2</sub> allowances to offset the Behind-the-meter CO<sub>2</sub> emissions. The methods by which the number of CO<sub>2</sub> allowances will be distributed are described in subsections 2(B)(2), (3), and (4) of this Chapter.
- (2) *Reservation of CO<sub>2</sub> allowances for Integrated manufacturing facilities.* Integrated manufacturing facilities will be responsible for submitting and the Department will be responsible for approving projections of each CO<sub>2</sub> budget unit's anticipated Behind-the-meter CO<sub>2</sub> emissions. The number of CO<sub>2</sub> allowances equal to the total approved projected amount of Behind-the-meter CO<sub>2</sub> emissions from the CO<sub>2</sub> budget units will be transferred from the Consumer benefit account to the Integrated manufacturing facility pre-retirement account.
- (3) *Balancing of the Integrated manufacturing facility pre-retirement account.* Each calendar year the Department will compare the number of CO<sub>2</sub> allowances held in the Integrated

manufacturing facility pre-retirement account with the total actual reported Behind-the-meter CO<sub>2</sub> emissions from each Integrated manufacturing facility. If there are fewer CO<sub>2</sub> allowances held in the Integrated manufacturing facility pre-retirement account than needed, additional CO<sub>2</sub> allowances will be added to the next year's predicted number of CO<sub>2</sub> allowances and transferred into the Integrated manufacturing facility pre-retirement account to balance the account. If there are more CO<sub>2</sub> allowances held in the Integrated manufacturing facility pre-retirement account than needed, only as many CO<sub>2</sub> allowances will be transferred from next year's Consumer benefit account as needed to cover future Behind-the-meter CO<sub>2</sub> emissions.

- (4) *Voluntary renewable energy purchases.* The Department will set aside and permanently retire CO<sub>2</sub> allowances to promote and reward the voluntary purchase by consumers in Maine of renewable energy credits generated from within any participating state. The handling of such CO<sub>2</sub> allowances shall be accomplished by the Department as follows:
- (a) Prior to the beginning of each control period the Department shall transfer 2% of the CO<sub>2</sub> emissions budget from each year of the control period from the Consumer benefit account into the Voluntary renewable energy set-aside account.
- (b) By August 31<sup>st</sup> of each year beginning in 2010, the Department shall permanently retire the number of CO<sub>2</sub> allowances equal to the amount of avoided CO<sub>2</sub> emissions from the previous calendar year, determined using the following equation, subject to the limitations in subparagraph (c) and requirements of subparagraphs (d) and (e) of this subsection:

$$AE = \sum_{i=1}^n (MWH_{REC})_i \times (MER)/2000$$

Where,

AE = the amount of avoided CO<sub>2</sub> emissions (in tons rounded to the nearest whole ton).

MWH<sub>REC</sub> = the number of renewable energy credits (RECs) voluntarily purchased by Maine consumers during each calendar year (in equivalent MWhrs on a state-by-state basis), which have been generated within a participating state.

MER = the most recently published annual average marginal emission rate (in lbs of CO<sub>2</sub> per MWh) as reported by the corresponding participating state's regional transmission organization.

i = each participating state from which RECs were purchased by Maine consumers.

- (c) If the total amount of avoided CO<sub>2</sub> emissions calculated pursuant to subparagraph (b) of this subsection exceeds the number of CO<sub>2</sub> allowances held in the Voluntary renewable energy set-aside account for an associated vintage year, then the number of CO<sub>2</sub> allowances to be retired shall be equal to the total number of CO<sub>2</sub> allowances contained in the Voluntary renewable energy set-aside account for that particular vintage year.

- (d) If the total amount of avoided CO<sub>2</sub> emissions calculated pursuant to subparagraph (b) of this subsection is less than the number of CO<sub>2</sub> allowances held in the Voluntary renewable energy set-aside account for an associated vintage year, then the number of CO<sub>2</sub> allowances in an amount equal to the calculated avoided CO<sub>2</sub> emissions shall be retired and any excess CO<sub>2</sub> allowances shall be transferred back into the Consumer benefit account and offered for sale at auction.
- (e) By August 31, 2010 and August 31<sup>st</sup> of each year thereafter, the Department shall retire the number of CO<sub>2</sub> allowances determined pursuant to subparagraphs (c) and (d) of this subsection by transferring them into the Voluntary renewable energy retirement account.
- (f) Data for the amount of renewable energy credits voluntarily purchased by Maine consumers and required for the equation specified in subparagraph (b) of this subsection will be obtained from renewable energy credit tracking systems associated with the regional transmission organizations operating in the states where the credits were generated. For credits that originate in areas with no credit tracking system, verifiable evidence of purchases by Maine consumers of renewable energy credits will be obtained from the entity that oversees the electricity transmission system in that area. Renewable energy credit data must be verifiable and document the following information:
- (i) Number of renewable energy credits, in MWh, purchased by retail consumers, by customer class in Maine, during the previous calendar year;
  - (ii) Documentation that the renewable energy credits were procured by the retail provider;
  - (iii) State where the renewable energy credits were generated;
  - (iv) Time period when the renewable energy credits were generated;
  - (v) Any additional information required by the Department necessary to demonstrate that such renewable energy credit purchase is eligible in Maine and not being credited in more than one participating state and is not being credited toward any renewable portfolio standard;
  - (vi) Annual average marginal CO<sub>2</sub> emission rate for electricity generation, in pounds CO<sub>2</sub>/MWh, as most recently reported by the regional transmission organization or the entity that oversees electricity transmission in areas with no RTO;
- (5) *Public notice of the number of CO<sub>2</sub> allowances to be auctioned.* Each Calendar year the Department or its agent will make public the number of CO<sub>2</sub> allowances that are planned to be auctioned in the coming year and the number of CO<sub>2</sub> allowances that are planned to be transferred to the Integrated manufacturing facility pre-retirement account.
- (6) *Serial numbers for allocated CO<sub>2</sub> allowances.* When allocating CO<sub>2</sub> allowances to and recording them in an account, the Department or its agent will assign each CO<sub>2</sub> allowance a unique identification number that will include digits identifying the year for which the CO<sub>2</sub> allowance is allocated.
- C. Early reduction CO<sub>2</sub> allowances.** The Department may award early reduction CO<sub>2</sub> allowances (ERAs) to a CO<sub>2</sub> budget source for reductions in the CO<sub>2</sub> budget source's CO<sub>2</sub> emissions (inclusive of all emissions from CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source) that are achieved by the source during the early reduction period (2006, 2007, and 2008), subject to the requirements of this subsection. Total facility shutdowns shall not be eligible for ERAs.

- (1) The CO<sub>2</sub> budget source must submit its application for the award of ERAs by May 1, 2009.
- (2) The CO<sub>2</sub> budget source must demonstrate that all CO<sub>2</sub> budget units that existed at the source during the baseline period (2003, 2004, and 2005) are included as CO<sub>2</sub> budget units for the early reduction period. New CO<sub>2</sub> budget units added at the CO<sub>2</sub> budget source must also be accounted for during the early reduction period.
- (3) The Department will calculate the number of ERAs to be awarded to a particular CO<sub>2</sub> budget source for the early reduction period pursuant to the following methodology:
  - (a) If total heat input to all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period is less than or equal to the total heat input to all the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period, then:
    - (i) ERAs shall be calculated as follows:

$$\text{ERAs} = ((\text{AEER}_{\text{BASELINE}} - \text{AEER}_{\text{ERP}}) \times (\text{EO}_{\text{ERP}} + (\text{TO}_{\text{ERP}} / 3.413))) / 2000$$

where:

“AEER<sub>BASELINE</sub>” is the average CO<sub>2</sub> emissions rate resulting from electric energy output and thermal energy output for all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period (in pounds of CO<sub>2</sub>/MWh<sub>th+e</sub>);

“AEER<sub>ERP</sub>” is the average CO<sub>2</sub> emissions rate resulting from electric energy output and thermal energy output for all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period (in pounds of CO<sub>2</sub>/MWh<sub>th+e</sub>);

“EO<sub>ERP</sub>” is the total electric energy output from all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period (in MWh<sub>e</sub>);

“TO<sub>ERP</sub>” is the total useful thermal energy output from all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period (in MMBtu);

For the purposes of this section, thermal energy output will be converted to units of MWh by the conversion factor 1 MWh = 3.413 MMBtu.

For the purposes of this section, output shall be monitored in accordance with Section 4 of this Chapter.

- (ii) If total heat input to all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period is greater than or equal to the total heat input to all the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period, then:

$$\text{ERAs} = E_{\text{BASELINE}} - E_{\text{ERP}}$$

where:

“E<sub>BASELINE</sub>” are total CO<sub>2</sub> emissions from the all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the baseline period (in tons); and

“E<sub>ERP</sub>” are total CO<sub>2</sub> emissions from the all of the CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source during the early reduction period (in tons).

- (b) The CO<sub>2</sub> budget source must demonstrate that the data submitted in support of the early reduction application was recorded in compliance with the requirements of Section 8 of this Chapter for all of the baseline years (2003, 2004 and 2005) and the early reduction years (2006, 2007, and 2008) for which the CO<sub>2</sub> budget source was required to report CO<sub>2</sub> data pursuant to 40 CFR Part 75. A CO<sub>2</sub> budget source is not required to submit CO<sub>2</sub> data pursuant to 40 CFR Part 75 for any of the years contained in the baseline period or early reduction period may petition the Department as part of its application under this Chapter for the use of an alternative data source or sources for the calculation of early reduction allowances.
  - (c) Once the Department confirms a CO<sub>2</sub> budget source’s early reductions of CO<sub>2</sub> emissions, it will allocate the ERAs to the CO<sub>2</sub> budget source’s compliance account by December 31, 2009.
- D. Eligible CO<sub>2</sub> emissions credit retirements.** The Department may award CO<sub>2</sub> offset allowances to the sponsor of a CO<sub>2</sub> emissions credit retirement that has satisfied all the applicable requirements of this section.
- (1) CO<sub>2</sub> emissions credit retirements include the permanent retirement of greenhouse gas allowances or credits issued and acceptable for use pursuant to any governmental mandatory carbon constraining program outside the United States that places a specific tonnage limit on greenhouse gas emissions, or certified greenhouse gas emissions reduction credits issued pursuant to the United Nations Framework Convention on Climate Change (UNFCCC) or protocols adopted through the UNFCCC process.
  - (2) The Department may award CO<sub>2</sub> offset allowances for CO<sub>2</sub> emissions credit retirements only after the occurrence of a stage two trigger event.

### 3. Licensing Requirements

#### A. General CO<sub>2</sub> budget source licensing requirements.

- (1) Each CO<sub>2</sub> budget source must obtain a CO<sub>2</sub> budget source license to be issued by the Department pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (effective December 24, 2005).
- (2) Each CO<sub>2</sub> budget source license shall contain all applicable CO<sub>2</sub> Budget Trading Program requirements and shall be a complete and distinguishable license under subsection 3(A)(1) of this Chapter.

- B. Schedule for submission license applications.** For any CO<sub>2</sub> budget source, the CO<sub>2</sub> authorized account representative shall submit a complete CO<sub>2</sub> budget source license application under subsection 3(C) of this Chapter covering such CO<sub>2</sub> budget source to the Department by the later of the effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this

Chapter or 12 months before the date on which the CO<sub>2</sub> budget source, or a new CO<sub>2</sub> budget unit at the source, commences operation.

**C. Application information requirements.** A complete CO<sub>2</sub> budget source license application shall include the following elements concerning the CO<sub>2</sub> budget source for which the application is submitted, in a format prescribed by the Department:

- (1) Identification of the CO<sub>2</sub> budget source, including plant name and the ORIS (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 CO<sub>2</sub> budget unit at the CO<sub>2</sub> budget source; and
- (3) Any supplemental information that the Department determines is necessary in order to review the CO<sub>2</sub> budget source license application and issue or deny a CO<sub>2</sub> budget source license.

#### 4. Monitoring, Recordkeeping, and Reporting Requirements

**A. General requirements.** The owners and operators, and to the extent applicable, the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit, shall comply with the monitoring, recordkeeping and reporting requirements as provided in this Chapter and all applicable sections of 40 CFR Part 75. For purposes of complying with such requirements, the definitions in subsection 1(B) of this Chapter and in 40 CFR 72.2 shall apply, and the terms “affected unit,” “designated representative,” and “continuous emissions monitoring system” (or “CEMS”) in 40 CFR Part 75 shall be replaced by the terms “CO<sub>2</sub> budget unit,” “CO<sub>2</sub> authorized account representative,” and “continuous emissions monitoring system” (or “CEMS”), respectively, as defined in subsection 1(B) of this Chapter.

- (1) *Requirements for installation, certification, and data accounting.* The owner or operator of each CO<sub>2</sub> budget unit must meet the following requirements.
  - (a) Install all monitoring systems required under this section for monitoring CO<sub>2</sub> mass emissions. This includes all systems required to monitor CO<sub>2</sub> concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate, as applicable, in accordance with 40 CFR 75.13, 75.71 and 75.72 and all portions of appendix G of 40 CFR Part 75.
  - (b) Successfully complete all certification tests required under subsection 4(B) of this Chapter and meet all other requirements of this section and 40 CFR Part 75 applicable to the monitoring systems under subsection 4(A)(1)(a) of this Chapter.
  - (c) Record, report and quality-assure the data from the monitoring systems under subsection 4(A)(1)(a) of this Chapter.
- (2) *Compliance dates.* The owner or operator shall meet the monitoring system certification and other requirements of subsection (4)(A)(1)(a) through 4(A)(1)(c) of this Chapter on or before the following dates. The owner or operator shall record, report and quality-assure the data from the monitoring systems under subsection 4(A)(1)(a) of this Chapter on and after the following dates:

- (a) The owner or operator of a CO<sub>2</sub> budget unit that commences commercial operation before July 1, 2008, must comply with the requirements of this section by the effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this Chapter.
  - (b) The owner or operator of a CO<sub>2</sub> budget unit that commences commercial operation on or after July 1, 2008 must comply with the requirements of this section by the later of the following dates:
    - (i) The effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this Chapter; or
    - (ii) The earlier of:
      - (A) 90 unit operating days after the date on which the unit commences commercial operation, or
      - (B) 180 calendar days after the date on which the unit commences commercial operation.
  - (c) For the owner or operator of a CO<sub>2</sub> budget unit for which construction of a new stack or flue installation is completed after the applicable deadline under subsection 4(A)(2)(a), 4(A)(2)(b) or 4(A)(2)(c) of this Chapter by the earlier of:
    - (i) 90 unit operating days after the date on which emissions first exit to the atmosphere through the new stack or flue; or
    - (ii) 180 calendar days after the date on which emissions first exit to the atmosphere through the new stack or flue.
- (3) *Reporting data.*
- (a) Except as provided in subsection 4(A)(3)(b) of this Chapter, the owner or operator of a CO<sub>2</sub> budget unit that does not meet the applicable compliance date set forth in subsection 4(A)(2)(a), 4(A)(2)(b), and 4(A)(2)(c) of this Chapter for any monitoring system under subsection 4(A)(1)(a) of this Chapter shall, for each such monitoring system, determine, record, and report maximum potential (or as appropriate minimum potential) values for CO<sub>2</sub> concentration, CO<sub>2</sub> emissions rate, stack gas moisture content, fuel flow rate and any other parameter required to determine CO<sub>2</sub> mass emissions and heat input in accordance with 40 CFR 75.31(b)(2) or (c)(3), section 2.4 of appendix D of 40 CFR Part 75 or section 2.5 of appendix G of 40 CFR Part 75 as applicable.
  - (b) The owner or operator of a CO<sub>2</sub> budget unit that does not meet the applicable compliance date set forth in subsection 4(A)(2)(c) of this Chapter for any monitoring system under subsection 4(A)(1)(a) of this Chapter shall, for each such monitoring system, determine, record, and report substitute data using the applicable missing data procedures in Subpart D, or appendix D or appendix E of 40 CFR Part 75, 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 subsection 4(A)(2)(c) of this Chapter.

(4) Prohibitions.

- (a) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit monitored under 40 CFR 75.72(b)(2)(ii) shall use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval in accordance with subsection 4(F) of this Chapter.
- (b) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit monitored under 40 CFR 75.72(b)(2)(ii) shall operate the unit so as to discharge, or allow to be discharged, CO<sub>2</sub> emissions to the atmosphere without accounting for all such emissions in accordance with the applicable provisions of this section and 40 CFR Part 75.
- (c) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit monitored under 40 CFR 75.72(b)(2)(ii) shall disrupt the continuous emissions monitoring system, any portion thereof, or any other approved emissions monitoring method, and thereby avoid monitoring and recording CO<sub>2</sub> mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of this section and 40 CFR Part 75.
- (d) No owner or operator of a CO<sub>2</sub> budget unit or a non-CO<sub>2</sub> budget unit monitored under 40 CFR 75.72(b)(2)(ii) shall retire or permanently discontinue use of the continuous emissions monitoring system, any component thereof, or any other approved emissions monitoring system under this section, except under any one of the following circumstances:
  - (i) The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of this section and 40 CFR Part 75, by the Department for use at that unit that provides emissions data for the same pollutant or parameter as the retired or discontinued monitoring system; or
  - (ii) The CO<sub>2</sub> authorized account representative submits notification of the date of certification testing of a replacement monitoring system in accordance with subsection 4(B)(4)(c)(i) of this Chapter.

