THE STATE of ALASKA GOVERNOR MIKE DUNLEAVY

Department of Natural Resources

DIVISION OF OIL & GAS

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Notice of Proposed Changes on Carbon Storage Exploration Licensing and Leasing in the Regulations of Department of Natural Resources

Brief Description

The Department of Natural Resources proposes to adopt regulations on Carbon Storage Exploration Licensing and Leasing.

The Department of Natural Resources proposes to amend and adopt regulations in Title 11, Natural Resources, of the Alaska Administrative Code, dealing with Carbon Storage Licensing and Leasing, including the following:

- (1) Proposed amendments:
 - a. **11 AAC 05.110. Leasable minerals.** Includes carbon storage exploration license and lease application and administration fees, simplifies the section title, and adds a definition for *leasable minerals*.
 - b. 11 AAC 80.045. Field gathering lines exempt. Adds definition of "carbon dioxide" and amends definition of "field gathering line" to add new classification to transport carbon dioxide.
 - c. 11 AAC 80.055. Field gathering lines defined. Repeals definition and readopts it as subsection (b) to 11 AAC 80.045 with added classification for transport of carbon dioxide.
- (2) Proposed new Title 11, Chapter 84, Article 9, Carbon Storage Licensing and Leasing, to be adopted:
 - a. 11 AAC 84.1000. Minimum qualifications. Establishes minimum qualifications for who may apply for, obtain, or transfer interest in carbon storage exploration licenses and leases.
 - b. 11 AAC 84.1005. Carbon storage exploration license applications. Establishes what must be included in an application for an exploration license.
 - c. 11 AAC 84.1010. Call for competing proposals. Establishes the procedure for calls for competing proposals after an exploration license application is received.
 - d. 11 AAC 84.1015. Best interest findings. Establishes the procedure and criteria for issuance of a best interest finding before determining whether to issue a carbon storage exploration license or lease.

- e. 11 AAC 84.1020. Competitive bidding procedure; assessment criteria. Establishes competitive bidding procedures and assessment criteria if competing proposals are accepted.
- f. 11 AAC 84.1025. License administration. Establishes reporting and payment requirements for licensees.
- g. 11 AAC 84.1030. Default by licensee; termination, revocation, and surrender of a license. Establishes procedures, rights, and responsibilities for default, termination, revocation, and surrender of a license.
- h. 11 AAC 84.1035. Conversion of carbon storage exploration license to storage lease; lease provisions. Establishes the procedure and requirements for converting a license to a lease.
- i. 11 AAC 84.1040. Transition from enhanced oil recovery operations to carbon storage operations; lease provisions. Establishes the procedure and requirements for issuing a carbon storage lease to an oil and gas lessee upon transitioning from enhanced oil recovery to permanent carbon storage operations.
- j. 11 AAC 84.1045. Default by lessee, termination and surrender of a carbon storage lease. Establishes procedures, rights, and responsibilities for default, termination, and surrender of a carbon storage lease.
- k. 11 AAC 84.1050. Carbon storage lease unitization. Establishes procedures and requirements for unitizing carbon storage leases.
- l. **11 AAC 84.1055. Assignments.** Establishes procedures and requirements for assigning an interest in carbon storage exploration licenses and leases, which must be approved by the commissioner.
- m. 11 AAC 84.1060. Application for approval of assignment. Establishes the requirements for approval of an application of an assignment of interest in a carbon storage license or lease.
- n. 11 AAC 84.1065. Plan of development; application requirements. Establishes requirements for a plan of development for carbon storage leases, which will be subject to regular review.
- o. 11 AAC 84.1070. Plan of operations; application requirements; completion reports. Establishes requirements for a plan of operations to permit on-the-ground activities.
- p. 11 AAC 84.1075. Surety requirements. Establishes requirements for bonding or other acceptable forms of surety of performance under the conditions of a carbon storage license or lease.
- q. 11 AAC 84.1080. Damages. Requires a licensee or lessee to pay damages and

indemnify the state in the case of claims made by surface owners in accordance with AS 38.05.130.

- r. 11 AAC 84.1085. Long-term monitoring and maintenance of leased area. Establishes procedures for the Department of Natural Resources to assume long-term monitoring and maintenance of a storage facility after closure, including the use of the carbon storage closure trust fund established by AS 37.14.850.
- s. **11 AAC 84.1090. Definitions.** Defines terms used in the adopted regulations in 11 AAC 84.

You may comment on the proposed regulation changes, including the potential costs to private persons of complying with the proposed changes, by submitting written comments to Department of Natural Resources, Division of Oil & Gas, at 550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563. Additionally, the Division of Oil & Gas will accept comments by facsimile at (907) 269-8939 and by electronic mail at ccus.dog@alaska.gov. The comments must be received not later than 5:00 p.m. on December 2, 2024.

You may submit written questions relevant to the proposed action to the Division of Oil and Gas email or physical address above. The questions must be received at least 10 days before the end of the public comment period. The Division of Oil & Gas will aggregate its response to substantially similar questions and make the questions and responses available on the Alaska Online Public Notice System and https://dog.dnr.alaska.gov/.

If you are a person with a disability who needs a special accommodation to participate in this process, please contact Sean Clifton at sean.clifton@alaska.gov or (907) 269-8786 not later than November 18, 2024, to ensure that any necessary accommodation can be provided.

A copy of the proposed regulation changes is available on the Alaska Online Public Notice System and by contacting Sean Clifton at sean.clifton@alaska.gov or (907) 269-8786.

After the public comment period ends, the Department of Natural Resources will either adopt the proposed regulation changes or other provisions dealing with the same subject, without further notice, or decide to take no action. The language of the final regulation may be different from that of the proposed regulation. You should comment during the time allowed if your interests could be affected.

Statutory authority: AS 38.05.020; AS 38.05.700; AS 41.06.305

Statutes being implemented, interpreted, or made specific: SLA 2024, ch. 23, § 6 (AS 37.14.850); AS 38.05.035; SLA 2024, ch. 23, § 9 (AS 38.05.130); SLA 2024, ch. 23, § 10 (AS 38.05.135); AS 38.05.350; SLA 2024, ch. 23, § 21 (AS 38.05.700 – 38.05.795); AS 38.05.860; SLA 2024, ch. 23, § 23, 24 (AS 38.35.020); SLA 2024, ch. 23, § 39 (AS 41.06.120; AS 41.06.170; AS 41.06.210; AS 41.06.305)

Fiscal information: The proposed regulation changes are not expected to require an increased appropriation.

