

CHAPTER Env-A 4700 CARBON DIOXIDE (CO₂) OFFSET PROJECTS

Statutory Authority: RSA 125-O:8, I(f)

Effective January 1, 2020, Env-A 4700 is repealed:

~~PART Env A 4701 PURPOSE, APPLICABILITY, AND INCORPORATION OF DEFINITIONS~~

~~Env A 4701.01 Purpose. The purpose of this chapter is to establish the criteria and procedures for the award of carbon dioxide (CO₂) offset allowances pursuant to RSA 125-O:21, V, in order to ensure that CO₂ offset allowances awarded represent CO₂ equivalent emission reductions or carbon sequestration that are real, additional, verifiable, enforceable, and permanent within the framework of a standards-based approach.~~

~~Env A 4701.02 Applicability.~~

~~(a) This chapter shall apply to sponsors of CO₂ offset projects or CO₂ credit retirements that have reduced or avoided atmospheric loading of CO₂, CO₂ equivalent or sequestered carbon as demonstrated in accordance with the applicable provisions of this chapter.~~

~~(b) Subject to the relevant compliance deduction limitations of Env A 4605.04(b), CO₂ offset allowances may be used by any CO₂ budget source for compliance purposes.~~

~~Env A 4701.03 Definitions Incorporated. The definitions established in Env A 4600 shall apply to this chapter.~~

~~PART Env A 4702 DEFINITIONS~~

~~Env A 4702.01 "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, including a methane recovery system.~~

~~Env A 4702.02 "Anaerobic digestion" means the degradation of organic material, including manure, brought about through the action of microorganisms in the absence of elemental oxygen.~~

~~Env A 4702.03 "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.~~

~~Env A 4702.04 "Biogas" means gas resulting from the decomposition of organic matter under anaerobic conditions, the principle constituents of which are methane and CO₂.~~

~~Env A 4702.05 "Boiler" means a self-contained, low pressure appliance for supplying steam or hot water to a building.~~

~~Env A 4702.06 "Building envelope" means the elements of a building, such as walls, windows, foundations, basement slabs, ceilings, roofs, and insulation materials, that separate conditioned space from unconditioned space, semi-heated space, or the exterior of the building, through which thermal energy may be transferred to or from the exterior, unconditioned space, or conditioned space.~~

~~Env A 4702.07 "CO₂ equivalent (CO₂e)" means the quantity of a given greenhouse gas multiplied by its global warming potential (GWP).~~

~~Env A 4702.08 "Commercial boiler" means a boiler that serves a commercial building.~~

~~Env A 4702.09 "Commercial building" means a building to which the provisions of ANSI/ASHRAE/IESNA Standard 90.1 apply, except low-rise residential buildings.~~

~~Env A 4702.10 "Conflict of interest" means a situation that could arise with respect to an individual in relation to any specific project sponsor, CO₂ offset project or category of offset projects, such that the individual's other activities or relationships with other persons or organizations render or could render the individual incapable of providing an impartial certification opinion, or otherwise compromise the individual's objectivity in performing certification functions.~~

~~Env A 4702.11 "Condensing mode" means the design and operation of furnaces or boilers in a mode that leads to the production of condensate in flue gases.~~

~~Env A 4702.12 "Cooperating department" means a department in a state that is not a participating state but that has entered into a memorandum of understanding with the appropriate departments of all participating states to carry out certain obligations relative to CO₂ offset projects in that state, including but not limited to the obligation to perform audits of offset project sites, and to report violations of this chapter.~~

~~Env A 4702.13 "Energy conservation measure (ECM)" means an activity or set of activities designed to increase the energy efficiency of a building or improve the management of a building's energy demand. The term includes, but is not limited to, 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, alone or in any combination.

Env A 4702.14 “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, this is a relative measure of the impact of equipment or components on building energy usage.

Env A 4702.15 “Energy services” means the provision of useful energy related services to building occupants, such as heating and hot water, cooling, and lighting.

Env A 4702.16 “Forest offset project” means an offset project involving reforestation, improved forest management, or avoided conversion to a non-forest land use, as defined in section 2.1.3 of the forest offset protocol.

Env A 4702.17 “Forest offset project data report” means the report prepared annually by a project sponsor that provides the information and documentation required by this chapter or the forest offset protocol.

Env A 4702.18 “Forest offset protocol” means the protocol titled “Regional Greenhouse Gas Initiative Offset Protocol U.S. Forest Projects”, published by the participating states on June 13, 2013.

Env A 4702.19 “Furnace” means a self-contained, indirect fired appliance that supplies heated air to a building through ducts to conditioned spaces and that has a heat input rate of less than 225,000 Btu/hr.

Env A 4702.20 “Global warming potential (GWP)” means a measure of the radiative efficiency or heat absorbing ability of a particular gas relative to that of CO₂ after taking into account the decay rate, or the amount removed from the atmosphere over a given number of years, of each gas relative to that of CO₂.

Env A 4702.21 “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.

Env A 4702.22 “Independent verifier” means an individual who has been approved by the department to conduct verification activities.

Env A 4702.23 “Intentional reversal” means any reversal caused by a forest owner's negligence, gross negligence, or intentional conduct, including harvesting, development, and harm to the area within the offset project boundary.

Env A 4702.24 “Low rise residential buildings” means single family homes, multifamily structures of 3 stories or fewer above grade, and manufactured homes, whether modular or mobile.

Env A 4702.25 “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 uses a practice.

Env A 4702.26 “Model rule” means the rules that are part of the RGGI program as defined in RSA 125-O:20, XII.

Env A 4702.27 “Non-census water” means streams, sloughs, estuaries, and canals that are more than 120 feet wide but less than 1/8 mile wide, and lakes, reservoirs, and ponds that are one to 40 acres in size.

Env A 4702.28 “Offset project” means a project directly related to the reduction of CO₂-equivalent emissions other than from an electricity generator or the sequestration of carbon.

Env A 4702.29 “On-site combustion” means the combustion of fossil fuel at a building to provide building services such as heating, hot water, or electricity.

Env A 4702.30 “Passive solar” means a combination of building design features and building components that use solar energy to reduce or eliminate the need for mechanical heating and cooling and daytime artificial lighting.

Env A 4702.31 “Permanently retired” referring to a greenhouse gas allowance or credit means a greenhouse gas allowance or credit that 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 has otherwise been rendered unusable.

Env A 4702.32 “Project commencement” means:

(a) 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;

(b) 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 used; or

~~(c) For a forest offset project, the date specified in section 3.2 of the forest offset protocol.~~

~~Env A 4702.33 “Project sponsor” means the person proposing or undertaking the relevant eligible CO₂ offset project or CO₂ credit retirement, as represented by the CO₂ AAR for such person’s general account.~~

~~Env A 4702.34 “Regional anaerobic digester” means an anaerobic digester using feedstock from more than one agricultural operation. Regional anaerobic digesters are also commonly referred to as a “community digesters” or “centralized digesters”.~~

~~Env A 4702.35 “Reporting period” means the period of time for which a forest offset project data report is required.~~

~~Env A 4702.36 “Renewable portfolio standard” 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.~~

~~Env A 4702.37 “Reversal” or “GHG reversal” means a destruction or discontinuance of a GHG emission reduction or GHG removal enhancement, for which CO₂ offset allowances have been issued, that results in a subsequent release or emission of GHG back into the atmosphere at a level exceeding the reduction for which the offset allowance was issued.~~

~~Env A 4702.38 “SF₆-containing operating equipment” means any equipment used for the transmission or distribution, or both, of electricity that contains sulfur hexafluoride (SF₆).~~

~~Env A 4702.39 “System benefits fund” means the fund created by the collection of the system benefits charge authorized by RSA 374 F:3, VI.~~

~~Env A 4702.40 “Thermal efficiency” means the useful energy output in British thermal units (Btu) divided by energy input in Btu, and expressed as a percentage.~~

~~Env A 4702.41 “Total solids” means the total of all solids in a sample, including total suspended solids, total dissolved solids, and volatile suspended solids.~~

~~Env A 4702.42 “Transmission and/or distribution entity” means a legal entity having assets and equipment used to transmit or distribute electricity, or both, from an electric generator to a customer. The term includes all related assets and equipment located within the service territory of the entity, defined as the service territory of a load serving entity specified by the New Hampshire public utilities commission.~~

~~Env A 4702.43 “Unintentional reversal” means any reversal, including fire or disease that is not the result of the forest owner’s negligence, gross negligence, or intentional conduct.~~

~~Env A 4702.44 “Verification” means the determination by an independent verifier that certain parts of a CO₂ offset project consistency application or the measurement, monitoring, and verification report conforms to the requirements of this chapter.~~

~~Env A 4702.45 “Volatile solids” means the fraction of total solids that is comprised of organic matter.~~

~~Env A 4702.46 “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.~~

~~Env A 4702.47 “Whole building retrofit” means an offset project designed and intended to improve the energy performance of a building that involves the replacement of more than one building system, or set of building components.~~

~~Env A 4702.48 “Zero net energy building” means a building designed to produce as much energy, using renewable energy sources, as the building is projected to use, as measured on an annual basis.~~

~~PART Env A 4703 OFFSET PROJECT REQUIREMENTS AND LIMITATIONS~~

~~Env A 4703.01 CO₂ Offset Project Eligibility Requirements. To qualify for the award of CO₂ offset allowances, an offset project shall satisfy all the applicable requirements of this part, in addition to any project specific requirements specified in Env A 4705 through Env A 4709.~~

~~Env A 4703.02 Offset Project Types. The following types of offset projects shall be eligible for the award of CO₂ offset allowances:~~

~~(a) Landfill methane capture and destruction;~~

~~(b) Reduction in emissions of sulfur hexafluoride (SF₆);~~

~~(c) Sequestration of carbon due to a forest offset project;~~

~~(d) Reduction or avoidance of CO₂ emissions from natural gas, oil, or propane end use combustion due to:~~

