

Equity + Chemical Transparency

Rulemaking to remove barriers to health & safety data



Background

Oil & gas operations use over 1,000 different chemicals (<u>EPA 2016</u>) for hydraulic fracturing, including "forever chemicals" known as PFAS (<u>PSR 2023</u>). Many fracturing chemicals are toxic and hazardous.

PFAS (per- and polyfluoroalkyl substances) chemicals are highly toxic at miniscule amounts. One tablespoon of PFOA (perfluorooctanoic acid) would contaminate twice the volume of NM's largest lake – Elephant Butte.

Oil and gas companies reported injecting PFAS in 261 New Mexico wells from 2013-2022. Companies also injected 8,200 wells with 243 million pounds of "trade secret" fracking chemicals that could be PFAS or other dangerous substances.

New Mexico Oil & Gas Wells Fracked with PFAS and Possible PFAS, Including Trade Secret Chemicals, 2013-2022



Table 5. Disclosed use of Trade Secret Chemicals in New Mexico VII and Gas Wells, 2013-2022						
County Name	No. of wells injected with at least one trade secret chemical	Mass of all trade secret chemicals (lbs.)	No. of wells injected with trade secret surfactants	Mass of trade secret surfactants (lbs.)	No. of wells injected with nonionic fluoro- surfactants	Mass of nonionic fluoro- surfactants (lbs.)
Chaves	62	2,590,000	41	174,000	0	0
Colfax	4	615	0	0	0	0
De Baca	1	1,490	1	273	0	0
Eddy	3,787	110,000,000	1,895	9,120,000	8	106
Harding	15	2,820	3	33	0	0
Lea	3,606	120,000,000	1,435	8,270,000	16	860
McKinley	2	397	2	11	0	0
Rio Arriba	271	1,980,000	68	138,000	0	0
Roosevelt	5	15,000	2	12,300	0	0
San Juan	415	5,200,000	179	1,140,000	0	0
Sandoval	125	2,590,000	55	415,000	0	0
Total	8,293	243,000,000	3,681	19,300,000	24	966

This table shows by county the number of New Mexico wells in which oil and gas companies injected at least one trade secret fracking chemical, at least one trade secret surfactant, and/or at least one unspecified nonionic fluorosurfactant. It also shows the total combined weight of these chemicals by county and statewide. The total weight figures reflect the sum of all records for which we have enough information to calculate a chemical's weight. However, the total weight figures represent an undercount because many fracking chemical disclosures lack sufficient data to perform this calculation. The wells injected with trade secret surfactants are a subset of the wells injected with trade secret chemicals. The wells injected with unspecified nonionic fluorosurfactants are a subset of the wells injected with trade secret chemicals and trade secret surfactants. For a more detailed explanation of data sources, see the Appendix.

Background

Chemicals like PFAS are injected underground for fracking near aquifers. PFAS also exist in surfactants and polymers that are used for drilling, cementing, separating produced water from oil, fossil fuel transport, and clean up (<u>Bhardwaj 1993</u>).

Chemicals end up in the industry's waste, which is exempt from NM's hazardous waste regulations. Waste can be buried in pits, injected underground, processed at oilfield facilities, or taken to municipal landfills across the state. "Special waste" municipal landfills can take several types of oil and gas waste, including (<u>NMED 2022</u>):

- sludge
- spilled chemicals
- contaminated soils
- "formerly characteristic hazardous waste"
- "special waste not otherwise specified"

NM Landfills Accepting Chemical-laced Oil & Gas Waste



Principles & Values

- We <u>deserve to know</u> what toxins exist in our communities. Environmental justice and equity cannot exist otherwise.
- Public health workers and first responders <u>need to</u> <u>know</u> what exposures might exist to protect themselves and the public.



- <u>All chemical manufacturers and their clients</u> (e.g. oil and gas producers, solar panel manufacturers, clothing companies) should be legally required to disclose any chemical used in a manner that potentially exposes the public or environment.
- <u>No industry should be exempt</u> from chemical disclosure laws meant to protect public health and the environment.

POTENTIAL HEALTH EFFECTS OF PFAS EXPOSURE

HEALTH IMPACTS OF PFAS CHEMICALS





EPA (2016) found that fracking-related pollution could impact surface- and groundwater via several pathways:

- spills of fracking fluid that seep into groundwater;
- injection of fracking fluid into wells with cracked casing or cement, allowing the fluid to migrate into aquifers;
- injection of fracking fluids directly into groundwater;
- underground migration of fracking fluids through fracking-related or natural fractures;
- intersection of fracking fluid with nearby oil & gas wells,
- spills of wastewater,
- inadequate treatment and discharge of fracking wastewater to surface water supplies.

Figure ES-6. Potential pathways for fluid movement in a cemented well. These pathways (represented by the white arrows) include: (1) a casing and tubing leak into the surrounding rock, (2) an uncemented annulus (i.e., the space behind the casing), (3) microannuli between the casing and cement, (4) gaps in cement due to poor cement quality, and (5) microannuli between the cement and the surrounding rock. This figure is intended to provide a conceptual illustration of pathways that can be present in a well and is not to scale.