The Department of Natural Resources, Division of Oil & Gas, keeps a list of individuals and organizations interested in its regulations. Those on the list will automatically be sent a copy of all the Department of Natural Resources, Division of Oil & Gas notices of proposed regulation changes. To be added to or removed from the list, visit https://list.state.ak.us/mailman/listinfo/dog.leasing. If you wish to be added or removed from the list to receive physical notices by mail, send a request to the Department of Natural Resources, Division of Oil & Gas, at 550 W. 7th Ave, Suite 1100, Anchorage, AK 99501-3563, giving your name, and either your e-mail address or mailing address, as you prefer for receiving notices.

Individuals can also signup to receive automated notifications of all State of Alaska notices, including public notice for regulation changes, by subscribing to the Alaska Online Public Notices System: https://aws.state.ak.us/OnlinePublicNotices/Default.aspx.

Date: 10/23/2024

Docusigned by:

Derek Nottingham Director, Division

Director, Division of Oil & Gas

Alaska Department of Natural Resources

The section heading of 11 AAC 05.110 is changed to read:

11 AAC 05.110. Leasable minerals [, INCLUDING COAL, PHOSPHATES, OIL SHALE, SODIUM, SULPHUR, POTASSIUM, OIL AND GAS, AND GEOTHERMAL].

11 AAC 05.110(d)(3) is amended to read:

- (d) The fees for authorizations and services under AS 38 for leasable minerals are as follows:
- (3) for an application for an oil and gas, gas only, **carbon storage**, gas storage or geothermal authorization, for
 - (A) a geothermal prospecting permit, \$200;
 - (B) conversion of a geothermal prospecting license to a lease, \$200;
 - (C) assignment of a geothermal prospecting license or lease, \$450;
 - (D) formation of a unit or Cook Inlet discovery royalty, \$10,000;
 - (E) an amendment or expansion of unit agreement, \$1,500;
 - (F) a plan of operations on leased land, \$750 for each application;
 - (G) an amendment of a plan of operations on leased lands, \$250;
 - (H) a land use permit for exploration on unleased land, \$500;
 - (I) rental and royalty relief or reduction, \$500;
 - (J) suspension of production or operations, \$500;
 - (K) an oil and gas or gas only storage lease, carbon storage exploration

license, or carbon storage lease, \$500;

- (L) modification of work commitment, \$150;
- (M) <u>assignment or</u> transfer of an interest in an oil and gas or gas only lease, oil and gas or gas only exploration license, carbon storage exploration license,

carbon storage lease, or gas storage lease, including an initial separation of an overriding royalty interest and working interest, \$250;

(N) extension of an oil and gas or gas only lease, \$2,000;

- 11 AAC 05.110 is amended by adding a new subsection to read:
 - (e) In this section, "leasable mineral" includes
 - (1) a mineral subject to a lease under AS 38; and
- (2) coal, phosphates, oil shale, sodium, sulphur, potassium, oil and gas, carbon storage, and geothermal. (Eff. 7/1/2018, Register 227; am 12/26/2019, Register 232; am

/ / , Register) **Authority:** AS 27.21.030 AS 38.05.133 AS 38.05.710 AS 37.10.050 AS 38.05.177 AS 38.05.720 AS 37.10.058 AS 38.05.180 AS 38.05.850 AS 38.05.020 AS 38.05.255 AS 41.06.020 AS 38.05.035 AS 44.37.020 **AS 38.05.700**

- 11 AAC 80.045 is amended by adding a new subsection to read:
 - (b) In this section,
 - (1) "carbon dioxide" has the meaning given in AS 41.06.210;
- (2) "field gathering line" means pipe and associated facilities, including separators, test equipment, pumps, treaters, and tanks, used
 - (A) in the transfer of gas or oil from a well or other facility used in the production of gas or oil to a point where there is either a custody transfer of the gas or oil or where the gas or oil enters a common carrier pipeline, whichever first occurs; or

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	(B) to transp	ort carbon dioxide	
	(i) within the areal extent of a carbon storage lease;		
	(ii) within the areal extent of an oil and gas lease under AS		
	38.05.180;		
	(iii) v	within a carbon storag	ge unit or storage facility permitted under
	AS 41.06.120 or 41.06.185; or		
	(iv) between a well used to inject carbon dioxide and the		
	downstream point o	f custody transfer from	m a common carrier pipeline. (Eff.
	3/3/74, Register 49;	am//	, Register)
Authority:	AS 38.05.020	AS 38.35.020	AS 38.05.700
	[AS 38.35.020(b)]	[AS 38.05.020(c)]	
11 AAC 80.0	55 is repealed:		
11 AA	AC 80.055. Field gath	ering lines defined.	Repealed. (Eff. 3/3/74, Register 49;
repealed	_/, Regis	ter)	

11 AAC 84 is amended by adding new sections to read:

Article 9. Carbon Storage Licensing and Leasing.

Section

- 1000. Minimum qualifications.
- 1005. Carbon storage exploration license applications.
- 1010. Call for competing proposals.
- 1015. Best interest findings.
- 1020. Competitive bidding procedure; assessment criteria.
- 1025. License administration.
- 1030. Default by licensee; termination, revocation, and surrender of a license.
- 1035. Conversion of carbon storage exploration license to storage lease; lease provisions.
- 1040. Transition from enhanced oil recovery operations to carbon storage operations; lease provisions.
- 1045. Default by lessee, termination and surrender of a carbon storage lease.
- 1050. Carbon storage lease unitization.
- 1055. Assignments.
- 1060. Application for approval of assignment.
- 1065. Plan of development; application requirements.
- 1070. Plan of operations; application requirements; completion reports.
- 1075. Surety requirements.
- 1080. Damages.
- 1085. Long-term monitoring and maintenance of leased area.
- 1090. Definitions.