~~(1) Enhanced end use energy efficiency of fossil fueled systems; or~~

~~(2) 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 shall not be eligible; and~~

~~(e) Avoided methane emissions from agricultural manure management operations.~~

~~Env A 4703.03 Offset Project Locations. To qualify for the award of CO₂ offset allowances under this chapter, eligible offset projects shall be located in any of the following locations:~~

~~(a) In New Hampshire;~~

~~(b) Partly in New Hampshire and partly in one or more other participating states, provided that the larger part of the CO₂ equivalent emissions reduction or carbon sequestration due to the offset project is projected to occur in New Hampshire; or~~

~~(c) In any state in which a cooperating department is located.~~

~~Env A 4703.04 Limitations on Award of Offset Allowances. CO₂ offset allowances shall not be awarded to:~~

~~(a) An offset project or CO₂ credit retirement that is required pursuant to any local, state or federal law, regulation, or administrative or judicial order;~~

~~(b) An offset project that includes an electric generation component, unless the project sponsor transfers legal rights to any and all attribute credits which may be used for compliance with a renewable portfolio standard or other regulatory requirement to the department, other than the CO₂ offset allowances awarded under Env A 4707 generated from the operation of the offset project;~~

~~(c) An offset project that receives funding or other incentives from any system benefit fund, or funds or other incentives provided under RSA 125-O:23;~~

~~(d) An offset project that is awarded credits or allowances under any other mandatory or voluntary greenhouse gas program, except as described in Env A 4707.10; or~~

~~(e) Equipment, materials, items, or actions unrelated to an offset project reduction of CO₂ equivalent emissions or the sequestration of carbon, but occurring at a location where an offset project occurs, unless allowed under Env A 4705 through Env A 4709.~~

~~Env A 4703.05 Maximum Allowance Award Periods.~~

~~(a) Except as provided in Env A 4703.06, CO₂ offset allowances awarded by the department pursuant to Env A 4711 shall be for an initial 10 year allocation period.~~

~~(b) At the end of the initial 10 year allocation period, if the project sponsor wishes to obtain an additional allocation, the project sponsor shall submit a consistency application pursuant to Env A 4704 prior to the expiration of the initial allocation period.~~

~~(c) Except as provided in Env A 4703.06, CO₂ offset allowances awarded by the department pursuant to Env A 4711 based on an application submitted pursuant to (b), above, shall be for an additional 10 year allocation period.~~

~~(d) Except as provided in Env A 4703.06, an offset project shall not be awarded CO₂ offset allowances for more than a total of 20 allocation years.~~

~~Env A 4703.06 Maximum Allowance Award Periods for Forest Offset Projects.~~

~~(a) CO₂ offset allowances awarded pursuant to Env A 4711 for any forest offset project shall be for an initial 25 year allocation period.~~

~~(b) At the end of the initial 25 year allocation period, or any subsequent allocation period, if the project sponsor wishes to obtain an additional allocation, the project sponsor shall submit a consistency application for the forest offset project pursuant to the requirements of Env A 4704 prior to the expiration of the initial allocation period.~~

~~(c) CO₂ offset allowances awarded by the department pursuant to Env A 4711 based on an application submitted pursuant to (b), above, shall be for an additional 25 year allocation period.~~

~~Env A 4703.07 Inspections and Compliance.~~

~~(a) Project sponsors shall provide to the department access to the physical location of the offset project to inspect for compliance with the requirements of this chapter. For offset projects located in any state that is not a participating state, project sponsors shall also provide the cooperating department with access to the physical location of the offset project to inspect for compliance with this chapter.~~

~~(b) If at any time after the award of CO₂ offset allowances the department receives credible information that a project sponsor has not complied with the requirements of this chapter or that an offset project does not comply with the requirements of this chapter, the department shall notify the original project sponsor and~~

anyone who currently holds allowances awarded based on the project that the allowances shall not be available for compliance purposes. The notice shall also inform the recipients of the opportunity to request a hearing in accordance with the provisions of RSA 541-A and Env C 200 applicable to adjudicative proceedings.

~~PART Env A 4704 APPLICATION PROCESS~~

~~Env A 4704.01 Overview of Process.~~

- ~~(a) The project sponsor shall establish a general account under Env A 4607.02.~~
- ~~(b) All submissions required for the award of CO₂-offset allowances under this chapter shall be sent to the department by the CO₂-authorized account representative (CO₂-AAR) for the general account of the project sponsor, with an electronic copy being sent by the CO₂-AAR to the regional organization.~~
- ~~(c) Consistency applications shall:

 - ~~(1) Include the information specified in Env A 4704.02 or Env A 4704.05, or both, as applicable;~~
 - ~~(2) Be filed by the following applicable deadline:

 - ~~a. No later than 180 days after the offset project is commenced for offset projects other than forest offset projects; and~~
 - ~~b. No later than one year after the offset project is commenced for forest offset projects; and~~~~
 - ~~(3) Include the signatures and certifications specified in Env A 4704.03 and the verification report and certification statement specified in Env A 4704.04.~~~~
- ~~(d) Any consistency application that is not filed by the applicable deadline specified in (c), above, shall be denied, resulting in the continued ineligibility of the subject offset project.~~

~~Env A 4704.02 Consistency Application Contents: Offset Projects. For an offset project, the consistency application shall include the following:~~

- ~~(a) The project sponsor's name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number;~~
- ~~(b) Which type of offset project as described in Env A 4703.02 is covered by the application;~~
- ~~(c) A demonstration that the offset project meets all applicable requirements set forth in Env A 4700;~~
- ~~(d) The supplemental information specific to the type of project as set forth in Env A 4705 through Env A 4709, as applicable;~~
- ~~(e) The emissions baseline determination as required by Env A 4705 through Env A 4709;~~
- ~~(f) An explanation of how the projected reduction or avoidance of atmospheric loading of CO₂ or CO₂-equivalent or the sequestration of carbon is to be quantified, monitored, and verified as required by Env A 4705 through Env A 4709;~~
- ~~(g) Disclosure of any voluntary or mandatory programs, other than the CO₂-budget trading program, to which greenhouse gas emissions data related to the offset project have been or will be reported;~~
- ~~(h) For offset projects located in a state that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating department in the state where the offset project is located; and~~
- ~~(i) A verification report and certification statement as specified in Env A 4704.04.~~

~~Env A 4704.03 Signatures and Certifications of Project Sponsor. The project sponsor shall sign the following for submission with the consistency application:~~

- ~~(a) A completed consistency application agreement that reads as follows:

~~“The undersigned project sponsor recognizes and accepts that the application for, and the receipt of, CO₂-offset allowances under the CO₂-Budget Trading Program is predicated on the project sponsor following all the requirements of Env A 4700. 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 those rights. I understand that eligibility for the award of CO₂-offset allowances under Env A 4700 is contingent upon meeting the requirements of that Chapter. I authorize the department to audit this offset project for purposes of verifying that the offset project, including the monitoring and verification plan, has been implemented as described in this application. I understand that this right to audit shall include the right to enter the physical location of the offset project. I submit to the legal jurisdiction of the state of New Hampshire.”~~~~

~~(b) A statement and certification report certifying that all offset projects for which the sponsor has received CO₂ offset allowances under this chapter, 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 project sponsor, are in compliance with all applicable requirements of the CO₂ budget trading program in all participating states.~~

~~Env A 4704.04 Review, Signature, and Certification of Independent Verifier.~~

~~(a) An independent verifier accredited pursuant to Env A 4710 shall:~~

~~(1) Review the entire application, with awareness of any applicable guidance issued by the department working with the regional organization; and~~

~~(2) Evaluate the contents in relation to the applicable requirements of Env A 4703 and Env A 4705 through Env A 4709.~~

~~(b) As part of the evaluation, the independent verifier shall specifically determine the following:~~

~~(1) The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements of Env A 4703 and Env A 4705 through Env A 4709;~~

~~(2) The adequacy and validity of information supplied by the project sponsor to demonstrate baseline emissions pursuant to the applicable requirements of Env A 4705 through Env A 4709; and~~

~~(3) The adequacy of the monitoring and verification plan submitted pursuant to the applicable requirements of Env A 4705 through Env A 4709.~~

~~(c) The independent verifier shall sign a verification report and certification statement for submission with the consistency application, to verify and certify compliance with (a) and (b), above.~~

~~Env A 4704.05 Consistency Application Contents: CO₂ Credit Retirement. For a CO₂ credit retirement, the consistency application shall include:~~

~~(a) The project sponsor's name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number; and~~

~~(b) Sufficient information to demonstrate that the CO₂ credit:~~

~~(1) Is eligible pursuant to Env A 4703.04;~~

~~(2) Was lawfully held by the project sponsor; and~~

~~(3) Has been permanently and irrevocably retired.~~

~~Env A 4704.06 Prohibition Against Filing Duplicate Consistency Applications.~~

~~(a) Subject to (b), below, a consistency application shall not be submitted for an offset project if a consistency application has already been submitted for the same project, or any portion of the same project, in another participating state.~~

~~(b) A consistency application may be submitted for an offset project after rejection by another participating state if the consistency application was rejected by the other participating state solely because more of the CO₂ equivalent emissions reduction or carbon sequestration due to the offset project is projected to occur in New Hampshire than in any other participating state.~~

~~(c) A consistency application shall not be submitted for CO₂ credit retirement if a consistency application has already been submitted for the same CO₂ credit retirement in another participating state.~~

~~Env A 4704.07 Action on Consistency Applications.~~

~~(a) Within 30 days following receipt of a consistency application filed pursuant to this part, the regional organization shall review the application to determine whether it is in an approved form and contains all information needed for the purpose of commencing review of the application.~~

~~(b) If the application is complete, the regional organization shall notify the project sponsor and the department so that a substantive review of the application as specified in (d), below, can proceed.~~

