

Report of the Oklahoma Geologic Storage of Carbon Dioxide Task Force

December 1, 2008

Introduction

Senate Bill 1765 by Senator David Myers and Representative Dennis Adkins was introduced during the 2008 legislative session. The initial purpose of the bill was to establish a framework for the regulation of the underground sequestration and storage of carbon dioxide (CO₂). During the legislative process questions arose relative to jurisdictional issues between the Oklahoma Corporation Commission (OCC) and the Oklahoma Department of Environmental Quality (DEQ), the necessity of financial assurance by and the long-term liability of those engaged in the underground storage of CO₂, property rights of surface and mineral owners in areas of storage and fee funding to cover the cost of the regulatory programs. The bill was changed by the authors to establish a task force to discuss and make recommendations about these issues to the Governor, the Speaker of the House of Representatives and the President Pro Tempore of the Senate. The bill establishing the task force was passed by the Senate, House and approved by the Governor.

Task Force Meeting (minutes attached)

The Task Force met on November 4, 2008. As indicated by the minutes, all the issues of concern were raised during the meeting. After extensive discussion, the Task Force:

1. Tasked the OCC and the DEQ to make a recommendation regarding the jurisdictional issue;
2. Tasked one of its members to develop a paper on property rights based on the discussion at the meeting;
3. Tasked one of its members to gather information from other states regarding financial assurance, long-term liability, and fee funding; and
4. After discussion with the Senate author, decided to continue to meet as a joint working group of the OCC and the DEQ (the "OCC/DEQ Joint CO₂ Working Group").

Division of Jurisdiction

The Department of Environmental Quality and the Oklahoma Corporation Commission have considered the following factors in outlining a proposed division of regulatory jurisdiction over geologic sequestration and/or storage (collectively, "storage") of carbon dioxide:

- The geologic formations with potential to receive and store CO₂ include: deep saline formations; oil and gas reservoirs, including coal-bed methane reservoirs; unmineable coal seams where methane is not produced; and possibly other formations. On a national basis, the greatest capacity for geologic storage of CO₂ occurs in deep saline formations. In the State of Oklahoma, however, oil and gas reservoirs provide the greatest capacity.
- Currently, the Oklahoma Corporation Commission regulates underground injection associated with: oil and gas exploration and production operations, underground storage of natural gas, and iodine extraction operations. The activities regulated by the Commission include the injection of

water, CO₂, or other fluids into oil and gas reservoirs for enhanced oil recovery and the disposal of oil and gas wastes in deep saline formations.

- The Department of Environmental Quality regulates all other types of underground injection, including injection of non-hazardous industrial wastes in deep saline formations.
- The Oklahoma Corporation Commission has jurisdiction over the unitization and pooling of oil and gas interests as necessary to further the development of the oil and gas resources in the State of Oklahoma. The Commission exercises similar jurisdiction concerning the development of the iodine resources in the state.
- A public utility proposing to exercise the power of eminent domain to acquire property for the underground storage of natural gas must obtain from the Oklahoma Corporation Commission a certificate, issued after notice and hearing, finding that the formation is suitable for the underground storage of natural gas and that its use for such purpose is in the public interest. The certificate must also specify the amount of recoverable oil and native gas remaining in the formation.

To establish a clear and efficient structure for regulating the geologic storage of CO₂ in the State of Oklahoma, the Department of Environmental Quality and the Oklahoma Corporation Commission recommend the following division of responsibilities:

- To protect the health and the environment, the Department of Environmental Quality will regulate the injection of CO₂ for storage in all geologic formations except oil and gas reservoirs and coal-bed methane reservoirs. These formations include deep saline formations, unmineable coal seams where methane is not produced, basalt, salt domes and non-mineral bearing shales.
- To protect public health and the environment, the Oklahoma Corporation Commission will regulate the injection of CO₂ in oil and gas reservoirs, including coal-bed methane reservoirs, whether for enhanced recovery of oil and gas, for storage, or both.
- Should the State of Oklahoma establish a unitization or condemnation process to support the establishment of CO₂ geologic storage facilities in the State of Oklahoma, the Oklahoma Corporation Commission will regulate all aspects of such process, including being responsible for making any necessary findings concerning the suitability of the formation for CO₂ storage, whether its use for such purpose is in the public interest, and the impact of that use on the oil and gas resources in the State of Oklahoma.

This division of jurisdiction does not alter or affect the responsibility of the Oklahoma Conservation Commission to establish a program to document, quantify and certify carbon offsets.

Property Rights

Carbon dioxide (CO₂) has been injected into oil and gas reservoirs in Oklahoma since the early 1980s, and has been instrumental in the production of additional oil from depleted reservoirs through a method called Enhanced Oil Recovery (EOR). For decades, Oklahoma law has been clear that permission of the mineral owner (as opposed to the surface owner) is required prior to exploring for and producing oil and gas from underground formations.

If CO₂ is injected into non-EOR reservoirs, such as underground saline aquifers, it is important to determining who owns the subsurface pore space where this CO₂ would be injected. Property owners would like clarity in the law, and would-be injection companies would need to clearly know which property-interest holder owns the sequestration and storage rights (separate and apart from EOR operations).

In most states, the law is unclear regarding which property-interest holder owns the subterranean pore space. However, Oklahoma's law appears to be one of the most clear on the subject, and appears to require permission of the surface owner in order to inject CO₂ underground in any activity other than oil and gas production operations. OU Law Professor Owen Anderson concludes that, in Oklahoma, "empty subsurface pore space belongs to the surface owner."

