District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems *that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure*, submit to the appropriate NMOCD District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: _Edge Petroleum Operating Co. In_____ OGRID #:__224400_____

Address: _POB 51937 Midland, TX 79710_____

Facility or well name: _South Lovington 25 #1_____

API Number: _30-025-38877_____ OCD Permit Number: P1-02067

U/L or Qtr/Qtr E_____ Section _25_____ Township _16S_____ Range _36E_____ County: _Lea_____

Center of Proposed Design: Latitude _32°53'41.68' N Longitude _103°18'53.80" W_____ NAD: ☒1927 ☐ 1983

Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC

Operation: ☐ Drilling a new well ☒ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A

☒ Above Ground Steel Tanks or ☐ Haul-off Bins

3.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.3.103 NMAC

4.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC

☐ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____

5.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: CRI Halfway Facility_____ Disposal Facility Permit Number: _NM-01-0006_____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Angela Lightner_____ Title: _Regulatory Consultant_____

Signature: Angela Lightner_____ Date: __05/27/2010_____

e-mail address: __angela@rkford.com_____ Telephone: ___432-682-0440

7.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ **Approval Date:** 06/02/2010

Title: Geologist **OCD Permit Number:** P1-D2D67

8.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:** _____

9.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

10.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Closure Plan

Cuttings and other solids will be hauled off to a permitted landfill according to OCD guidelines. Liquids will be re-used to the extent possible, but if liquids need to be disposed, they will also be hauled to a permitted disposal facility. Liquids to be temporarily stored on site will be placed in 500 bbl "frac" tanks.

For the Lusk 27-3 well, both solid waste and liquid waste will be taken to the Controlled Recovery, Inc. (CRI) "Halfway Facility" between Carlsbad and Hobbs NM-01-0006.

Edge Petroleum Operating Company, Inc.

Closed Loop Mud System

Design

Drilling mud will circulate through a closed system consisting of steel pits on the surface, mud pumps, piping on the surface to the rotating head, and return piping from the bell nipple back to the steel pits. Solids will be removed from the mud in the steel pits using the following equipment:

1) 2 shale shakers will be installed with 110-250 mesh screens. These shale shakers should remove solids down to 65 micron diameter. All return drilling mud will flow across the shale shakers.
2) A 6T4 mud cleaner will be installed to further remove solids to the 25 micron level. Drilling mud will be circulated through the mud cleaner using a 5x6x12 75 hp pump. This pump will generate the optimal pressure for the mud cleaner cones to process the solids.
3) A 518 centrifuge will pick up a portion of the effluent from the mud cleaner. The centrifuge will remove solids to the 10 micron level. The centrifuge will remove solids down to the 1 micron level after adding the dewatering unit, as discussed below.
4) A dewatering unit will add polymer to the flow stream entering the centrifuge to flocculate the solids. Flocculation increases the effective particle size of the solids, enhancing the performance of the centrifuge to remove solids down to the 1 micron level.
5) Roll-off bins (20 cubic yards per bin) and rails will be installed next to the steel pits so that the solids removed from the shale shakers, mud cleaner, and centrifuge fall directly into a bin. Once a bin is full, it is picked up by a truck and hauled to disposal. An empty bin is moved under the solids control equipment along the rail so that the solids control equipment can operate continuously.

Operation and Maintenance

Personnel dedicated exclusively to operating and maintaining the solids control equipment will be on site 24 hours per day while drilling. The solids control personnel will monitor the shale shakers, mud cleaner, centrifuge, dewatering unit, and all associated pumps and piping to make sure the equipment is functioning correctly. If equipment problems are identified, the solids control personnel will coordinate repair or replacement of the equipment. The solids control personnel will also monitor the level of solids in the roll-off bins and arrange for trucks to pick up the bins when they are filled.