~~(c) If the consistency application is incomplete, the regional organization shall notify the project sponsor in writing of the deficiency or deficiencies and specify a reasonable deadline for the project sponsor to correct the deficiency(ies). If the project sponsor corrects the deficiency(ies) by the specified deadline, the regional organization shall so report to the department, and the department shall proceed to review the application. If the project sponsor does not correct the deficiency(ies) by the specified deadline, the regional organization shall so report to the department and the department shall deny the application.~~

(d) ~~Within 90 days of being notified under (b) or (c), above, that a consistency application is complete, the department shall:~~

(1) ~~Approve the application if the criteria specified in (f) or (g), below, as applicable, have been met;~~

(2) ~~Deny the application if the criteria specified in (f) or (g), below, as applicable, have not been met; or~~

(3) ~~Notify the applicant in writing that additional time is needed to fully assess the application and provide an estimate of the amount of time that is needed.~~

(e) ~~The department shall notify the applicant of its determination under (e)(1) or (2), above, in writing. If the application is denied, the notification shall specify the reasons for the denial.~~

(f) ~~A consistency application for an offset project shall be approved if the information submitted by the project sponsor demonstrates that the proposed project meets the requirements of Env A 4703 and Env A 4704 and the applicable requirements of Env A 4705 through Env A 4709.~~

(g) ~~A consistency application for a CO₂ credit retirement shall be approved if the information submitted by the project sponsor demonstrates that the proposed CO₂ credit retirement:~~

(1) ~~Is eligible pursuant to Env A 4703.04;~~

(2) ~~Was lawfully held by the project sponsor; and~~

(3) ~~Has been permanently and irrevocably retired.~~

~~PART Env A 4705 STANDARDS FOR LANDFILL METHANE CAPTURE AND DESTRUCTION OFFSET PROJECTS~~

~~Env A 4705.01 Landfill Methane Capture and Destruction Projects. To qualify for the award of CO₂ offset allowances under this chapter, an offset project that captures and destroys methane (CH₄) from a landfill shall meet the requirements of this part in addition to all other applicable requirements of this chapter.~~

~~Env A 4705.02 Eligible Landfills. The offset project shall occur at a landfill that is not required to flare emissions under the New Source Performance Standards (NSPS) for municipal solid waste landfills, 40 CFR Part 60, Subpart Cc and Subpart WWW.~~

~~Env A 4705.03 Supplemental Information. The supplemental information required by Env A 4704.02(e) shall include the following:~~

(a) ~~The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of the offset project, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross referenced;~~

(b) ~~The location and specifications of the landfill where the offset project will occur, including the volume of waste in place;~~

(c) ~~The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of the landfill where the offset project will occur, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross referenced; and~~

(d) ~~A detailed narrative description of the offset project, including but not limited to:~~

(1) ~~Documentation that the offset project meets the eligibility requirements of Env A 4705.02; and~~

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

~~Env A 4705.04 Emissions Baseline.~~

(a) ~~The emissions baseline shall represent the potential fugitive landfill emissions of CH₄, in tons of CO₂e, as represented by the CH₄ collected and metered for thermal destruction as part of the offset project.~~

(b) ~~The emissions baseline shall be calculated in accordance with the following:~~

(1) ~~“V” means the volume of CH₄ collected in cubic feet (ft³);~~

(2) ~~“M” means the mass of CH₄ per ft³, where the default value is 0.04246 lbs/ft³ at 1 atmosphere and 20 degrees C;~~

(3) ~~“OX” means the oxidation factor, equal to 0.10, which represents the estimated portion of collected CH₄ that would have eventually oxidized to CO₂ if not collected;~~

(4) ~~“GWP” means the CO₂e global warming potential of CH₄, equal to 25; and~~

~~(5) Emissions in tons CO₂e equals the product of V times M times GWP times the result of 1 minus OX, all divided by 2000, as shown in the following equation:~~

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

~~Env A 4705.05 Emissions Reductions.~~

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

~~(b) CO₂e emissions reductions shall be calculated as follows:~~

~~(1) "V" means the volume of CH₄ collected in cubic feet (ft³);~~

~~(2) "M" means the mass of CH₄ per ft³, where the default value is 0.04246 lbs/ft³ at 1 atmosphere and 20 degrees C;~~

~~(3) "OX" means the oxidation factor, equal to 0.10, which represents the estimated portion of collected CH₄ that would have eventually oxidized to CO₂ if not collected;~~

~~(4) "C_{ef}" means the combustion efficiency of methane control technology, equal to 0.98;~~

~~(5) "GWP" means the CO₂e global warming potential of CH₄, equal to 25; and~~

~~(6) Emissions reductions in tons CO₂e equals the product of V times M times C_{ef} times GWP times the result of 1 minus OX, all divided by 2000, as shown in the following equation:~~

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

~~Env A 4705.06 Monitoring and Verification Requirements.~~

~~(a) Landfill methane capture and destruction offset projects shall employ a landfill gas collection system that provides continuous metering and data computation of landfill gas volumetric flow rate and CH₄ concentration.~~

~~(b) Annual monitoring and verification reports shall include monthly volumetric flow rate and CH₄ concentration data, including documentation that the CH₄ was actually supplied to the combustion source.~~

~~(c) The project sponsor shall submit a monitoring and verification plan as part of the consistency application which includes:~~

~~(1) A quality assurance and quality control program associated with equipment used to determine landfill gas volumetric flow rate and CH₄ composition;~~

~~(2) Provisions for ensuring that measuring and monitoring equipment is maintained, operated, and calibrated based on manufacturer recommendations; and~~

~~(3) Provisions for the retention of maintenance records for audit purposes.~~

~~(d) The monitoring and verification plan required by (c), above, shall be certified by an independent verifier accredited pursuant to Env A 4710.~~

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

~~PART Env A 4706 STANDARDS FOR REDUCTIONS IN SULFUR HEXAFLUORIDE (SF₆) EMISSIONS OFFSET PROJECTS~~

~~Env A 4706.01 Reduction in Sulfur Hexafluoride (SF₆) Emissions Projects. To qualify for the award of CO₂ offset allowances under this part, offset projects that reduce emissions of sulfur hexafluoride (SF₆) to the~~

~~atmosphere from equipment in the electricity transmission and distribution sector, through capture and storage, recycling, or destruction, shall meet the requirements of this part in addition to all other applicable requirements of this chapter.~~

~~Env A 4706.02 Eligible Activities.~~

~~(a) Eligible offset projects shall consist of incremental actions beyond those taken during the baseline year to achieve a reduction in SF₆ emissions relative to the baseline year. Eligible actions may include an expansion of existing actions. As specified in the model rule, the identified actions to be taken shall be consistent with the International Electrotechnical Commission (IEC), "High voltage switchgear and control gear Part 303: Use and handling of sulfur hexafluoride (SF₆)" (IEC/TR 62271-303 ed 1.0), and Electric Power Research Institute (EPRI), "SF₆ Management for Substations" (TR 1020014, 2010).~~

~~(b) Except as provided in (c), below, eligible offset projects shall have an SF₆ entity wide emissions rate for the baseline year, calculated in accordance with Env A 4706.03, that is less than the applicable emissions rate in Table 4706-1.~~

~~(c) An SF₆ offset project shall be eligible even if the SF₆ entity wide emissions rate in the baseline year exceeds the applicable rate in Table 4706-1, provided that the project sponsor demonstrates that the project is being implemented at a transmission and/or distribution entity serving an area that is classified as urban using the classification method described in §7.2.3.c of 40 CFR Part 51, Appendix W and that at least 2 of the following factors prevent optimal management of SF₆:~~

- ~~(1) The entity is comprised of older than average installed transmission and distribution equipment in relation to the national average age of equipment;~~
- ~~(2) 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 SF₆ emissions through regular ongoing maintenance;~~
- ~~(3) The inability to take a substantial portion of equipment out of service, as such activity would impair system reliability; and~~
- ~~(4) Required equipment purpose or design for a substantial portion of entity transmission and distribution equipment results in inherently leak prone equipment.~~

~~Env A 4706.03 Calculations of Emissions Baseline, Emissions Rates, and Emissions Reductions.~~

~~(a) If the consistency application is filed after December 31, 2009, baseline SF₆ emissions shall be determined based on annual entity wide reporting of SF₆ emissions for the calendar year immediately preceding the calendar year in which the consistency application is filed, which is designated the baseline year.~~

~~(b) The reporting entity shall systematically track and account for all entity wide uses of SF₆ in order to determine entity wide emissions of SF₆. The scope of such tracking and accounting shall include all electric transmission and distribution assets and all SF₆ containing and SF₆ handling equipment owned and/or operated by the reporting entity.~~

~~(c) SF₆ emissions shall be calculated based on the following mass balance method, where all SF₆ values are in pounds (lbs.):~~