Spills on State Land at oil & gas operations (2018-2022)

- 1,973 liquid spills
- 1,005 spills were produced water
- How many of these spills contained PFAS, and how many spills went unreported?



Photo: An active spill of smelly, discolored liquid from a produced water pipe snaking across Eddy County (February 2023).

Knowledge = Power **That Informs Our Choices &** Planning



Gaps in Knowledge & Oversight

- Trade Secrets
- Hazardous Waste Exemptions
- Radioactive Waste Loopholes



Oil and gas wastewater is dumped from a truck into one of a series of unlined pits at the R360 waste disposal facility outside Hobbs, New Mexico, 2019. Photo credit: Melissa A. Troutman.

NM's Hazardous Waste Exemption for Oil & Gas

Thanks to Gov. Lujan-Grisham's June 2021 petition to the U.S. Environmental Protection Agency (EPA), PFAS are being considered for listing as hazardous substances under the Resource Conservation and Recovery Act (RCRA).

Unfortunately, because oil and gas industry wastes are exempt from federal and New Mexico state hazardous waste law, even when PFAS chemicals are regulated as hazardous, the state loophole will prevent PFAS from being uniformly characterized as hazardous in oil and gas industry, where it will remain undisclosed and improperly regulated.

RECOMMENDATION: Remove the hazardous waste exemption.

PSR's 2023 Recommendations:

- Remove New Mexico's oil and gas hazardous waste exemption
- Halt PFAS use in oil and gas extraction
- Expand public disclosure
- Increase testing and tracking
- Require funding and cleanup
- Reform New Mexico's regulations for oil and gas production wells and disposal wells
- Transition to renewable energy



STATE OF NEW MEXICO ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF PROPOSED AMENDMENT TO THE COMMISSION'S RULES TO ADDRESS PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES AND THEIR USE IN OIL AND GAS EXTRACTION, 19.15.2, 19.15.16, 19.15.31, AND 19.15.32 NMAC

CASE NO.

APPLICATION FOR RULEMAKING

Pursuant to 19.15.38(A) NMAC, Petitioner WildEarth Guardians ("Guardians"), a nonprofit corporation dedicated to protecting and restoring the health of New Mexico and the western United States, hereby petitions the New Mexico Oil Conservation Commission ("Commission") to amend its rules to address the matter of perfluoroalkyl and polyfluoroalkyl substance ("PFAS") use in the drilling, development, and production of oil and gas in New Mexico. Guardians specifically requests the Commission amend 19.15.2 and 19.15.16 NMAC and add 19.15.31 and 19.15.32 NMAC to its regulations.

PFAS are an exceptionally toxic group of chemicals that present myriad, long-term, and persistent public health and environmental hazards. Although New Mexico has petitioned the U.S. Environmental Protection Agency to restrict the use of PFAS under federal hazardous waste law, oil and gas industry exploration and production waste is exempt from federal hazardous waste law. There is an urgent need to address this gap and ensure that, just as other industrial sectors in New Mexico face restrictions on the use of PFAS, the oil and gas industry is also held accountable to protecting public health, welfare, and safety.

Guardians' proposal consists of two primary requests: 1) That the Commission adopt a rule prohibiting the use of PFAS in oil and gas drilling, development, and production and 2) That the Commission adopt new chemical disclosure and reporting rules to ensure reasonable transparency around substances used by the oil and gas industry and to ensure industry compliance with the prohibition on PFAS. To facilitate the incorporation of these new rules, Guardians also proposes amendments to the Commission's general provisions and to rules related to drilling and production.

In support of its rulemaking application, Guardians states the following:

May 2023, WildEarth Guardians modeled legislation passed in Colorado & petitioned the Oil Conservation Commission to amend the NM Administrative Code to:

- Prohibit PFAS chemicals in downhole operations
- Require public disclosure of the full list of chemicals used in downhole operations (recipes, formulas, processes & trade names retain trade secret protection)
- Require community notification of chemicals used within one mile

Trade Secret Protections

- Manufacturers only have to disclose ingredients, not recipe/formula or trade name.
- This protects manufacturers unique, proprietary formulas while also giving OCD & the public access to critical health & safety information.
- From the rule: "Any formulas and processes continue to have trade secret protections."

DISCLOSURE PROCESS:

- Company asks manufacturer for list of chemicals, gives OCD the list (without trade names or recipes/formulas). We suggest OCD add a new page to form C-105 (completion report) which is already submitted by operators & uploaded to permitting database. This prevents an increase in OCD's workload.
- 2. If manufacturer won't provide a list to the operator, operator must give OCD name of product, amounts used, and any data sheets available. OCD will then contact manufacturer to obtain list of ingredients.
- Manufacturer can claim trade secret (not company) by providing list of ingredients & withholding formula. OCD will make ingredients list public via existing permitting database.

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How legislators & committees can help

- Send letter of support for our rulemaking to the Oil Conservation Commission (see sample letter)
- Attend & testify at Oil Conservation Commission rulemaking hearings from February 26 - March 1, 2024 (hybrid)

Please reach out anytime:

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