**B. Initial certification and recertification requirements.**

- (1) The owner or operator of a CO<sub>2</sub> budget unit shall be exempt from the initial certification requirements of this section for a monitoring system under subsection 4(A)(1)(a) of this Chapter if the following conditions are met:
  - (a) The monitoring system has been previously certified in accordance with 40 CFR Part 75; and

- (b) The applicable quality-assurance and quality-control requirements of 40 CFR 75.21 and appendix B, appendix D and appendix E of 40 CFR Part 75 are fully met for the certified monitoring system described in subsection 4(B)(1)(a) of this Chapter.
- (2) The recertification provisions of this section shall apply to a monitoring system under subsection 4(A)(1)(a) of this Chapter exempt from initial certification requirements under subsection 4(B)(1) of this Chapter.
- (3) If the Administrator has previously approved a petition under 40 CFR 75.17(a) or (b) for apportioning the CO<sub>2</sub> emissions rate measured in a common stack or a petition under 40 CFR 75.66 for an alternative requirement in 40 CFR 75.12, 40 CFR 75.17 or Subpart H of 40 CFR Part 75, the CO<sub>2</sub> authorized account representative shall resubmit the petition to the Department under subsection 4(F)(1) of this Chapter to determine whether the approval applies under this program.
- (4) Except as provided in subsection 4(B)(1) of this Chapter, the owner or operator of a CO<sub>2</sub> budget unit shall comply with the following initial certification and recertification procedures for a continuous emissions monitoring system and an excepted monitoring system under appendices D and E of 40 CFR Part 75 and under subsection 4(A)(1)(a) of this Chapter. The owner or operator of a 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 Subpart E of 40 CFR Part 75 shall comply with the procedures in subsection 4(B)(5) or 4(B)(6) of this Chapter, respectively.
- (a) *Requirements for initial certification.* The owner or operator shall ensure that each continuous emissions monitoring system required under subsection 4(A)(1)(a) of this Chapter (which includes the automated data acquisition and handling system) successfully completes all of the initial certification testing required under 40 CFR 75.20 by the applicable deadlines specified in subsection 4(A)(2) of this Chapter. In addition, whenever the owner or operator installs a monitoring system in order to meet the requirements of this section in a location where no such monitoring system was previously installed, initial certification in accordance with 40 CFR 75.20 is required.
- (b) *Requirements for recertification.* Whenever the owner or operator makes a replacement, modification, or change in a certified continuous emissions monitoring system under subsection 4(A)(1)(a) of this Chapter that the Administrator or the Department determines significantly affects the ability of the system to accurately measure or record CO<sub>2</sub> mass emissions or heat input or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR Part 75, the owner or operator shall recertify the monitoring system according to 40 CFR 75.20(b). Furthermore, 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 continuous emissions monitoring system according to 40 CFR 75.20(b). Examples of changes which require recertification include: replacement of the analyzer, change in location or orientation of the sampling probe or site, or changing of flow rate monitor polynomial coefficients.
- (c) *Approval process for initial certifications and recertification.* Subsections 4(B)(4)(c)(i) through (iv) of this Chapter apply to both initial certification and recertification of a

monitoring system under subsection 4(A)(1)(a) of this Chapter. For recertifications, replace the words “certification” and “initial certification” with the word “recertification,” replace the word “certified” with “recertified,” and follow the procedures in 40 CFR 75.20(b)(5) and (g)(7) in lieu of the procedures in subsection 4(B)(4)(c)(v) of this Chapter.

- (i) *Notification of certification.* The CO<sub>2</sub> authorized account representative shall submit to the Department or its agent, the appropriate EPA Regional Office and the Administrator a written notice of the dates of certification in accordance with subsection 4(D) of this Chapter.
- (ii) *Certification application.* The CO<sub>2</sub> authorized account representative shall submit to the Department or its agent a certification application for each monitoring system. 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 CO<sub>2</sub> 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 subsection 4(B)(4)(c)(ii) of this Chapter. 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), provided that 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 subsection 4(B)(4)(c)(ii) of this Chapter. In the event the Department does not issue such a notice within such 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 CO<sub>2</sub> 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, then 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, then the Department will issue a written notice of incompleteness that sets a reasonable date by which the CO<sub>2</sub> authorized account representative must submit the additional information required to complete the certification application. If the CO<sub>2</sub> 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 subsection 4(B)(4)(c)(iv) of this Chapter. The 120 day review period shall not begin before 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 subsection 4(B)(4)(c)(iv) of this Chapter is met, then the Department will issue a written notice of disapproval of the certification application. Upon issuance of such 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 shall 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 subsection 4(B)(4)(c)(v) of this Chapter 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 subsection 4(C)(2) of this Chapter.

(v) *Procedures for loss of certification.* If the Department issues a notice of disapproval of a certification application under subsection 4(B)(4)(c)(iv)(C) or a notice of disapproval of certification status under subsection 4(B)(4)(c)(iv)(D) of this Chapter, then:

(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 units using or intending to monitor for CO<sub>2</sub> mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR 75.19, the maximum potential hourly heat input of the unit; or

(II) For units intending to monitor for CO<sub>2</sub> mass emissions using a CO<sub>2</sub> pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO<sub>2</sub> and the maximum potential flow rate of the unit under section 2.1 of appendix A of 40 CFR Part 75.

(B) The CO<sub>2</sub> authorized account representative shall submit a notification of certification retest dates and a new certification application in accordance with subsections 4(B)(4)(c)(i) and (ii) of this Chapter; and

(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.

- (5) *Initial certification and recertification procedures for low mass emissions units using the excepted methodologies under 40 CFR 75.19.* The owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR 75.19 shall meet the applicable certification and recertification requirements of 40 CFR 75.19, 40 CFR 75.20(h) and subsection 4(B) of this Chapter. If the owner or operator of such a 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).
- (6) *Certification/recertification procedures for alternative monitoring systems.* The CO<sub>2</sub> authorized account of each unit for which the owner or operator intends to use an alternative monitoring system approved by the Administrator and, if applicable, the Department under Subpart E of 40 CFR Part 75 shall comply with the applicable notification and application procedures of 40 CFR 75.20(f).

**C. Out-of-control periods.**

- (1) Whenever any 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 Subpart D, appendix D, or appendix E of 40 CFR Part 75.
- (2) *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 subsection 4(B) of this Chapter 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 or Administrator will issue a notice of disapproval of the certification status of such 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 or Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall 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 subsection 4(B) of this Chapter for each disapproved monitoring system.

**D. Notifications.** The CO<sub>2</sub> authorized account representative for a CO<sub>2</sub> budget unit shall submit written notice to the Department and the Administrator in accordance with 40 CFR 75.61.

**E. Recordkeeping and reporting.**

- (1) *General provisions.* The CO<sub>2</sub> authorized account representative shall comply with all recordkeeping and reporting requirements in this section, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of subsection 6(A)(5) of this Chapter.
  - (a) Unless otherwise provided, the owners and operators of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall keep on site at the source each of the following

documents for a period of 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 CO<sub>2</sub> authorized account representative for the source and each CO<sub>2</sub> budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with subsection 6(D) of this Chapter; provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation.
  - (ii) All emissions monitoring information, in accordance with Section 4 of this Chapter.
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO<sub>2</sub> Budget Trading Program.
  - (iv) Copies of all documents used to complete a CO<sub>2</sub> budget license application, any other submission under the CO<sub>2</sub> Budget Trading Program, and all documents used to demonstrate compliance with the requirements of the CO<sub>2</sub> Budget Trading Program.
- (b) The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall submit the reports and compliance certifications required under the CO<sub>2</sub> Budget Trading Program, including those under Section 5 of this Chapter.
- (2) *Monitoring plans.* The owner or operator of a CO<sub>2</sub> budget unit shall comply with requirements of 40 CFR 75.62.
- (3) *Certification applications.* The CO<sub>2</sub> authorized account representative shall submit an application to the Department within 45 days after completing all initial certification or recertification tests required under subsection 4(B) of this Chapter including the information required under CFR 75.63 and 40 CFR 75.73 (c) and (e) .
- (4) *Quarterly reports.* The CO<sub>2</sub> authorized account representative shall submit quarterly reports, as follows:
- (a) The CO<sub>2</sub> authorized account representative shall report the CO<sub>2</sub> mass emissions data and heat input data for the CO<sub>2</sub> budget unit, in an electronic format prescribed by the Department for each calendar quarter beginning with:
    - (i) for a unit that commences commercial operation before July 1, 2008, the earlier of the calendar quarter covering January 1, 2009 through March 31, 2009 or the first full calendar quarter following the effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this Chapter; or
    - (ii) for a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to, the earlier of the date of provisional certification or the applicable deadline for initial certification under subsection 4(A)(2) of this Chapter or, unless that quarter is the third or fourth quarter of 2008, in which case reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009 or

the first full calendar quarter following the effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this Chapter.

- (b) The CO<sub>2</sub> authorized account representative shall submit each quarterly report to 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 Subpart H of 40 CFR Part 75 and 40 CFR 75.64. Quarterly reports shall include all of the data and information required in Subpart H of 40 CFR Part 75 for each CO<sub>2</sub> budget unit (or group of units using a common stack) as well as information required in Subpart G of 40 CFR Part 75, except for opacity and SO<sub>2</sub> provisions.
- (c) *Compliance certification.* The CO<sub>2</sub> authorized account representative shall submit to the Department or its agent a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:
  - (i) the monitoring data submitted were recorded in accordance with the applicable requirements of this section and 40 CFR Part 75, including the quality assurance procedures and specifications; and
  - (ii) for a unit with add-on CO<sub>2</sub> emissions controls and for all hours where data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emissions controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate CO<sub>2</sub> emissions; and
  - (iii) the CO<sub>2</sub> concentration values substituted for missing data under Subpart D of 40 CFR Part 75 do not systematically underestimate CO<sub>2</sub> emissions.

#### **F. Petitions.**

- (1) Except as provided in subsection 4(F)(3) of this Chapter, the CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is subject to an Acid Rain emissions limitation may submit a petition under 40 CFR 75.66 to the Administrator requesting approval to apply an alternative to any requirement of this Chapter. Application of an alternative to any requirement of this Chapter is in accordance with this Chapter only to the extent that the petition is approved in writing by the Administrator, in consultation with the Department.
- (2) The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is not subject to an Acid Rain emissions limitation may submit a petition under 40 CFR 75.66 to the Administrator requesting approval to apply an alternative to any requirement of this Chapter. Application of an alternative to any requirement of this Chapter is in accordance with this Chapter only to the extent that the petition is approved in writing by both the Department and the Administrator.
- (3) The CO<sub>2</sub> authorized account representative of a CO<sub>2</sub> budget unit that is subject to an Acid Rain emissions limitation may submit a petition under 40 CFR 75.66 to the Administrator 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 CO<sub>2</sub> concentration CEMS used under 40 CFR 75.71(a)(2). Application of an alternative to any requirement of this Chapter is in accordance with this Chapter only to the extent the petition is approved in writing by both the Department and the Administrator.

**G. CO<sub>2</sub> budget units that co-fire eligible biomass [Reserved]**

**H. Additional requirements to provide output data.**

- (1) In a state that requires the use of information submitted to the Regional Transmission Organization (RTO) to document megawatt-hours (MWh) the CO<sub>2</sub> budget unit shall submit to the Department or its agent the same MWh value submitted to the RTO and a statement certifying that the MWh of electrical output reported reflects the total actual electrical output for all CO<sub>2</sub> budget units at the facility used by the RTO to determine settlement resources of energy market participants.
- (2) A CO<sub>2</sub> budget unit in a state that requires gross output to be used that also reports gross hourly MW to the Administrator, shall use the same electronic data report (EDR) gross output (in MW), as submitted to the Administrator, for the hour times operating time in the hour, added for all hours in a year. A CO<sub>2</sub> budget unit that does not report gross hourly MW to the Administrator shall submit to the Department or its agent information in accordance with subsection 4(H)(5)(a) of this Chapter.
- (3) A CO<sub>2</sub> budget unit in a state that requires net electrical output, shall submit to the Department or its agent information in accordance with subsection 4(H)(5)(a) of this Chapter. A CO<sub>2</sub> budget source whose electrical output is not used in RTO energy market settlement determinations shall propose to the Department a method for quantification of net electrical output.
- (4) CO<sub>2</sub> budget sources selling steam should use billing meters to determine net steam output. A CO<sub>2</sub> budget source whose steam output is not measured by billing meters or whose steam output is combined with output from a non-CO<sub>2</sub> budget unit prior to measurement by the billing meter shall propose to the Department an alternative method for quantification of net steam output. If data for steam output is not available, the CO<sub>2</sub> budget source may report heat input providing useful steam output as a surrogate for steam output.
- (5) *Monitoring.* The owner or operator of each CO<sub>2</sub> budget unit, in a state that requires the CO<sub>2</sub> budget unit's net output, must meet the following requirements. Each CO<sub>2</sub> budget source must provide a description of the net output monitoring approach in an output monitoring plan. The output monitoring plan application must include a description and diagram as stated below.
  - (a) Submit a diagram of the electrical and/or steam system for which output is being monitored, specifically including the following:
    - (i) If the CO<sub>2</sub> budget unit monitors net electric output, the diagram should contain all CO<sub>2</sub> budget units and all generators served by each CO<sub>2</sub> budget unit and the relationship between CO<sub>2</sub> budget units and generators. If a generator served by a CO<sub>2</sub>

budget unit is also served by a non-affected unit, the non-affected unit and its relationship to each generator should be indicated on the diagram as well. The diagram should indicate where the net electric output is measured and should include all electrical inputs and outputs to and from the plant. If net electric output is determined using a billing meter, the diagram should show each billing meter used to determine net sales of electricity and should show that all electricity measured at the point of sale is generated by the CO<sub>2</sub> budget units.

- (ii) If the CO<sub>2</sub> budget unit monitors net thermal output, the diagram should include all steam or hot water coming into the net steam system, including steam from CO<sub>2</sub> budget units and non-affected units, and all exit points of steam or hot water from the net steam system. In addition, each input and output stream will have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu/lb. The diagram of the net steam system should identify all useful loads, house loads, parasitic loads, any other steam loads and all boiler feedwater returns. The diagram will represent all energy losses in the system as either usable or unusable losses. The diagram will also indicate all flow meters, temperature or pressure sensors or other equipment used to calculate gross thermal output. If a sales agreement is used to determine net thermal output, the diagram should show the monitoring equipment used to determine the sales of steam.
- (b) Submit a description of each output monitoring system. The description of the output monitoring system should include a written description of the output system and the equations used to calculate output. For net thermal output systems descriptions and justifications of each useful load should be included.
- (c) Submit a detailed description of all quality assurance/quality control activities that will be performed to maintain the output system in accordance with subsection 4(H)(7) of this Chapter.
- (d) Submit documentation supporting any output value(s) to be used as a missing data value should there be periods of invalid output data. The missing data output value must be either zero or an output value that is likely to be lower than a measured value and that is approved as part of the monitoring plan required under this subsection.
- (6) *Initial Certification.* A certification statement must be submitted by the CO<sub>2</sub> authorized account representative stating that either the output monitoring system consists entirely of billing meters or that the output monitoring system meets one of the accuracy requirements for non-billing meters listed in subsection 4(H)(6)(b) of this Chapter. This statement may be submitted with the certification application required under subsection 4(E)(3) of this Chapter.
  - (a) *Billing Meters.* The billing meter must record the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output. Any output measurement equipment used as a billing meter in commercial transactions requires no additional certification or testing requirements.
  - (b) *Non-Billing Meters.* For non-billing meters, the output monitoring system must either meet an accuracy of within 10% of the reference value, or each component monitor for the output system must meet an accuracy of within 3% of the full scale value, whichever is less stringent.

- (i) The system approach to accuracy must include a determination of how the system accuracy of 10% is achieved using the individual components in the system and should include data loggers and any watt meters used to calculate the final net electric output data and/or any flow meters for steam or condensate, temperature measurement devices, absolute pressure measurement devices, and differential pressure devices used for measuring thermal energy.
  - (ii) A component approach to accuracy. If testing a piece of output measurement equipment shows that the output readings are not accurate to within 3.0 percent or less of the full scale value, then retest or replace the measurement equipment and meet that requirement. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.
- (7) *Ongoing QA/QC.* Ongoing quality assurance/quality control activities must be performed in order to maintain the output system.
- (a) *Billing Meters.* In the case where billing meters are used to determine output, no QA/QC activities beyond what are already performed are required.
  - (b) *Non-Billing Meters.* Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed. However, the pressure and temperature transmitters accompanying an orifice plate will require periodic retesting. For other types of equipment, either recalibrate or re-verify the meter accuracy at least once every two years (i.e., every eight calendar quarters), unless a consensus standard allows for less frequent calibrations or accuracy tests. For non-billing meters, the output monitoring system must either meet an accuracy of within 10% of the reference value, or each component monitor for the output system must meet an accuracy of within 3% of the full scale value, whichever is less stringent. If testing a piece of output measurement equipment shows that the output readings are not accurate to within 3.0 percent of the full scale value, then the equipment should be repaired or replaced to meet that requirement.
  - (c) *Out-of-control periods.* If testing a piece of output measurement equipment shows that the output readings are not accurate to the certification value, data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. Omit the invalid data and report either zero or an output value that is likely to be lower than a measured value and that is approved as part of the monitoring plan required under subsection 4(H)(5) of this Chapter.
- (8) *Recordkeeping and Reporting.*
- (a) *General provisions.* The CO<sub>2</sub> authorized account representative shall comply with all recordkeeping and reporting requirements in subsection 4(H) of this Chapter and with the requirements of subsection 6(A)(5) of this Chapter.

