



South Dakota Natural Gas Flaring and Venting Regulations

The U.S. Department of Energy’s Office of Fossil Energy and Carbon Management (FECM) supports research and development of technologies that can reduce the volume of natural gas (e.g., methane) flared or vented (released) into the atmosphere during crude oil and natural gas production, processing, transportation, and storage operations. Methane is a potent greenhouse gas (GHG) and minimizing its release across the oil and natural gas supply chain is critical to the realization of a net GHG benefit and reducing climate and environmental impacts of carbon-based fuels. This fact sheet was created by FECM to inform stakeholders on state-level production and regulatory activities, as they relate to natural gas flaring and venting. FECM’s research portfolio includes efforts to reduce natural gas flaring through the application of improved technologies to capture and utilize small volumes of natural gas at remote locations, as well as technologies to reduce methane release during upstream production operations, as well as midstream natural gas processing and transportation. While flaring activities in the prolific unconventional shale plays have steadily increased between 2011-2019 due to higher oil production levels and natural gas pipeline takeaway capacity constraints, this trend took a sharp downturn since 2020 as a result of significant decline in demand for oil. Other factors include federal and state regulatory efforts to reduce methane emissions, companies taking voluntary actions and measures to minimize flaring of associated natural gas, and additional pipeline projects connecting sources of supply and consumption.

South Dakota Producing Plays and Basins

South Dakota oil and gas production occurs primarily in the northwestern (Harding County) and southwestern (Fall River County) corners of the state (Figure 1). The Williston Basin extends into South Dakota in the northwest and the Denver-Julesburg Basin extends into the southwest corner. The South Dakota Department of Agriculture and Natural Resources (DANR) reports that produced oil and gas comes from about 34 conventional fields, primarily from the Minnelusa and Red River Formations, and mostly from fields in Harding County. There is no significant ongoing unconventional

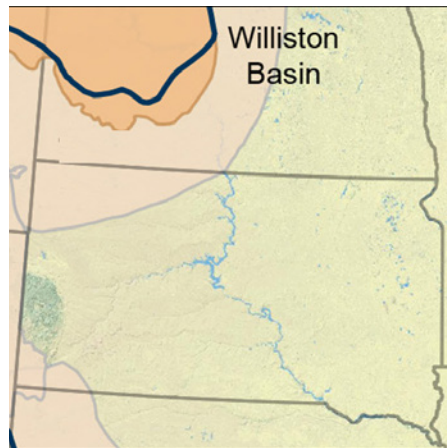


Figure 1: South Dakota oil and gas wells highlighting oil and gas producing areas
Source: South Dakota Department of Environment and Natural Resources

oil or gas development in South Dakota. Although the Williston Basin extends into South Dakota, the Bakken Shale does not.

Key Regulations Associated with Flaring and Venting

The Board of Minerals and Environment and DANR implement oil and gas regulations in the state of South Dakota. DANR publishes an online database of gas production but does not post data specifically pertaining to natural gas flaring. Out of the approximately 200 producing oil and gas wells statewide, the DANR estimates that there are currently less than 20 wells flaring natural gas in South Dakota.

South Dakota Oil and Natural Gas Statistics (EIA)

	2014	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Thousand Barrels/Day)	5	5	4	4	3	3	3
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	42	40	1.2	1.3	1.2	1.1	1.1
Natural Gas Gross Withdrawals and Production (Vented and Flared) (MMcf/Day)	South Dakota does not require the amount of gas flared to be metered and venting gas is prohibited by administrative rule.*						
Natural Gas Gross Withdrawals and Production (Oil Wells) (MMcf/Day)	0.8	0.9	0.7	0.8	0.1	0.1	0.1
Natural Gas and Gas Producing Oil Wells	196	187	165	151	195	201	192

MMcf – million cubic feet

* Information provided by the South Dakota Department of Agriculture and Natural Resources.

Ranking among 32 U.S. oil and natural gas producing states – Oil: 25 (2021) Natural Gas: 23 (2020)

The Administrative Rules of South Dakota [Article 74:12](#) regulates drilling operations. Section [74:12:05:04](#) of this Article stipulates that operators should not permit gas from a completed gas well to escape to the air, except as necessary for cleaning or testing. This rule requires operators to burn all vented casinghead gas that is not put to some useful purpose and to report the volume. Operators must measure casinghead gas that contains high contents of nitrogen and carbon dioxide that will not burn by itself before venting. The Oil and Gas Conservation Act, [South Dakota Codified Law 45-9](#), contains additional rules for oil and gas development in South Dakota. Section [45-9-3](#) prohibits the waste of oil and gas.

South Dakota State Points of Contact

South Dakota Department of Agriculture and Natural Resources: Minerals and Mining Program

Contact the Minerals and Mining Program at DANR for information on oil and gas regulations, enforcement, and general oil and gas drilling practices.

Website: [https://danr.sd.gov/
Environment/MineralsMining/default.
aspx](https://danr.sd.gov/Environment/MineralsMining/default.aspx)

Email: Lucy.Blocker@state.sd.us

Phone: 605-773-4201

*Visit [https://www.energy.gov/fecm/
findyourstate-natural-gas-flaring-and-
venting-regulations-fact-sheets-state](https://www.energy.gov/fecm/findyourstate-natural-gas-flaring-and-venting-regulations-fact-sheets-state)
for a digital version of this fact sheet
that includes hyperlinks to information
sources.*



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