- ~~(1) "V_{iby}" means the SF₆ inventory in cylinders, gas carts, and other storage containers, but not in SF₆ containing operating equipment, at the beginning of the reporting year;~~
- ~~(2) "V_{iey}" means the SF₆ inventory in cylinders, gas carts, and other storage containers, but not in SF₆ containing operating equipment, at the end of the reporting year;~~
- ~~(3) "ΔI" means the change in inventory, or V_{iby} minus V_{iey}, such that the change in inventory will be negative if the quantity of SF₆ gas in storage increases over the course of the year;~~
- ~~(4) "PA_{psd}" means SF₆ purchased from suppliers or distributors in cylinders;~~
- ~~(5) "PA_e" means SF₆ provided by equipment manufacturers with or inside SF₆ containing operating equipment;~~
- ~~(6) "PA_{re}" means SF₆ returned to the reporting entity after off site recycling;~~
- ~~(7) "P&A" means purchases and acquisitions of all SF₆ gas acquired from other parties during the reporting year, as contained in storage containers or SF₆ using operating equipment, calculated as the sum of PA_{psd} plus PA_e plus PA_{re};~~
- ~~(8) "SD_{op}" means sales of SF₆ to other parties, including gas left in SF₆ containing operating equipment that is sold;~~
- ~~(9) "SD_{rs}" means returns of SF₆ to the supplier, such as the producer or distributor;~~
- ~~(10) "SD_{df}" means SF₆ sent to destruction facilities;~~
- ~~(11) "SD_{sof}" means SF₆ sent off site for recycling;~~
- ~~(12) "S&D" means sales and disbursements of all SF₆ gas sold or otherwise disbursed to other parties during the reporting year, as contained in storage containers and SF₆ using operating equipment, calculated as the sum of SD_{op} plus SD_{rs} plus SD_{df} plus SD_{sof};~~
- ~~(13) CNP_{ne}" means the total SF₆ nameplate capacity of all new SF₆ containing operating equipment at proper full charge, as clarified in (f), below;~~
- ~~(14) "CNP_{re}" means the total SF₆ nameplate capacity of all retired or sold SF₆ containing operating equipment at proper full charge, as clarified in (f), below;~~

(15) “ANPC” means the change in total SF₆ nameplate capacity of equipment, or CNP_{ne} minus CNP_{re}, such that quantity will be negative if the retired equipment has a total nameplate capacity larger than the total nameplate capacity of the new equipment; and

(16) SF₆ emissions in pounds (lbs.) equals the change in SF₆ inventory (ΔI) plus the SF₆ purchases and acquisitions (P&A) minus the SF₆ sales and disbursements (S&D) minus the change in total SF₆ nameplate capacity of equipment (ΔNPC), as shown in the following equation:

$$SF_6 \text{ Emissions (lbs.)} = \Delta I + P\&A - S\&D - \Delta NPC$$

(d) CO₂e emissions in tons shall be calculated by multiplying the CO₂e global warming potential of SF₆ (GWP), which equals 22,800, by the SF₆ emissions calculated in accordance with (c), above, and dividing by 2000, as shown in the following equation:

$$\text{Emissions (tons CO}_2\text{e)} = SF_6 \text{ Emissions (lbs.)} \times GWP / 2000$$

(e) The entity wide SF₆ emissions rate as a percent shall be calculated by dividing the total SF₆ emissions for the reporting year by the total SF₆ nameplate capacity at the end of the reporting year, as shown in the following equation:

$$SF_6 \text{ Emissions Rate (percent)} = \frac{\text{Total SF}_6 \text{ Emissions for Reporting Year}}{\text{Total SF}_6 \text{ Nameplate Capacity at End of Reporting Year}} \times 100$$

(f) For purposes of (c), above, “SF₆ nameplate capacity” means all SF₆ containing equipment owned and/or operated by the entity, at full and proper SF₆ charge of the equipment. The actual charge of the equipment shall not be used as the nameplate capacity, as it could reflect leakage.

(g) Emissions reductions, or the annual entity wide reductions of SF₆ emissions for the reporting entity relative to the reporting entity’s SF₆ emissions in the baseline year, shall be determined by subtracting the reporting entity’s total pounds of SF₆ emissions in the reporting year from the reporting entity’s total pounds of SF₆ emissions in the baseline year, as determined pursuant to (c), above, and multiplying the result by the CO₂e global warming potential of SF₆ (GWP), which equals 22,800, and dividing by 2000, as shown in the following equation:

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

Env A 4706.04 SF₆ Emissions Rate Performance Standards.

(a) The SF₆ emissions rate performance standards shall be based on weighted average 2004 emissions rates for U.S. EPA SF₆ Partnership utilities in each region, except that if the weighted average emissions rate in a region is higher than the national weighted average, the default performance standard shall be the national weighted average emissions rate.

(b) The SF₆ emissions rate performance standards shall be as specified in Table 4706-1, where the states in each region are as specified in Table 4706-2:

Table 4706-1 Emissions Rate Performance Standards

<u>Area</u>	<u>Emission Rate</u>
Region A	9.68 percent
Region B	5.22 percent
Region C	9.68 percent
Region D	5.77 percent
Region E	3.65 percent
U.S. (National)	9.68 percent

Table 4706-2 States in Each Emission Region

<u>Region A</u>	<u>Region B</u>	<u>Region C</u>	<u>Region D</u>	<u>Region E</u>
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		

~~Env A 4706.05 Supplemental Information.~~ The supplemental information required by Env A 4704.02(d) shall include the following:

(a) ~~The name(s) mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of the transmission and/or distribution entity, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross-referenced;~~

(b) ~~A detailed narrative of the offset project, including a description of the transmission and/or distribution entity suitable in detail to specify the service territory served by the entity; and~~

(c) ~~The documentation required by Env A 4706.06 to support the emissions calculations.~~

~~Env A 4706.06 Monitoring and Verification Requirements.~~

(a) ~~The project sponsor shall provide a monitoring and verification plan as part of the consistency application, which includes:~~

(1) ~~An SF₆ inventory management and auditing protocol; and~~

(2) ~~A process for quality assurance and quality control of inventory data.~~

(b) ~~The monitoring and verification report shall be certified by an independent verifier accredited pursuant to Env A 4610.~~

(c) ~~The annual monitoring and verification report required by Env A 4711.02(b) shall include supporting material detailing the data and calculations used to determine SF₆ emissions reductions.~~

(d) ~~The project sponsor shall identify each facility managed by the entity from which or to which any SF₆ gas is procured or disbursed.~~

(e) ~~The project sponsor shall maintain an entity wide log of all SF₆ gas procurements and disbursals, which includes the following:~~

(1) ~~The weight of each cylinder transported before shipment from the facility or facilities and the weight of each cylinder after return to the facility or facilities;~~

(2) ~~A specific cylinder log for each cylinder that is used to fill equipment with SF₆ or reclaim SF₆ from equipment, which shall:~~

a. ~~Be retained with the cylinder;~~

b. ~~Indicate the location and specific identifying information of the equipment being filled, or from which SF₆ is reclaimed, and the weight of the cylinder before and after this activity; and~~

c. ~~Be returned with the cylinder to the facility when the activity is complete or the cylinder is empty; and~~

(3) ~~A current entity wide inventory of all SF₆ containing operating equipment and all other SF₆-related items, including cylinders, gas carts, and other storage containers used by the entity, which is certified by an independent verifier accredited pursuant to Env A 4610.~~

~~PART Env A 4707 STANDARDS FOR SEQUESTRATION OF CARBON DUE TO FOREST OFFSET PROJECTS~~

~~Env A 4707.01 Sequestration of Carbon Due to Forest Offset Projects.~~ To qualify for the award of CO₂ offset allowances under this chapter, forest offset projects shall meet the requirements of this part, the forest offset protocol, and all other applicable requirements of this chapter.

~~Env A 4707.02 Eligible Forest Offset Projects.~~ Eligible forest offset projects shall be those projects which satisfy the requirements set forth in chapter 3 of the forest offset protocol and the requirements of this part.

~~Env A 4707.03 Required Supplemental Information.~~ The supplemental information required by Env A 4704.02(d) shall include the following:

(a) ~~The name mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner of land within the offset project boundary, provided~~

that if any owner is the same as the project sponsor, the project sponsor's information may be cross-referenced;

(b) ~~A detailed narrative of the offset project actions to be taken, together with documentation demonstrating that the offset project meets the eligibility requirements of Env A 4707.02, and the forest offset protocol; and~~

(c) ~~All information required by sections 8 and 9 of the forest offset protocol.~~

~~Env A 4707.04 Carbon Sequestration Baseline Determination. Baseline onsite carbon stocks shall be determined in accordance with sections 6.1.1, 6.2.1, 6.2.2, 6.2.3, 6.3.1, and 6.3.2 of the forest offset protocol, as applicable.~~

~~Env A 4707.05 Calculating Carbon Sequestered. Net GHG reductions and GHG removal enhancements shall be calculated as required by section 6 of the forest offset protocol. The project's risk reversal rating shall be calculated as required by Appendix D of the forest offset protocol.~~

~~Env A 4707.06 Monitoring, Verification, and Reporting Requirements.~~

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

(b) ~~A consistency application shall include a monitoring and verification plan certified by an independent verifier accredited pursuant to Env A 4710.~~

(c) ~~A monitoring and verification plan shall include a forest carbon inventory program, as required by section 8.1 of the forest offset protocol.~~

(d) ~~Monitoring and verification reports shall be submitted not less than every 6 years, except that the first monitoring and verification report for reforestation projects, after the initial verification included in the consistency application, shall be submitted within 12 years of project commencement.~~

~~Env A 4707.07 Carbon Sequestration Permanence. A carbon sequestration due to a forest offset project shall meet the following requirements in the event of a reversal of the sequestered carbon:~~

(a) ~~In the event of an unintentional reversal, the project sponsor shall:~~

(1) ~~No later than 30 calendar days after the date of discovery of the unintentional reversal provide written notice to the department of the unintentional reversal describing the nature of the reversal and explaining the reason or reasons for its occurrence; and~~

(2) ~~No later than one year after the date of discovery of the unintentional reversal, submit to the department a verified estimate of current carbon stocks within the offset project boundary; and~~

(b) ~~In the event of an intentional reversal, the project sponsor shall:~~

(1) ~~No later than 30 calendar days after the intentional reversal provide written notice to the department of the intentional reversal describing the nature of the reversal and explaining the reason or reasons for its occurrence; and~~

(2) ~~No later than one year after an intentional reversal, submit to the department a verified estimate of current carbon stocks within the offset project boundary;~~

