State of New Mexico Energy, Minerals and Natural Resources Department

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NOTICE SEISMICITY RESPONSE PROTOCOL County Line Seismic Response Area Management Plan Revision No. 1

December 1, 2023

The Oil Conservation Division ("OCD") has met with industry technical representatives to review and discuss their proposed modifications to the current operation of Underground Injection Control ("UIC") Class II disposal wells located within the County Line Seismic Response Area ("SRA"). Concurrently, OCD has monitored and performed an internal review of the County Line SRA as stipulated in the Seismicity Response Protocol [dated December 20, 2021] for the opportunity by OCD to reduce or eliminate restrictions. OCD, at its sole discretion, may reduce or eliminate disposal volume restrictions within any curtailment radii if after six (6) months no M3.0 or greater seismic events have occurred within ten miles of the original triggering event and/or OCD approves an operator/industry response plan within the response radii.

For this Revision, OCD consolidated the effects of the three primary triggering seismic events.

Map Reference Point	Referenced Triggering Event	Latitude (NAD83)	Longitude (NAD83)	
No. 1	M3.3 [2022-10-16; T 02:48:44.748Z]	32.0002841° N	103.8287132° W	
No. 2	M2.7 [2022-06-01; T 12:33:06.283Z]	32.0727442° N	103.7902691° W	
No. 3	M4.0 [2021-07-19; T 11:23:25.290Z]	32.0713126° N	103.7190589° W	

Based on this information, OCD initiates the following changes in reporting or curtailments are effective on the date of this notice, the changes can be seen in Appendix A which is attached to this Notice.

Operators must gather the following information for all the UIC disposal wells they operate within any of the three radii distance categories [zero (0) to three (3) miles radius; three (3) to six (6) miles radius; and six (6) to (10) miles radius]. This information must be submitted to OCD using Form C-103Z and approved by OCD prior to any rate increase:

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- Measure and report static bottom-hole pressure ("BHP") for the injection interval by one
 of the following practices:
 - Calculated BHP from surface pressure or fluid level after pumping with fluid of known density and 24-hour shut-in; or
 - o Provide a BHP gradient after 24-hour shut-in with 1000 feet or less gradient stops.

Note on reporting and OCD approval: An operator may email OCD.Engineer@emnrd.nm.gov with the subject line of "County Line SRA Test" for faster approvals. This email must contain the Action ID number of the submissions.

As noted in the Table, Operators with UIC Class II disposal wells which are allowed to increase the daily injection volume must slowly initiate the increase as to avoid sudden amplification of pore pressure that may reverse the effort to achieve optimal injection without additional seismic events.

If a triggering seismic event occurs, operators must immediately implement OCDs response protocol and the respective reduction criteria as defined in the "Seismicity Response Protocol" table dated December 20, 2021.

To assist in reviews of this area and further updates to response protocols, Operators are encouraged to provide the OCD with any supplemental information they may have acquired during their own analysis of the area. Additionally, these Operators may propose a collective plan for modifying the current volume restrictions with the purpose of developing sustainable injection with reduced risk of future seismic events.

For more information or questions regarding this letter, please contact Justin Wrinkle, Engineering Bureau Chief, justin.wrinkle@emnrd.nm.gov, (505) 670-0802.

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Appendix A: Table of Revised Responses with Map Diagram Referencing Colored-Coded Distance Radii

Designated SRA	Activity	Red Radii	Orange Radii	Yellow Radii	Green Radii	Blue Radii
		0 to 3 miles	0 to 3 and 3 to 6 miles	6 to 10 miles	3 to 6 miles	6 to 10 miles
County Line SRA	Immediate Response Curtailments	Shut in	50% Injection Reduction	25% Injection Reduction	25% Injection Reduction	Enhanced Reporting
	Revision No. 1	Remains shut in	Remains at 50% Injection Reduction	Can increase current total daily injection volume by 5,000 U. S. barrels*	Remains at 25% Injection Reduction	Remains at Enhanced Reporting

^{*}Prior to any injection increases the Operator must:

- Follow testing and measurement requirements as outlined in the Notice.
- The increase must be a smooth transition to the new rate which does not create a sudden increase in downhole injection pressure.
- Must maintain enhanced reporting via [UF-SA] Daily Injection Rate