- (b) *Recordkeeping.* Facilities shall retain data used to monitor, determine, or calculate net generation for ten years.
- (c) *Annual reports.* The CO<sub>2</sub> authorized account representative shall submit annual net output reports, as follows. The data must be sent both electronically and in hardcopy by March 1 for the immediately preceding control period to the Department or its agent. The annual report shall include unit level MWh, all useful steam output and a certification statement from the CO<sub>2</sub> authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the CO<sub>2</sub> budget sources or CO<sub>2</sub> 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 for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

## 5. Compliance Requirements

### A. Compliance Certification Report.

- (1) *Applicability and deadline.* For each control period in which a CO<sub>2</sub> budget source is subject to the CO<sub>2</sub> budget emissions limitation, the CO<sub>2</sub> authorized account representative of the source shall submit to the Department by the March 1 following the relevant control period, a compliance certification report.
- (2) *Contents of report.* The CO<sub>2</sub> authorized account representative shall include in the compliance certification report under subsection 5(A)(1) of this Chapter the following elements, in a format prescribed by the Department:
  - (a) identification of the source and each CO<sub>2</sub> budget unit at the source;
  - (b) at the CO<sub>2</sub> authorized account representative's option, the serial numbers of the CO<sub>2</sub> allowances that are to be deducted from the source's compliance account under subsection 5(D) of this Chapter for the control period, including the serial numbers of any CO<sub>2</sub> offset allowances that are to be deducted subject to the limitations of subsection 5(D)(1)(c) of this Chapter; and
  - (c) the compliance certification under subsection 5(A)(3) of this Chapter.
- (3) *Compliance certification.* In the compliance certification report under subsection 5(A)(1) of this Chapter, the CO<sub>2</sub> authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the CO<sub>2</sub> budget units at the source in compliance with the CO<sub>2</sub> Budget Trading Program, whether the source and each CO<sub>2</sub> 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 CO<sub>2</sub> Budget Trading Program, including:

- (a) whether the source was operated in compliance with the CO<sub>2</sub> budget emissions limitation;
- (b) 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 all information necessary to attribute CO<sub>2</sub> emissions to the unit, in accordance with Section 4;
- (c) whether all the CO<sub>2</sub> 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 Section 4 of this Chapter. 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;
- (d) whether the facts that form the basis for certification under Section 4 of this Chapter of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under Section 4 of this Chapter, if any, have changed; and
- (e) if a change is required to be reported under subsection 5(A)(3)(d) of this Chapter, 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.

**B. Department Action on Compliance Certifications.**

- (1) The Department or its agent may review and conduct independent audits concerning any compliance certification or any other submission under the CO<sub>2</sub> Budget Trading Program and make appropriate adjustments of the information in the compliance certifications or other submissions.
- (2) The Department or its agent may deduct CO<sub>2</sub> allowances from or transfer CO<sub>2</sub> allowances to a source's compliance account based on the information in the compliance certifications or other submissions, as adjusted under subsection 5(B)(1) of this Chapter.

**C. CO<sub>2</sub> Budget Unit Compliance Account Requirements.**

- (1) The owners and operators of each CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source shall hold CO<sub>2</sub> allowances available for compliance deductions under subsection 5(D) of this Chapter, as of the CO<sub>2</sub> allowance transfer deadline, in the source's compliance account in an amount not less than the total CO<sub>2</sub> emissions for the control period from all CO<sub>2</sub> budget units at the source, as determined in accordance with Sections 7 and 4 of this Chapter.
- (2) Each ton of CO<sub>2</sub> emitted in excess of the CO<sub>2</sub> budget emissions limitation shall constitute a separate violation of this Chapter and applicable state law.

- (3) A CO<sub>2</sub> budget unit shall be subject to the requirements under subsection 5(C)(1) of this Chapter starting on the later, of January 1, 2009, the first full calendar quarter following the effective date of this regulation based on the criteria listed in subsection 1(A)(2) of this Chapter, or the date on which the unit commences operation.
- (4) CO<sub>2</sub> allowances shall be held in, deducted from, or transferred among CO<sub>2</sub> Allowance Tracking System accounts in accordance with Sections 2, 7, and 8, and with subsection 9(F) of this Chapter.
- (5) A CO<sub>2</sub> allowance shall not be deducted, in order to comply with the requirements under subsection 5(C)(1) of this Chapter, for a control period that ends prior to the year for which the CO<sub>2</sub> allowance was allocated. A CO<sub>2</sub> offset allowance shall not be deducted, in order to comply with the requirements under subsection 5(C)(1) of this Chapter, to cover emissions beyond the applicable percent limitations set out in subsection 5(D)(1)(c) of this Chapter.
- (6) A CO<sub>2</sub> allowance under the CO<sub>2</sub> Budget Trading Program is a limited authorization to emit one ton of CO<sub>2</sub> in accordance with the CO<sub>2</sub> Budget Trading Program. No provision of the CO<sub>2</sub> Budget Trading Program, the CO<sub>2</sub> budget license application, or the CO<sub>2</sub> budget license or any provision of law shall be construed to limit the authority of the State to terminate or limit such authorization.
- (7) A CO<sub>2</sub> allowance under the CO<sub>2</sub> Budget Trading Program does not constitute a property right.

#### **D. Compliance Deductions.**

- (1) Allowances available for compliance deduction. CO<sub>2</sub> allowances that meet the following criteria are available to be deducted for compliance with a CO<sub>2</sub> budget source's CO<sub>2</sub> budget emissions limitation for a control period.
  - (a) The CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, are of allocation years that fall within a prior control period or the same control period for which the allowances will be deducted.
  - (b) The CO<sub>2</sub> allowances are held in the CO<sub>2</sub> budget source's compliance account as of the CO<sub>2</sub> allowance transfer deadline for that control period or are transferred into the compliance account by a CO<sub>2</sub> allowance transfer correctly submitted for recordation under subsection 8(A) of this Chapter by the CO<sub>2</sub> allowance transfer deadline for that control period.
  - (c) For CO<sub>2</sub> offset allowances, the number of CO<sub>2</sub> offset allowances that are available to be deducted for compliance with a CO<sub>2</sub> budget source's CO<sub>2</sub> budget emissions limitation for a control period may not exceed the number of tons representing the following percentages of the CO<sub>2</sub> budget source's CO<sub>2</sub> emissions for that control period, as determined in accordance with Sections 7 and 4 of this Chapter:
    - (i) unless the provisions of subsections 5(D)(1)(c)(ii) or (iii) of this Chapter apply, 3.3 percent;

- (ii) if the Department determines that there has been a stage one trigger event, 5 percent;
    - (iii) if the Department determines that there has been a stage two trigger event, 10 percent.
  - (d) The CO<sub>2</sub> allowances are not necessary for deductions for excess emissions for a prior control period under subsection 5(D)(4) of this Chapter.
- (2) Deductions for compliance. Following the recordation, in accordance with subsection 8(B) of this Chapter, of CO<sub>2</sub> allowance transfers submitted for recordation in the CO<sub>2</sub> budget source's compliance account by the CO<sub>2</sub> allowance transfer deadline for a control period, the Department or its agent will deduct CO<sub>2</sub> allowances available under subsection 5(D)(1) of this Chapter to cover the source's CO<sub>2</sub> emissions (as determined in accordance with Section 4) for the control period, as follows:
- (a) until the amount of CO<sub>2</sub> allowances deducted equals the number of tons of total CO<sub>2</sub> emissions, determined in accordance with Section 4, from all CO<sub>2</sub> budget units at the CO<sub>2</sub> budget source for the control period; or
  - (b) if there are insufficient CO<sub>2</sub> allowances to complete the deductions in subsection 5(D)(2)(a) of this Chapter, until no more CO<sub>2</sub> allowances available under subsection 5(D)(1) of this Chapter remain in the compliance account.
- (3) Identification of available CO<sub>2</sub> allowances by serial number and default compliance deductions.
- (a) The CO<sub>2</sub> authorized account representative for a source's compliance account may request that specific CO<sub>2</sub> allowances, identified by serial number, in the compliance account be deducted for emissions or excess emissions for a control period in accordance with either subsection 5(D)(2) or 5(D)(4) of this Chapter. Such identification shall be made in the compliance certification report submitted in accordance with subsection 5(A) of this Chapter.
  - (b) The Department or its agent will deduct CO<sub>2</sub> allowances for a control period from the CO<sub>2</sub> budget source's compliance account, in the absence of an identification or in the case of a partial identification of available CO<sub>2</sub> allowances by serial number under subsection 5(D)(3)(a) of this Chapter, in the following descending order:
    - (i) any CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, that are available for deduction under subsection 5(D)(1) of this Chapter and were allocated to the units at the source, in the order of recordation; and then
    - (ii) any CO<sub>2</sub> allowances, other than CO<sub>2</sub> offset allowances, that are available for deduction under subsection 5(D)(1) of this Chapter and were allocated other than to units at the source and transferred and recorded in the compliance account pursuant to Section 8, in the order of recordation; and then

(iii) subject to the relevant compliance deduction limitations under subsection 5(D)(1)(c) of this Chapter, any CO<sub>2</sub> offset allowances transferred and recorded in the compliance account pursuant to Section 8 of this Chapter, in the order of recordation.

(4) Deductions for excess emissions.

- (a) After making the deductions for compliance under subsection 5(D)(2) of this Chapter, the Department or its agent will deduct from the CO<sub>2</sub> budget source's compliance account a number of CO<sub>2</sub> allowances, allocated for allocation years that occur after the control period in which the source has excess emissions, equal to three times the number of the source's excess emissions. In the event that a source has insufficient CO<sub>2</sub> allowances to cover three times the number of the source's excess emissions, the source shall be required immediately to deposit sufficient allowances in its compliance account. No CO<sub>2</sub> offset allowances may be deducted to account for the source's excess emissions.
- (b) Any CO<sub>2</sub> allowance deduction required under subsection 5(D)(4)(a) of this Chapter shall not affect the liability of the owners and operators of the CO<sub>2</sub> budget source or the CO<sub>2</sub> 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 applicable State law. The following guidelines will be followed in assessing fines, penalties or other obligations.
- (i) For purposes of determining the number of days of violation, if a CO<sub>2</sub> budget source has excess emissions for a control period, each day in the control period constitutes a day in violation unless the owners and operators of the unit demonstrate that a lesser number of days should be considered.
- (ii) Each ton of excess emissions is a separate violation.
- (c) The propriety of the Department's determination that a CO<sub>2</sub> budget source had excess emissions and the concomitant deduction of CO<sub>2</sub> allowances from that CO<sub>2</sub> budget source's account may be later challenged in the context of the initial administrative enforcement, or any civil or criminal judicial action arising from or encompassing that excess emissions violation. The commencement or pendency of any administrative enforcement, or civil or criminal judicial action arising from or encompassing that excess emissions violation will not act to prevent the Department or its agent from initially deducting the CO<sub>2</sub> allowances resulting from the Department's original determination that the relevant CO<sub>2</sub> budget source has had excess emissions. Should the Department's determination of the existence or extent of the CO<sub>2</sub> budget source's excess emissions be revised either by a settlement or final conclusion of any administrative or judicial action, the Department will act as follows.
- (i) In any instance where the Department's determination of the extent of excess emissions was too low, the Department will take further action under subsections 5(D)(4)(a) and (b) of this Chapter to address the expanded violation.
- (ii) In any instance where the Department's determination of the extent of excess emissions was too high, the Department will distribute to the relevant CO<sub>2</sub> budget source a number of CO<sub>2</sub> allowances equaling the number of CO<sub>2</sub> allowances deducted which are attributable to the difference between the original and final quantity of excess emissions. Should such CO<sub>2</sub> budget source's compliance account

no longer exist, the CO<sub>2</sub> allowances will be provided to a general account selected by the owner or operator of the CO<sub>2</sub> budget source from which they were originally deducted.

**E. Action by the Department on submissions.**

- (1) The Department may review and conduct independent audits concerning any submission under the CO<sub>2</sub> Budget Trading Program and make appropriate adjustments of the information in the submissions.
- (2) The Department may deduct CO<sub>2</sub> allowances from or transfer CO<sub>2</sub> allowances to a source's compliance account based on information in the submissions, as adjusted under subsection 5(D)(6)(a) of this Chapter.

**6. CO<sub>2</sub> Authorized Account Representative Provisions**

**A. Authorization and responsibilities.**

- (1) Except as provided under subsection 6(B) of this Chapter, each CO<sub>2</sub> budget source, including all CO<sub>2</sub> budget units at the source, shall have one and only one CO<sub>2</sub> authorized account representative, with regard to all matters under the CO<sub>2</sub> Budget Trading Program concerning the source or any CO<sub>2</sub> budget unit at the source.
- (2) The CO<sub>2</sub> authorized account representative of the CO<sub>2</sub> budget source shall be selected by an agreement binding on the owners and operators of the source and all CO<sub>2</sub> budget units at the source.
- (3) Upon receipt by the Department or its agent of a complete account certificate of representation under subsection 6(D) of this Chapter, the CO<sub>2</sub> authorized account representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CO<sub>2</sub> budget source represented and each CO<sub>2</sub> budget unit at the source in all matters pertaining to the CO<sub>2</sub> Budget Trading Program, notwithstanding any agreement between the CO<sub>2</sub> authorized account representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CO<sub>2</sub> authorized account representative by the Department or a court regarding the source or unit.
- (4) No CO<sub>2</sub> budget permit shall be issued, and no CO<sub>2</sub> Allowance Tracking System account shall be established for a CO<sub>2</sub> budget source, until the Department or its agent has received a complete account certificate of representation under subsection 6(D) of this Chapter for a CO<sub>2</sub> authorized account representative of the source and the CO<sub>2</sub> budget units at the source.
- (5) Each submission under the CO<sub>2</sub> Budget Trading Program shall be submitted, signed, and certified by the CO<sub>2</sub> authorized account representative for each CO<sub>2</sub> budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CO<sub>2</sub> authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the CO<sub>2</sub> budget sources or

CO<sub>2</sub> 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 for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.”

- (6) The Department or its agent will accept or act on a submission made on behalf of owners or operators of a CO<sub>2</sub> budget source or a CO<sub>2</sub> budget unit only if the submission has been made, signed, and certified in accordance with subsection 6(A)(5) of this Chapter.

**B. Alternate CO<sub>2</sub> authorized account representative.**

- (1) An account certificate of representation may designate one and only one alternate CO<sub>2</sub> authorized account representative who may act on behalf of the CO<sub>2</sub> authorized account representative. The agreement by which the alternate CO<sub>2</sub> authorized account representative is selected shall include a procedure for authorizing the alternate CO<sub>2</sub> authorized account representative to act in lieu of the CO<sub>2</sub> authorized account representative.
- (2) Upon receipt by the Department or its agent of a complete account certificate of representation under subsection 6(D) of this Chapter, any representation, action, inaction, or submission by the alternate CO<sub>2</sub> authorized account representative shall be deemed to be a representation, action, inaction, or submission by the CO<sub>2</sub> authorized account representative.
- (3) Except in this section and subsections 6(A)(1), 6(C), 6(D), and 7(B) of this Chapter, whenever the term “CO<sub>2</sub> authorized account representative” is used in this Chapter, the term shall be construed to include the alternate CO<sub>2</sub> authorized account representative.

**C. Changing the account certificate of representation.**

- (1) Changing the CO<sub>2</sub> authorized account representative. The CO<sub>2</sub> 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 subsection 6(D) of this Chapter. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CO<sub>2</sub> authorized 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 CO<sub>2</sub> authorized account representative and the owners and operators of the CO<sub>2</sub> budget source and the CO<sub>2</sub> budget units at the source.
- (2) Changing the alternate CO<sub>2</sub> authorized account representative. The alternate CO<sub>2</sub> 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 subsection 6(D) of this Chapter. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CO<sub>2</sub> authorized 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 alternate CO<sub>2</sub> authorized account representative and the owners and operators of the CO<sub>2</sub> budget source and the CO<sub>2</sub> budget units at the source.

- (3) Changes in the owners or operators.
  - (a) In the event a new owner or operator of a CO<sub>2</sub> budget source or a CO<sub>2</sub> budget unit is not included in the list of owners and operators submitted in the account certificate of representation, such 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 CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized 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 such list.
  - (b) Within 30 days following any change in the owners and operators of a CO<sub>2</sub> budget source or a CO<sub>2</sub> budget unit, including the addition of a new owner or operator, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative shall submit a revision to the account certificate of representation amending the list of owners and operators to include the change.