(c) ~~In the event of an intentional reversal that occurs after CO₂ offset allowances have already been awarded to the offset project the department shall, upon receipt of the verified estimate of carbon stocks submitted to the department in accordance with paragraph (b)(1), above, or after one year has elapsed since the occurrence of the reversal if the project sponsor fails to submit the verified estimate of carbon stocks, provide written notice to the forest owner that the forest owner shall, no later than 180 days after receipt of such notice, surrender to the department, for retirement, a quantity of CO₂ offset allowances equal to the quantity of CO₂ equivalent tons reversed;~~

(d) ~~If any reversal lowers the forest offset project's actual standing live carbon stocks below its project baseline, the department shall:~~

(1) ~~Terminate the forest offset project; and~~

(2) ~~Provide written notice to the forest owner that the forest owner shall, no later than 180 days after receipt of such notice, surrender to the department, for retirement, a quantity of CO₂ allowances calculated pursuant to project termination provisions in the forest offset protocol; and~~

(e) ~~In the event of any reversal the project sponsor shall be required to surrender CO₂ offset allowances to the department in accordance with the notice issued pursuant to paragraphs (c) or (d), above. In the event that a project sponsor fails to comply with this paragraph, each CO₂ offset allowance not surrendered shall constitute a separate violation.~~

~~Env A 4707.08 Forest Offset Project Data Reports.~~

~~(a) The first reporting period for an offset project in an initial allocation period shall be at least 6 but no more than 24 consecutive months. All subsequent reporting periods in an initial allocation and all reporting periods in any renewed allocation period shall be 12 consecutive months.~~

~~(b) A project sponsor shall submit a forest offset project data report to the department for each reporting period. A separate forest offset project data report shall be required for each reporting period.~~

~~Env A 4707.09 Timing of Forest Offset projects. The department shall award CO₂ offset allowances only for forest offset projects that are commenced on or after January 1, 2014.~~

~~Env A 4707.10 Projects That Have Been Awarded Credits by a Voluntary Greenhouse Gas Reduction Program.~~

~~(a) For projects that have been awarded credits by a voluntary greenhouse gas reduction program, the number of CO₂ offset allowances shall be calculated pursuant to this part, without regard to the quantity of credits that were awarded to the project under the voluntary program.~~

~~(b) The provisions of Env A 4703.04(d) and Env A 4704.01(c)(2)b. shall not apply to forest projects that have been awarded credits under a voluntary greenhouse gas reduction program provided that:~~

~~(1) Such projects comply with all other requirements of this chapter;~~

~~(2) At the time of submittal of the consistency application, the project manager submits forest offset data reports and a monitoring and verification report covering all prior reporting periods for which the project has been awarded credits under a voluntary greenhouse gas program;~~

~~(3) The department can independently verify the information included in the consistency application either through direct communication with the voluntary greenhouse gas program or by information made public by the voluntary greenhouse gas reduction program;~~

~~(4) The project sponsor lawfully terminates the contractual relationship with the voluntary greenhouse gas program through which the credits were awarded; and~~

~~(5) The project sponsor or voluntary greenhouse gas reduction program cancels or retires all credits previously awarded for carbon sequestration that occurred during the time periods for which the project sponsor applies for CO₂ offset allowances pursuant to Env A 4711.~~

~~PART Env A 4708 STANDARDS FOR REDUCTION OR AVOIDANCE OF CO₂ EMISSIONS DUE TO END-USE ENERGY EFFICIENCY OFFSET PROJECTS~~

~~Env A 4708.01 Reduction or Avoidance of CO₂ Emissions from Natural Gas, Oil, or Propane End Use Combustion Due to End Use Energy Efficiency. To qualify for the award of CO₂ offset allowances under this chapter, offset projects that reduce CO₂ 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 shall meet the requirements of this part and all other applicable requirements of this chapter.~~

~~Env A 4708.02 Eligible Buildings and Projects.~~

~~(a) Eligible new buildings shall be limited to:~~

~~(1) New buildings that are designed to replace an existing building on the offset project site; and~~

~~(2) New buildings designed to be zero net energy buildings.~~

~~(b) Eligible offset projects shall reduce CO₂ emissions through one or more of the following energy conservation measures (ECMs):~~

~~(1) Improvements in the energy efficiency of combustion equipment that provide space heating or hot water, or both, including a reduction in fossil fuel consumption through the use of renewable energy;~~

~~(2) Improvements in the efficiency of heating distribution systems, including proper sizing and commissioning of heating systems;~~

~~(3) Installation or improvement of energy management systems;~~

~~(4) Improvement in the efficiency of hot water distribution systems and reduction in demand for hot water;~~

~~(5) Measures that improve the thermal performance of the building envelope and/or reduce building envelope air leakage;~~

~~(6) Measures that improve the passive solar performance of buildings and use of active heating systems using renewable energy; and~~

~~(7) 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 shall not be eligible.~~

~~Env A 4708.03 Performance Standards. As specified in the model rule, all end use energy efficiency offset projects shall meet the following performance criteria:~~

~~(a) 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 following installation best practices, as applicable:~~

~~(1) Commercial HVAC systems shall meet the applicable sizing and installation requirements of ANSI/ASHRAE/IESNA Standard 90.1 (SI Edition) 2010: Energy Standard for Buildings Except Low Rise Residential Buildings and ANSI/ASHRAE Standard 62.2 2010: Ventilation for Acceptable Indoor Air Quality; and~~

~~(2) Residential HVAC systems shall meet the applicable sizing specifications of Air Conditioner Contractors of America (ACCA) Manual J: Residential Load Calculation (Eighth Edition Full), and the applicable installation specifications "HVAC Quality Installation Specification", ANSI/ACCA 5 QI 2007.~~

~~(b) Eligible new buildings or whole building retrofits that are part of an offset project shall meet the following whole building energy performance requirements, as applicable:~~

~~(1) Subject to (2), below, commercial buildings shall exceed by 30% the energy performance requirements of ANSI/ASHRAE/IESNA Standard 90.1 2010 (SI Edition): Energy Standard for Buildings Except Low Rise Residential Buildings;~~

~~(2) Multi family residential buildings classified as commercial by ANSI/ASHRAE/IESNA Standard 90.1 2010 (SI Edition) shall exceed the energy performance requirements specified in (1), above, by 20%; and~~

~~(3) Residential buildings shall exceed the energy performance requirements of the 2012 International Energy Conservation Code Supplement by 30%.~~

~~Env A 4708.04 Offset Projects Commenced After January 1, 2009. For offset projects initiated on or after January 1, 2009, the project sponsor shall demonstrate that the energy conservation measures implemented as part of the offset project have a market penetration rate of less than 5 percent.~~

~~Env A 4708.05 Supplemental Information. The supplemental information required by Env A 4704.02(e) shall include the following:~~

~~(a) The location and specifications of each building where the offset project actions will occur;~~

~~(b) The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of each building, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross-referenced;~~

~~(c) The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each person implementing the offset project, including each lead contractor, each subcontractor, and each consulting firm, provided that if any such person is the same as the project sponsor, the project sponsor's information may be cross-referenced;~~

~~(d) Specifications of equipment and materials to be installed as part of the offset project; and~~

~~(e) Building plans and offset project technical schematics, as applicable.~~

~~Env A 4708.06 Emissions Baseline Determination.~~

~~(a) The emissions baseline shall be determined in accordance with this section, based on energy usage in MMBtu by fuel type for each energy conservation measure, derived using historic fuel use data from the most recent calendar year for which data are available, and multiplied by an emissions factor and oxidation factor for each respective fuel.~~

~~(b) The emission and oxidation factors shall be as specified in Table 4708-1, below:~~

~~Table 4708-1 Emissions and Oxidation Factors~~

<u>Fuel</u>	<u>Emissions Factor (lbs. CO₂/MMBtu)</u>	<u>Oxidation Factor</u>
Natural Gas	116.98	0.995
Propane	139.04	0.995

Distillate Fuel Oil	161.27	0.99
Kerosene	159.41	0.99

(c) ~~The baseline energy usage of the application to be targeted by the energy conservation measure shall be isolated in a manner consistent with the provisions of Env A 4708.08(e).~~

(d) ~~Annual baseline energy usage shall be determined as follows:~~

(1) ~~“BEU_{AECM}” means the annual pre installation baseline energy use by fuel type in 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;~~

(2) ~~“A” means adjustments, determined in accordance with the applicable requirements of Env A 4708.08, to account for differing conditions during the 2 time periods, pre installation and post installation, such as weather, building occupancy, and changes in building use or function; and~~

(3) ~~Energy usage shall be the product of the annual pre installation baseline energy use by fuel type times the adjustments, as shown in the following equation:~~

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

(e) ~~Annual baseline emissions shall be determined as follows:~~

(1) ~~“i” means the type of fuel;~~

(2) ~~“BEU_i” means the annual baseline energy usage for each fuel type in MMBtu, determined in accordance with Env A 4708.08;~~

(3) ~~“EF_i” means the emissions factor in lbs. CO₂/MMBtu for each fuel type, from Table 4708-1;~~

(4) ~~“OF_i” means the oxidation factor for each fuel type, from Table Env A 4708-1; and~~

(5) ~~The annual baseline emissions is the sum for all fuel types of the product of the annual baseline energy usage times the emissions factor times the oxidation factor, as shown in the following equation:~~

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

~~Env A 4708.07 Calculating Emissions Reductions:~~

(a) ~~Emissions reductions shall be determined based upon annual energy savings by fuel type in MMBtu for each energy conservation measure, multiplied by the emissions factor and oxidation factor for the respective fuel type from Table 4708-1.~~

(b) ~~Annual energy savings shall be determined as follows:~~

(1) ~~“BEU_{AECM}” means the annual pre installation baseline energy use by fuel type in MMBtu, calculated pursuant to Env A 4708.08;~~

(2) ~~“PIEU_{ECM}” means the annual post installation energy use by fuel type in MMBtu attributable to the energy conservation measure, determined in accordance with the applicable requirements of Env A 4708.08;~~

(3) ~~“A” means adjustments to account for any differing conditions during the pre installation and post installation time periods, such as weather, building occupancy, and changes in building use or function, determined in accordance with the applicable requirements of Env A 4708.08; and~~

(4) ~~Energy savings equals the product of the annual pre installation baseline energy use by fuel type times the adjustments minus the product of the annual post installation baseline energy use by fuel type times the adjustments, as shown in the following equation:~~

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

(c) ~~Annual emissions reductions shall be determined as follows:~~

(1) ~~“i” means the fuel type;~~

(2) ~~“ES_i” means energy savings for each fuel type in MMBtu, demonstrated pursuant to the requirements of Env A 4708.08;~~

(3) ~~“EF_i” means the emissions factor in lbs. CO₂/MMBtu for each fuel type, from Table 4708-1;~~

(4) ~~“OF_i” means the oxidation factor for each fuel type, from Table 4708-1; and~~

(5) ~~Emissions reductions shall be the sum, for all fuel types, of the product of the energy savings times the emissions factor times the oxidation factor, as shown in the following equation:~~

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

Env A 4708.08 Monitoring and Verification Requirements.