At least two court decisions lead to that conclusion. First, it is the surface owner that must give permission prior to injection of wastewater into the subsurface (as long as there is no interference with oil and gas production underlying that tract of land).¹ Second, when a natural gas producer wants to produce gas from a lease and store it underneath an off-lease tract, it must obtain permission of the tract's surface owner.² As a result, the surface owner owns the rights for both wastewater injection and gas storage, and therefore most likely owns the right for CO₂ injection and storage in non-mineral-producing formations.

More study is needed of Oklahoma law to finalize and confirm these initial conclusions, including analyzing the scope of the mineral owner's "dominant estate", underground natural gas storage, potential trespass issues, long-term ownership of the injected CO₂, and a comparison of laws in other states.

Comparison of Legislation in Other States

- Financial Assurance
- Long Term Liability
- Fees

The Interstate Oil and Gas Compact Commission (IOGCC) is compiling this information.

Under the provisions of SB No. 1765, the activities of the Task Force must terminate no later than December 1, 2008. The OCC/DEQ Joint CO₂ Working Group, however, will continue to discuss the remaining issues in hopes of making a recommendation to the Governor and Legislative leaders prior to the 2009 legislative session.

¹ Sunray Oil Co. v. Cortez, 112 P.2d 792 (Okla. 1941).

² Ellis v. Arkansas Louisiana Gas Co., 450 F. Supp. 412, 421 (E.D. Okla. 1978) (reasoning that if "it was the mineral interest owner and not the surface owner who had the power to grant storage rights, it would typically mean that hundreds of severed mineral interest owners would have to be contacted if those rights were to be obtained privately."), aff'd, 609 F.2d 436, 439 (10th Cir. 1979).

TITLE 155. OKLAHOMA CONSERVATION COMMISSION

CHAPTER 30. OKLAHOMA CARBON SEQUESTRATION CERTIFICATION PROGRAM

SUBCHAPTER 1. GENERAL PROVISIONS

155:30-1-1. Purpose and Authority

The rules in this Chapter are promulgated for the purpose of establishing and administering the Oklahoma Carbon Sequestration Certification Program, pursuant to the Oklahoma Carbon Sequestration Enhancement Act. These rules describe and establish the requirements for voluntary participation in the Program. The rules define carbon dioxide and an Oklahoma verified carbon offset. The rules also describe how to register Oklahoma carbon offsets on the Oklahoma Carbon Offset Registry. Additionally, the rules describe the process to become recognized as a state approved aggregator or verifier of carbon offsets. These rules are to ensure that each transferable Oklahoma verified offset is a true representation of the quantity of stored greenhouse gas that it is claimed to represent, and that each offset is only claimed once for the purposes of emissions reduction. Such assurance is fundamental to the sale, trade, or transfer of greenhouse gas offsets.

155:30-1-2. Definitions

The following words or terms when used in this chapter shall have the following meaning unless the context clearly indicates otherwise:

"Act" means the Oklahoma Carbon Sequestration Enhancement Act, 27A O.S. § 3-4-101 et seq.

"Aggregator" means an intermediary that serves as the administrative representative between offset sellers and offset buyers for the purpose of pooling or bundling carbon offsets for sale.

"Air quality agency" means the agency with jurisdiction to issue or enforce permits for air emissions.

"Anthropogenic carbon dioxide" or "Man-Made CO2" means carbon dioxide that is formed mechanically as opposed to carbon dioxide that naturally occurs or is from natural processes such as respiration and decay. It includes, for example, carbon dioxide from power generation, manufacturing, or other similar sources.

"Applicant" means a person making an application.

"Application" means a petition or any written request for authority, approval, determination, permission, or other Commission action or relief pursuant to these rules. An application also includes the standard state forms for applying

for verification of an offset, including any supplemental materials, additions, revisions, or modifications to the forms.

"Carbon dioxide (CO₂)" means an inorganic compound containing one carbon atom and two oxygen atoms. Carbon dioxide is an inert, stable, colorless, odorless, non-toxic, incombustible, inorganic gas. It is dissolvable in water and is naturally present in underground locations and in the atmosphere as a trace gas. Carbon dioxide is formed during respiration and exhaled by humans and animals, and is utilized by plants during photosynthesis. Carbon dioxide can be liquefied by compression and cooling, and can be solidified into dry ice. Carbon dioxide is a gas produced when carbon is oxidized by any process. It can be produced through various natural processes or produced mechanically. For the purposes of these rules, only anthropogenic carbon dioxide is considered to be carbon dioxide. Under standard conditions, one short ton (2,000 pounds) of carbon dioxide equals 17.483 mcf (thousand cubic feet) or 0.91 metric tonnes.

"Carbon dioxide equivalent (CO₂e)" means a term used to refer to gases other than carbon dioxide that have been converted into the equivalent of carbon dioxide based on their global warming potential. As defined by the U.S. Environmental Protection Agency, Global Warming Potential (GWP) is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas. The GWP-weighted emissions of direct greenhouse gases in the U.S. Inventory are presented in terms of equivalent emissions of carbon dioxide (CO₂e), using units of teragrams of carbon dioxide equivalents (Tg CO₂ Eq.).

"Carbon offset" means the emissions reduction that occurs when a practice or project negates greenhouse gas emissions by sequestering greenhouse gases in a carbon sink with reforestation, afforestation, managed forests, growing agricultural crops, increasing existing vegetated areas, or utilizing geologic storage. An offset may be expressed in standard cubic feet of CO₂, metric tonnes of CO₂, tons of CO₂, or tons of CO₂e.

"Carbon offset registry" means the repository of records of Oklahoma carbon offsets certified under this program, and the repository of records of Oklahoma carbon offsets not verified under this program, and collectively maintained by the Commission and made public through an online website where Oklahoma carbon offsets are reported for the purpose of reducing the potential for the offsets to be claimed more than once as an emission reduction credit.

