

NOTICE OF INTENT

Department of Natural Resources Office of Conservation

Advanced Notice of Rulemaking and Solicitation of Comments on Carbon Dioxide Enhanced Oil Recovery (LAC 43:Part XIX.Subpart 1)

The Department of Natural Resources, Office of Conservation proposes to amend LAC 43: XIX.Subpart 1 in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., and pursuant to the power delegated under the laws of the state of Louisiana. The proposed amendment is made to implement application requirements for Carbon Dioxide Enhanced Oil Recovery.

Title 43

NATURAL RESOURCES

Part XIX. Office of Conservation – General Operations

Subpart 1. Statewide Order No. 29-B

Chapter 4. Pollution Control (Class II Injection/Disposal Well Regulations)

§ 401. Definitions

Confining Zone-a geological formation, group of formations, or part of a formation that is capable of limiting fluid or gas movement above an injection zone.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR: ____ (____ 2015).

§ 403. ...

§ 405. Application Requirements for New Enhanced Recovery Injection and New Saltwater Disposal Wells

A. – B. ...

C. Area of Review For Enhanced Oil Recovery Wells Injecting Carbon Dioxide

1. The area of review (AOR) will be the approved enhanced oil recovery (EOR) project area plus the surrounding region where USDWs may be endangered by the carbon dioxide (CO₂) injection activities, at a minimum, no less than ¼ mile beyond the project area. The AOR shall extend no closer than ½ mile, at a minimum, to any EOR well injecting or permitted to inject CO₂. For EOR projects injecting CO₂ that are permitted as of the effective date of these regulations, the owner or operator of the project has thirty days from the effective date of these regulations to submit a plan to the commissioner to come into compliance with §405.C, D, and E.

2. If it is determined at any time that the injected CO₂ and associated reservoir fluids have migrated beyond the boundary of the approved EOR project area, the AOR shall be redefined to extend, at a minimum, no less than an additional ¼ mile beyond the migrating front.

3. The owner or operator of a Class II EOR CO₂ Injection Well must submit a plan acceptable to the commissioner to periodically reevaluate the AOR for the proposed CO₂ EOR project and perform corrective action for any identified deficient wells. The AOR must be reevaluated on a frequency not to exceed five years.

4. The owner or operator of the Class II EOR CO₂ Injection well must identify all penetrations within the defined AOR including active and abandoned wells, underground mines, and any other man-made penetrations

that penetrate the confining zone above the permitted EOR injection zone.

5. The owner or operator must determine which wells within the AOR have been constructed and/or plugged in a manner that prevents movement of CO₂ or other fluids that may endanger USDWs, and any wells which may require corrective action to ensure protection of USDWs.

6. For phased implementation of an EOR project injecting CO₂, the commissioner may allow injection operations to commence prior to a complete evaluation of all wellbores within the AOR if the operator presents a plan acceptable to the commissioner to complete the evaluation and perform any required corrective action in advance of the injected carbon dioxide and associated reservoir fluids migration to the area. The plan must include a method to monitor the injected carbon dioxide and associated reservoir fluids to ensure that the AOR review and any corrective action is performed at least ½ mile ahead of the boundary of the migrating front.

D. Corrective Action For Enhanced Oil Recovery Projects Injecting Carbon Dioxide.

1. Owners or operators of Class II EOR CO₂ Injection Wells must perform corrective action on all wells in the area of review that the commissioner has determined to require corrective action.

2. Owners or operators of Class II EOR CO₂ Injection Wells shall submit a corrective action plan acceptable to the commissioner addressing all identified deficiencies within a time specified by the commissioner.

E. Emergency and Remedial Response For Enhanced Oil Recovery Projects Injecting Carbon Dioxide.

1. As part of the permit application for a Class II EOR CO₂ well, the owner or operator must provide the commissioner with an emergency and remedial response plan that outlines the actions the owner or operator must take to address movement of the injection or formation fluids that may cause an endangerment to a USDW during construction and operational periods.