(a) ~~As part of the consistency application, the project sponsor shall provide a monitoring and verification plan certified by an independent verifier accredited pursuant to Env A 4710.~~

(b) ~~Annual monitoring and verification reports required by Env A 4711.02(b) shall be certified by an independent verifier accredited pursuant to Env A 4710.~~

(c) ~~The independent verifiers shall 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, a site audit pursuant to (c), above, shall not be required provided the project sponsor provides the independent verifier with equipment specifications and copies of equipment invoices and other relevant offset project related invoices.~~

(d) ~~All offset project documentation, including the consistency application and monitoring and verification reports, shall be signed by a professional engineer, identified by license number.~~

(e) ~~As specified in the model rule, monitoring and verification of energy usage shall be demonstrated through a documented process consistent with the following protocols and procedures, as applicable:~~

(1) ~~Subject to (2), below, the determination of baseline energy usage for existing commercial buildings 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”;~~

(2) ~~If a building project involves only energy conservation measures implemented as part of a CO₂ offset project, a process consistent with IPMVP “Option C. Whole Facility” may be used, as applicable, provided that the 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;~~

(3) ~~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”, provided that the 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; and~~

(4) ~~For existing and new residential buildings, determination of baseline energy usage shall be consistent with the requirements of the RESNET National Energy Rating Technical Standards and National Home Energy Rating Technical Guidelines, 2013 (chapter 3 and Appendix A of 2013 Mortgage Industry National Home Energy Rating System Standards).~~

(f) ~~As specified in the model rule, 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.~~

(g) ~~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 in accordance with the following:~~

(1) ~~For commercial buildings, the process shall be consistent with the requirements of ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings, and ANSI/ASHRAE/IESNA Standard 90.1-2010 (SI Edition): Energy Standard for Buildings Except Low Rise Residential Buildings; and~~

(2) ~~For residential buildings, the 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) and adopted enhancements dated 2007-2012.~~

(h) ~~Reductions in energy usage due to the ECM 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 ECM.~~

(i) ~~As specified in the model rule, annual energy savings shall be determined in accordance with the following:~~

(1) ~~“BEU_{AECM}” means the annual pre installation baseline energy use by fuel type, in MMBtu, attributable to the application(s) to be targeted by the ECM(s), based upon annual fuel usage data for the most recent calendar year for which data are 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 ECM(s) is implemented shall be determined according to ASHRAE Guideline 14-2002, Measurement of Energy and Demand Savings and ANSI/ASHRAE/IESNA Standard 90.1-2010 (SI Edition), 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 90.1-2010 (SI Edition), 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) and adopted enhancements dated 2007-2012;~~

(2) ~~“PIEU_{ECM}” means the annual post installation energy use by fuel type, in MMBtu, attributable to the ECM(s), to be verified based on annual energy usage after installation of the ECM(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 90.1-2010 (SI Edition), 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) and adopted enhancements dated 2007-2012;~~

(3) ~~“A” means the adjustments to account for any differing conditions during the pre installation and post installation time periods, 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 90.1-2010 (SI Edition), 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) and adopted enhancements dated 2007-2012; and~~

(4) ~~Energy savings shall be the product of the annual pre installation baseline energy use by fuel type times the adjustments, minus the product of the annual post installation baseline energy use by fuel type times the adjustments, as shown in the following equation:~~

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

(j) ~~Offset projects that implement similar ECMs 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 such that there is 95 percent confidence that the reported value is within 10 percent of the true mean. Any sampling plan shall be certified by an independent verifier, accredited pursuant to Env-A 4710.~~

~~Env A 4709.01 Avoided Methane Emissions From Agricultural Manure Management Operations. To qualify for the award of CO₂ offset allowances under this chapter, offset projects that capture and destroy methane (CH₄) from animal manure and organic food waste using anaerobic digesters shall meet the requirements of this part and all other applicable requirements of this chapter.~~

~~Env A 4709.02 Eligibility.~~

~~(a) Eligible offset projects shall consist of the destruction of that portion of CH₄ generated by an anaerobic digester that would have been generated in the absence of the offset project through the uncontrolled anaerobic storage of manure or organic food waste.~~

~~(b) Eligible offset projects shall employ only manure based anaerobic digester systems using livestock manure as more than 50 percent of the mass input into the digester on an annual basis. Organic food waste used by an anaerobic digester shall only be that which would have been stored in anaerobic conditions in the absence of the offset project.~~

~~Env A 4709.03 Exemption from Certain Limitations. The limitations specified in Env A 4703.04(b) and (c) shall not apply to agricultural manure management offset projects if either one of the following requirements is met:~~

~~(a) The offset project is located in a state that has a market penetration rate for anaerobic digester projects, determined in accordance with Env A 4709.04, of 5 percent or less;~~

~~(b) The offset project is located at a farm with 4,000 or fewer 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~~

~~(c) If the project is a regional 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 fewer 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.~~

~~Env A 4709.04 Market Penetration Determination. The market penetration determination shall:~~

~~(a) Use the most recent market data available at the time of submission of the consistency application under Env A 4704; and~~

~~(b) Be determined as follows:~~

~~(1) "MG_{AD}" means the 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 Env A 4704;~~

~~(2) "MG_{STATE}" means the average annual manure generation for all dairy cows and swine in the state at the time of submission of a consistency application pursuant to Env A 4704; and~~

~~(3) Market penetration (MP), expressed as a percent, equals MG_{AD} divided by MG_{STATE}, as shown in the following equation:~~

$$MP (\text{percent}) = MG_{AD} / MG_{STATE} \times 100$$

~~Env A 4709.05 Supplemental Information. The supplemental information required by Env A 4704.02(e) shall include the following:~~

~~(a) The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of the offset project, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross referenced;~~

~~(b) The location and specifications of the facility where the offset project will occur;~~

~~(c) The name, mailing address, electronic mail address, daytime telephone number, facsimile transmission number, and account number of each owner and each operator of the facility where the offset project will occur, provided that if any owner or operator is the same as the project sponsor, the project sponsor's information may be cross referenced;~~

~~(d) Specifications of the equipment to be installed and a technical schematic of the offset project; and~~

~~(e) The location and specifications of each facility from which anaerobic digester influent will be received, if different from the facility where the offset project will occur.~~

~~Env A 4709.06 Emissions Baseline Determination.~~

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

~~(b) Baseline CH₄ emissions shall be calculated as follows:~~

- (1) ~~“CO₂e” means potential CO₂e emissions due to calculated CH₄ production under site-specific anaerobic storage and weather conditions;~~
- (2) ~~“V_m” means the volume of CH₄ 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 or organic food waste is generated, measured in cubic feet (ft³);~~
- (3) ~~“M” means the mass of CH₄ per cubic foot, which equals 0.04246 lb/ft³ as a default value at one atmosphere and 20 °C;~~
- (4) ~~“GWP” means the global warming potential of CH₄, which equals 25; and~~
- (5) ~~Potential CO₂e emissions equals the global warming potential of CH₄ multiplied by the product of V_m times M divided by 2000, as shown in the following equation:~~

$$\text{CO}_{2\text{e}} (\text{tons}) = [(V_m \times M)/2000] \times \text{GWP}$$

(c) ~~As specified in the model rule, the estimated amount of volatile solids degraded each month under the uncontrolled anaerobic storage baseline scenario (VS_{deg}), in kilograms (kg), shall be calculated as follows:~~

- (1) ~~“M_m” means the mass of manure or organic food waste produced per month, in kg;~~
- (2) ~~“TS percent” means the concentration (percent) of total solids in manure or organic food waste as determined through EPA 160.3 testing method, U.S.EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020);~~
- (3) ~~“VS percent” means the concentration (percent) of volatile solids in total solids as determined through EPA 160.4 testing method, U.S.EPA Method Number 160.4, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020);~~
- (4) ~~“VS” means volatile solids, calculated by multiplying M_m times TS percent times VS percent, as shown in the following equation:~~

$$\text{VS} = M_m \times \text{TS percent} \times \text{VS percent}$$

- (5) ~~“VS_p” means the volatile solids present in manure or organic food waste storage at beginning of month, left over from the previous month, in kg;~~
- (6) ~~“VS_{in}” means the volatile solids added to manure or organic food waste storage during the course of the month, in kg, which is multiplied by a factor of 0.5 to represent the average mass of volatile solids available for degradation for the entire duration of the month;~~
- (7) ~~“VS_{out}” means the volatile solids removed from the manure or organic food waste storage for land application or export, which is an assumed value based on standard farm practice;~~
- (8) ~~“VS_{avail}” means the volatile solids available for degradation in manure or organic food waste storage each month, calculated by adding VS_p to the product of VS_{in} times 0.5, and then subtracting VS_{out}, as shown in the following equation:~~

$$\text{VS}_{\text{avail}} = \text{VS}_p + (0.5 \times \text{VS}_{\text{in}}) - \text{VS}_{\text{out}}$$