"Carbon sequestration" or "carbon storage" means the process of increasing the amount of greenhouse gases held in soil, in

plants, underground, in geologic storage, in waterbodies, or in other types of long term storage.

"Certificate" means a document evidencing carbon sequestration occurred and was verified by the Commission or other approved verifier. It is issued by the Commission pursuant to these rules in response to an application and subsequent verification of a specified carbon offset or project that occurred during a specific, defined time period. Any Certificate shall specify the year the offset occurred and the numerical volume or tonnage of the offset. For pooled projects, the certificate shall only apply to the distinct offset or contract verified by this program and shall not be applied to other offsets or contracts held within a pooled project unless the entire pooled project has been verified pursuant to these rules.

"Document" means any kind of printed, recorded, written, graphic, photographic or electronic matter or material, however printed, produced, reproduced, coded or stored.

"EOR reservoir" means a reservoir that is a common source of supply or pool of hydrocarbons, including oil or gas, that may be recovered using enhanced methods.

"Geologic storage" means underground storage or sequestration of carbon dioxide or other greenhouse gas in a reservoir, including an EOR reservoir.

"Greenhouse gas" means any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), ozone (O₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

"Governmental entity" means any department, commission, authority, council, board, bureau, committee, legislative body, agency, beneficial public trust, municipality, institution, political subdivision, tribe, or other establishment of the executive, legislative or judicial branch of the United States, the State of Oklahoma, any other state in the United States, the District of Columbia, the Territories of the United States, and any similar entity of any foreign country.

"Landowner" means the person authorized to enter into contract for the lands or vegetation that will provide the carbon offset under Subchapters 3 and 5 of these rules.

"Oklahoma Carbon Program" means the Oklahoma Carbon Sequestration Certification Program pursuant to the Oklahoma Carbon Sequestration Enhancement Act.

"Oklahoma Verified Offset" means a carbon offset verified by the Commission pursuant to the rules of the Oklahoma Carbon Program.

"Operator" means the person permitted by the UIC agency to perform injection of carbon dioxide or other greenhouse gas into a reservoir or storage facility.

"Person" means any institution, individual, public or private corporation, partnership, proprietorship, association, firm, company, limited partnership, limited liability company, joint venture, public trust, joint-stock company, syndicate, trust, organization, estate, governmental entity, tribe, or any other legal entity or an agent, employee, representative, assignee or successor.

"Pooled Project" means a project created by the grouping of more than one carbon contract or project.

"Project" means the separate and distinct activity or practices that sequestered carbon dioxide or carbon dioxide equivalent for a defined time period and for which the applicant is making an application for verification and certification under these rules.

"Reserve" means a fund or qualifying carbon offset set aside to compensate for the reversal or loss of greenhouse gas sequestered by an offset or project.

"Reservoir" means a geologic or subsurface sedimentary stratum, formation, aquifer, cavity or void, whether naturally occurring or artificially created, including an EOR reservoir, saline formation, or coal seam.

"Resource Management Plan (RMP)" means a detailed description of the practice, activity, or project, including the method that will sequester carbon dioxide or carbon dioxide equivalent on a specified area of land or in a specified reservoir. For forest carbon sequestration, the Commission shall accept forest management plans that are written using specifications approved by the Director of Forestry Services, Oklahoma Department of Agriculture, Food and Forestry.

"Reversal" means the release, due to natural or human activities, of some or all of the greenhouse gas sequestered by a project.

"Storage facility" means the reservoir, and all underground equipment and surface buildings, facilities and equipment, utilized in the project, excluding all pipelines used to transport greenhouse gases.

"UIC" means the Underground Injection Control program of the U.S. Environmental Protection Agency pursuant to the Safe Drinking Water Act.

"UIC agency" means the state governmental entity(s) having jurisdiction over UIC in Oklahoma.

"UIC permit" means the document issued by the UIC agency authorizing the operator to engage in injection of carbon

dioxide or other greenhouse gas into a reservoir or storage facility.

"Verification" means the determination that the sequestration of carbon dioxide or its equivalent is occurring or has occurred in accordance with a specific method or standard.

"Verifier" means a person, approved by the Commission that confirms the accuracy of information reported for the purposes of verification.

155:30-1-3. Applicability

These rules apply to aggregators and operators who are seeking verification and certification of Oklahoma carbon offsets or carbon sequestration projects through this program; to persons seeking to become state approved aggregators or verifiers of Oklahoma carbon offsets through this program; and to persons seeking to register Oklahoma carbon offsets on the Oklahoma Carbon Offset Registry. The Commission disclaims any express or implied warranties as to the marketability, merchantability, or market value of an offset verified by the Oklahoma Carbon Program.

155:30-1-4. Informal complaint process

(a) Any person may complain to the Commission about any matter regarding this program under the Commission's authority. A complaint shall be in writing, and it shall include the following information:

- (1) The name, address, and telephone number of the person making the complaint;
- (2) The name, address, and telephone number of the organization the person represents, if applicable;
- (3) The name, address, telephone number, and title of any representative of the person filing the complaint;
- (4) A brief, clear description of each charge, problem, or issue that is the basis for the complaint including names, dates, places, and actions;
- (5) The numbers and headings of the laws and rules that may apply;
- (6) The remedy, if any, the person making the complaint seeks;
- (7) The signature of the person making the complaint; and
- (8) The date of the complaint.

(b) If the complaint is repetitive, concerns a matter that has already been resolved, or is a matter outside the Commission's authority, the Executive Director or the Executive Director's designee may reject the complaint.