**D. Account certificate of representation.**

- (1) A complete account certificate of representation for a CO<sub>2</sub> authorized account representative or an alternate CO<sub>2</sub> authorized account representative shall include the following elements in a format prescribed by the Department or its agent:
  - (a) identification of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source for which the account certificate of representation is submitted;
  - (b) the name, address, e-mail address, telephone number, and facsimile transmission number of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative;
  - (c) a list of the owners and operators of the CO<sub>2</sub> budget source and of each CO<sub>2</sub> budget unit at the source;
  - (d) the following certification statement by the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative: "I certify that I was selected as the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative, as applicable, by an agreement binding on the owners and operators of the CO<sub>2</sub> budget source and each CO<sub>2</sub> budget unit at the source. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO<sub>2</sub> Budget Trading Program on behalf of the owners and operators of the CO<sub>2</sub> budget source and of each CO<sub>2</sub> budget unit at the source and that each such 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."; and
  - (e) the signature of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative and the dates signed.

- (2) 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. Neither the Department nor its agent shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.

**E. Objections concerning the CO<sub>2</sub> authorized account representative.**

- (1) Once a complete account certificate of representation under subsection 6(D) of this Chapter has been submitted and received, the Department and its agent will rely on the account certificate of representation unless and until the Department or its agent receives a superseding complete account certificate of representation under subsection 6(D) of this Chapter.
- (2) Except as provided in subsections 6(C)(1) or (2) of this Chapter, no objection or other communication submitted to the Department or its agent concerning the authorization, or any representation, action, inaction, or submission of the CO<sub>2</sub> authorized account representative shall affect any representation, action, inaction, or submission of the CO<sub>2</sub> authorized account representative or the finality of any decision or order by the Department or its agent under the CO<sub>2</sub> Budget Trading Program.
- (3) Neither the Department nor its agent will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of any CO<sub>2</sub> authorized account representative, including private legal disputes concerning the proceeds of CO<sub>2</sub> allowance transfers.

**F. Delegation of account representative responsibilities.**

- (1) A CO<sub>2</sub> authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Department or its agent under this Chapter.
- (2) An alternate CO<sub>2</sub> authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Department or its agent under this section.
- (3) In order to delegate authority to make an electronic submission to the Department or its agent in accordance with subsections 6(F)(1) and (2) of this Chapter, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative, as appropriate, must submit to the Department or its agent a notice of delegation, in a format prescribed by the Department that includes the following elements:
  - (a) The name, address, e-mail address, telephone number, and facsimile transmission number of such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative;
  - (b) The name, address, e-mail address, telephone number and facsimile transmission number of each such natural person, herein referred to as the “electronic submission agent”;

- (c) For each such natural person, a list of the type of electronic submissions under either subsection 6(F)(1) or 6(F)(2) of this Chapter for which authority is delegated to him or her; and
- (d) The following certification statements by such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative:
  - (i) “I agree that any electronic submission to the Department or its agent that is by a natural person identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am a CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX(6)(F)(4) shall be deemed to be an electronic submission by me.”
  - (ii) “Until this notice of delegation is superseded by another notice of delegation under CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX(6)(F)(4), 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 CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX(6)(F) of the is terminated.”
- (4) A notice of delegation submitted under subsection 6(F)(3) of this Chapter shall be effective, with regard to the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative identified in such notice, upon receipt of such notice by the Department or its agent and until receipt by the Department or its agent of a superseding notice of delegation by such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative as appropriate. 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.
- (5) Any electronic submission covered by the certification in subsection 6(F)(3)(d)(i) of this Chapter and made in accordance with a notice of delegation effective under subsection 6(F)(4) of this Chapter shall be deemed to be an electronic submission by the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative submitting such notice of delegation.

## **7. CO<sub>2</sub> Allowance Tracking System**

### **A. CO<sub>2</sub> Allowance Tracking System accounts.**

- (1) Any person wishing to purchase or otherwise hold CO<sub>2</sub> allowances must open a compliance or general account.
- (2) *Nature and function of compliance accounts.* Consistent with subsection 7(B)(1) of this Chapter, the Department or its agent will establish one compliance account for each CO<sub>2</sub> budget source. Allocations of CO<sub>2</sub> allowances pursuant to Section 2 of this Chapter and

deductions or transfers of CO<sub>2</sub> allowances pursuant to subsections 5(B), 5(D), 7(F), or Section 8 of this Chapter will be recorded in the compliance accounts in accordance with this section.

- (3) *Nature and function of general accounts.* Consistent with subsection 7(B)(2) of this Chapter, the Department or its agent will establish, upon request, a general account for any person. Transfers of CO<sub>2</sub> allowances pursuant to Section 8 of this Chapter will be recorded in the general account in accordance with this section.

**B. Establishment of accounts.**

- (1) *Compliance accounts.* Upon receipt of a complete account certificate of representation under subsection 6(D) of this Chapter, the Department or its agent will establish a compliance account for each CO<sub>2</sub> budget source for which the account certificate of representation was submitted.
- (2) *General accounts.*
- (a) *Application for general account.* Any person may apply to open a general account for the purpose of holding and transferring CO<sub>2</sub> allowances. An application for a general account may designate one and only one CO<sub>2</sub> authorized account representative and one and only one alternate CO<sub>2</sub> authorized account representative who may act on behalf of the CO<sub>2</sub> authorized account representative. The agreement by which the alternate CO<sub>2</sub> authorized account representative is selected shall include a procedure for authorizing the alternate CO<sub>2</sub> authorized account representative to act in lieu of the CO<sub>2</sub> authorized account representative. A complete application for a general account shall be submitted to the Department or its agent and may include, but not be limited to the following elements in a format prescribed by the Department or its agent:
- (i) name, address, e-mail address, telephone number, and facsimile transmission number of the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative;
  - (ii) at the option of the CO<sub>2</sub> authorized account representative, organization name and type of organization;
  - (iii) a list of all persons subject to a binding agreement for the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative to represent their ownership interest with respect to the CO<sub>2</sub> allowances held in the general account;
  - (iv) the following certification statement by the CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative: "I certify that I was selected as the CO<sub>2</sub> authorized account representative or the CO<sub>2</sub> alternate authorized account representative, as applicable, by an agreement that is binding on all persons who have an ownership interest with respect to CO<sub>2</sub> allowances held in the general account. I certify that I have all the necessary authority to carry out my duties and responsibilities under the CO<sub>2</sub> Budget Trading Program on behalf of such persons and that each such 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 CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative and the dates signed; and
  - (vi) unless otherwise required by the Department or its agent, documents of agreement referred to in the application for a general account shall not be submitted to the Department or its agent. Neither the Department nor its agent shall be under any obligation to review or evaluate the sufficiency of such documents, if submitted.
- (b) Authorization of CO<sub>2</sub> authorized account representative.
- (i) Upon receipt by the Department or its agent of a complete application for a general account under subsection 7(B)(2)(a) of this Chapter:
    - (A) The Department or its agent will establish a general account for the person or persons for whom the application is submitted.
    - (B) The CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative for the general account shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each person who has an ownership interest with respect to CO<sub>2</sub> allowances held in the general account in all matters pertaining to the CO<sub>2</sub> Budget Trading Program, notwithstanding any agreement between the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative and such person. Any such person shall be bound by any order or decision issued to the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative by the Department or its agent or a court regarding the general account.
    - (C) Any representation, action, inaction, or submission by any alternate CO<sub>2</sub> authorized account representative shall be deemed to be a representation, action, inaction, or submission by the CO<sub>2</sub> authorized account representative.
  - (ii) Each submission concerning the general account shall be submitted, signed, and certified by the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative for the persons having an ownership interest with respect to CO<sub>2</sub> allowances held in the general account. Each such submission shall include the following certification statement by the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative: “I am authorized to make this submission on behalf of the persons having an ownership interest with respect to the CO<sub>2</sub> 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 for submitting false statements and information or omitting

required statements and information, including the possibility of fine or imprisonment.”

- (iii) 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 subsection 7(B)(2)(b)(ii) of this Chapter.
- (c) Changing CO<sub>2</sub> authorized account representative and alternate CO<sub>2</sub> authorized account representative; changes in persons with ownership interest.
- (i) The CO<sub>2</sub> authorized 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 subsection 7(B)(2)(a) of this Chapter. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous CO<sub>2</sub> authorized 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 CO<sub>2</sub> authorized account representative and the persons with an ownership interest with respect to the CO<sub>2</sub> allowances in the general account.
  - (ii) The alternate CO<sub>2</sub> authorized 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 subsection 7(B)(2)(a) of this Chapter. Notwithstanding any such change, all representations, actions, inactions, and submissions by the previous alternate CO<sub>2</sub> authorized 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 alternate CO<sub>2</sub> authorized account representative and the persons with an ownership interest with respect to the CO<sub>2</sub> allowances in the general account.
  - (iii) In the event a new person having an ownership interest with respect to CO<sub>2</sub> allowances in the general account is not included in the list of such persons in the application for a general account, such 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 CO<sub>2</sub> authorized account representative and any alternate CO<sub>2</sub> authorized account representative, and the decisions, orders, actions, and inactions of the Department or its agent, as if the new person were included in such list.
  - (iv) Within 30 days following any change in the persons having an ownership interest with respect to CO<sub>2</sub> allowances in the general account, including the addition of persons, the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized 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 CO<sub>2</sub> allowances in the general account to include the change.
- (d) Objections concerning CO<sub>2</sub> authorized account representative.
- (i) Once a complete application for a general account under subsection 7(B)(2)(a) of this Chapter has been submitted and received, the Department or its agent will rely on the

application unless and until a superseding complete application for a general account under subsection 7(B)(2)(a) of this Chapter is received by the Department or its agent.

- (ii) Except as provided in subsections 7(B)(2)(c)(i) and (ii) of this Chapter, no objection or other communication submitted to the Department or its agent concerning the authorization, or any representation, action, inaction, or submission of the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative for a general account shall affect any representation, action, inaction, or submission of the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative or the finality of any decision or order by the Department or its agent under the CO<sub>2</sub> Budget Trading Program.
  - (iii) Neither the Department nor its agent will adjudicate any private legal dispute concerning the authorization or any representation, action, inaction, or submission of the CO<sub>2</sub> authorized account representative or any alternate CO<sub>2</sub> authorized account representative for a general account, including private legal disputes concerning the proceeds of CO<sub>2</sub> allowance transfers.
- (e) Delegation by CO<sub>2</sub> authorized account representative and alternate CO<sub>2</sub> authorized account representative.
- (i) A CO<sub>2</sub> authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Department or its agent provided for under Sections 7 and 8 of this Chapter.
  - (ii) An alternate CO<sub>2</sub> authorized account representative may delegate, to one or more natural persons, his or her authority to make an electronic submission to the Department or its agent provided for under Sections 7 and 8 of this Chapter.
  - (iii) In order to delegate authority to make an electronic submission to the Department or its agent in accordance with subsections 7(B)(2)(d)(i) and (ii) of this Chapter, the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative, as appropriate must submit to the Department or its agent a notice of delegation, in a format prescribed by the Department that includes the following elements:
    - (A) The name, address, e-mail address, telephone number, and facsimile transmission number of such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative;
    - (B) The name, address, e-mail address, telephone number and facsimile transmission number of each such natural person, herein referred to as “electronic submission agent”;
    - (C) For each such natural person, a list of the type of electronic submissions under either subsection 7(B)(1) or 7(B)(2) of this Chapter for which authority is delegated to him or her; and

(D) The following certification statements by such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative:

(I) “I agree that any electronic submission to the Department or its agent that is by a natural person identified in this notice of delegation and of a type listed for such electronic submission agent in this notice of delegation and that is made when I am a CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative, as appropriate, and before this notice of delegation is superseded by another notice of delegation under CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX 6(B)(2)(e)(iv) shall be deemed to be an electronic submission by me.”

(II) “Until this notice of delegation is superseded by another notice of delegation under CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX 7(B)(2)(e)(iv), 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 CO<sub>2</sub> Budget Trading Program 06—096 Chapter XX 7(B)(2)(e) is terminated.”

(iv) A notice of delegation submitted under subsection 7(B)(2)(e)(iii) of this Chapter shall be effective, with regard to the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative identified in such notice, upon receipt of such notice by the Department or its agent and until receipt by the Department or its agent of a superseding notice of delegation by such CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative as appropriate. 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.

(v) Any electronic submission covered by the certification in subsection 7(B)(2)(e)(iii)(D)(I) of this Chapter and made in accordance with a notice of delegation effective under subsection 7(B)(2)(e)(iv) of this Chapter shall be deemed to be an electronic submission by the CO<sub>2</sub> authorized account representative or alternate CO<sub>2</sub> authorized account representative submitting such notice of delegation.

(3) *Account identification.* The Department or its agent will assign a unique identifying number to each account established under subsections 7(B)(1) or (2) of this Chapter.

**C. CO<sub>2</sub> authorized account representative responsibilities.** Following the establishment of a CO<sub>2</sub> Allowance Tracking System account, all submissions to the Department or its agent pertaining to the account, including, but not limited to, submissions concerning the deduction or transfer of CO<sub>2</sub> allowances in the account, shall be made only by the CO<sub>2</sub> authorized account representative for the account.

**D. Banking.** Each CO<sub>2</sub> allowance that is held in a compliance account or a general account will remain in such account unless and until the CO<sub>2</sub> allowance is deducted or transferred under subsections 5(B), 5(D), 7(F), or Section 8 of this Chapter. CO<sub>2</sub> allowances that are held in a compliance account or a general account may be used by a CO<sub>2</sub> budget unit to meet the requirements of this Chapter in any subsequent control period regardless of the year the CO<sub>2</sub> allowance originated.

**E. Account error.** The Department or its agent may, at its sole discretion and on his or her own motion, correct any error in any CO<sub>2</sub> Allowance Tracking System account. Within 10 business days of making such correction, the Department or its agent will notify the CO<sub>2</sub> authorized account representative for the account.

**F. Closing of general accounts.**

- (1) A CO<sub>2</sub> 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 the CO<sub>2</sub> Allowance Tracking System and by correctly submitting for recordation under subsection 8(A) of this Chapter a CO<sub>2</sub> allowance transfer of all CO<sub>2</sub> allowances in the account to one or more other CO<sub>2</sub> Allowance Tracking System accounts.
- (2) If a general account shows no activity for a period of six years or more and does not contain any CO<sub>2</sub> allowances, the Department or its agent may notify the CO<sub>2</sub> authorized account representative for the account that the account will be closed in the CO<sub>2</sub> Allowance Tracking System following 20 business days after the notice is sent. The account will be closed after the 20-day period unless before the end of the 20-day period the Department or its agent receives a correctly submitted transfer of CO<sub>2</sub> allowances into the account under subsection 8(A) of this Chapter or a statement submitted by the CO<sub>2</sub> authorized account representative demonstrating to the satisfaction of the Department or its agent good cause as to why the account should not be closed.

**8. CO<sub>2</sub> Allowance Transfer Provisions**

**A. Submission of CO<sub>2</sub> allowance transfers.** The CO<sub>2</sub> authorized account representatives seeking recordation of a CO<sub>2</sub> allowance transfer shall submit the transfer to the Department or its agent. To be considered correctly submitted, the CO<sub>2</sub> allowance transfer shall include the following elements in a format specified by the Department or its agent:

- (1) the numbers identifying both the transferor and transferee accounts;
- (2) a specification by serial number of each CO<sub>2</sub> allowance to be transferred;
- (3) the printed name and signature of the CO<sub>2</sub> 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 allowance, if any; and
- (5) the purchase or sale price of the allowance that is the subject of a sale or purchase transaction under subsection 8(A)(4) of this Chapter.

**B. Recordation.**

- (1) Within 5 business days of receiving a CO<sub>2</sub> allowance transfer, except as provided in subsection 8(B)(2) of this Chapter, the Department or its agent will record a CO<sub>2</sub> allowance

transfer by moving each CO<sub>2</sub> allowance from the transferor account to the transferee account as specified by the request, provided that:

- (a) the transfer is correctly submitted under subsection 8(A) of this Chapter; and
  - (b) the transferor account includes each CO<sub>2</sub> allowance identified by serial number in the transfer.
- (2) A CO<sub>2</sub> allowance transfer that is submitted for recordation following the CO<sub>2</sub> allowance transfer deadline and that includes any CO<sub>2</sub> allowances that are of allocation years that fall within a control period prior to or the same as the control period to which the CO<sub>2</sub> allowance transfer deadline applies will not be recorded until after completion of the process of recordation of CO<sub>2</sub> allowance deductions for compliance in subsection 5(D)(2) of this Chapter.
- (3) Where a CO<sub>2</sub> allowance transfer submitted for recordation fails to meet the requirements of subsection 8(B)(1) of this Chapter, the Department or its agent will not record such transfer.

### **C. Notification Requirements.**

- (1) *Notification of recordation.* Within 5 business days of recordation of a CO<sub>2</sub> allowance transfer under subsection 8(B) of this Chapter, the Department or its agent will notify each party to the transfer. Notice will be given to the CO<sub>2</sub> authorized account representatives of both the transferor and transferee accounts.
- (2) *Notification of non-recordation.* Within 10 business days of receipt of a CO<sub>2</sub> allowance transfer that fails to meet the requirements of subsection 8(B)(1) of this Chapter, the Department or its agent will notify the CO<sub>2</sub> authorized account representatives of both accounts subject to the transfer of:
  - (a) a decision not to record the transfer, and
  - (b) the reasons for such non-recordation.
- (3) Nothing in this section shall preclude the submission of a CO<sub>2</sub> allowance transfer for recordation following notification of non-recordation.