- (9) ~~“E” means the activation energy constant, or 15,175 cal/mol;~~
- (10) ~~“T₂” means the average monthly ambient temperature for the facility where manure or organic food waste is generated, converted from degrees Celsius to degrees Kelvin, as determined from the nearest National Weather Service certified weather station, if the reported temperature in degrees C is greater than 5 degrees C;~~
- (11) ~~“T₁” means 303.15, which is 30 degrees C converted to degrees K;~~
- (12) ~~“GC” means the ideal gas constant, or 1.987 cal/K mol;~~
- (13) ~~Subject to (14), below, “f” means the van’t Hoff Arrhenius factor, or the conversion efficiency of VS to CH₄ per month, for a specific month, as determined by the exponential of the quotient of the product of the activation energy constant and the temperature difference divided by the product of the ideal gas constant and the temperatures, as shown in the following equation:~~

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

- (14) ~~If the temperature reported pursuant to (10), above, in degrees C is less than 5°C, f equals 0.104; and~~

- (15) ~~VS_{deg} equals VS_{avail} multiplied by f, as shown in the following equation:~~

$$\text{VS}_{\text{deg}} = \text{VS}_{\text{avail}} \times f$$

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

- (1) ~~“V_m” means the volume of CH₄ produced, in ft³;~~

(2) ~~“VS_{deg}” means the volatile solids degraded, in kilograms (kg), calculated as specified in (c), above;~~

(3) ~~“B_o” means the manure or organic food waste type specific maximum methane generation constant, in cubic meters of CH₄ per kilogram of volatile solids degraded (m³ CH₄/kg VS degraded), as per (e), below; and~~

(4) ~~V_m equals VS_{deg} multiplied by B_o multiplied by 35.3147, as shown in the following equation:~~

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

(e) ~~As specified in the model rule, for dairy cow manure, B_o equals 0.24 m³ CH₄/kg VS degraded. The methane generation constants for other types of manure shall be those cited at U.S. EPA’s Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010, Annex 3, Table A-162 (U.S. EPA, April 2012) (EPA Inventory), unless the project sponsor proposes to use an alternate methane generation constant. If the project sponsor proposes to use a methane generation constant other than the ones found in the EPA Inventory, the project sponsor shall provide justification and documentation to the department.~~

~~Env A 4709.07 Calculating Emissions Reductions.~~

(a) ~~Emissions reductions shall be determined based on the potential emissions, in tons of CO₂e, of the CH₄ 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 Env A 4709.06, and released directly to the atmosphere.~~

(b) ~~Claimed emissions reductions shall not exceed the potential emissions of the anaerobic digester, as represented by the annual volume of CH₄ produced by the anaerobic digester, as monitored pursuant to Env A 4709.08.~~

(c) ~~If the project is a regional digester, CO₂ emissions due to transportation of manure and organic food waste from the facility where the manure and organic food waste was generated to the anaerobic digester shall be subtracted from the emissions reduction calculated pursuant to Env A 4709.06.~~

(d) ~~Transport CO₂ emissions shall be determined through one of the following methods:~~

(1) ~~Documentation of transport fuel use for all shipments of manure and organic food waste from off site to the anaerobic digester during each reporting year and a log of transport miles for each shipment, where CO₂ emissions shall be determined through the application of the following emissions factors, as applicable to the fuel type used:~~

a. ~~Diesel fuel: 22.912 lbs. CO₂ per gallon;~~

b. ~~Gasoline: 19.878 lbs. CO₂ per gallon; and~~

c. ~~Other fuel: submitted emissions factor consistent with the factors listed in the EPA Inventory;~~

(2) ~~Documentation of total tons of manure and organic food waste transported from off site for input into the anaerobic digester during each reporting year, as monitored pursuant to Env A 4709.08, and a log of transport miles and fuel type used for each shipment where CO₂ emissions shall be determined through the application of the following transport emission factor as applicable to the fuel type used:~~

a. ~~Diesel fuel: 0.131 lbs. CO₂ per ton of material per mile traveled (ton-mile);~~

b. ~~Gasoline: 0.133 lbs. CO₂ per ton-mile; and~~

c. ~~Other fuel: submitted emissions factor consistent with the factors listed in the EPA Inventory.~~

~~Env A 4709.08 Monitoring and Verification Requirements.~~

(a) ~~Offset projects under this part shall employ a system that provides metering of biogas volumetric flow rate and determination of CH₄ concentration.~~

(b) ~~Annual monitoring and verification reports required by Env A 4711.02(b) shall include monthly biogas volumetric flow rate and CH₄ concentration determinations.~~

(c) ~~If the offset project is a regional digester, the following shall also apply:~~

(1) ~~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;~~

(2) ~~Any emissions reduction shall be calculated according to the mass of manure and organic food waste, in kilograms (kg), being digested and the percentage of volatile solids present before digestion, calculated in accordance with Env A 4709.06 and Env A 4709.07, and apportioned accordingly among sources; and~~

~~(3) The project sponsor shall provide supporting material and receipts tracking the monthly receipt of manure and organic food waste, in kg, used to supply the anaerobic digester from each supplier.~~

~~(d) If the offset project includes the digestion of organic food waste as provided in Env A 4709.02(b), organic food waste shall be sampled monthly to determine the amount of volatile solids present before digestion, calculated in accordance with Env A 4709.06 and Env A 4709.07, and apportioned accordingly.~~

~~(e) The project sponsor shall submit a monitoring and verification plan as part of the consistency application that:~~

~~(1) Includes a quality assurance and quality control program associated with equipment used to determine biogas volumetric flow rate and CH₄ composition;~~

~~(2) Is specified in accordance with the applicable monitoring requirements listed in Env A 4709.09, Table 4709-1;~~

~~(3) Includes provisions for ensuring that measuring and monitoring equipment is maintained, operated, and calibrated based on manufacturer's recommendations;~~

~~(4) Includes provisions for the retention of maintenance records for audit purposes; and~~

~~(5) Requires biogas CH₄ composition to be verified quarterly through gas sampling and third party laboratory analysis using applicable U.S. EPA test methods.~~

~~(f) The monitoring and verification plan shall be certified by an independent verifier accredited pursuant to Env A 4710.~~

~~Env A 4709.09 Monitoring Requirements for Digester Inputs. As specified in the model rule, all materials input to the digester shall be monitored in accordance with the requirements specified in Table 4709-1:~~

Table 4709-1 Input Monitoring Requirements

Input Parameter	Measurement Unit	Frequency of Sampling	Sampling Method(s)
Influent flow (mass) into the digester	Kilograms (kg) per month, wet weight	Monthly total into the digester	a) Recorded weight b) Digester influent pump flow c) Livestock population and application of American Society of Agricultural and Biological Engineers (ASABE) standard (ASAE D384.2, March 2005)
Influent total solids concentration (TS)	Percent of sample	Monthly	U.S. EPA Method Number 160.3, Methods for the Chemical Analysis of Water and Wastes (MCAWW) (EPA/600/4-79/020)
Influent volatile solids (VS) concentration	Percent of TS	Monthly	U.S. EPA 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

PART Env A 4710 ACCREDITATION OF INDEPENDENT VERIFIERS

Env A 4710.01 Application for Accreditation:

~~(a) As specified in the model rule, any individual who wishes to become an independent verifier to provide verification services as required of project sponsors under this chapter shall apply to the regional~~

organization in accordance with this part.

~~(b) Subject to (c), below, an application for accreditation shall be submitted in writing to the regional organization and include the following:~~

~~(1) The applicant's name, address, electronic mail address, daytime telephone number, and facsimile transmission number;~~

~~(2) Documentation that the applicant has at least 2 years of experience in each of the knowledge areas specified in Env A 4710.04;~~

~~(3) Documentation that the applicant has successfully completed the requirements specified in Env A 4710.06;~~

~~(4) A sample of at least one work product that provides supporting evidence that the applicant meets the requirements of Env A 4710.04 and Env A 4710.05, which has been produced, in whole or part, by the applicant and consists of a final report or other material provided to a client under contract in previous work, provided that for a work product that was jointly produced by the applicant and another entity, the role of the applicant in the work product shall be clearly explained;~~

~~(5) Documentation that the applicant holds professional liability insurance as required pursuant to Env A 4710.05(e); and~~

~~(6) Documentation that the applicant has implemented an adequate management protocol to address and remedy any conflict of interest issues that may arise, as required pursuant to Env A 4710.05(d).~~

~~(c) An application for accreditation shall not contain any proprietary information.~~

~~Env A 4710.02 Action on Applications for Accreditation.~~

~~(a) The regional organization shall review an application submitted pursuant to Env A 4710.01 to determine whether it is in an approved form and contains all information needed for the purpose of commencing review of the application.~~

~~(b) If the application is complete, the regional organization shall notify the applicant and proceed to a substantive review of the application as specified in (d), below.~~

~~(c) If the consistency application is incomplete, the regional organization, shall notify the applicant in writing of the information that is missing and specify a reasonable deadline for the applicant to provide the information. If the applicant does not provide the information by the specified deadline, the application shall be denied.~~

~~(d) After the regional organization determines that an application for accreditation is complete, the department shall review the application to determine whether it meets all requirements for accreditation specified in this part. If the department determines that the information submitted is inadequate to allow the department to independently conclude that the requirements are met, the department shall direct the regional organization to request such additional information from the applicant as is necessary to enable the department to reach a conclusion. If such requested information is not provided, the department shall deny the application.~~

~~(e) The department shall approve an application for accreditation if the application demonstrates that the applicant meets all requirements for qualification specified in this part.~~

~~(f) The department shall make the decision to approve or deny within 45 days of receipt of a complete application and direct the regional organization to notify the applicant in writing of the department's decision. If the decision is to deny the application, the written notice shall specify the reason(s) for the denial.~~