(c) The Executive Director or the Executive Director's designee may provide other affected persons with written notice of the complaint and give them an opportunity to respond in writing

within 15 days. The response shall contain the following information:

- (1) The name, address, and telephone number of the person responding;
 - (2) The name, address, and telephone number of the organization the person represents, if applicable;
 - (3) The name, address, telephone number, and title of any representative of the person responding;
 - (4) A specific admission, denial, or explanation of each charge;
 - (5) A brief, clear description of the facts including names, dates, places, and actions;
 - (6) A brief, clear explanation of the reasons for the action (or inaction) that is the basis for the complaint if the person admits to any charge;
 - (7) The numbers and headings of the laws and rules that may apply;
 - (8) The signature of the person responding; and
 - (9) The date of the response.
- (d) The Executive Director or the Executive Director's designee may refer complaints to informal procedures, including but not limited to telephone calls, letters, meetings, mediation, investigations, or other appropriate procedures.
- (e) The Executive Director or the Executive Director's designee shall make a decision about a complaint within 60 days after its receipt, unless more time is required. In that case, the Commission shall notify in writing the person filing the complaint and persons filing any responses to the complaint informing the persons that additional time is needed to reach a decision.

SUBCHAPTER 3. VERIFICATION OF CARBON OFFSETS

155:30-3-1. Approval process for applications for carbon offset verification

The process for approval of applications for carbon offset verification pursuant to this program is as follows:

- (1) An applicant shall submit an application requesting verification of a carbon offset or sequestration project to the Commission. The application shall comply with both general requirements of this subchapter and any additional specific requirements contained in subsequent subchapters regarding the different types of carbon offsets.
- (2) Eligible carbon offsets identified in the application will be verified by the Commission or other state approved verifier.

(3) The Commission will issue a certificate of Oklahoma verified offset if the offset is found to be in accordance with standards pursuant to or accepted by this program.

155:30-3-2. Applications for carbon offset verification

(a) Obtaining an application. An applicant may obtain an application from the Commission.

(b) Contents. Applications shall be submitted on a form provided or in a format designated by the Commission. The application shall contain, at a minimum, the following information:

(1) The name, address, and phone number of the applicant;

(2) The name, address, and phone number of the offset aggregator, if an aggregator has been retained;

(3) The legal description of the physical location of the offset or project;

(4) The name of the city nearest to the location of the offset or project, and the county in which the offset or project is located;

(5) The type of offset and start date of the activity or project that created the offset;

(6) An aerial photo of the land delineating the offset or project area and indicating the number of acres delineated or, in the case of geologic sequestration, an aerial photo, topographical map, or graphic depiction of the land area overlaying the reservoir that received the carbon dioxide or carbon dioxide equivalent. If the above are not available, the Commission may accept GPS coordinates of the offset or project;

(7) A statement, signed by an authorized person, that permits and authorizes the Commission or other state approved verifier to conduct verification pursuant to these rules; and

(8) Exhibits as required in the respective subchapter related to the application.

(c) Fees. The application shall be accompanied by payment of fees specified in the respective subchapter related to the application. The fees shall be paid by check, certified check, or United States Postal Money Order.

(d) Guidance and review. The Commission shall provide applicants with guidance, including copies of any additional policies, procedures, and necessary forms for the efficient administration of the program, and shall process applications in a timely manner.

155:30-3-3. Commission action on applications for carbon offset verification

(a) **Approval.** When the Commission is satisfied that all requirements for verification have been met, then a certificate of verification will be issued to the applicant.

(b) **Denial.** Any denial of an application shall be in writing and provided to the applicant, along with the reasons that the application was denied. A denial shall also advise the applicant of their right of appeal and of the procedures necessary to exercise those appeal rights.

(c) **Timing.** A certificate of verification or a denial will be issued by the Commission to the applicant within (90) days after receipt of an application, unless more time is required. In that case, the Commission shall notify the applicant in writing that additional time is needed.

(d) **Withdrawal.** Any application may be withdrawn by the applicant at any time prior to verification occurring. An applicant may withdraw an application by submitting a written request to the Commission. The applicant's application will be automatically withdrawn upon receipt of the request by the Commission. Any fees paid in connection with any application that is later withdrawn under this section shall not be refunded to the applicant.

155:30-3-4. Verification

(a) The Commission or other approved verifier shall verify carbon offsets using protocols established by or approved by the Commission. Carbon offsets shall be verified to a reasonable level of assurance by the Commission or other state approved verifier.

(b) Verification shall include the calculation of the volume or weight of carbon dioxide or carbon dioxide equivalent sequestered by the project, and will use visual confirmation paired with values from carbon accumulation tables, standard values for each type of carbon offset, or direct measurement or other verification protocol or document applicable under the respective subchapter related to the application.

155:30-3-5. Restrictions on Certification

(a) The Commission reserves the right to transfer a certificate to another person if the applicant is not legally entitled to the certificate.

(b) The Commission shall not determine the market value, if any, of any carbon offset.

(c) The Commission on issues relevant to the project shall not certify a carbon offset that has accidentally, intentionally, or through gross negligence violated the law when such determination is made by a governmental entity having competent jurisdiction. If and when a violation has been cured or remedied

to the satisfaction of a governmental entity and documentation of the cure or remedy and satisfaction has been submitted to the Commission, certification will proceed. In addition, the Commission will not certify a carbon offset purported to be created by the intentional disturbance of soil followed by the subsequent replanting of crops or plants for the purpose of creating a carbon offset for monetary gain.