## **9. CO<sub>2</sub> Emissions Offset Projects**

- A. Purpose.** The Department will provide for the award of CO<sub>2</sub> offset allowances to sponsors of CO<sub>2</sub> emissions offset projects or CO<sub>2</sub> emissions credit retirements that have reduced or avoided atmospheric loading of CO<sub>2</sub> equivalent or sequestered carbon as demonstrated in accordance with the applicable provisions of this section. The requirements of this section seek to ensure that CO<sub>2</sub> offset allowances awarded represent CO<sub>2</sub> 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 subsection 5(D)(1)(c) of this Chapter, CO<sub>2</sub> offset allowances may be used by any CO<sub>2</sub> budget source for compliance purposes.

**B. General requirements**

- (1) *Eligible CO<sub>2</sub> emissions offset projects.* The Department may award CO<sub>2</sub> offset allowances to the sponsor of any of the following offset projects that have satisfied all the applicable requirements of this section.
  - (a) *Offset project types.* The following types of offset projects are eligible for the award of CO<sub>2</sub> offset allowances.
    - (i) Landfill methane capture and destruction;
    - (ii) Reduction in emissions of sulfur hexafluoride (SF<sub>6</sub>);
    - (iii) Sequestration of carbon due to afforestation;
    - (iv) Reduction or avoidance of CO<sub>2</sub> emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and
    - (v) Avoided methane emissions from agricultural manure management operations.
  - (b) *Offset project locations.* Eligible offset projects may be located in any of the following locations:
    - (i) in any participating state; and
    - (ii) in any state or other United States jurisdiction in which a cooperating regulatory agency has entered into a memorandum of understanding with the Department to carry out certain obligations relative to CO<sub>2</sub> emissions offset projects in that state or U.S. jurisdiction, including but not limited to the obligation to perform audits of offset project sites, and report violations of this section.
- (2) *Project sponsor.* Any person may act as the sponsor of an eligible CO<sub>2</sub> emissions offset project or CO<sub>2</sub> emissions credit retirement.
- (3) *General Additionality Requirements.* Except as provided with respect to specific offset project standards in subsection 9(E) of this Chapter, the following general requirements shall apply.
  - (a) CO<sub>2</sub> offset allowances shall not be awarded to an offset project or CO<sub>2</sub> emissions credit retirement that is required pursuant to any local, state or federal law, regulation, or administrative or judicial order. If an offset project receives a consistency determination under subsection 9(D) of this Chapter and is later required by local, state or federal law, regulation, or administrative or judicial order, then the offset project shall remain eligible for the award of CO<sub>2</sub> offset allowances until the end of its current allocation period but its eligibility shall not be extended for an additional allocation period.
  - (b) CO<sub>2</sub> offset allowances shall not be awarded to 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 CO<sub>2</sub> offset allowances awarded under subsection 9(F) of this Chapter generated from the operation of the offset project that may be used for compliance with a renewable portfolio standard or other regulatory requirement, to the Department or its agent.

- (c) CO<sub>2</sub> offset allowances shall not be awarded to an offset project that receives funding or other incentives from any system benefit fund, or funds or other incentives provided through the consumer benefit or strategic energy purpose allocation required pursuant to subsection 2(B) of this Chapter.
  - (d) CO<sub>2</sub> offset allowances shall not be awarded to an offset project or CO<sub>2</sub> emissions credit retirement that is awarded credits or allowances under any other mandatory or voluntary greenhouse gas program.
- (4) *Maximum allocation periods for CO<sub>2</sub> emissions offset projects.*
- (a) *Maximum allocation periods.* Except as provided in subsection 9(B)(4)(b) of this Chapter, the Department may award CO<sub>2</sub> offset allowances under subsection 9(F) of this Chapter for an initial 10-year allocation period. At the end of the initial 10-year allocation period, upon a showing by the project sponsor that the offset project continues to meet all applicable requirements of this section, the Department may award CO<sub>2</sub> offset allowances for a second 10-year allocation period. Prior to the expiration of the initial allocation period, the offset project sponsor must submit a consistency application pursuant to subsection 9(C) of this Chapter and receive a consistency determination from the Department pursuant to subsection 9(C)(5)(b) of this Chapter.
  - (b) *Maximum afforestation allocation period.* The Department may award CO<sub>2</sub> offset allowances under subsection 9(F) of this Chapter for any afforestation offset project for an initial 20-year allocation period. At the end of the initial 20-year allocation period, the Department may award CO<sub>2</sub> offset allowances for a second 20-year allocation period, provided the offset sponsor has submitted a consistency application for the afforestation offset project pursuant to subsection 9(C) of this Chapter prior to the expiration of the initial allocation period, and the Department has issued a consistency determination pursuant to subsection 9(C)(5)(b) of this Chapter. At the end of the second 20-year allocation period, the Department may award CO<sub>2</sub> offset allowances for a third 20-year allocation period, provided the offset sponsor has submitted a consistency application for the afforestation offset project pursuant to subsection 9(C) of this Chapter prior to the expiration of the second allocation period, and the Department has issued a consistency determination pursuant to subsection 9(C)(5)(b) of this Chapter. In no event may an afforestation offset project be awarded CO<sub>2</sub> offset allowances for more than a total of 60 allocation years.
- (5) *Timing of Offset Projects.* The Department may award CO<sub>2</sub> offset allowances under subsection 9(F) of this Chapter only for offset projects that are initially commenced on or after December 20, 2005.
- (6) *Offset Project Audit.* Project sponsors shall provide the Department or its agent access to the physical location of the offset project to inspect for compliance with this section. For offset projects located in any state or other U.S. jurisdiction that is not a participating state, project

sponsors shall also provide the cooperating Department with access to the physical location of the project to inspect for compliance with this section.

- (7) *Ineligibility due to noncompliance.* If at any time the Department determines that a project sponsor has not complied with the requirements of this section, then the Department may revoke and retire any and all CO<sub>2</sub> offset allowances in the project sponsor's account. If at any time the Department determines that an offset project does not comply with the requirements of this section, then the Department may revoke any approvals it has issued relative to an offset project.

**C. Application process.**

- (1) *Establishment of general account.* The sponsor of an offset project or CO<sub>2</sub> emissions credit retirement must establish a general account under subsection 7(B)(2) of this Chapter. All submissions to the Department required for the award of CO<sub>2</sub> offset allowances under this section must be from the CO<sub>2</sub> authorized account representative for the general account of the sponsor of the relevant offset project or CO<sub>2</sub> emissions credit retirement, herein referred to as "project sponsor".
- (2) Consistency application deadlines.
- (a) For offset projects commenced prior to January 1, 2009, the project sponsor must submit the consistency application by June 30, 2009.
- (b) For offset projects commenced on or after January 1, 2009, the consistency application must be submitted by the date that is 6 months after the offset project is commenced.
- (c) Any consistency application that fails to meet the deadlines of subsection 9(C)(2) of this Chapter will result in the denial of the consistency application and the continued ineligibility of the subject offset project.
- (3) Consistency application contents.
- (a) For an offset project, the consistency application must include the following information:
- (i) The project's sponsor's name, address, e-mail address, telephone number, facsimile transmission number, and account number.
- (ii) The offset project description as required by the relevant provisions of subsection 9(D) of this Chapter.
- (iii) A demonstration that the offset project meets all applicable requirements set forth in this section.
- (iv) The emissions baseline determination as required by the relevant provisions of subsection 9(D) of this Chapter.

- (v) An explanation of how the projected reduction or avoidance of atmospheric loading of CO<sub>2</sub> or CO<sub>2</sub> equivalent or the sequestration of carbon is to be quantified, monitored, and verified as required by the relevant provisions of subsection 9(D) of this Chapter.
- (vi) A completed consistency application agreement that reads as follows: “The undersigned project sponsor recognizes and accepts that the application for, and the receipt of, CO<sub>2</sub> offset allowances under the CO<sub>2</sub> Budget Trading Program is predicated on the project sponsor following all the requirements of Section 9. 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 CO<sub>2</sub> offset allowances under Section 9 is contingent on meeting the requirements of Section 9. 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 Maine.”
- (vii) A statement and certification report signed by the offset project sponsor certifying that all offset projects for which the sponsor has received CO<sub>2</sub> offset allowances under this section (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 CO<sub>2</sub> Budget Trading Program in all participating states.
- (viii) A verification report and certification statement signed by an independent verifier accredited pursuant to subsection 9(E) of this Chapter that expresses that the independent verifier has reviewed the entire application and evaluated the following in relation to the applicable requirements at subsections 9(B) and 9(D) of this Chapter, and any applicable guidance issued by the Department.
  - (A) The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements of subsections 9(C) and 9(E) of this Chapter.
  - (B) The adequacy and validity of information supplied by the project sponsor to demonstrate baseline emissions pursuant to the applicable requirements at subsection 9(D) of this Chapter.
  - (C) The adequacy of the monitoring and verification plan submitted pursuant to the applicable requirements at subsection 9(D) of this Chapter.
  - (D) Such other statements as may be required by the Department.

- (ix) Disclosure of any voluntary or mandatory programs, other than the CO<sub>2</sub> Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been, or will be reported.
- (x) For offset projects located in a state or United States jurisdiction that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating Department in the state or United States jurisdiction where the offset project is located.
- (b) For a CO<sub>2</sub> emissions credit retirement, the consistency application must include sufficient information to demonstrate that the CO<sub>2</sub> emissions credit is eligible pursuant to subsection 2(D) of this Chapter, was lawfully held by the project sponsor, and has been permanently and irrevocably retired.

(4) *Place for filing consistency application.*

- (a) For an offset project located in one participating state (in whole or in part), the consistency application must be filed with the appropriate Department in that State.
- (b) For an offset project located wholly outside all participating states, the consistency application may be filed with the appropriate Department in any one participating state, provided a copy of the consistency application shall be filed with the cooperating Department in the state or United States jurisdiction where the offset project is located.
- (c) For an offset project located in more than one participating state, the consistency application must be filed in the participating state where the larger part of the CO<sub>2</sub> equivalent emissions reduction or carbon sequestration due to the offset project is projected to occur.
- (d) For CO<sub>2</sub> emissions credit retirements, the consistency application may be filed with the appropriate Department in any participating state.

(5) *Department action on consistency applications.*

- (a) *Completeness determination.* Within 30 days following receipt of the consistency application filed pursuant to subsection 9(C)(2) of this Chapter, the Department will notify the project sponsor whether the consistency application is complete. A complete consistency application 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 consistency application. In no event shall a completeness determination prevent the Department from requesting additional information in order to enable the Department to make a consistency determination under subsection 9(C)(5)(b) of this Chapter.
- (b) *Consistency determination.* Within 90 days of making the completeness determination under subsection 9(C)(5)(a) of this Chapter, the Department will issue a determination as to whether the offset project is consistent with the requirements of subsections 9(B) and 9(C) of this Chapter and the requirements of the applicable offset project standard of subsection 9(D) of this Chapter. For any offset project found to lack consistency with these requirements, the Department will inform the project sponsor of the offset project's deficiencies.

**D. CO<sub>2</sub> emissions offset project categories and associated standards.**

(1) **Landfill methane capture and destruction.** Offset projects that capture and destroy methane from landfills may qualify for the award of CO<sub>2</sub> offset allowances under this section, provided they meet the requirements of this subsection.

(a) *Eligibility.* Eligible landfill methane capture and destruction offset projects shall occur at landfills that are not subject to the New Source Performance Standards (NSPS) for municipal solid waste landfills, 40 CFR Part 60, Subpart Cc and Subpart WWW.

(b) *Offset project description.* The offset 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 subsection 9(D)(1)(a) of this Chapter. The project narrative shall include the following information.

(i) Owner and operator of the offset project;

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

(iii) Owner and operator of the landfill where the offset project will occur; and

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

(c) *Emissions baseline determination.* The emissions baseline shall represent the potential fugitive landfill emissions of CH<sub>4</sub> (in tons of CO<sub>2</sub>e), as represented by the CH<sub>4</sub> collected and metered for thermal destruction as part of the offset project. Baseline emissions of CH<sub>4</sub> shall be calculated as follows:

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

where:

V = Volume of CH<sub>4</sub> collected (ft<sup>3</sup>)

M = Mass of CH<sub>4</sub> per cubic foot (0.04246 lbs/ft<sup>3</sup> default value at 1 atmosphere and 20°C)

OX = Oxidation factor (0.10), representing estimated portion of collected CH<sub>4</sub> that would have eventually oxidized to CO<sub>2</sub> if not collected

GWP = CO<sub>2</sub>e global warming potential of CH<sub>4</sub> (23)

(d) *Calculating emissions reductions.* Emissions reductions shall be determined based on potential fugitive CH<sub>4</sub> emissions that would have occurred at the landfill if metered CH<sub>4</sub> collected from the landfill for thermal destruction as part of the offset project was not collected and destroyed. CO<sub>2</sub>e emissions reductions shall be calculated as follows:

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

where:

V = Volume of CH<sub>4</sub> collected (ft<sup>3</sup>)

M = Mass of CH<sub>4</sub> per cubic foot (0.04246 lbs/ft<sup>3</sup> default value at 1 atmosphere and 20°C)

OX = Oxidation factor (0.10), representing estimated portion of collected CH<sub>4</sub> that would have eventually oxidized to CO<sub>2</sub> if not collected

C<sub>ef</sub> = Combustion efficiency of methane control technology (0.98)

GWP = CO<sub>2</sub>e global warming potential of CH<sub>4</sub> (23)

- (e) *Monitoring and verification requirements.* Offset projects shall employ a landfill gas collection system that provides continuous metering and data computation of landfill gas volumetric flow rate and CH<sub>4</sub> concentration. Annual monitoring and verification reports shall include monthly volumetric flow rate and CH<sub>4</sub> concentration data, including documentation that the CH<sub>4</sub> was actually supplied to the combustion source. Monitoring and verification is also subject to the following requirements:
- (i) 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 landfill gas volumetric flow rate and CH<sub>4</sub> 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 pursuant to subsection 9(E) of this Chapter.
  - (ii) The project sponsor shall annually verify landfill gas CH<sub>4</sub> composition through landfill gas sampling and independent laboratory analysis using applicable U.S. Environmental Protection Agency laboratory test methods.
- (2) **Reduction in emissions of sulfur hexafluoride (SF<sub>6</sub>).** Offset projects that prevent emissions of sulfur hexafluoride to the atmosphere from equipment in the electricity transmission and distribution sector, through capture and storage, recycling, or destruction, may qualify for the award of CO<sub>2</sub> offset allowances under this section, provided they meet the requirements of this subsection.
- (a) *Eligibility.*
- (i) Eligible offset projects shall consist of incremental actions beyond those taken during the baseline year to achieve a reduction in SF<sub>6</sub> emissions relative to the baseline year. Eligible actions may include an expansion of existing actions. The identified actions to be taken shall be consistent with the guidance provided in International Electrotechnical Commission (IEC) 1634, “High-voltage switchgear and control gear—Use and handling of sulfur hexafluoride (SF<sub>6</sub>) in high-voltage switchgear and control gear,” (CEI/IEC 1634, 1995-04), and Electric Power Research Institute (EPRI), “Practical Guide to SF<sub>6</sub> Handling Practices,” (TR-113933, 2002).
  - (ii) Except as provided in subsection 9(D)(2)(a)(iii) of this Chapter, eligible offset projects shall have an SF<sub>6</sub> entity-wide emissions rate for the baseline year that is less than the applicable emissions rate in Table 1. The entity-wide SF<sub>6</sub> emissions rate shall be calculated as follows:

$SF_6$  Emissions Rate (%) = (Total  $SF_6$  Emissions for Reporting Year) / (Total  $SF_6$  Nameplate Capacity at End of Reporting Year)

where:

$SF_6$  Nameplate Capacity refers to all  $SF_6$ -containing equipment owned and/or operated by the entity, at full and proper  $SF_6$  charge of the equipment rather than the actual charge of the equipment (which may reflect leakage).

Table 1  
 $SF_6$  Emissions Rate Performance Standards

A. Emission Regions

Region A	Region B	Region C	Region D	Region E
Connecticut	Alabama	Colorado	Arkansas	Alaska
Delaware	District of Columbia	Illinois	Iowa	Arizona
Maine	Florida	Indiana	Kansas	California
Massachusetts	Georgia	Michigan	Louisiana	Hawaii
New Jersey	Kentucky	Minnesota	Missouri	Idaho
New York	Maryland	Montana	Nebraska	Nevada
New Hampshire	Mississippi	North Dakota	New Mexico	Oregon
Pennsylvania	North Carolina	Ohio	Oklahoma	Washington
Rhode Island	South Carolina	South Dakota	Texas	
Vermont	Tennessee	Utah		
	Virginia	Wisconsin		
	West Virginia	Wyoming		

B. Emissions Rate Performance Standards

Region	Emission Rate <sup>a</sup>
Region A	9.68%
Region B	5.22%
Region C	9.68%
Region D	5.77%
Region E	3.65%
U.S. (National)	9.68%

<sup>a</sup>Based on weighted average 2004 emissions rates for U.S. EPA  $SF_6$  Partnership utilities in 11 each region. If the weighted average emissions rate in a region is higher than the national weighted average, the default performance standard is the national weighted average emissions rate.