~~(g) Upon approval of an application for accreditation, the independent verifier shall be accredited for a period of 3 years from the date of application approval, unless the accreditation is revoked sooner pursuant to Env A 4710.08.~~

~~Env A 4710.03 Reciprocity. An independent verifier who holds a valid accreditation from any other participating state and a voluntary offset registry accredited by any state participating in the Western Climate Initiative shall be deemed to be accredited in New Hampshire.~~

~~Env A 4710.04 Standards for Accreditation: Knowledge. Each accredited verifier shall demonstrate knowledge of the following topics:~~

~~(a) Applying engineering principles;~~

~~(b) Quantifying greenhouse gas emissions;~~

- ~~(c) Developing and evaluating air emissions inventories;~~
- ~~(d) Auditing and accounting principles;~~
- ~~(e) Information management systems;~~
- ~~(f) All applicable requirements of this chapter; and~~
- ~~(g) The individual offset categories specified in Env A 4705 through Env A 4709.~~

~~Env A 4710.05 Standards for Accreditation: Organizational Qualifications. An applicant for accreditation as an independent verifier shall:~~

~~(a) Have no direct or indirect financial relationship, beyond a contract for provision of verification services, with any offset project developer or project sponsor;~~

~~(b) Employ staff with professional licenses, knowledge, and experience appropriate to the specific category(ies) of offset projects listed in Env A 4705 through Env A 4709 that the verifier seeks to verify;~~

~~(c) As specified in the model rule, hold a minimum of \$1,000,000 of professional liability insurance, provided that 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 the availability of the insurance to the verifier; and~~

~~(d) Demonstrate that he or she has implemented a management protocol that is adequate to:~~

~~(1) Identify potential conflicts of interest with regard to an offset project, offset project developer, or project sponsor, or any other person 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 the provisions of Env A 4704; and~~

~~(2) Remedy any such conflicts of interest prior to providing verification services.~~

~~Env A 4710.06 Standards for Accreditation: Pre Qualification of Verifiers. The department shall require prospective verifiers to successfully complete a training course, workshop, or test developed by the department in conjunction with the regional organization prior to submitting an application for accreditation.~~

~~Env A 4710.07 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, through the regional organization, to allow the department to evaluate potential conflicts 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) An accredited verifier shall have an ongoing obligation to disclose to the department, through the regional organization, 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 shall reject a verification report and certification statement from an accredited verifier, submitted as part of a consistency application required pursuant to Env A 4704.04 or submitted as part of a monitoring and verification report submitted pursuant to Env A 4711.02, if the department determines that:~~

~~(1) The accredited verifier has a conflict of interest related to the offset project, offset project developer, or project sponsor; and~~

~~(2) The conflict is such that the independence and objectivity of the verifier are in doubt.~~

~~(d) An accredited verifier shall have an ongoing obligation to disclose to the department, through the regional organization, any changes in accreditation status in any other participating state.~~

~~Env A 4710.08 Revocation of Accreditation.~~

~~(a) If the department receives information suggesting that good cause as specified in (b), below, exists to revoke the accreditation of a verifier, the department shall notify the verifier that accreditation shall be revoked. The notice shall also inform the verifier of the opportunity to request a hearing in accordance with the provisions of RSA 541-A and Env C 200 applicable to adjudicative proceedings.~~

~~(b) Good cause to revoke the accreditation of a verifier shall include:~~

~~(1) 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;~~

~~(2) The verifier is no longer qualified due to changes in staffing or other criteria;~~

~~(3) Negligence or neglect of responsibilities pursuant to the requirements of this chapter;~~

~~(4) Intentional misrepresentation of data or other intentional fraud; and~~

(5) ~~Loss of accreditation in another participating state.~~

PART ~~Env A 4711~~ ~~AWARD OF CO₂ OFFSET ALLOWANCES~~

~~Env A 4711.01 Award and Recordation of CO₂ Offset Allowances.~~

(a) ~~Following the issuance of a consistency determination under Env A 4704.07(f) and the approval of a monitoring and verification report under Env A 4711.05, the department shall award one CO₂ offset allowance for each ton of demonstrated reduction in CO₂ or CO₂ equivalent emissions or sequestration of CO₂ from a CO₂ offset project.~~

(b) ~~Subject to (c), below, following the issuance of a consistency determination under Env A 4704.07(g), the department shall award one CO₂ offset allowance for each ton of reduction of CO₂ or CO₂ equivalent or sequestration of CO₂, represented by the relevant CO₂ credits or allowances retired.~~

(c) ~~If a retired credit or allowance is represented in metric tons, the department shall award 1.1023 tons for every metric ton, with the total CO₂ offset allowances awarded rounded down to the nearest whole ton.~~

(d) ~~After CO₂ offset allowances are awarded under (a) through (c), above, the department shall direct the regional organization to record such CO₂ offset allowances in the project sponsor's general account.~~

~~Env A 4711.02 Required Submittal of Monitoring and Verification Reports.~~

(a) ~~For that portion of an CO₂ offset project completed prior to January 1, 2009, the project sponsor shall submit the monitoring and verification report covering the pre-2009 period by December 31, 2009.~~

(b) ~~For on-going CO₂ offset projects and CO₂ offset projects initiated on or after January 1, 2009, the project sponsor shall submit a monitoring and verification report by the later of December 31, 2009 or within 6 months following the completion of the last calendar year during which the offset project achieved CO₂ equivalent reductions or sequestration of CO₂ for which the project sponsor seeks the award of CO₂ offset allowances.~~

~~Env A 4711.03 Contents of Monitoring and Verification Reports. For an offset project, the monitoring and verification report shall include the following:~~

(a) ~~The project's sponsor's name, address, electronic mail address, daytime telephone number, facsimile transmission number, and account number;~~

(b) ~~The CO₂ emissions reduction or CO₂ sequestration determination as required by the relevant provisions of Env A 4705 through Env A 4709, including a demonstration that the project sponsor has complied with the required quantification, monitoring, and verification procedures of Env A 4705 through Env A 4709, as well as those outlined in the consistency application approved pursuant to Env A 4704.07(f) or (g);~~

(c) ~~A signed statement that reads as follows:~~

~~"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 Env A 4700. The project sponsor holds the legal rights to the offset project, or has been granted the right to act on behalf of a party that holds the legal rights to the offset project. I understand that eligibility for the award of CO₂ offset allowances under Env A 4700 is contingent on meeting the requirements of Env A 4700. I authorize the department or its agent to audit this offset project for purposes of verifying that the offset project, including the monitoring and verification plan, has been implemented as described in the consistency application that was the subject of a consistency determination by the department. I understand that this right to audit shall include the right to enter the physical location of the offset project and to make available to the department or its agent any and all documentation relating to the offset project at the department's request. I submit to the legal jurisdiction of New Hampshire."~~

(d) ~~A certification signed by the offset project sponsor certifying that all offset projects for which the sponsor has received offset allowances under this chapter, 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 Env A 4600 and with the CO₂ budget trading program in all participating states;~~

(e) ~~A verification report and certification statement signed by an independent verifier accredited pursuant to Env A 4710 documenting that the independent verifier has reviewed the monitoring and~~

verification report and evaluated the following in relation to the applicable requirements of Env A 4705 through Env A 4709:

(1) The adequacy and validity of information supplied by the project sponsor to determine CO₂ emissions reductions or CO₂-sequestration pursuant to the applicable requirements of Env A 4705 through Env A 4709;

(2) The adequacy and consistency of methods used to quantify, monitor, and verify CO₂ emissions reductions and CO₂-sequestration in accordance with the applicable requirements of Env A 4705 through Env A 4709 and as outlined in the consistency application approved pursuant to Env A 4704.07(f) or (g); and

(3) The adequacy and validity of information supplied by the project sponsor to demonstrate that the offset project meets the applicable eligibility requirements of Env A 4705 through Env A 4709;

(f) Disclosure of any voluntary or mandatory programs, other than the CO₂ budget trading program, to which greenhouse gas emissions data related to the offset project have been or will be reported; and

(g) For offset projects located in a state that is not a participating state, a demonstration that the project sponsor has complied with all requirements of the cooperating department in the state where the offset project is located.

~~Env A 4711.04 Limitation on Filing Reports. Monitoring and verification reports shall be filed under this part only for projects that have received consistency determinations under Env A 4704.07(f) or (g). Monitoring and verification reports shall not be filed under this part for projects that have received consistency determinations in other participating states.~~

~~Env A 4711.05 Action on Monitoring and Verification Reports.~~

~~(a) Within 45 days following receipt of a monitoring and verification report filed pursuant to this part, the regional organization shall review the report to determine whether it contains all required information.~~

~~(b) If the report is complete, the regional organization shall notify the project sponsor and proceed to a substantive review of the report as specified in (d) and (e), below.~~

~~(c) If the report is incomplete, the regional organization shall notify the project sponsor in writing of the information that is missing and specify a reasonable deadline for the project sponsor to provide the information. If the project sponsor does not provide the information by the specified deadline, the report shall be rejected and no allowances shall be awarded.~~

~~(d) After determining that a report is complete, the department shall review the report to determine whether it meets the requirements specified in Env A 4703 and Env A 4705 through Env A 4709, as applicable. If the department determines that the information submitted is inadequate to allow the department to independently conclude that the requirements are met, the department shall direct the regional organization to request such additional information from the project sponsor as is necessary to enable the department to reach a conclusion. If the information is not provided, the report shall be rejected and no allowances shall be awarded.~~

~~(e) Within 45 days of receiving a complete report, the department shall issue a determination as to whether the report meets the requirements specified in Env A 4703 and Env A 4705 through Env A 4709, as applicable. If the requirements are not met, the determination shall identify the requirement(s) that are not met.~~

APPENDIX

Rule	Specific State or Federal Statute the Rule Implements
Env-A 4700 [Repealed]	RSA 125-O:20-29