11 AAC 84.1000. Minimum qualifications. (a) To meet minimum qualifications for a carbon storage exploration license or carbon storage lease, an applicant must

- (1) be a person or entity qualified under AS 38.05.190(a);
- (2) prove to the satisfaction of the commissioner that the applicant has sufficient technical background and experience to carry out the exploration and development of the property, including
 - (A) the ability to undertake and complete large-scale projects involving infrastructure construction or industrial-scale facility operations involving carbon storage, gas storage, hydrocarbon developments, or other similarly complex projects;
 - (B) experience obtaining federal or state permits involving carbon storage, oil and gas, mining, environmental compliance, or industrial development permitting; and
 - (C) any additional information requested under 11 AAC 88.115.
- (b) The commissioner may consider an applicant's history of compliance with AS 35, AS 38, and this title when determining whether an applicant is qualified to apply for, bid on, or receive an interest in a carbon storage exploration license or carbon storage lease. (Eff.

____/____, Register____)
Authority: AS 38.05.020 AS 38.05.705 AS 38.05.715

AS 38.05.700 AS 38.05.710 AS 38.05.720

11 AAC 84.1005. Carbon storage exploration license applications. (a) A prospective licensee may apply for a carbon storage exploration license

- (1) at any time during a calendar year by submitting a proposal to the commissioner as described in AS 38.05.710(a);
 - (2) in response to a solicitation for competing proposals under AS 38.05.710(b);

or

- (3) in response to a discretionary call for proposals issued by the commissioner.
- (b) A discretionary call for proposals under (a)(3) of this section will
 - (1) identify the area offered for licensing;
- (2) require that an applicant meet the minimum qualifications for a license required under 11 AAC 84.1000;
 - (3) propose minimum work commitments;
- (4) establish minimum commercial terms that may exceed the requirements of AS 38.05.705(a)(3); and
- (5) set the date, time, and manner by which applications responsive to the call for proposals must be submitted.
- (c) A proposal for a carbon storage exploration license must be submitted on a form provided by the department or a verbatim copy of the department's form, conform with AS 38.05.710(a) and this section, and include
- (1) a description of the lands proposed to be subject to licensing by legal subdivision, section, township, range, and meridian, accompanied by a map depicting the same lands at a scale of 1:250,000 or greater;
- (2) a description of the geological formations that the carbon storage exploration license will target;
- (3) a list identifying the lessees for all active leases issued under AS 38.05.135 38.05.181 within one-half mile of the area proposed in (1) of this subsection;
- (4) a proposed annual license fee to be paid in accordance with AS 38.05.705 and the terms of the carbon storage exploration license;

- (5) proposed commercial terms under AS 38.05.710(a)(3);
- (6) to comply with AS 38.05.710(a)(2), a proposed work commitment that
- (A) delineates and characterizes the geologic formations for selection of carbon dioxide injection sites based on geologic suitability; and
- (B) includes the proposed sequence and schedule of operations to be conducted on or in the license area;
- (7) an attestation describing how the applicant meets the minimum qualifications required under 11 AAC 84.1000;
- (8) designation of an individual who is authorized to receive notices on behalf of the applicant; and
 - (9) any additional information requested by the department under 11 AAC 88.115.
- (d) A license application must encompass a contiguous area reasonably anticipated to cover the entire storage reservoir or reservoirs identified in (c)(2) of this section to the extent that the reservoir or reservoirs underlie lands available for licensing under AS 38.05.705.
- (e) The commissioner may propose modifications to a proposal that, if accepted by the applicant, would qualify the proposal for approval. A proposed modification may include a deadline to submit a revised proposal conforming to (c) of this section.
- (f) The commissioner will make a determination under 11 AAC 84.1015 that disposal is in the best interest of the state before approving a carbon storage exploration license proposal.

 The commissioner will reject a proposal that is not in the state's best interest or that lacks sufficient information to determine whether the proposal is in the state's interests. (Eff.

Authority: AS 38.05.020 AS 38.05.705 AS 38.05.710 AS 38.05.700

11 AAC 84.1010. Call for competing proposals. (a) If the commissioner does not reject a carbon storage exploration license proposal submitted under AS 38.05.710(a) and 11 AAC 84.1005(a)(1), the commissioner will publish notice of the proposal and solicit competing proposals in compliance with AS 38.05.710(b).

(b) A competing proposal for a carbon storage exploration license must comply with the requirements of 11 AAC 84.1005(c) and must be received by the department within 90 days after publication of the commissioner's solicitation for competing proposals unless the commissioner specifies a different deadline in the public notice. The time allowed to submit competing proposals may not be less than 30 days or more than 90 days. (Eff. ___/____, Register _____)

Authority: AS 38.05.020 AS 38.05.700 AS 38.05.710

11 AAC 84.1015. Best interest findings. (a) This section applies to a disposal of state land under AS 38.05.035(e) for a carbon storage exploration license issued under AS 38.05.710.

- (b) If the commissioner does not reject a proposal received under 11 AAC 84.1005, the commissioner will issue a written finding under AS 38.05.710(c) and this section to determine whether issuance of a carbon storage exploration license is in the state's best interest. A best interest finding will discuss facts within the scope of the administrative review established under AS 38.05.710(c) that are known to the commissioner at the time of preparation of the finding and will include
 - (1) property descriptions and locations;
 - (2) geological structure descriptions and locations;
- (3) current and projected uses in the area, including competing uses of the area or land, that may include oil and gas leases, hydrocarbon storage, mining, and renewable energy;

(4) reasonably foreseeable cumulative effects of carbon storage exploration or lease operations including potential economic effects and effects to municipalities and communities in the area;

- (5) license and lease stipulations and mitigation measures, and a discussion of the protections offered by these measures;
 - (6) whether the applicant is qualified under 11 AAC 84.1000;
 - (7) commercial terms required under AS 38.05.705 and 38.05.710(c)(2); and
 - (8) issues raised during the public comment period.
- (c) If there are competing proposals under AS 38.05.710 and 11 AAC 84.1010, the commissioner's finding under (b) of this section will also
 - (1) discuss the bidding variable adopted by the commissioner; and
 - (2) identify the qualified participants from the call for competing proposals.

