

LETTER OF THE LAW:

Aggressive State Regulation of Hydraulic Fracturing a Matter of Statute

STATE	REGULATORY AUTHORITY	REQUIREMENTS	CITATION
Alabama	Alabama Oil and Gas Board	Requires separate permits for authority to drill an injection well as well as to perform operations for enhanced recovery. Applications for both require operators to provide information on the area surrounding the well and the mechanical details to ensure injected fluids do not contaminate underground sources of drinking water.	Ala. Administrative Code 400 4-2 (2006)
Alaska	Alaska Oil and Gas Conservation Commission	Applicants must demonstrate that injection operation will not allow the movement of fluid into sources of freshwater by providing, among other things, information related to the geologic formation, cement casing, and fluids to be injected. Applicants must also demonstrate the mechanical integrity of casing and tubing prior to drilling.	Alaska Admin. Code 20 AAC § 24 (2008)
Arkansas	Arkansas Oil and Gas Commission	The state requires that wells for injection be cased to prevent leakage and avoid contamination of underwater sources of drinking water. Applicants must provide a description of the formation and surrounding areas of the proposed well and any liquid to be injected.	Ark. Reg. C-8
California	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources	Applicants must provide with their application information to enable the Division to determine the project's possible effects upon freshwater reservoirs, including a description of the area surrounding the well and mechanical characteristics to prevent leakage.	Cal. Code Regs 14 § 4.1748
Colorado	Colorado Oil and Gas Conservation Commission	Applications for authority to undergo enhanced recovery projects must include an assessment of the geological strata resistivity log, description of casing, and analysis of injection fluids. Operators must conduct periodic water quality testing to identify any potential contamination.	Colo. Reg. 317B, 401
Florida	Florida Geological Survey, Oil and Gas Section	Prior to drilling an injection well and beginning operations to inject fluid, operators must obtain a permit. Applications require information including the physical makeup of surrounding areas and chemical analysis of surrounding waters.	Fla. Admin. Code Ann. 62C-29 (2009)
Kansas	Kansas Corporation Commission, Conservation Division	Applications for authority to inject must include information on injection fluids and demonstrate that fluid injection will not initiate fractures through the strata that could enable fluid to enter fresh and usable water strata. Factors for consideration include the type of injection fluid and the rock characteristics of the injection zone.	Kan. Admin. Regs. 82-3-400
Kentucky	Kentucky Environmental and Public Protection Cabinet, Division of Oil and Gas Conservation	Applicants to drill or operate an injection well must demonstrate that these activities will not cause the endangerment of underground sources of drinking water.	805 Ky. Admin. Regs 1:110 (2007)
Louisiana	Louisiana Department Of Natural Resources, Office of Conservation	Requires that applicants for enhanced recovery wells demonstrate that injection into the proposed zone will not initiate fracture through the overlying strata which could enable the injection fluid or formation fluid to enter an underground source of drinking water. Applications must include a description of the project/ well area, casing programs, and operation data.	La. Admin. Code tit. 43, § 19.400 (2008)
Michigan	Michigan Department of Environmental Quality, Office of Geological Survey	Applicants must identify any water bodies within 1,320 ft. of the proposed well as well as a plan to prevent injected fluids from migrating through the well. They must also provide information confirming the injection of liquids will not fracture the overlying strata as well as quantitative and qualitative analyses of proposed injection fluids.	Mich. Admin. Code 615 § 324.801 (2006)

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Mississippi	Mississippi State Oil and Gas Board	Applications for enhanced recovery injection must provide information necessary to prove there will be no endangerment of USDW. Applicants must also demonstrate that injection will not initiate fractures or cause any movement of fluid into an USDW. Construction of wells must be completed in such a way as to prevent leakage, and mechanical integrity must be demonstrated before operations may begin.	Miss. Reg. r. 63
Montana	Montana Department of Natural Resource Conservation, Board of Oil and Gas	Applicants must submit information on the formations where the well will be placed, an analysis of proposed injection fluids, and project operations.	Administrative Rules of Montana, 36.22.1403
Nebraska	Nebraska Oil and Gas Conservation Commission	Applicants must prove that injection will not cause fractures in the overlying strata which could enable fluids to enter any fresh water strata. They must also submit operating data including analysis of injection fluids as well as freshwater from wells in the surrounding area.	Neb. Admin. R. and Regs. 57 (2008)
New York	New York Department of Environmental Conservation, Division of Mineral Resources	Applications for secondary recovery operations must provide operation data and information of the area where operations will take place. Wells used for injection must be cased to prevent freshwater contamination.	N.Y. Comp. Codes R. & Regs. 23 § 557 (2009)
North Dakota	North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division	Applicants for underground injection must provide information to prove that operations will not allow movement of fluid into an USDW. Construction wells must be cased and constructed in a way to prevent movement of fluids into or between USDW, and the well's mechanical integrity must be demonstrated prior to beginning operations.	N.D. Admin Code § 43-02-03
Ohio	Ohio Department of Natural Resources, Mineral Resources Management Division	Applications for enhanced recovery must include information on the geological zone to be utilized, the type of fluids to be injected, and the estimated average pressure. Operations must not allow the movement of fluid into a source of underground water.	Ohio Admin. Code § 1501 9-5
Oklahoma	Oklahoma Corporation Commission, Oil and Gas Conservation Division	Application for enhanced recovery projects must prove that injection will not create fractures through the overlying strata which could enable fluid to enter freshwater strata. The state requires various strata thickness depending on the fluid injection rate of the project. All applicants must provide an analysis of surrounding freshwater and injection fluid.	Okla. Admin. Code § 165-5.7 (2009)
Pennsylvania	Pennsylvania Department of Environmental Protection, Bureau of Oil and Gas Management	Operators for enhanced recovery wells must have an approved permit and required relevant documentation submitted to the EPA under 40 CFR 146. Applicants must also submit a control plan to prevent substances from reaching waters.	25 Pa. Code § 78.11 (1994); 25 Pa. Code § 78.12 (1994); 25 Pa. Code § 78.18 (1994)
South Dakota	South Dakota Department of Environment and Natural Resources, Minerals and Mining Program, Oil and Gas Section	Applicants for enhanced recovery operations must prove that injection will not cause any degradation of freshwater resources. All wells used for injection must have adequate casing, tubing, and packer. The mechanical integrity of a well must be demonstrated prior to operation.	S.D. Admin. R. 74:10:09
Texas	Railroad Commission of Texas, Oil and Gas Division	Permits for fluid injection may be issued when the injection is determined not to cause the pollution of freshwater strata. Permits may be suspended if injected fluids are escaping from the permitted injection zone or freshwater is likely to be polluted as a result of continued operations.	16 Tex. Admin. Code § 3.46 (West 2007)
Wyoming	Wyoming Oil and Gas Conservation Commission	Operators must file a Notice of Sundry to acidize, cleanout, flush, fracture, or stimulate a well, including the name and type of fluids to be used. Well construction and casing must be done in a manner to protect surrounding fresh water sources.	Wyo. Stat. Ann §30-5-400 (Michie 2008)

*The 20 states listed herein are considered the leading states among the 27 the Ground Water Protection Council has identified as being home to 99.9% of U.S. oil and gas development.