SUBCHAPTER 5. AGGREGATORS AND VERIFIERS

155:30-5-1. Approval process for aggregator and verifier applications

Aggregators seeking to receive verification of carbon offsets and persons seeking to conduct verification of carbon offsets under this program must apply to and be approved by the Commission.

(1) Approval. The Commission shall notify the applicant in writing within ninety (90) days of receipt of an application that they have been approved to participate as an aggregator or verifier in the program.

(2) Denial. Any denial of an application shall be provided to the applicant in writing within ninety (90) days of receipt of an application, along with the reasons that the application was denied. A denial shall also advise the applicant of their right of appeal and of the procedures necessary to exercise those appeal rights.

(3) Withdrawal. Any application may be withdrawn by the applicant at any time prior to approval or denial in response to an application. An applicant may withdraw an application at anytime by submitting a written request to the Commission. The application will be automatically withdrawn upon receipt of the request by the Commission. Any fees paid in connection with any application that is later withdrawn under this section shall not be refunded to the applicant.

155:30-5-2. Applications for aggregators and verifiers

Aggregators seeking to receive verification of carbon offsets and persons seeking to conduct verification of carbon offsets under this program must apply to and be approved by the Commission. This requirement may be waived for governmental entities that are participating in this program as a verifier under a written agreement with the Commission.

(1) Obtaining an application. Applications may be obtained from the Commission.

(2) Fees. The application shall be accompanied by payment of the application fee. The fee shall be paid by check, certified check, or United States Postal Money Order.

(A) **Aggregators.** An aggregator shall submit with the application a fee of three hundred dollars (\$300.00). An aggregator shall submit a new application with a fee of three hundred dollars (\$300.00) every three years within the calendar month of the initial application.

(B) **Verifiers.** A verifier shall submit with the application a fee of three hundred dollars (\$300.00). A verifier shall submit a new application with a fee of three hundred dollars (\$300.00) every three years within the calendar month of the initial application.

(3) **Contents.** Applications shall be submitted on a form provided or in a format designated by the Commission. The application shall contain, at a minimum, the following information:

(A) The name, address, and phone number of the applicant; and

(B) Documentation showing that the applicant is an approved aggregator or verifier for a national or international carbon exchange, or documentation showing that the applicant meets equivalent criteria as determined by the Commission.

(4) **Aggregators.** An applicant not affiliated with a national or international carbon exchange shall submit required information on a form provided or in a format designated by the Commission. The information shall include, at a minimum, the following:

(A) Proof of a bond or other financial instrument that is not less than Ten Thousand Dollars (\$10,000.00);

(B) Description of past experience and available resources that demonstrates the ability to manage the marketing and tracking of an offset portfolio and of the capability to be an aggregator of carbon sequestration projects;

(C) Description of safeguards in place to ensure that the risk of reversal is minimized and that, should reversal occur, a mechanism is in place that guarantees that the reductions or removals will be replaced or compensated;

(D) Documentation of insurance or approved reserves of emission reductions, or some other guarantee to replace any unexpected reversals;

(E) A monitoring plan that describes how potential reversals will be discovered, measured, or estimated and compensated in the event they occur; and

(F) A sample copy of the contract that offset sellers will be asked to sign and samples of all supplemental information provided to the seller as part of the contract.

(5) **Verifiers.** An applicant not affiliated with a national or international carbon exchange shall submit on a form provided

or in a format approved by the Commission, at a minimum, the following information to the Commission:

(A) A resume;

(B) A description of the applicant's expertise in the area of agriculture, forestry, geologic storage or the oil and gas industry, including specific experience verifying carbon offsets or sequestration in the specified area of expertise. When the applicant is a company, this information shall be provided for each individual person who will conduct verification on behalf of the company;

(C) Information that demonstrates they are qualified and capable of conducting verification of projects in accordance with Commission established and approved verification criteria;

(D) Documentation of any licenses, degrees, certificates, or specific training that qualifies the applicant to verify carbon offsets in the specified area of expertise; and

(E) Documentation of errors and omissions insurance.

(6) Time to file. An application may be filed with the Commission at any time.

(7) Guidance and review. The Commission shall provide applicants with guidance, including copies of any additional policies, procedures, and necessary forms for the efficient administration of the program, and shall process applications in a timely manner.

155:30-5-3. Commission action on applications for aggregators and verifiers

(a) Approval. The Commission shall notify the applicant within ninety (90) days of receipt of an application that they have been approved to participate in the program.

(b) Denial. Any denial of an application shall be provided to the applicant in writing within ninety (90) days of receipt of an application, along with the reasons that the application was denied. A denial shall also advise the applicant of their right of appeal and of the procedures necessary to exercise those appeal rights.

(c) Withdrawal. An applicant may withdraw an application at anytime by submitting a written request to the Commission. The application will be automatically withdrawn upon receipt of the request by the Commission. Any fees paid in connection with any application that is later withdrawn under this section shall not be refunded to the applicant.

(d) Revocation. An approved application and any subsequent authorizations may be revoked for cause by the Commission at anytime.

155:30-5-4. Performance criteria for state approved verifiers

State approved verifiers shall do the following:

- (1) Have no financial or pecuniary interest in the project they are verifying;
- (2) Perform verification only on project scopes and geographies that they are qualified for and authorized to conduct by the Commission;
- (3) Conduct verification in accordance with verification criteria, standards, protocols, or agreements established or approved by the Commission;
- (4) Certify on forms provided by the Commission that offsets have or have not occurred as claimed;
- (5) Evaluate project reports, documentation, and summary reports as required by the Commission;
- (6) Establish and implement protocols acceptable to the Commission for conducting verification and reporting the results;
- (7) Maintain transparent records on the methods and assumptions used to develop, calculate, and conduct verification of projects to the degree that the methods and assumptions are independently verifiable to other interested persons; and
- (8) Provide copies of all required verification reports and supporting documentation or materials to the Commission in accordance with Commission established and approved procedures.