(Eff. / / , Register)

Authority: AS 38.05.035 AS 38.05.700 AS 38.05.710

11 AAC 84.1020. Competitive bidding procedure; assessment criteria. (a) If the department receives competing proposals from qualified applicants and the written finding of the commissioner concludes that a carbon storage exploration license should be issued, the commissioner will issue an invitation to each qualified applicant to submit a sealed bid on a form supplied by the department. The invitation to bid will

- (1) be issued concurrent with the written finding;
- (2) describe the area offered for licensing;
- (3) designate the date a sealed bid must be received by the commissioner;
- (4) include the finding under AS 38.05.710(c) and 11 AAC 84.1015, the

exploration license and lease forms that will be used, and a bid form;

- (5) specify the terms and conditions of bidding and sale, including any bid deposit if required by the commissioner;
 - (6) specify the bidding variable; and
- (7) disclose additional information and set out additional requirements as the commissioner determines to be necessary.
- (b) The commissioner will notify each applicant of the commissioner's decision to accept or reject that applicant's sealed bid.
- (c) After the bidding period closes, if a lessee granted a right to match a winning bid under AS 38.05.710(g) submitted a bid but is not the successful bidder, the commissioner will provide the lessee the terms of the successful bid and provide the lessee 30 days to affirm in writing whether they will match the successful bid. If the lessee declines to match the terms of the successful bid or fails to respond within 30 days, the commissioner will award the exploration license to the highest bidder.
- (d) The successful bidder shall wire transfer the first-year license fee, submit two executed copies of the exploration license form, and file any required security with the department not later than 30 days after receiving notification of the award.
- (e) If a successful bidder fails to comply with (d) of this section, any bid deposit and the license award is forfeited. The commissioner may award the exploration license to the next successive highest bidder.
- (f) If the commissioner requires a bid deposit, the bid deposit will be held until a license is awarded or until the commissioner decides not to award the license.
 - (g) The commissioner will choose a bid variable, which may consist of a cash bonus,

injection charge, minimum guaranteed annual payment, share of gross revenues, or other bid				es, or other bid
variable in order to assess competing proposals. The best interest finding under 11 AAC 84.1015				
will contain th	ne rationale for the sele	ected bid variable. (Eff	//	_, Register)
Authority:	AS 38.05.035	AS 38.05.700	AS 38.05.860	
	AS 38.05.135	AS 38.05.710	AS 38.05.945	

11 AAC 84.1025. License administration. A licensee shall, on or before the anniversary of the effective date of a carbon storage exploration license, deliver to the department

- (1) an annual report detailing the activities in the previous year and planned activity in the coming year in accordance with the work commitment adopted under the license;
 - (2) all geologic data and geophysical data obtained under the license; and
 - (3) the annual fee required under the license. (Eff. ___/____, Register

____)

Authority:

AS 38.05.700

AS 38.05.705

AS 38.05.710

11 AAC 84.1030. Default by licensee; termination, revocation, and surrender of a license. (a) If a licensee fails to comply with a provision of the carbon storage exploration license, the department will send the licensee a notice of default. If the licensee's noncompliance continues for 60 days after the notice of default is issued by the department, the commissioner will terminate the license by issuing notice of termination to the licensee. Termination is effective upon giving notice.

(b) Notwithstanding (a) of this section, the commissioner may postpone termination of a license for not longer than 12 months if, before expiration of the 60-day default period, the licensee provides the commissioner with a good faith explanation for the delay and an acceptable

timeline for compliance.

- (c) If a licensee does not apply for a storage facility permit under AS 41.06.105 41.06.210 or a licensee's application for a permit under AS 41.06.105 41.06.210 is denied by the Alaska Oil and Gas Conservation Commission after the expiration of the initial five-year term of the license, the commissioner will revoke the carbon storage exploration license by issuing notice of revocation to the licensee. Revocation is effective upon giving notice.
- (d) A licensee may apply to the commissioner for approval of a voluntary surrender of rights in the land held under a carbon storage exploration license, including a subdivision of the land subject to the license. A surrender is not effective unless approved by the commissioner. A surrender takes effect on the date of approval. A surrender must be filed in accordance with 11 AAC 88.105, but a filing fee is not required.
- (e) After a termination or surrender of a carbon storage exploration license under this section, a licensee remains obligated to make all accrued payments and to place the surrendered land in a condition satisfactory to the commissioner. (Eff. ___/____, Register ____)

 Authority: AS 38.05.700 AS 38.05.705

11 AAC 84.1035. Conversion of carbon storage exploration license to storage lease; lease provisions. (a) A licensee's request to convert a carbon storage exploration license to a carbon storage lease under AS 38.05.715(b) must be submitted to the department not more than 30 days after completion of work commitment obligations set out in the license, including issuance of a permit under AS 41.05.120. A licensee may request conversion of all or a part of the licensed area into a carbon storage lease.

(b) A licensee may submit to the department a written request to convert a carbon storage exploration license to a carbon storage lease by providing, within the time period required by (a)

of this section, the legal description, by aliquot part, of the proposed carbon storage lease boundary, including

- (1) delineation of the approved AS 41.06.120 permit boundary;
- (2) legal descriptions and ownership of adjoining lands, including lands not owned by the state, and the extent of the licensee's carbon storage leasehold with third parties, if any;
- (3) geologic data and geophysical data for any reservoir in which carbon dioxide will be injected;
 - (4) a proposed plan of development consistent with 11 AAC 84.1065; and
- (5) upon request by the department, any additional information requested under 11 AAC 88.115.
- (c) Prior to the effective date of a conversion under AS 38.05.715 and this section, a licensee may submit a request to modify the commercial terms of a lease under AS 38.05.715(c). The commissioner will issue a written decision on the request for modification. A request to modify the commercial terms set out in a license upon conversion to a lease must include
- (1) a statement of reasons justifying the necessity for a change in annual rentals, injection charges, or other commercial terms; if confidential data is included in the statement, the licensee shall file a separate statement containing non-confidential information suitable for public release;
 - (2) copies of all contracts or agreements regarding
 - (A) construction, financing, insurance, operation, or development of the carbon storage facility;
 - (B) sources or supply of carbon dioxide; or

(C) ownership, partnership, or a joint working relationship between the licensee and any partners or affiliates;