- (iii) An  $SF_6$  offset project shall be eligible even if the  $SF_6$  entity-wide emissions rate in the baseline year exceeds the applicable rate in subsection 9(D)(2)(a)(ii) of this Chapter, provided that the project sponsor demonstrates and the Department

determines that the project is being implemented at a transmission and distribution utility serving a predominantly urban service territory and that at least two of the following factors prevent optimal management of SF<sub>6</sub>.

- (A) The entity is comprised of older than average installed transmission and distribution equipment in relation to the national average age of equipment.
  - (B) A majority of the entity's electricity load is served by equipment that is located underground, and poor accessibility of such underground equipment precludes management of SF<sub>6</sub> emissions through regular ongoing maintenance.
  - (C) The inability to take a substantial portion of equipment out of service, as such activity would impair system reliability.
  - (D) Required equipment purpose or design for a substantial portion of entity transmission and distribution equipment results in inherently leak-prone equipment.
- (b) *Offset project description.* The offset 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 subsection 9(D)(2)(a) of this Chapter. The offset project narrative shall include the following information.
- (i) Description of the transmission and distribution utility suitable in detail to specify the service territory served by the entity.
  - (ii) Owner and operator of the transmission and distribution utility.
- (c) *Emissions baseline determination.* If the consistency application is filed on or after January 1, 2009, baseline SF<sub>6</sub> emissions shall be determined based on annual entity-wide reporting of SF<sub>6</sub> emissions for the calendar year immediately preceding the calendar year in which the consistency application is filed (designated the baseline year). If the consistency application is filed prior to 2009, the baseline year may be 2005, but no earlier. The reporting entity shall systematically track and account for all entity-wide uses of SF<sub>6</sub> in order to determine entity-wide emissions of SF<sub>6</sub>. The scope of such tracking and accounting shall include all electric transmission and distribution assets and all SF<sub>6</sub>-containing and SF<sub>6</sub>-handling equipment owned and/or operated by the reporting entity.
- (i) Emissions (lbs.) shall be determined based on the following mass balance method:

$$\text{SF}_6 \text{ Emissions (lbs.)} = (\text{SF}_6 \text{ Change in Inventory}) + (\text{SF}_6 \text{ Purchases and Acquisitions}) - (\text{SF}_6 \text{ Sales and Disbursements}) - (\text{Change in Total SF}_6 \text{ Nameplate Capacity of Equipment})$$

where:

*Change in Inventory* is the difference between the quantity of SF<sub>6</sub> gas in storage at the beginning of the reporting year and the quantity in storage at the end of the reporting year. The term "quantity in storage" includes all SF<sub>6</sub> gas contained in cylinders (such as 115-pound storage cylinders), gas carts, and other storage containers. It does not refer to SF<sub>6</sub> gas held

in SF<sub>6</sub>-using operating equipment. The change in inventory will be negative if the quantity of SF<sub>6</sub> gas in storage increases over the course of the year.

*Purchases and Acquisitions* of SF<sub>6</sub> is the sum of all the SF<sub>6</sub> gas acquired from other parties during the reporting year, as contained in storage containers or SF<sub>6</sub>-using operating equipment.

*Sales and disbursements* of SF<sub>6</sub> is the sum of all the SF<sub>6</sub> gas sold or otherwise disbursed to other parties during the reporting year, as contained in storage containers and SF<sub>6</sub>-using operating equipment.

*Change in Total SF<sub>6</sub> Nameplate Capacity of Equipment* is the net change in the total volume of SF<sub>6</sub>-containing operating equipment during the reporting year. The net change in nameplate capacity is equal to new equipment nameplate capacity, minus retired nameplate capacity. This quantity will be negative if the retired equipment has a total nameplate capacity larger than the total nameplate capacity of the new equipment. "Total nameplate capacity" refers to the full and proper SF<sub>6</sub> charge of the equipment rather than to the actual charge, which may reflect leakage.

(ii) Emissions shall be calculated as follows:

$$\text{Emissions (tons CO}_2\text{e)} = [(V_{\text{iby}} - V_{\text{iey}}) + (PA_{\text{psd}} + PA_{\text{e}} + PA_{\text{rre}}) - (SD_{\text{op}} + SD_{\text{rs}} + SD_{\text{df}} + SD_{\text{sor}}) - (CNP_{\text{ne}} - CNP_{\text{rse}})] \times \text{GWP}/2000$$

where (all SF<sub>6</sub> values are in lbs.):

$V_{\text{iby}}$  = SF<sub>6</sub> inventory in cylinders, gas carts, and other storage containers (not SF<sub>6</sub>-containing operating equipment) at the beginning of the reporting year

$V_{\text{iey}}$  = SF<sub>6</sub> inventory in cylinders, gas carts, and other storage containers (not SF<sub>6</sub>-containing operating equipment) at the end of the reporting year

$PA_{\text{psd}}$  = SF<sub>6</sub> purchased from suppliers or distributors in cylinders

$PA_{\text{e}}$  = SF<sub>6</sub> provided by equipment manufacturers with or inside SF<sub>6</sub>-containing operating equipment

$PA_{\text{rre}}$  = SF<sub>6</sub> returned to the reporting entity after off-site recycling

$SD_{\text{op}}$  = Sales of SF<sub>6</sub> to other parties, including gas left in SF<sub>6</sub>-containing operating equipment that is sold

$SD_{\text{rs}}$  = Returns of SF<sub>6</sub> to supplier (producer or distributor)

$SD_{\text{df}}$  = SF<sub>6</sub> sent to destruction facilities

$SD_{\text{sor}}$  = SF<sub>6</sub> sent off-site for recycling

$CNP_{\text{ne}}$  = Total SF<sub>6</sub> nameplate capacity of new SF<sub>6</sub>-containing operating equipment at proper full charge  $CNP_{\text{rse}}$  = Total SF<sub>6</sub> nameplate capacity of retired or sold SF<sub>6</sub>-containing operating equipment at proper full charge

GWP = CO<sub>2</sub>e global warming potential of SF<sub>6</sub> (22,200)

(iii) As part of the consistency application required pursuant to subsections 9(C)(2) and (3) of this Chapter and in annual monitoring and verification reports required pursuant to subsections 9(F)(2) and (3) of this Chapter, the project sponsor shall provide the documentation required by subsections 9(D)(2)(e)(i) through (iii) of this Chapter to support emissions calculations.

(d) *Calculating emissions reductions.* Emissions reductions shall represent the annual entity-wide emissions reductions of SF<sub>6</sub> for the reporting entity, relative to emissions in the baseline year. Emissions reductions shall be determined as follows, using the

quantification method outlined in subsection 9(D)(2)(c)(ii) of this Chapter to determine emissions in both the baseline year and reporting year(s):

$$\text{Emissions Reduction (tons CO}_2\text{e)} = [(\text{Total Pounds of SF}_6\text{ Emissions in Baseline Reporting Year}) - (\text{Total Pounds of SF}_6\text{ Emissions in Reporting Year})] \times \text{GWP}/2000$$

where:

$$\text{GWP} = \text{CO}_2\text{e global warming potential of SF}_6\text{ (22,200)}$$

- (e) *Monitoring and verification requirements.* The annual monitoring and verification report shall include supporting material detailing the calculations and data used to determine SF<sub>6</sub> emissions reductions, and shall also provide the following documentation.
- (i) The project sponsor shall identify a facility(ies) managed by the entity from which all SF<sub>6</sub> gas is procured and disbursed and maintain an entity-wide log of all SF<sub>6</sub> gas procurements and disbursals. The entity-wide log shall include the weight of each cylinder transported before shipment from the facility(ies) and the weight of each cylinder after return to the facility(ies). A specific cylinder log shall also be maintained for each cylinder that is used to fill equipment with SF<sub>6</sub> or reclaim SF<sub>6</sub> from equipment. The cylinder log shall be retained with the cylinder and indicate the location and specific identifying information of the equipment being filled, or from which SF<sub>6</sub> is reclaimed, and the weight of the cylinder before and after this activity. The cylinder log shall be returned with the cylinder to the facility when the activity is complete or the cylinder is empty.
  - (ii) A current entity-wide inventory of all SF<sub>6</sub>-containing operating equipment and all other SF<sub>6</sub>-related items, including cylinders, gas carts, and other storage containers used by the entity. The inventory shall be reviewed by an independent verifier accredited pursuant to subsection 9(E) of this Chapter.
  - (iii) The project sponsor shall provide a monitoring and verification plan as part of the consistency application, which shall include an SF<sub>6</sub> inventory management and auditing protocol and a process for quality assurance and quality control of inventory data. The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to subsection 9(E) of this Chapter.
- (3) **Sequestration of carbon due to afforestation.** Offset projects that sequester carbon through the conversion of land from a non-forested to forested condition may qualify for the award of CO<sub>2</sub> offset allowances under this section, provided they meet the requirements of this subsection.
- (a) *Eligibility.*
    - (i) Eligible offset projects shall occur on land that has been in a non-forested state for at least 10 years preceding the commencement of the offset project.
    - (ii) Eligible offset projects shall be managed in accordance with widely accepted environmentally sustainable forestry practices and designed to promote the restoration of native forests by using mainly native species and avoiding the introduction of invasive non-native species. If commercial timber harvest activities are to occur, certification must be obtained, prior to any harvest activities at the site,

through the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), American Tree Farm System (ATFS), or such other similar organizations as may be approved by the Department.

- (b) *Offset Project description.* The offset 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 subsection 9(D)(3)(a) of this Chapter. The offset project narrative shall include the following information:
- (i) Owner of the land within the offset project boundary;
  - (ii) Detailed map of the land within the offset project boundary and areas adjacent to the offset project boundary;
  - (iii) A copy of the permanent conservation easement required pursuant to subsection 9(D)(3)(f) of this Chapter;
  - (iv) For afforestation offset projects located in a state or United States jurisdiction that is not a participating state, a written legal opinion from an attorney licensed to practice in the state where the offset project is located, or from the cooperating Department, confirming the enforceability of the permanent conservation easement; and
  - (v) Plant species to be planted or established via natural regeneration, and a forest management plan consistent with the requirements at subsection 9(D)(3)(a)(ii) of this Chapter.
- (c) *Carbon sequestration baseline determination.* The existing sequestered carbon within the offset project boundary shall be calculated prior to commencement of the offset project. The carbon sequestration baseline shall be determined based on a sum of measurements, made no more than 12 months prior to offset project commencement, of the carbon content of the following carbon pools:
- (i) Carbon content shall be calculated for the following required carbon pools:
    - (A) live above-ground tree biomass;
    - (B) live below-ground tree biomass;
    - (C) soil carbon; and
    - (D) dead organic matter, coarse woody debris, unless the baseline measurement for this carbon pool is at or near zero, in which case measurement of this carbon pool during the allocation period is optional.
  - (ii) Carbon content may be calculated for the following optional carbon pools:
    - (A) live above-ground non-tree biomass; and
    - (B) dead organic matter, forest floor.

- (iii) Carbon content shall be calculated individually for each carbon pool within the offset project boundary.
- (iv) To increase the accuracy of measurement and verification, the area within the offset project boundary shall be divided into sub-populations that form relatively homogenous units. When defining sub-populations, the project sponsor shall consider vegetation and tree species (including existing vegetation and trees and those to be utilized as part of the offset project activity) and site factors (soil type, elevation, slope, age class, and other factors as warranted).
- (v) Calculation of sequestered carbon for each carbon pool in each reporting sub-population shall be based on the following:
- I.  $\text{CO}_2 \text{ tons} = [(A \times C/\text{ha})(44/12)] / 0.9072$
  - II. where:
    1. A = Area in hectares within each reporting sub-population
    2. C = Carbon content (metric tons of carbon for each carbon pool)
    3. C/ha = Mean carbon content per hectare for each carbon pool
- (vi) Total carbon contained within the offset project boundary (represented in  $\text{CO}_2$  tons, calculated pursuant to subsection 9(D)(3)(c)(v) of this Chapter shall be calculated as follows:

$$\text{TC}_{\text{pb}} = \text{TC}_{\text{latb}} + \text{TC}_{\text{lbtb}} + \text{TC}_s [+ \text{TC}_{\text{lantb}} + \text{TC}_{\text{doff}} + \text{TC}_{\text{docwd}}]$$

where:

- $\text{TC}_{\text{pb}}$  = Total carbon content within the offset project boundary (sum of carbon content of all carbon pools in all reporting sub-populations)
- $\text{TC}_{\text{latb}}$  = Sum of carbon content of live above-ground tree biomass in all reporting sub-populations
- $\text{TC}_{\text{lbtb}}$  = Sum of carbon content of live below-ground tree biomass in all reporting sub-populations
- $\text{TC}_s$  = Sum of carbon content of soil carbon in all reporting sub-populations
- $\text{TC}_{\text{lantb}}$  [option] = Sum of carbon content of live above-ground non-tree biomass in all reporting sub-populations
- $\text{TC}_{\text{doff}}$  [option] = Sum of carbon content of dead organic matter, forest floor in all reporting sub-populations
- $\text{TC}_{\text{docwd}}$  [mandatory/option, as applicable pursuant to subsection 9(D)(3)(c)(i)(D) of this Chapter] = Sum of carbon content of dead organic matter, coarse woody debris in all reporting sub-populations

- (vii) Each individual carbon pool to be measured must be directly measured using a measurement protocol and sample size that achieves a demonstrated quantified accuracy for the combined carbon pool measurement such that there is 95% confidence that the resulting reported value is within 10% of the true mean. Measurement and sampling practices shall meet the following requirements:
- (A) An adequate sample size that meets the requirements of subsection 9(D)(3)(c)(vii) of this Chapter shall be determined for each sub-population.
  - (B) The minimum number of required sampling plots for each sub-population shall be determined based on the following:

$$n = (s \times 1.960) / (\text{mean} \times \text{re})^2$$

where:

n = required number of sample plots for each reporting sub-population

s = standard deviation mean = mean reported carbon content for the sample population

re = level of sampling error (0.08) to assure a total maximum error of 10% for the 95% confidence interval, which assumes total error due to measurement error of 0.02

(viii) Direct measurement procedures shall be consistent with current forestry good practice and the guidance contained in U.S. Department of Energy, *Technical Guidelines Voluntary Reporting of Greenhouse Gases (1605(b)) Program; Chapter 1, Emissions Inventories; Part 1 Appendix: Forestry; Section 3: Measurement Protocols for Forest Carbon Sequestration* (March 2006).

(d) *Calculating carbon sequestered.* Carbon sequestration shall be determined using a base year approach, where the amount of carbon sequestered is measured as a net increase in carbon relative to the base year measurement. Carbon sequestration shall be the amount of net additional carbon sequestered during each calculation period, based upon aggregate carbon uptake and carbon emissions for the sum of carbon pools, relative to the baseline carbon content or the carbon content as of the previous calculation period (if above the baseline carbon content), as applicable. CO<sub>2</sub> offset allowances shall be issued based on the amount of net additional carbon sequestered within the offset project boundary during each reporting period, as represented in tons of CO<sub>2</sub>. Sequestered carbon shall be calculated using a stock-change approach as follows:

$$\text{NCS}_t = I_t - I_{t-1}$$

where:

NCS<sub>t</sub> = Net carbon sequestered in reporting period t

I<sub>t</sub> = Inventory of carbon stock for all carbon pools in all reporting sub-populations within the offset project boundary in reporting period t

I<sub>t-1</sub> = Inventory of carbon stock for all carbon pools in all reporting sub-populations within the offset project boundary in the reporting period immediately preceding reporting period t

(i) Except as provided in subsection 9(D)(3)(c)(i)(D) of this Chapter, each of the carbon pools that were measured as part of the baseline determination must be re-measured using the same methodology, and to the same or better quantified precision consistent with the requirements of subsection 9(D)(3)(c)(vii) and (viii) of this Chapter, as that used for the baseline determination.

(ii) The net change in each carbon pool's carbon stock in each reporting sub-population is calculated by subtracting the baseline carbon stock (or carbon stock at the previous monitoring, if above the baseline carbon content) from the carbon stock at the time of the current monitoring. Determination of carbon stock shall be in accordance with the formulas and procedures in subsection 9(D)(3)(c) of this Chapter.

(iii) Net carbon stock change for the offset project is the sum of the net changes in the carbon stock of all applicable pools in all reporting sub-populations within the offset project boundary, less ten percent (10%) to account for potential losses of

sequestered carbon. This 10% discount shall not be required, provided the project sponsor retains long-term insurance, approved by the Department, that guarantees replacement of any lost sequestered carbon for which CO<sub>2</sub> offset allowances were awarded pursuant to subsection 9(F)(1)(a) of this Chapter.