155:30-5-5. Performance criteria for state approved aggregators

State approved aggregators shall do the following:

- (1) Gather the required information for each offset from participating landowners with whom they are contracted;
- (2) Submit offset documentation to the Commission pursuant to these rules;
- (3) Have verified by this program at least ten percent of the Oklahoma carbon contracts on which the applicant, applicant's company or representative is a contract signatory;
- (4) Maintain a monetary reserve to cover offset buyer losses caused by reversal;
- (5) Utilize safeguards to ensure that the risk of reversal is minimized and that, should any reversal occur, a mechanism is in place that guarantees that the reductions or removals will be replaced or compensated;
- (6) Establish and implement acceptable protocols for landowner contract non-compliance;
- (7) Track project information as required;
- (8) Report offset information to the state carbon offset registry pursuant to these rules;

- (9) Disseminate to the public reliable information about carbon sequestration in Oklahoma;
- (10) Encourage landowners to maintain contracted practices that sequester carbon and that result in the sequestered carbon remaining in place at least through the duration of the contract; and
- (11) Include the following information in landowner contracts:
 - (A) Length of time the carbon sink shall be maintained;
 - (B) Verification requirements;
 - (C) Compensation protocol;
 - (D) Reserve stipulations;
 - (E) Landowner non-compliance stipulations; and
 - (F) Clear explanation of who owns the rights to the offset.

SUBCHAPTER 7. CARBON OFFSET REGISTRY

155:30-7-1. Applications for carbon offset registration

(a) Obtaining an application. Persons signatory to a contract for, or owning an interest in, a carbon offset, allowance, credit or sequestration project that was not verified by the Oklahoma Carbon Program but who wish to have information related to such offset published to the Oklahoma carbon offset registry may obtain an application from the Commission.

(b) Contents. Applications under this subchapter shall be submitted on a form provided or in a format designated by the Commission. The application shall contain, at a minimum, the following information:

- (1) The name, address, and phone number of the applicant;
- (2) The name, address, and phone number of the offset aggregator, if an aggregator has been retained;
- (3) The legal description of the physical location of the offset or project;
- (4) The name of the city nearest to the location of the offset or project, and the county in which the offset or project is located;
- (5) The type of offset and start date of the activity or project that created the offset;
- (6) An aerial photo of the land delineating the offset or project area and indicating the number of acres delineated or, in the case of geologic sequestration, an aerial photo, topographical map, or graphic depiction of the land area overlaying the reservoir that received the carbon dioxide or carbon dioxide equivalent. If the above are not available, the Commission may accept GPS coordinates of the offset or project; and

(7) A copy of the offset purchase and sale contract or other transfer agreement, or memorandum of a contract or agreement, signed by the seller and buyer.

(c) **Fee.** A fifty dollar (\$50.00) fee shall accompany an application under this subchapter, and is assessed for the review of an offset that was not verified by this program and to publish offset information to the Oklahoma carbon offset registry. The fee shall be paid by check, certified check, or United States Postal Money Order. Offsets certified by the Oklahoma Carbon Program will be automatically published to the registry free of charge after all fees for verification and certification have been received by the Commission.

(d) **Filing.** An application under this subchapter may be filed with the Commission at any time after the offset is verified or the contract or agreement described in subparagraph (b)(7) above is fully executed. An applicant under this subchapter should be the operator, seller, purchaser, aggregator, verifier, or other person who is a signatory party to the carbon contract or agreement.

(e) **Guidance and review.** The Commission shall provide applicants with guidance including copies of any additional policies, procedures, and necessary forms for the efficient administration of the program.

155:30-7-2. Commission action on applications for carbon offset registration

(a) **Approval.** Offset information for carbon offsets not verified by the Oklahoma Carbon Program will be published to the Oklahoma carbon offset registry within ninety (90) days after the application for registration and fees are received and approved by the Commission. Applicants shall refer to the online carbon offset registry to determine application status.

(b) **Denial.** Any denial of an application shall be provided to the applicant in writing within ninety (90) days, along with the reasons that the application was denied. A denial shall also advise the applicant of their right of appeal and of the procedures necessary to exercise those appeal rights.

(c) **Withdrawal.** An applicant may withdraw an application at anytime by submitting a written request to the Commission. The application will be automatically withdrawn upon receipt of the request by the Commission. Any fees paid in connection with any application that is later withdrawn under this section shall not be refunded to the applicant.

155:30-7-3. Carbon offset registry

(a) The carbon offset registry shall be maintained and made publicly available via a website updated by the Commission at least monthly for the purpose of public disclosure.

(b) Information on carbon offsets verified by the Oklahoma Carbon Program will be automatically published to the carbon offset registry after verification is conducted and applicable fees are received by the Commission.

(c) Information on carbon offsets not verified under the Oklahoma Carbon Program will be published to the carbon offset registry after the application for registration accompanied by the fee is received and approved by the Commission.

(d) Each offset reported by an applicant under this subchapter shall be unique; such offset shall not be claimed more than once on any regulatory, voluntary, or off market venue for the purposes of mitigating greenhouse gas emissions.

SUBCHAPTER 9. SOIL CARBON SEQUESTRATION

155-30-9-1. Filing of applications for soil carbon offset verification

A request for verification of a soil carbon offset may be filed during each calendar year of the carbon offset contract.