2. If the owner or operator obtains evidence that the injected carbon dioxide and/or associated reservoir fluids are no longer confined to the permitted EOR injection zone or may cause an endangerment to a USDW, the owner or operator must:

- take all steps reasonably necessary to identify, characterize, and control any release;
- notify the commissioner within 24 hours; and
- Implement the emergency and remedial response plan approved by the commissioner.

3. The owner or operator shall review the emergency and remedial response plan developed under §405.E.1 periodically, but at least once every five years. Based on this review, the owner or operator shall submit an amended emergency and remedial response plan or demonstrate to the commissioner that no amendment to the emergency and remedial response plan is needed. Any amendments to the emergency and remedial response plan must be approved by the commissioner and are subject to the permit modification requirements at §411, as appropriate. Amended plans or demonstrations shall be submitted to the commissioner as follows:

- within one year of an AOR reevaluation;
- following any significant changes to the EOR project, such as the addition of injection wells or the reclassification of wells; or

c. when required by the commissioner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR: ____:____ (____ 2015).

§407. - §421. ...

§423. Plugging Requirements

A. ...

B. Enhanced Oil Recovery Projects Injecting Carbon Dioxide. Prior to the conclusion of the Enhanced Oil Recovery (EOR) project, the operator shall present a plan of project abandonment (the "Plan"). The commissioner shall assess the Plan to ensure that it meets all applicable legal requirements and will protect the Underground Sources of Drinking Water (USDW) and the health, safety, and welfare of the public. After reviewing the Plan, the commissioner may require additional information before approval of such Plan, or impose additional requirements for the EOR project abandonment to assure protection of the USDW.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:4 et seq.

HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, LR: ____:____ (____ 2015)

§425. - §443. ...

Family Impact Statement

This Rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

Poverty Impact Statement

This Rule has no known impact on poverty as described in R.S. 49:973.

Provider Impact Statement

This Rule has no known impact on providers as described in HCR 170 of 2014.

Small Business Statement

This Rule has no known impact on small businesses as described in R.S. 49:965.6.

Public Comments

All interested parties will be afforded the opportunity to submit data, views, or arguments, in writing. Written comments will be accepted by hand delivery or USPS only, until 4 p.m., July 11, 2016, at Office of Conservation, Executive Division, P.O. Box 94275, Baton Rouge, LA 70804-9275; or Office of Conservation, Executive Division, 617 North Third Street, Room 931, Baton Rouge, LA 70802. Reference Docket No. I&M 2016-01. All inquiries should be directed to Stephen Lee at the above addresses or by phone to (225) 342-5569. No preamble was prepared.

Fiscal and Economic Impact Statement

I. ESTIMATED IMPLEMENTATION COSTS (SAVINGS) TO STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

There are no anticipated implementation costs to state or local governmental units as a result of the proposed rule change. Application requirements already exist for Enhanced Oil Recovery methods, although none specifically address the use of carbon dioxide. The proposed rule seeks to implement application requirements for Carbon Dioxide Enhanced Oil Recovery. Carbon Dioxide Enhanced Oil Recovery is a process in which carbon dioxide is injected

into an oil reservoir to push any remaining oil to the top of the reservoir for extraction. It is typically used as a tertiary method of extraction after primary and secondary techniques have extracted the bulk of the oil from a reservoir. As such, the new requirements specific to Carbon Dioxide Enhanced Oil Recovery will be evaluated using existing documents and staff.

II. ESTIMATED EFFECT ON REVENUE COLLECTIONS OF STATE OR LOCAL GOVERNMENTAL UNITS (Summary)

The proposed rule change will have no effect on revenue collections of state or local governmental units.

III. ESTIMATED COSTS AND/OR ECONOMIC BENEFITS TO DIRECTLY AFFECTED PERSONS OR NON-GOVERNMENTAL GROUPS (Summary)

The group directly affected by these rules changes will be Exploration and Production (E&P) companies. There are currently two companies in the state using carbon dioxide techniques for extraction. The department believes that the companies affected by these regulations have already incorporated these standards and are currently in compliance. To that end, there are no anticipated increased costs to E&P companies or other non-governmental groups.

IV. ESTIMATED EFFECT ON COMPETITION AND EMPLOYMENT (Summary)

The proposed rule change will have no effect on competition and employment.

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