- (3) financial statements, information, pro-forma projections, financial models, and other economic data regarding the carbon storage project;
- (4) engineering data, specifications, plans, schedules, and other information regarding the proposed development of the carbon storage facility, including wells, surface equipment, and subsurface equipment; and
 - (5) any additional information requested under 11 AAC 88.115.
- (d) If the commissioner determines that the licensee has met the requirements of AS 38.05.705 and 38.05.710 and has satisfied work commitments and other obligations of the license, the commissioner will offer a carbon storage lease to the licensee. The licensee shall have 30 days after the date the lease is issued by the department to execute the lease, provide an executed copy of the lease to the department, and submit payment for the first year's rent to the department.
- (e) A carbon storage lease approved under this section will include a provision requiring the lessee, on or before each anniversary date of the lease, to submit to the department all geologic data and geophysical data obtained under the lease.
- (f) Upon the licensee's compliance with (d) of this section, the commissioner will execute the lease on behalf of the state and provide an executed copy to the lessee.
- (g) The effective date of a carbon storage lease is the first day of the month after the date the lease is executed by the commissioner, or upon prior written request, on the first day of the month in which it was signed on behalf of the state. (Eff. ___/____, Register _____)

 Authority: AS 38.05.035 AS 38.05.705 AS 38.05.715

Authority: AS 38.05.035 AS 38.05.705 AS 38.05.700 AS 38.05.710 11 AAC 84.1040. Transition from enhanced oil recovery operations to carbon storage operations; lease provisions. (a) A lessee under AS 38.05.180, for a reservoir for which the lessee does not possess a carbon storage exploration license under 11 AAC 84.1005 or a carbon storage lease under 11 AAC 84.1035, is required to obtain a carbon storage lease under AS 38.05.720(a) when

- (1) the lessee holds a storage facility permit issued by the Alaska Oil and Gas Conservation Commission under AS 41.06.120 for carbon storage in that reservoir;
- (2) the lessee holds a permit for a Class VI well issued by the United States Environmental Protection Agency under 40 C.F.R. 144.6(f) for injection of carbon dioxide into that reservoir;
- (3) the lessee has received a finding from the Alaska Oil and Gas Conservation Commission that an injection well used for enhanced oil or gas recovery through injection of carbon dioxide no longer supports enhanced oil or gas recovery from that reservoir; or
- (4) the commissioner determines that hydrocarbon recovery is no longer the primary function of the reservoir utilizing carbon dioxide for enhanced oil or gas recovery.
- (b) An application to the department for a carbon storage lease under AS 38.05.720(a) and this section must be submitted on a form provided by the department or a verbatim copy of the department's form and include
- (1) documentation necessary to establish the lessee's qualification for a carbon storage lease required under (a) of this section;
- (2) the legal description, by aliquot part, including a map at a scale of 1:250,000 or greater, of the proposed carbon storage lease boundary, including
 - (A) delineation of the approved AS 41.06.120 permit boundary, if

applicable; and

- (B) legal descriptions and ownership of adjoining lands, including lands not owned by the state, and the extent of applicant's carbon storage leasehold with third parties, if any;
 - (3) a description of the geological formation to be used for carbon storage
 - (4) a proposed plan of development consistent with 11 AAC 84.1065;
- (5) proposed commercial terms for the carbon storage lease; the department may request additional information and justification on the proposed commercial terms under 11 AAC 88.115;
- (6) a designation of an individual who is authorized to receive notices on behalf of the applicant; and
- (7) an attestation describing how the applicant meets the minimum qualifications required under 11 AAC 84.1000.
- (c) The commissioner will set the minimum annual rent and charge on injected volumes of carbon dioxide required for a lease authorized by AS 38.05.720 and this section to be the higher of
- (1) 20 percent above the current annual rent and injection charges under AS 38.05.705(c)(3) as adjusted by AS 38.05.705(g); or
- (2) the highest current annual rent and injection charges included in an existing carbon storage lease or carbon storage exploration license issued by the commissioner in the area in which the lease is to be issued; in this paragraph, "area" means
 - (A) lands north of 68 degrees North latitude;
 - (B) lands in Cook Inlet, as defined at 11 AAC 83.1049; or

- (C) lands in the state not otherwise included in (A) or (B) of this paragraph.
- (d) A lease authorized by AS 38.05.720 and this section may only include the geologic horizon corresponding to the reservoir from which the applicant has been actively producing oil or gas under leases issued pursuant to AS 38.05.180.
- (e) The commissioner will determine whether a disposal of state land under AS 38.05.035(e) for a lease under AS 38.05.720 is in the best interest of the state by considering the factors provided in 11 AAC 84.1015(b) before authorizing issuance of a lease under this section.
- (f) After making a written finding in compliance with (e) of this section, the commissioner will execute the lease on behalf of the state and provide an executed copy to the applicant. The applicant will have 30 days after receipt of the lease form to execute the form, provide a copy of the executed lease to the department, and submit payment for the first year's rental payable to the department.
- (g) The effective date of a lease issued under this section is the first day of the month following the date on which the lease is executed on behalf of the state or, upon prior written request, on the first day of the month in which it was executed on behalf of the state.
- (h) A carbon storage lease shall include a provision requiring the lessee, on or before each anniversary date of the lease, to submit to the department all geologic data and geophysical data obtained under the lease. (Eff. ___/____, Register ____)

 Authority: AS 38.05.020 AS 38.05.705 AS 38.05.720

AS 38.05.035 AS 38.05.710

AS 41.06.120

AS 38.05.180

11 AAC 84.1045. Default by lessee; termination and surrender of a carbon storage lease. (a) If a lessee fails to comply with any term of a carbon storage lease, the lessee is in default under the lease agreement.