155-30-9-2. Fees

An applicant filing an application under this subchapter shall pay the following fees and expenses:

(1) Field verification fee. Thirty dollars (\$30.00) per hour charged for time spent in the field verifying the offset, including travel time to and from the offset location. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(2) Field verification expenses. The government rate in effect on the date of travel will be charged to cover travel or lodging costs incurred during travel associated with field verification. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(3) Document verification fee. Fifty dollars (\$50.00) per hour assessed for the in-office review of documents and preparation of reports that record whether carbon sequestration has occurred.

(4) State certification fee. Ten cents (\$.10) per metric ton of carbon dioxide for each ton under and including fifty thousand (50,000) metric tons, and three cents (\$.03) per metric ton of carbon dioxide for each ton over fifty thousand

(50,000) tons, is assessed for the preparation and issuance of a certificate and report evidencing that carbon sequestration occurred and was verified by the Oklahoma Conservation Commission or other state approved verifier not to exceed \$10,000 per application. The applicant will be invoiced this fee per application after the Commission has verified the carbon offset.

155:30-9-3. Soil carbon offset verification application requirements

(a) In addition to the requirements in Subchapters 1 and 3 for any application, an application for soil carbon offset verification shall include the following:

- (1) Resource management plan with details and explanations of the activities that will increase, or maintain existing, trapped carbon including but not limited to growing of designated crops or use of designated cropping systems that created the offset to be verified;
- (2) Crop certification summary from a state or federal agency;
- (3) Copy of Conservation Reserve Program (CRP) or Conservation Reserve Enhancement Program (CREP) contracts, or other federal conservation contracts when applicable;
- (4) Farm records showing dates and schedules of seeding, grazing, haying, or harvest as applicable and necessary to substantiate the offset; and
- (5) Current or previous carbon offset contract that includes any portion of the offset for which the applicant is requesting verification.

(b) The Commission may request additional information.

155:30-9-4. Commission action on soil carbon offset verification applications

The Commission shall either approve or deny a soil carbon application and shall notify the applicant in writing of the Commission's determination.

155:30-9-5. Soil carbon offsets eligible for verification

(a) Only soil carbon offsets with default or standard sequestration rates determined by research acceptable to the Commission to capture and hold carbon dioxide or its equivalent for a determined or estimated or measurable rate or span of time shall be considered for verification. Types of eligible soil carbon offsets are:

- (1) Conservation tillage, and
- (2) Grassland establishment.

(b) Soil carbon offsets not specifically listed above may be considered by the Commission on a case by case basis.

SUBCHAPTER 11. FOREST CARBON SEQUESTRATION

155-30-11-1. Filing of applications for forestry carbon offset verification

A request for verification of a forestry carbon offset may be filed during the first, third, or fifth or later calendar year of the carbon offset contract. For afforestation or reforestation applicants, the first year means the first year following the planting year.

155-30-11-2. Fees

An applicant filing an application under this subchapter shall pay the following fees and expenses:

(1) Field verification fee. Thirty dollars (\$30.00) per hour charged for time spent in the field verifying the offset, including travel time to and from the offset location. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(2) Field verification expenses. The government rate in effect on the date of travel will be charged to cover travel or lodging costs incurred during travel associated with field verification. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(3) Document verification fee. Fifty dollars (\$50.00) per hour assessed for the in-office review of documents and preparation of reports that record whether carbon sequestration has occurred.

(4) State certification fee. Ten cents (\$.10) per metric ton of carbon dioxide for each ton under and including fifty thousand (50,000) metric tons, and three cents (\$.03) per metric ton of carbon dioxide for each ton over fifty thousand (50,000) tons, is assessed for the preparation and issuance of a certificate and report evidencing that carbon sequestration occurred and was verified by the Oklahoma Conservation Commission or other state approved verifier not to exceed \$10,000 per application. The applicant will be invoiced this fee per application after the Commission has verified the carbon offset.

155:30-11-3. Forest carbon offset verification application requirements

In addition to the general requirements in Subchapters 1 and 3 for any application, a forest carbon sequestration verification

application shall include a forest management plan written on a form provided or in a format approved by the Oklahoma State Forester, containing the following:

- (1) Details and explanations of the activities that have or will increase, or maintain existing, trapped carbon;
- (2) Clearly stated landowner objectives for the forest management practices that include the sequestration of carbon;
- (3) Description and evaluation of the natural resources present on the area;
- (4) Defined desired future forest condition;
- (5) Description of the forest management practices and activities aimed at reaching the desired forest condition or condition class; and
- (6) Documentation of a timeline for forest management plan implementation that includes the start date of the forest management activities.

155:30-11-4. Commission action on forest carbon offset applications

The Commission shall either approve or deny a forest carbon offset application and shall notify the applicant in writing of the Commission's determination.

155:30-11-5. Forest carbon offsets eligible for verification

(a) Only forest carbon offsets with default or standard sequestration rates determined by research acceptable to the Commission to capture and hold carbon dioxide or its equivalent for a determined or estimated or measurable rate or span of time shall be considered for verification. Types of eligible forestry carbon offsets are:

- (1) **Afforestation.** The establishment of trees on lands that was unforested prior to 1990.
- (2) **Managed Forests.** The use and management of sustainable silvicultural practices in forests that are also part of a long-term approved forest management plan.
- (3) **Reforestation.** The establishment of trees on lands previously forested that are also part of a long-term approved forest management plan.

(b) Forestry carbon offset types not specifically listed above may be considered by the Commission on a case by case basis.