- (e) *Monitoring and verification requirements.* Total carbon stock within the offset project boundary shall be calculated not less than every five years. Monitoring and verification is subject to the following requirements:
- (i) Monitoring and verification reports shall include data from direct measurement of carbon content for all plots used to determine baseline and reporting period carbon content.
  - (ii) The consistency application shall include a monitoring and verification plan certified by the Department or an independent verifier accredited pursuant to subsection 9(E) of this Chapter. The monitoring and verification plan shall include the following:
    - (A) Direct carbon measurement procedures consistent with the requirements at subsection 9(D)(3)(c)(viii) of this Chapter.
    - (B) The designation of sub-populations pursuant to subsection 9(D)(3)(c)(iv) of this Chapter. The determination of the minimum number of sampling plots pursuant to subsection 9(D)(3)(c)(vii) of this Chapter.
    - (C) If commercial timber harvest activities have occurred or will occur, assessment of management practices to ensure that the offset project has been managed in accordance with environmentally sustainable forestry practices consistent with the Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), American Tree Farm System (ATFS), or such other similar organizations as may be approved by the Department.
  - (iii) The applicant shall allow access to the offset project site to the accredited independent verifier, or as requested by the Department.
- (f) *Carbon Sequestration Permanence.* The offset project shall meet the following requirements to address permanence of sequestered carbon:
- (i) The project sponsor shall place the land within the offset project boundary under a legally binding permanent conservation easement approved by the Department, that requires the land to be maintained in a forested state in perpetuity.
  - (ii) The conservation easement shall include a requirement that the carbon density within the offset project boundary be maintained at long-term levels at or above that achieved as of the end of the CO<sub>2</sub> offset crediting period pursuant to subsection 9(B)(4)(b) of this Chapter.
  - (iii) The conservation easement shall require that the land be managed in accordance with environmentally sustainable forestry practices.

- (4) **Reduction or avoidance of CO<sub>2</sub> emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency.** Offset projects that reduce CO<sub>2</sub> emissions by reducing on-site combustion of natural gas, oil, or propane for end-use in an existing or new commercial or residential building by improving the energy efficiency of fuel usage and/or the energy-efficient delivery of energy services may qualify for the award of CO<sub>2</sub> offset allowances under this section, provided they meet the requirements of this subsection. Eligible new buildings are limited to new buildings that are designed to replace an existing building on the offset project site, or new buildings designed to be zero net energy buildings.

(a) *Eligibility.*

- (i) Eligible offset projects shall reduce CO<sub>2</sub> emissions through one or more of the following energy conservation measures (ECMs):
- (A) improvements in the energy efficiency of combustion equipment that provide space heating and hot water, including a reduction in fossil fuel consumption through the use of renewable energy;
  - (B) improvements in the efficiency of heating distribution systems, including proper sizing and commissioning of heating systems;
  - (C) installation or improvement of energy management systems;
  - (D) improvement in the efficiency of hot water distribution systems and reduction in demand for hot water;
  - (E) measures that improve the thermal performance of the building envelope and/or reduce building envelope air leakage;
  - (F) measures that improve the passive solar performance of buildings and utilization of active heating systems using renewable energy; and
  - (G) fuel switching to a less carbon-intensive fuel for use in combustion systems, including the use of liquid or gaseous renewable fuels, provided that conversions to electricity are not eligible.

(ii) *Performance standards.*

- (A) *All end-use energy efficiency offset projects.* All offset projects under this subsection shall meet the applicable performance criteria set forth in this clause.
- I. *Installation best practice.* Any combustion equipment and related air handling equipment (HVAC systems) installed as part of an offset project shall be sized and installed in accordance with the applicable requirements and specifications outlined in this section.
    - 1. Commercial HVAC systems shall meet the applicable sizing and installation requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential

Buildings and ANSI/ASHRAE Standard 62.1-2004: Ventilation for Acceptable Indoor Air Quality.

2. Residential HVAC systems shall meet the applicable sizing specifications of Air Conditioner Contractors of America (ACCA) Manual J: Residential Load Calculation (Eight Edition), and the applicable installation specifications of “Specification of Energy-Efficient Installation and Maintenance Practices for Residential HVAC Systems,” Consortium for Energy Efficiency, 2000.
- II. *Whole-building energy performance.* New buildings or whole-building retrofits that are part of an offset project shall meet the requirements of this section.
1. Commercial buildings shall exceed the energy performance requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings except Low-Rise Residential Buildings by 30%, with the exception of multifamily residential buildings classified as commercial by ANSI/ASHRAE/IESNA Standard 90.1-2004, which shall exceed these energy performance requirements by 20%.
  2. Residential buildings shall exceed the energy performance requirements of the 2004 International Energy Conservation Code by 30%.
- (B) *Offset projects initiated before January 1, 2009.* Energy conservation measures implemented as part of an offset project initiated before January 1, 2009 shall meet the performance and prescriptive criteria set forth in this clause.
- I. *Combustion equipment installed in offset projects initiated before January 1, 2009.* Combustion equipment installed as part of an offset project initiated before January 1, 2009 shall meet the energy efficiency performance standards contained in this clause.
    1. *Commercial boilers.* Commercial boilers shall meet or exceed the energy efficiency criteria in Table 1 below.

Technology	Size (Btu/hr)	Rating Method	Minimum Efficiency
Gas-fired <sup>a</sup>	125,000-300,000	AFUE	≥88.0%
	300,000-12,500,000	Thermal Efficiency <sup>b</sup>	≥90.0%
Oil-fired	>300,000	Thermal Efficiency	≥88.0%

<sup>a</sup> Gas-fired boilers shall be installed with controls that allow the boiler to operate in condensing mode and installed with vents designed for positive vent static pressure and vent gas temperature that leads to condensate production in the vent.

<sup>b</sup> Thermal Efficiency is defined as useful energy output (Btu) divided by energy input (Btu), and presented as a percentage. This shall be measured under steady state conditions, at full rated useful thermal output, 140°F supply from, and 120°F return water temperature to the boiler.

2. *Residential combustion equipment.* Residential combustion equipment, including furnaces, boilers, and water heaters, shall meet or exceed the energy efficiency criteria in Table 2 below.

Technology	Rating Method	Minimum Efficiency
Gas-fired furnace	AFUE	≥94%
Oil-fired furnace	AFUE	≥92%
Gas/oil-fired boiler	AFUE	≥90%
Gas/oil-fired water heater	Energy Factor <sup>a</sup>	≥0.62

<sup>a</sup> Energy Factor is an efficiency ratio of the energy supplied in heated water divided by the energy input to the water heater, based on U.S. Department of Energy test procedure (see 10 CFR 430, Sub-Part B, Appendix E).

- II. *Non-combustion energy conservation measures.* All non-combustion equipment energy conservation measures implemented as part of an offset project shall meet the prescriptive requirements, as applicable, in *Energy Benchmark for High Performance Buildings, Version 1.1*, New Buildings Institute, 2005 (herein referred to as EBHPB), or state building energy codes, whichever result in better energy performance. Energy conservation measures without specified performance criteria in the referenced EBHPB shall meet the requirements of Federal Energy Management Program (FEMP) Product Energy Efficiency Recommendations, issued pursuant to Executive Orders 13123 and 13221, or Energy Star criteria issued jointly by the U.S. Environmental Protection Agency and U.S. Department of Energy, whichever result in better energy performance.
- III. *Maximum market penetration rate for offset projects initiated on or after January 1, 2009.* For offset projects initiated on or after January 1, 2009, the project sponsor shall demonstrate, to the satisfaction of the Department, that the energy conservation measures implemented as part of the offset project have a market penetration rate of less than 5%.
  - (b) *Offset project description.* The offset 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 subsection 9(D)(4)(a) of this Chapter. The offset project narrative shall include the following information.
    - (i) Location and specifications of the building(s) where the offset project actions will occur;
    - (ii) Owner and operator of the building(s);

- (iii) The parties implementing the offset project, including lead contractor(s), subcontractors, and consulting firms;
  - (iv) Specifications of equipment and materials to be installed as part of the offset project; and
  - (v) Building plans and offset project technical schematics, as applicable.
- (c) *Emissions baseline determination.* The emissions baseline shall be determined in accordance with the requirements of this paragraph, based on energy usage (MMBtu) by fuel type for each energy conservation measure, derived using historic fuel use data from the most recent calendar year for which data is available, and multiplied by an emissions factor and oxidation factor for each respective fuel in Table 3 below.

<b>Table 3 Emissions and Oxidation Factors</b>		
Fuel	Emissions Factor (lbs. CO <sub>2</sub> /MMBtu)	Oxidation Factor
Natural Gas	116.98	0.995
Propane	139.04	0.995
Distillate Fuel Oil	161.27	0.99
Kerosene	159.41	0.99

- (i) *Isolation of applicable energy conservation measure baseline.* The baseline energy usage of the application to be targeted by the energy conservation measure shall be isolated in a manner consistent with the guidance at subsection 9(D)(4)(e) of this Chapter.
- (ii) Annual baseline energy usage shall be determined as follows:  

$$\text{Energy Usage (MMBtu)} = \text{BEU}_{\text{AECM}} \times A$$
 where:  

$$\text{BEU}_{\text{AECM}} = \text{Annual pre-installation baseline energy use by fuel type (MMBtu) attributable to the application(s) to be targeted by the energy conservation measure(s). If applicable building codes or equipment standards require that equipment or materials installed as part of the offset project meet certain minimum energy performance requirements, baseline energy usage for the application shall assume that equipment or materials are installed that meet such minimum requirements. For offset projects that replace existing combustion equipment, the assumed minimum energy performance required by applicable building codes or equipment standards shall be that which applies to new equipment that uses the same fuel type as the equipment being replaced. Baseline energy usage shall be determined in accordance with the applicable requirements at subsection 9(D)(4)(e) of this Chapter.}$$
  

$$A = \text{Adjustments to account for differing conditions during the two time periods (pre-installation and post-installation), such as weather, building occupancy, and changes in building use or function. Adjustments shall}$$

be determined in accordance with the applicable requirements of subsection 9(D)(4)(e) of this Chapter.

(iii) Annual baseline emissions shall be determined as follows:

$$\text{Emissions (lbs. CO}_2\text{)} = \sum_{i=1}^n \text{BEU}_i \times \text{EF}_i \times \text{OF}_i$$

where:

$\text{BEU}_i$  = Annual baseline energy usage for fuel type  $i$  (MMBtu) demonstrated pursuant to the requirements of subsection 9(D)(4)(e)(i) through (iv) of this Chapter.

$\text{EF}_i$  = Emissions factor (lbs. CO<sub>2</sub>/MMBtu) for fuel type  $i$  listed at subsection 9(D)(4)(c), Table 3 of this Chapter.

$\text{OF}_i$  = Oxidation factor for fuel type  $i$  listed at subsection 9(D)(4)(c), Table 3 of this Chapter.

(d) *Calculating emissions reductions.* Emissions reductions shall be determined based upon annual energy savings by fuel type (MMBtu) for each energy conservation measure, multiplied by the emissions factor and oxidation factor for the respective fuel type at subsection 9(D)(4)(c), Table 3 of this Chapter.

(i) Annual energy savings shall be determined as follows:

$$\text{Energy Savings (MMBtu)} = (\text{BEU}_{\text{AECM}} \times \text{A}) - (\text{PIEU}_{\text{ECM}} \times \text{A})$$

where:

$\text{BEU}_{\text{AECM}}$  = Annual pre-installation baseline energy use by fuel type (MMBtu) calculated pursuant to subsections 9(D)(4)(e)(i) through (iv) of this Chapter.

$\text{PIEU}_{\text{ECM}}$  = Annual post-installation energy use by fuel type (MMBtu) attributable to the energy conservation measure. Post-installation energy usage shall be determined in accordance with the applicable requirements at subsections 9(D)(4)(e)(i) through (iv) of this Chapter.

$\text{A}$  = Adjustments to account for any differing conditions during the two time periods (pre-installation and post-installation), such as weather, building occupancy, and changes in building use or function.

Adjustments shall be determined in accordance with the applicable requirements at subsection 9(D)(4)(e) of this Chapter.

(ii) Annual emissions reductions shall be determined as follows:

$$\text{Emissions Reduction (lbs. CO}_2\text{)} = \sum_{i=1}^n \text{ES}_i \times \text{EF}_i \times \text{OF}_i$$

where:

$\text{ES}_i$  = Energy savings for fuel type  $i$  (MMBtu) demonstrated pursuant to the requirements at subsection 9(D)(4)(e) of this Chapter.

$\text{EF}_i$  = Emissions factor (lbs. CO<sub>2</sub>/MMBtu) for fuel type  $i$  listed at subsection 9(D)(4)(c), Table 3 of this Chapter.

$\text{OF}_i$  = Oxidation factor for fuel type  $i$  listed at subsection 9(D)(4)(c), Table 3 of this Chapter.

- (e) *Monitoring and verification requirements.* As part of the consistency application, the project sponsor shall provide a monitoring and verification plan certified by an independent verifier accredited pursuant to subsection 9(E) of this Chapter. Monitoring and verification reports shall be certified by an independent verifier accredited pursuant to subsection 9(E) of this Chapter. Independent verifiers must conduct a site audit when reviewing the first monitoring and verification report submitted by the project sponsor, except for offset projects that save less than 1,500 MMBtu per year. For offset projects that save less than 1,500 MMBtu per year, the project sponsor must provide the independent verifier with equipment specifications and copies of equipment invoices and other relevant offset project-related invoices. All offset project documentation, including the consistency application and monitoring and verification reports, shall be signed by a Professional Engineer, identified by license number. Monitoring and verification shall also meet the following requirements:
- (i) *General energy measurement and verification requirements.* Monitoring and verification of energy usage shall be demonstrated through a documented process consistent with the following protocols and procedures, as applicable:
- (A) For existing commercial buildings, determination of baseline energy usage shall be consistent with the International Performance Measurement & Verification Protocol, Volume I: Concepts and Options for Determining Energy and Water Savings (IPMVP), “Option B. Retrofit Isolation” and “Option D. Calibrated Simulation.” If a building project involves only energy conservation measures implemented as part of a CO<sub>2</sub> emissions offset project, a process consistent with IPMVP “Option C. Whole Facility” may be used, as applicable. Application of the IPMVP general guidance shall be consistent with the applicable detailed specifications in ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings.
- (B) For new commercial buildings, determination of baseline energy usage shall be consistent with the International Performance Measurement & Verification Protocol, Volume III: Concepts and Options for Determining Energy Savings in New Construction (IPMVP), “Option D. Calibrated Simulation.” Application of the IPMVP general guidance shall be consistent with the applicable detailed specifications in ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings.
- (C) For existing and new residential buildings, determination of baseline energy usage shall be consistent with the requirements of the RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards).
- (ii) *Isolation of applicable energy conservation measure.* In calculating both baseline energy usage and energy savings, the applicant shall isolate the impact of each eligible energy conservation measure (ECM), either through direct metering or energy simulation modeling. For offset projects with multiple ECMs, and where individual ECMs can affect the performance of others, the sum of energy savings due to individual ECMs shall be adjusted to account for the interaction of ECMs. For commercial buildings, this process shall be consistent with the requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and

ANSI/ASHRAE/IESNA Standard 90.1-2004: Energy Standard for Buildings Except Low-Rise Residential Buildings. For residential buildings, this process shall be consistent with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards). Reductions in energy usage due to the energy conservation measure shall be based upon actual energy usage data. Energy simulation modeling shall only be used to determine the relative percentage contribution to total fuel usage (for each respective fuel type) of the application targeted by the energy conservation measure.

- (iii) *Calculation of energy savings.* Annual energy savings are to be determined based on the following:

$$\text{Energy Savings (MMBtu)} = (\text{BEU}_{\text{AECM}} \times A) - (\text{PIEU}_{\text{ECM}} \times A)$$

where:

$\text{BEU}_{\text{AECM}}$  = Annual pre-installation baseline energy use by fuel type (MMBtu) attributable to the application(s) to be targeted by the energy conservation measure(s), based upon annual fuel usage data for the most recent calendar year for which data is available. For new buildings, baseline energy use for a reference building equivalent in basic configuration, orientation, and location to the building in which the eligible energy conservation measure(s) is implemented shall be determined according to ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. Where energy simulation modeling is used to evaluate an existing building, modeling shall be conducted in accordance with ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For existing and new residential buildings, energy simulation modeling shall be conducted in accordance with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards).

$\text{PIEU}_{\text{ECM}}$  = Annual post-installation energy use by fuel type (MMBtu) attributable to the energy conservation measure, to be verified based on annual energy use after installation of the energy conservation measure(s), consistent with the requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings. Where energy simulation modeling is used to evaluate a new or existing building, modeling shall be conducted in accordance with ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For existing and new residential buildings, energy simulation modeling shall be consistent with the requirements of RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards).

A = Adjustments to account for any differing conditions during the two time periods (pre-installation and post-installation), such as weather (weather normalized energy usage based on heating and cooling degree days),

building occupancy, and changes in building use or function. For commercial buildings, adjustments shall be consistent with the specifications of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2004, Section 11 and Appendix G. For residential buildings, adjustments shall be consistent with the specifications of RESNET National Home Energy Rating Technical Guidelines, 2006 (Chapter 3 and Appendix A of 2006 Mortgage Industry National Home Energy Rating System Standards).

(iv) *Provision for sampling of multiple like offset projects in residential buildings.* Offset projects that implement similar measures in multiple residential buildings may employ representative sampling of buildings to determine aggregate baseline energy usage and energy savings. Sampling protocols shall employ sound statistical methods. Any sampling plan shall be certified by an independent verifier, accredited pursuant to subsection 9(E) of this Chapter.

(5) **Avoided methane emissions from agricultural manure management operations.** Offset projects that capture and destroy methane from animal manure using anaerobic digesters may qualify for the award of CO<sub>2</sub> offset allowances under this section, provided they meet the requirements of this subsection.