- (b) In the event of default by a lessee, the commissioner will give notice of default to the lessee. The notice will state the nature of the default and include a demand to cure the default by a specific date. In the case of a failure to pay rentals or fees, the due date to cure default will be determined by the commissioner. For any other event of default, the date required to cure default will be no less than 90 days after the date of the commissioner's notice of default.
- (c) If a default occurs with respect to a carbon storage lease on which there is no carbon storage injection well and the default is not cured by the date indicated in the notice of default, the commissioner will terminate the lease by providing notice of termination to the lessee after giving the defaulting party and any unit operator, if other than the defaulting party, reasonable notice and opportunity to be heard. Termination is effective upon giving the notice.
- (d) If a default occurs with respect to a carbon storage lease on which there is a carbon storage injection well, and default is not cured by the date indicated in the notice, the commissioner may consult with an agency that issued the defaulting party a permit, if applicable, and
 - (1) terminate the carbon storage lease; or
 - (2) pursue judicial or other remedies to enforce the lease.
- (e) All rights in the land held under a carbon storage lease, including a subdivision of the land subject to the lease, may be surrendered by the lessee of record by filing an application for voluntary surrender with the department. A surrender is not effective unless approved by the commissioner. A voluntary surrender request

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(1) must be filed in accordance with 11 AAC 88.105, but a filing fee is not required;

- (2) must be accompanied by evidence satisfactory to the commissioner that the Alaska Oil and Gas Conservation Commission has
 - (A) issued a certification of completion under AS 41.06.170 covering the lease; or
 - (B) if carbon injection has not occurred, issued an order terminating the carbon storage facility permit; and
- (3) if approved, will take effect on the date of commissioner's approval or the date of the order from the Alaska Oil and Gas Conservation Commission, whichever occurs later.
- (f) After termination or surrender of a carbon storage lease, the lessee remains obligated to make all accrued payments and to comply with removal and restoration requirements under AS 38.05.740. (Eff. ___/_____, Register _____)

 Authority: AS 38.05.020 AS 38.05.705 AS 38.05.740

AS 38.05.700 AS 38.05.720

11 AAC 84.1050. Carbon storage lease unitization. (a) The commissioner will approve a proposed unit agreement upon a written determination that the unit agreement is necessary or advisable to protect the public interest and that the agreement will

- (1) promote the maximum utilization of the state's land and resources for the purpose of carbon storage;
 - (2) promote the prevention of economic and physical waste; and
 - (3) provide for the protection of all parties of interest, including the state.
 - (b) In evaluating the criteria set out in (a) of this section, the commissioner will consider

- (1) the environmental costs and benefits of unitized development;
- (2) the geological and engineering characteristics of the potential carbon storage unit area;
 - (3) the applicant's carbon storage facility permit or permits under AS 41.06.120;
 - (4) the economic costs and benefits to the state and affected parties; and
- (5) other relevant factors, including measures to mitigate impacts identified above, that the commissioner determines necessary or advisable to protect the public interest.
- (c) The commissioner will consider the criteria in (a) of this section when evaluating a requested authorization or approval for
 - (1) a carbon storage unit agreement;
 - (2) an extension or amendment of a unit agreement;
- (3) a plan of development, plan of operations, or amendment to a plan of development or plan of operations; or
 - (4) a carbon injection allocation formula.
- (d) For joint lands, lands with multiple interest ownership, or if more than one lease is being utilized for carbon storage, a unit agreement must be submitted on, or in a manner consistent with, a department unit agreement form and executed by all lessees with an interest in the unit, the operator of a permit issued under AS 41.06.120, and additional persons as required by the commissioner.
- (e) The commissioner may require modification of the department unit agreement form when the modification is reasonably required
- (1) to meet the needs and requirements of the unit, considering the facts and conditions found to exist with respect to that unit; and

- (2) the proposed modification meets the criteria in (a) of this section.
- (f) The commissioner may expand or contract a unit area, including in response to a modification to a carbon storage facility permit granted under AS 41.06.120. Before expansion or contraction of a unit area, the commissioner will give the unit operator and each pore space owner reasonable notice and an opportunity to be heard.
- (g) Failure to comply with the terms of an approved carbon storage unit agreement, including any plans of exploration, development, or operations that are a part of the unit agreement, is a default under the unit agreement. The commissioner will give notice of the default to a defaulting party. The notice will state the nature of the default and include a demand to cure the default by a specific date not less than 90 days after the date of the commissioner's notice of default. If default is not cured by the date indicated in the notice of default, the commissioner may, after giving reasonable notice and opportunity to be heard, terminate the unit agreement by mailing notice of the termination to a defaulting party. Termination is effective upon giving the notice. (Eff. ___/____/ ______, Register ______)

 Authority: AS 38.05.700 AS 38.05.725

11 AAC 84.1055. Assignments. (a) A carbon storage exploration license or carbon storage lease may be assigned with the approval of the commissioner after submission of an application for assignment under 11 AAC 84.1060. Upon assignment,

- (1) the assignor and the assignor's surety are liable for obligations under the carbon storage exploration license or carbon storage lease that accrue before the commissioner's approval of the assignment; and
- (2) beginning on the effective date of the assignment, the assignee and the assignee's surety are liable for the performance of all carbon storage exploration license or

carbon storage lease obligations, including any obligations made applicable by the commissioner as a condition of assignment.

- (b) If the commissioner rejects an application for an assignment, the licensee's or lessee's obligations continue as though no application for assignment had been made.
- (c) When a change of control occurs that would transfer the license or lease interest of one entity to another, the surviving or new entity shall submit to the department
 - (1) an application under 11 AAC 84.1060;
- (2) a signed statement by an officer of the surviving or new entity describing the intended transfer of interests;
- (2) a certificate of merger or certificate of consolidation issued by the Department of Commerce, Community, and Economic Development, if applicable;
- (3) documentation establishing its compliance with the minimum qualifications required by 11 AAC 84.1000; and
 - (4) additional information requested under 11 AAC 88.115.
- (d) The commissioner may grant an applicant's request for severance or require severance as a condition of approval of an assignment of all or part of a licensee or lessee's interest in the licensed or leased area of a carbon storage exploration license or carbon storage lease. If severance is granted or required, the department will issue a separate license or lease to the assignee with the same effective date and terms as the original license or lease.