SUBCHAPTER 13. GEOLOGIC CARBON SEQUESTRATION

155-30-13-1. Filing of applications for Geologic Carbon Sequestration Verification

A request for verification of geologic carbon sequestration may be filed anytime during the calendar year immediately

following the calendar year, or portion thereof, in which sequestration occurred (i.e. applications must be filed on or before December 31, 2011 for any sequestration that occurred during any portion of the calendar year of 2010). Notwithstanding the foregoing, requests for verification of carbon dioxide or its equivalent sequestered prior to the effective date of these rules, but after the effective date of the Act, shall be made on or before December 31, 2010.

155:30-13-2. Fees

An applicant filing an application under this subchapter shall pay the following fees and expenses:

(1) Document verification fee. The application shall be accompanied by payment of a fee equivalent to fifteen dollars (\$15.00) per injection well that was utilized during the injection of carbon dioxide or its equivalent for which verification is requested, with a minimum fee of one hundred fifty dollars (\$150.00) per application, as payment for the in-office review of documents and preparation of reports that record whether sequestration of carbon dioxide or its equivalent has occurred.

(2) Field verification fee. When applicable, thirty dollars (\$30.00) per hour charged for time spent visiting the project location, including travel time to and from the project location. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(3) Field verification expenses. The government rate in effect on the date of travel will be charged to cover travel or lodging costs incurred during travel associated with field verification. An applicant may indicate on the application a request to be contacted prior to verification and to be told the estimated amount of time that will be needed to conduct verification.

(4) State certification fee. Ten cents (\$.10) per metric ton of carbon dioxide for each ton under and including fifty thousand (50,000) metric tons, and three cents (\$.03) per metric ton of carbon dioxide for each ton over fifty thousand (50,000) metric tons, is assessed for the preparation and issuance of a certificate and report evidencing that carbon sequestration occurred and was verified by the Oklahoma Conservation Commission or other state approved verifier not to exceed \$10,000 per application. The applicant will be invoiced this fee per application after the Commission has verified that carbon sequestration occurred.

155:30-13-3. Geologic sequestration application requirements

(a) In addition to the requirements in Subchapters 1 and 3 for applications, an application for the verification of geologic carbon sequestration shall include the following:

(1) Resource management plan (RMP). An applicant shall provide an explanation of the activities that will increase sequestration of, or maintain sequestration of, carbon dioxide or its equivalent in the reservoir, and shall include a brief description of the following:

(A) The source(s) of the carbon dioxide or equivalent that was injected or maintained;

(B) The method used to capture the carbon dioxide or equivalent from the source(s); and

(C) The purity level of the carbon dioxide contained in the stream of gas or in the supercritical fluid injected, and a statement indicating whether the applicant took that purity level into account when calculating the volume or weight of carbon dioxide for which verification is requested in the application.

(2) UIC agency documents. An applicant shall provide clear and convincing proof that the project is authorized by and operating and monitored in accordance with applicable state and federal laws that protect underground sources of drinking water by providing written assurance on a designated form that any required UIC documents related to the project have been obtained by the applicant and are on file with the UIC agency. The Commission may also request copies of applicable UIC agency documents, which include the following:

(A) UIC permit documents. These documents include any applicable permits, orders, licenses, exemptions, rights, or registrations.

(B) UIC monitoring documents. These documents include:

(i) Annual fluid injection report. This report shows the carbon dioxide or carbon dioxide equivalent volumes and pressures associated with the injection portion of the project were measured and reported in accordance with UIC agency rules. The Commission will request copies or written assurance that there is on file with the UIC agency the annual fluid injection report filed by the operator for each active injection well involved in the project during the calendar year for which verification is requested.

(ii) Mechanical Integrity Test Report. This report demonstrates that the injection well(s) associated with the project have sufficient mechanical integrity in accordance with UIC agency rules. The Commission will request a copy or written assurance that there is on file

with the UIC agency the most recent Mechanical Integrity Test reports performed before or during the calendar year for which verification is requested.

(3) **Annual carbon dioxide recovery and sequestration report.**

(A) An applicant shall report the amount of carbon dioxide or equivalent sequestered in geologic storage as a result of the project. On a form provided by or in a format approved by the Commission, an applicant shall record the metered volume of carbon dioxide (or its equivalent) injected and the metered volume recovered, if any, during any recovery portion of the project.

(B) An applicant shall calculate and record in metric tons the total amount of carbon dioxide or its equivalent that was injected and not recovered by the project during the calendar year for which verification is requested.

(C) The report shall contain an authorized signature.

(4) **List of prior certificates.** An applicant shall include a list of each certificate or certificate number associated with all prior applications for verification submitted to the Commission related to the project.

(5) **Air emissions documents.** When air quality permits are required by the project, an applicant shall provide proof that the project is authorized by and operating in accordance with applicable state and federal laws that protect air quality. The Commission will request written assurance that the applicant has obtained any required permits, orders, licenses, exemptions, rights, or registrations required by law issued to the applicant from the state air quality agency or any other governmental entity having jurisdiction over air emissions pertaining to the project during the calendar year for which verification is requested. The Commission may request copies of the aforementioned documents.

(b) The Commission at its discretion may request additional information, within reason and relevant to the project, before approving an application.

155:30-13-4. Commission action on applications for geologic carbon sequestration verification

Within ninety (90) days of the filing of an application for geologic carbon sequestration verification, the Commission shall either approve or deny the application and shall notify the applicant in writing of the Commission's determination. The Commission shall notify an applicant if more time is needed to make a determination and indicate the approximate date the determination will be made.

155:30-13-5. Geologic carbon sequestration projects eligible for verification

Only geologic carbon sequestration projects utilizing anthropogenic carbon dioxide that are in compliance with all applicable UIC agency requirements, and air quality agency requirements when applicable, shall be considered for verification.