(a) *Eligibility.*

- (i) CO<sub>2</sub> offset allowances may be awarded for the destruction of that portion of methane generated by the anaerobic digester that would have been generated in the absence of the offset project through the uncontrolled anaerobic storage of manure, or organic food wastes.
- (ii) Eligible offset projects shall 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 wastes used by an anaerobic digester shall only be that which would have been stored in anaerobic conditions in the absence of the offset project.
- (iii) The provisions of subsections 9(B)(3)(b) and (c) of this Chapter shall not apply to agricultural manure methane offset projects provided either of the following requirements are met.

(A) The offset project is located in a state that has a market penetration 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 pursuant to subsection 9(C) of this Chapter and shall be determined as follows:

$$MP (\%) = MG_{AD} / MG_{STATE}$$

where:

$MG_{AD}$  = 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 pursuant to subsection 9(C) of this Chapter.

$MG_{STATE}$  = average annual manure production of all dairy cows and swine in the state at the time of submission of a consistency application pursuant to subsection 9(C) of this Chapter.

- (B) 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 (lbs./cow) of 1,400 lbs., or, if the project is a regional-type 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 (lbs./cow) of 1,400 lbs.
- (b) *Offset project description.* The offset 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 subsection 9(D)(5)(a) of this Chapter. The offset project narrative shall include the following information.
- (i) Owner and operator of the offset project;
  - (ii) Location and specifications of the facility where the offset project will occur;
  - (iii) Owner and 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; and
  - (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.
- (c) *Emissions baseline determination.* The emissions baseline shall represent the potential emissions of the CH<sub>4</sub> 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.
- (vi) Baseline CH<sub>4</sub> emissions shall be calculated as follows:

$$CO_2e \text{ (tons)} = (V_m \times M) / 2000 \times GWP$$

where:

$CO_2e$  = Potential  $CO_2e$  emissions due to calculated CH<sub>4</sub> production under site-specific anaerobic storage and weather conditions

$V_m$  = Volume of CH<sub>4</sub> produced each month from degradation of volatile solids in a baseline uncontrolled anaerobic storage scenario under site-specific storage and weather conditions for the facility at which the manure is generated (ft<sup>3</sup>)

$M$  = Mass of CH<sub>4</sub> per cubic foot (0.04246 lb/ft<sup>3</sup> default value at one atmosphere and 20°C)  $GWP$  = Global warming potential of CH<sub>4</sub> (23)

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

$$VS_{deg} = VS_{avail} * f$$

where:

VS = volatile solids as determined from the equation:

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

where:

$M_m$  = mass of manure produced per month (kg)

$TS\%$  = concentration (percent) of total solids in manure as determined through EPA 160.3 testing method

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

$VS_{avail}$  = volatile solids available for degradation in manure 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 storage at beginning of month (left over from previous month) (kg)

$VS_{in}$  = volatile solids added to manure storage during the course of the month (kg). The factor of  $\frac{1}{2}$  is multiplied by this number to represent the average mass of volatile solids available for degradation for the entire duration of the month.

$VS_{out}$  = volatile solids removed from the manure 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:

$$f = \exp[E * (T_2 - T_1)/(GC * T_1 * T_2)]$$

where:

$f$  = conversion efficiency of VS to CH<sub>4</sub> per month

$E$  = activation energy constant (15,175 cal/mol)

$T_2$  = average monthly ambient temperature for farm (converted from ° Celsius to ° 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  $F = 0.104$ )

$T_1 = 303.15$  (30° C converted to ° K)

$GC$  = ideal gas constant (1.987 cal/K mol)

(iii) The volume of CH<sub>4</sub> produced (ft<sup>3</sup>) from degradation of volatile solids shall be calculated as follows:

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

where:

$V_m$  = volume of CH<sub>4</sub> (ft<sup>3</sup>)

$VS_{deg}$  = volatile solids degraded (kg)

$B_o$  = manure type-specific maximum methane generation constant (m<sup>3</sup> CH<sub>4</sub>/kg VS degraded). For dairy cow manure,  $B_o = 0.24$  m<sup>3</sup> CH<sub>4</sub>/kg VS degraded. The methane generation constant for other types of manure shall be those cited at U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2001*, Annex M, Table M-2 (U.S. EPA, 2002), unless the project sponsor proposes an alternate methane generation constant. If the project sponsor proposes to use a methane generation constant other than the one

found in the above-cited reference, the project sponsor must provide justification and documentation to the Department.

(d) *Calculating emissions reductions.* Emissions reductions shall be determined based on the potential emissions (in tons of CO<sub>2</sub>e) of the CH<sub>4</sub> that would have been produced in the absence of the offset project under a baseline scenario that represents uncontrolled anaerobic storage conditions, as calculated pursuant to subsections 9(D)(5)(c)(i) through (iii) of this Chapter, and released directly to the atmosphere. Emissions reductions may not exceed the potential emissions of the digester, as represented by the annual volume of CH<sub>4</sub> produced by the anaerobic digester, as monitored pursuant to subsection 9(D)(5)(e) of this Chapter. If the project is a regional-type digester, CO<sub>2</sub> emissions due to transportation of manure and organic food wastes from the site where the manure and organic food wastes were generated to the anaerobic digester shall be subtracted from the emissions reduction calculated pursuant to subsections 9(D)(5)(c)(i) through (iii) of this Chapter. Transport CO<sub>2</sub> emissions shall be determined through one of the following methods:

(i) Documentation of transport fuel use for all shipments of manure and organic food wastes from off-site to the anaerobic digester during each reporting year and a log of transport miles for each shipment. CO<sub>2</sub> emissions shall be determined through the application of an emissions factor for the fuel type used. If this option is chosen, the following emission factors shall be applied as appropriate.

(A) Diesel fuel: 22.912 lbs. CO<sub>2</sub>/gallon.

(B) Gasoline: 19.878 lbs. CO<sub>2</sub>/gallon.

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

(ii) Documentation of total tons of manure transported from off-site for input into the anaerobic digester during each reporting year, as monitored pursuant to subsection 9(D)(5)(e)(i) of this Chapter, and a log of transport miles and fuel type used for each shipment. CO<sub>2</sub> 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 emission 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. CO<sub>2</sub> per ton-mile.

(B) Gasoline: 0.133 lbs. CO<sub>2</sub> per ton-mile.

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

(e) *Monitoring and verification requirements.* Offset projects shall employ a system that provides metering of biogas volumetric flow rate and determination of CH<sub>4</sub> concentration. Monitoring and verification reports shall include monthly biogas volumetric flow rate and CH<sub>4</sub> concentration determination. Monitoring and verification shall also meet the following requirements:

- (i) If the offset project is a regional-type 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 (kg) being digested and percentage of volatile solids present before digestion, consistent with the requirements at subsections 9(D)(5)(c) and 9(D)(5)(e)(iii) of this Chapter, and apportioned accordingly among sources. The project sponsor shall provide supporting material and receipts tracking the monthly receipt of manure and organic food waste (kg) used to supply the anaerobic digester from each manure supplier.
- (ii) If the offset project includes the digestion of organic food wastes eligible pursuant to subsection 9(D)(5)(a)(ii) of this Chapter, organic food wastes shall be sampled monthly to determine the amount of volatile solids (VS) present before digestion, consistent with the requirements at subsections 9(D)(5)(c) and 9(D)(5)(e)(iii) of this Chapter, 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 CH<sub>4</sub> composition. The monitoring and verification plan shall be specified in accordance with the applicable monitoring requirements listed in Table 1 below. 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 pursuant to subsection 9(E) of this Chapter.

**Table 1**  
**Input Monitoring Requirements**

<b>Input Parameter</b>	<b>Measurement Unit</b>	<b>Frequency of Sampling</b>	<b>Sampling Method(s)</b>
Influent flow (mass) into the digester	Kilograms (kg) per month (wet weight)	Monthly total into the digester	Average herd population and American Society of Agricultural and Biological Engineers (ASABE) standard (ASAE D384.2, March 2005)  Digester influent pump flow  Recorded weight
Influent total solids concentration (TS)	Percent (of sample)	Monthly, depending upon recorded variations	U.S. EPA Method Number 160.3
Influent volatile solids (VS) content of manure	Percent (of TS)	Monthly, depending upon recorded variations	USEPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-

			79/020)
Average monthly ambient temperature	Temperature °C	Monthly (based on farm averages)	Closest National Weather Service-certified weather station

### E. Accreditation of Independent verifiers

- (1) *Standards for Accreditation.* Independent verifiers may be accredited by the Department to provide verification services as required of project sponsors under this section, provided that independent verifiers meet all of the requirements of this section.
- (a) *Verifier minimum requirements.* Each accredited independent verifier shall demonstrate knowledge of the following topics:
- (i) utilizing engineering principles;
  - (ii) quantifying greenhouse gas emissions;
  - (iii) developing and evaluating air emissions inventories;
  - (iv) auditing and accounting principles;
  - (v) knowledge of information management systems;
  - (vi) knowledge of the requirements of this section and other applicable requirements of this Chapter; and
  - (vii) such other qualifications as may be required by the Department to provide competent verification services as required for individual offset categories specified at subsection 9(D) of this Chapter.
- (b) *Organizational qualifications.* Accredited independent verifiers shall demonstrate that they meet the following requirements:
- (i) verifiers shall have no direct or indirect financial relationship, beyond a contract for provision of verification services, with any offset project developer or project sponsor;
  - (ii) verifiers shall employ staff with professional licenses, knowledge, and experience appropriate to the specific category(ies) of offset projects under subsection 9(D) of this Chapter that they seek to verify;
  - (iii) verifiers shall 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; and

- (iv) verifiers shall demonstrate that they have implemented 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 pursuant to subsection 9(C)(5) of this Chapter, and remedy any such conflicts of interest prior to providing verification services.
- (c) *Prequalification 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.
- (2) *Application for accreditation.* An application for accreditation shall not contain any proprietary information, and shall include the following:
  - (a) the applicant's name, address, email address, telephone number, and facsimile transmission number;
  - (b) documentation that the applicant has at least two years of experience in each of the knowledge areas specified at subsections 9(E)(1)(a)(i) through (v) of this Chapter, and as may be required pursuant to subsection 9(E)(1)(a)(vii) of this Chapter ;
  - (c) documentation that the applicant has successfully completed the requirements at subsection 9(E)(1)(c) of this Chapter, as applicable;
  - (d) a sample of at least one work product that provides supporting evidence that the applicant meets the requirements at subsections 9(E)(1)(a) and (b) of this Chapter. The work product shall have been produced, in whole or in 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;
  - (e) documentation that the applicant holds professional liability insurance as required pursuant to subsection 9(E)(1)(b)(iii) of this Chapter.
  - (f) documentation that the applicant has implemented an adequate management protocol to address and remedy any conflict of interest issues that may arise, as required pursuant to subsection 9(E)(1)(b)(iv) of this Chapter.
- (3) *Department action on applications for accreditation.* The Department shall 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 three years from the date of application approval.
- (4) *Reciprocity.* Independent verifiers accredited in other participating states may be deemed to be accredited in Maine, at the discretion of the Department.
- (5) *Conduct of accredited verifiers.*

- (a) 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.
- (b) Accredited verifiers 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.
- (c) The Department may reject a verification report and certification statement from an accredited verifier, submitted as part of a consistency application required pursuant to subsection 9(C)(2) of this Chapter or submitted as part of a monitoring and verification report submitted pursuant to subsection 9(F)(2) of this Chapter, if the Department determines that the accredited verifier has a conflict of interest related to the offset project, offset project developer, or project sponsor.
- (d) The Department may revoke the accreditation of a verifier at any time given cause, 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 section; and
  - (iv) intentional misrepresentation of data or other intentional fraud.

## **F. Award of CO<sub>2</sub> offset allowances.**

### *(1) Quantities of CO<sub>2</sub> offset allowances that may be awarded.*

- (a) *CO<sub>2</sub> emissions offset projects.* Following the issuance of a consistency determination under subsection 9(C)(5)(b) of this Chapter and the approval of a monitoring and verification report under the provisions of subsection 9(F)(5) of this Chapter, the Department will award one CO<sub>2</sub> offset allowance for each ton of demonstrated reduction in CO<sub>2</sub> or CO<sub>2</sub> equivalent emissions or sequestration of CO<sub>2</sub>.
- (b) *CO<sub>2</sub> emissions credit retirement.* If a project sponsor received a consistency determination pursuant to subsection 9(C)(5)(b) of this Chapter, one CO<sub>2</sub> offset allowance will be awarded for each ton of reduction of CO<sub>2</sub> or CO<sub>2</sub> equivalent or sequestration of CO<sub>2</sub>, represented by the relevant credits or allowances retired. If a credit or allowance is represented in metric tons, 1.1023 tons will be awarded for every metric

ton, provided that total CO<sub>2</sub> offset allowances awarded shall be rounded down to the nearest whole ton.

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

- (a) For CO<sub>2</sub> emissions offset projects undertaken prior to January 1, 2009, the project sponsor must submit the monitoring and verification report covering the pre-2009 period by June 30, 2009.
- (b) For CO<sub>2</sub> emissions offset projects undertaken on or after January 1, 2009, the monitoring and verification report must be submitted within 6 months following the completion of the last calendar year during which the offset project achieved CO<sub>2</sub> equivalent reductions or sequestration of CO<sub>2</sub> for which the project sponsor seeks the award of CO<sub>2</sub> offset allowances.

(3) *Contents of monitoring and verification reports.*

For an offset project, the monitoring and verification report must include the following information.

- (a) The project's sponsor's name, address, email address, telephone number, facsimile transmission number, and account number.
- (b) The CO<sub>2</sub> emissions reduction or CO<sub>2</sub> sequestration determination as required by the relevant provisions of subsection 9(D) of this Chapter, including a demonstration that the project sponsor complied with the required quantification, monitoring, and verification procedures under subsection 9(D) of this Chapter, as well as those outlined in the consistency application approved pursuant to subsection 9(C)(5)(b) of this Chapter.
- (c) A signed 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 Section 9 of this Chapter. 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 CO<sub>2</sub> offset allowances under Section 9 is contingent on meeting the requirements of Section 9 of this Chapter. 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. I submit to the legal jurisdiction of Maine."
- (d) A certification signed by the offset project sponsor certifying that all offset projects for which the sponsor has received offset allowances under this section (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 CO<sub>2</sub> Budget Trading Program in all participating states.

- (e) A verification report and certification statement signed by an independent verifier accredited pursuant to subsection 9(E) of this Chapter that documents that the independent verifier has reviewed the monitoring and verification report and evaluated the following in relation to the applicable requirements at subsection 9(D) of this Chapter, and any applicable guidance issued by the Department.
    - (i) The adequacy and validity of information supplied by the project sponsor to determine CO<sub>2</sub> emissions reductions or CO<sub>2</sub> sequestration pursuant to the applicable requirements at subsection 9(D) of this Chapter.
    - (ii) The adequacy and consistency of methods used to quantify, monitor, and verify CO<sub>2</sub> emissions reductions and CO<sub>2</sub> sequestration in accordance with the applicable requirements at subsection 9(D) of this Chapter and as outlined in the consistency application approved pursuant to subsection 9(C)(5)(b) of this Chapter.
    - (iii) Such other evaluations and verification reviews as may be required by the Department. The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements of subsection 9(D) of this Chapter.
  - (f) Disclosure of any voluntary or mandatory programs, other than the CO<sub>2</sub> Budget Trading Program, to which greenhouse gas emissions data related to the offset project has been, or will be reported.
  - (g) For offset projects located in a state or United States jurisdiction that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating regulatory agency in the state or United States jurisdiction where the offset project is located.
- (4) *Place for filing monitoring and verification reports.* The monitoring and verification report must be filed with the same Department that issued the consistency determination for the offset project pursuant to subsection 9(C)(5)(b) of this Chapter.
- (5) *Department action on monitoring and verification reports.* The Department will approve or deny a complete monitoring and verification report within 45 days following receipt of a complete report.

AUTHORITY: 38 MRSA, Sections 585-A, 580, 580-A, 580-B, and 580-C

EFFECTIVE DATE: January 5, 2008  
Amended: July 22, 2008

### **BASIS STATEMENT**

PL 2007, c. 317 directed the Department to develop rules to implement a carbon dioxide cap-and-trade program. This rule establishes the CO<sub>2</sub> Budget Trading Program and includes provisions for allocating CO<sub>2</sub> allowances, requirements for licensing, monitoring, recordkeeping, reporting, and compliance, provisions for CO<sub>2</sub> authorized account representatives, a system for tracking CO<sub>2</sub> allowances, provisions

for transferring allowances, and requirements for CO<sub>2</sub> emissions offset projects. The Board of Environmental Protection adopted this rule on December 6, 2007. In addition to the basis statement above, the Department has filed with the Secretary of State responses to representative comments received during the public comment period.

#### **BASIS STATEMENT FOR 2008 AMENDMENTS**

In April 2008 the 123<sup>rd</sup> Maine State Legislature passes LD1945, An Act to Update the Regional Greenhouse Gas Initiative. The purpose of this bill was to clarify certain aspects of the original bill and to address concerns that arose during rulemaking, including a revised definition for “fossil-fuel fired unit,” clarification that licensing and allowance auctions can begin prior to January 1, 2009, and the addition of a voluntary renewable energy market set-aside. This rule incorporates these statutory changes as well as a revised definition of “owner” and clarification that anyone wishing to purchase or hold allowances must open a general or compliance account. The Board of Environmental Protection adopted this rule on July 17, 2008. In addition to this basis statement, the Department has filed with the Secretary of State responses to representative comments received during the public comment period.