(Eff/_	/, Register	·)	
Authority:	AS 38.05.020	AS 38.05.705	AS 38.05.715
	AS 38.05.700	AS 38.05.710	AS 38.05.720

11 AAC 84.1060. Application for approval of assignment. (a) An application for approval of assignment must

- (1) comply with 11 AAC 88.105;
- (2) be filed not later than 90 days after the effective date of the assignor's signature; an assignment not filed within 90 days may be approved, at the discretion of the commissioner, where no intervening interest is filed;
- (3) be filed on a form provided by the department; the department may accept an application for approval of assignment that is substantially similar to the department form;
- (4) include documentation of approval of a storage facility permit modification by the Alaska Oil and Gas Conservation Commission, if applicable;
- (5) provide information necessary to establish that the assignee meets the minimum qualifications required under 11 AAC 84.1000; and
 - (6) include the filing fee required under 11 AAC 05.110.
- (b) The department will not accept an application for approval of assignment that requests assignment of an interest from a single assignor to more than one assignee. The department form may not be altered to provide for multiple party assignments.
- (c) If the commissioner approves an assignment, the effective date of the transfer is the first day of the month following the date on which the assignment application is filed with the state or, upon prior written request, the first day of the month in which the assignment application is filed with the state. (Eff. ___/____, Register _____)

 Authority: AS 38.05.020 AS 38.05.705 AS 38.05.715

11 AAC 84.1065. Plan of development; application requirements. (a) Before the issuance of a carbon storage lease, an applicant lessee or unit operator must submit a plan of development for consideration by the commissioner.

- (b) A plan of development must include, based on data reasonably available at the time the plan is submitted for approval,
- (1) sufficient information for the commissioner to determine whether the plan is consistent with the provisions of 11 AAC 84.1050(a), if applicable;
- (2) a detailed description of the proposed development activities for at least one year following submission of the plan;
- (3) long-range proposed development activities for the lease or unit, including plans to construct the carbon storage facility, secure and deliver supply of carbon dioxide, commence injection into reservoirs, delineate all underlying storage reservoirs in the lease or unit area, and when it becomes appropriate, prepare for, perform actions, and install all equipment necessary for the post-injection monitoring period;
- (4) a description of the extent and migration path of existing carbon dioxide plumes within a storage reservoir, including projections and modeling of future plume dimensions based on expected injection volumes; and
- (5) the surface location of proposed facilities, drill pads, roads, docks, causeways, material sites, base camps, waste disposal sites, water supplies, airstrips, or other facilities necessary for operations.
- (c) The commissioner will approve a plan of development if it complies with (b) of this section and conforms with prior determinations issued under 11 AAC 84.1050(a) or 11 AAC 84.1015. If a proposed plan of development is disapproved, the commissioner may propose

modifications that, if accepted by the lessee or unit operator within 20 days, would qualify the plan for approval.

- (d) After approval of a plan of development, the lessee or unit operator must submit an annual report to the commissioner that describes the operations conducted under the plan of development during the preceding year.
- (e) Not later than 90 days before expiration of an approved plan, the lessee or unit operator must submit an updated plan of development to the commissioner for approval. The update must describe the extent to which the requirements of the previously approved plan were achieved and if operations deviated from, or did not comply with, the previously approved plan. If operations deviated or did not comply, the update must include an explanation of the deviation or noncompliance. Not more than 10 days after receipt of an updated plan of development, the commissioner will inform the lessee or unit operator whether the proposed plan is complete. After the commissioner has determined that an updated plan of development is complete as submitted, or as modified by the lessee or unit operator following the commissioner's suggestions under (c) of this section, the commissioner will approve or disapprove the plan. If the commissioner does not take action on the plan within 60 days after informing the lessee or unit operator that the proposed plan is complete, the updated plan is approved.
- (f) The commissioner will approve an updated plan of development if the updated plan complies with (e) of this subsection and the provisions of 11 AAC 84.1050(a) or 11 AAC 84.1015. If the proposed update of a plan of development is disapproved, the commissioner may propose modifications that, if accepted by the lessee or unit operator within 20 days, would qualify the plan for approval.
 - (g) A lessee or unit operator may, with the approval of the commissioner, amend an

approved plan of development. (Eff. ___/____, Register _____) **Authority:** AS 38.05.700 AS 38.05.725

11 AAC 84.1070. Plan of operations; application requirements; completion reports.

- (a) Except as provided in (b) of this section, before operations may be undertaken in an area subject to a carbon storage exploration license, carbon storage lease, or unit agreement, a licensee, lessee, or unit operator must submit an application for approval of a plan of operations for consideration by the commissioner.
- (b) The commissioner will not require a plan of operations under AS 38.05.725 for activities undertaken by permit issued under 11 AAC 96.010.
- (c) The commissioner will not approve a plan of operations unless the plan provides for payment of all damages sustained by the owner of the surface estate and by the surface owner's lessees and permittees, by reason of entering the land.
- (d) An application for approval of a plan of operations must contain sufficient information, based on data reasonably available at the time the plan is submitted for approval, for the commissioner to determine the surface use requirements and impacts directly associated with the proposed operations. An application must include statements, maps, engineering plans, geospatial data, drawings, and other information setting out the following:
- (1) the sequence and schedule of the operations to be conducted on or in the leased or licensed area, including the date operations are proposed to begin and their proposed duration;
- (2) projected use requirements directly associated with the proposed operations, including the location and design of well sites, material sites, water supplies, solid waste sites, buildings, roads, utilities, airstrips, and all other facilities and equipment necessary to conduct

AS 38.05.700

the proposed operations;

- (3) plans for removal, restoration, and rehabilitation of the affected leased or licensed area after completion of operations or phases of those operations; and
- (4) a description of operating procedures designed to prevent or minimize adverse effects on natural resources and other uses of the leased or licensed area and adjacent areas, including fish and wildlife habitats, historic and archeological sites, and public use areas.
- (e) When reviewing a proposed plan of operations or an amendment of a plan, the commissioner may require modifications that the commissioner determines are necessary to protect the state's interest. The commissioner will not require a modification that is inconsistent with terms under which the carbon storage exploration license was obtained, is inconsistent with terms of the lease or license, or deprives the lessee or licensee of reasonable use of the leasehold or licensed interest.
- (f) A lessee, licensee, or unit operator may, with approval of the commissioner, amend an approved plan of operations.

11 AAC 84.1075. Surety requirements. (a) Before issuance of a carbon storage exploration license and before operations may commence on a carbon storage lease, the licensee

or lessee must furnish a bond in an amount to be determined by the commissioner to the department. The commissioner will determine the bond amount after assessing the qualifications of the licensee or lessee, the nature of the surface, the uses and improvements on or in the vicinity of the licensed or leased land, and the degree of risk involved in the types of operations proposed for the license or lease.

- (b) A bond under (a) of this section must be either
- (1) a corporate surety bond from a surety company authorized to do business in this state; or
 - (2) a personal bond accompanied by
 - (A) an irrevocable letter of credit issued by a bank or other financial institution authorized to do business in the United States;
 - (B) a certificate of deposit in the amount of the bond, issued in sole favor of the department by a bank or other financial institution authorized to do business in this state;
 - (C) a cash deposit maintained in a depository account as directed by the commissioner; or
 - (D) other security or financial assurance approved by the commissioner.
- (c) Every bond or combination of bonds must be conditioned upon performance of each obligation or risk identified by the commissioner in (a) of this section.
- (d) The principal on the bond or other surety must be the licensee or lessee of record unless the license or lease is subject to a unit agreement approved by the commissioner, in which case the unit operator may be the principal in place of the licensee or lessee of record.
 - (e) A bond must be furnished on a form provided by the department.

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- (f) If a party obligated to obtain a bond or other surety under this section is principal on a bond held to secure a storage facility permit under AS 41.06.120, the party may request that the commissioner offset the bonding required under this section to account for the existing surety. If the commissioner allows an offset for such bonding, the obligated party shall provide an annual report to the commissioner regarding the status of the existing bonding or other surety.
- (g) Upon request by a lessee, or a determination by the commissioner, the commissioner may adjust the bonding amount required under this section to account for changed circumstances regarding the obligations and risks identified in (a) of this section.
- (h) The bond required under (a) of this section will only be released upon occurrence of (1) the expiration or relinquishment of a carbon storage license or lease and the rehabilitation of the carbon storage license or lease area to the satisfaction of the commissioner; and

	(2) issuance of a c	ertificate of completion	n under AS 41.06.170 (Ef	f.
//	, Register	_)		
Authority:	AS 38.05.020	AS 38.05.130	AS 38.05.850	
	AS 38.05.035	AS 38.05.700		

11 AAC 84.1080. Damages. A carbon storage exploration licensee or carbon storage lessee is required to pay damages that become payable under AS 38.05.130 and shall indemnify and hold the state harmless from and against any claims, demands, liabilities, and expenses arising from or in connection with the damage. (Eff. ___/____, Register _____)

Authority: AS 38.05.130 AS 38.05.700

11 AAC 84.1085. Long-term monitoring and maintenance of leased area. (a) The

commissioner will not make expenditures from the carbon storage closure trust fund under AS 37.14.850 before the Alaska Oil and Gas Conservation Commission issues a carbon storage facility a certification of completion under AS 41.06.170.

- (b) Before the department will certify to the Alaska Oil and Gas Conservation

 Commission that requirements under AS 41.06.170(b)(6) or (b)(8) have been satisfied with respect to a carbon storage facility, a storage operator shall
- (1) consult with the department on the development of a preliminary plan for long-term monitoring and maintenance of the site;
- (2) provide verification that payments required under AS 41.06.175 into the carbon storage closure trust fund have been deposited and that no outstanding liabilities are owed to the fund in relation to the facility;
- (3) obtain approval from the department regarding any equipment or infrastructure to remain on the site for use in long-term monitoring and maintenance; and
 - (4) submit to the department
 - (A) data submitted to Alaska Oil and Gas Conservation Commission;
 - (B) geologic data or geophysical data regarding the site;
 - (C) well schematics, equipment specifications, data packages, and any other information regarding equipment or infrastructure to be left in place; and
 - (D) additional information the commissioner determines is necessary to carry out the department's duties under AS 41.06.305.
- (c) When the department exercises its authority to enter land under AS 41.06.305(b), the department will provide notice to and coordinate its activities with the owner of the land if feasible. (Eff. ___/____, Register _____)

Authority:

AS 37.14.850

AS 41.06.170

AS 41.06.305

11 AAC 84.1090 Definitions. In 11 AAC 84.1000 - 11 AAC 84.1090,

- (1) "assignment" means a transfer of all or part of a licensee's interests in a carbon storage exploration license or a lessee's interest in a carbon storage lease;
 - (2) "carbon dioxide" has the meaning given in AS 41.06.210;
 - (3) "carbon storage" has the meaning given in AS 38.05.795;
 - (4) "change of control" means a merger, consolidation, conversion, sale of controlling interest, or sale of substantially all assets of an entity;
 - (5) "commissioner" means the commissioner of natural resources;
 - (6) "department" means the department of natural resources;
- (7) "geologic data" means information gathered from surface geologic measurements and well and core hole information that is collected in a form suitable for storage, processing, or interpretation; "geologic data" includes mud logs; electric logs; density logs; sonic logs; neutron logs; gamma ray logs; interpretative logs, image logs, dipmeter logs; directional surveys; core (conventional and sidewall) and outcrop sample descriptions and measurements; photos and analyses, including lithologic, porosity and permeability, petrographic, geochemical, thermal maturation, fission track, radiometric dating, fluid inclusion, palynologic, paleontologic, ichnologic, and sedimentologic data and interpretations; sample descriptions; data and analyses from cuttings, including lithologic and petrographic, descriptive and interpreted palynologic and paleontologic, geochemical, and thermal maturation indicators; fluid analysis; drillstem, formation, and other flow tests; and periodic drilling and operating reports; "geologic data" also includes maps, cross sections, fence diagrams and other interpretive displays produced during the term of a license or subsequent lease;

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- (8) "geophysical data" means measurements and information obtained from electrical surveys, gravity surveys, magnetic surveys, seismic reflection surveys, seismic refraction surveys, and remote sensing; the measurements or information may be in the form of raw field data or data that are the result of processing in a form suitable for storage, processing, or interpretation; "geophysical data" includes geotechnical data;
 - (9) "pore space" has the meaning given in AS 41.06.210;
 - (10) "reservoir" has the meaning given in AS 41.06.210;
 - (11) "storage facility" has the meaning given in AS 41.06.210;
 - (12) "storage operator" means a person holding or applying for a permit under

AS 41.06. (Eff. ___/___, Register ____)

Authority: AS 38.05.020 AS 41.06.210 AS 41.06.305

AS 38.05.700