



Clean Air Act Violations at Six Oil & Gas Companies

EPA's Enforcement Benefits Oklahoma-based Corporations

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I. SUMMARY

The oil and gas recovered from shale formations that have been hydro-fractured often include valuable natural gas liquids that can be sold as fuel or chemical feedstock. At atmospheric pressure, these highly volatile liquids release vapors that form smog, are often toxic, and include high concentrations of global warming methane. That is why the Clean Air Act rules require storage of these byproducts in airtight tanks that are regularly inspected for leaks, and equipped to either recover gases that accumulate or destroy them through clean burning flares. Public records show that companies who ignore these common sense standards today can expect little response from the U.S. Environmental Protection Agency (EPA), especially if they are headquartered in Oklahoma.

In the recent past, industry operators who broke these rules could expect to pay millions of dollars in penalties and invest millions more to clean up leaks and prevent their recurrence. For example, EPA enforcement actions required three companies – Noble Energy, Slawson Exploration, and PDC Energy – to pay \$8.55 million and invest nearly \$100 million to upgrade pollution controls, improve leak and repair, and undertake mitigation projects to help offset the illegal emissions from their drilling sites in Colorado and, for Slawson Exploration, on tribal land in North Dakota.

In contrast, EPA and Oklahoma-based Devon Energy entered into an administrative settlement on February 21st of this year, after the agency discovered leaking tanks and inoperative flares at some of the company's Texas sites. That agreement requires no penalties and is limited to a page and a half of vaguely worded commitments that will be difficult to enforce. The settlement preserves EPA's right to take further enforcement action against Devon Energy, but it is unclear whether it will ever do so.

Meanwhile, the agency has yet to take any action at all against Oklahoma-based Chesapeake Energy and Gulfport Energy, who were notified in December of 2016 of widespread violations of the emission control requirements for tanks and flares at multiple drilling sites in northeastern Ohio. All three companies are headquartered in Oklahoma, home of former EPA Administrator Scott Pruitt. An important question is whether EPA gave other Oklahoma-based companies – or all oil and gas companies -- the same soft treatment during Mr. Pruitt's tenure, and whether that pattern will change after his departure.

Table A compares the requirements of the judicial consent decrees with Noble Energy, Slawson, and PDC with those reflected in the administrative settlement with Oklahoma based Devon. These key differences are also discussed in more detail below, as are the unresolved notices of violation sent to Chesapeake and Gulfport more than eighteen months ago.

TABLE A

EPA Enforcement Against Oil and Gas Producers					
Company (HQ)	Date of Settlement or Notice of Violation	Civil Penalty	Environmental /Mitigation Projects	Estimated Cleanup Costs	Emissions Reductions (tons per year)
<u>Noble (TX)</u>	4/22/15	\$4.95 million	\$8.5 million	\$60 million	3,300
<u>PDC (CO)</u>	10/31/17	\$2.5 million	\$1.7 million	\$18 million	2,025
<u>Slawson (KS)</u>	12/1/16	\$2.1 million	\$2.05 million	\$4.1 million	14,700
<u>Devon (OK)</u>	2/22/18	0	0	Unknown	Unknown
<u>Chesapeake (OK)</u>	12/21/16	Notice of Violation issued; no enforcement action to date			
<u>Gulfport (OK)</u>	12/22/16	Notice of Violation issued; no enforcement action to date			

The unwillingness to enforce the law makes it easier for unscrupulous operators to ignore the rules until they are caught. That is unfair to law abiding companies who have spent money to comply and to those living downwind. The enforcement actions against Noble, Slawson, and PDC eliminated nearly 20,000 tons of nitrogen oxide and chemicals that form smog, and fine particles. Companies that expose their neighbors to that kind of pollution should expect to pay a fine and spend what it takes to clear the air. The report below evaluates the terms of EPA’s settlement with Oklahoma-based Devon Energy (on February 22, 2018) to those obtained from Colorado-based PDC Energy, (on October 31, 2017); Kansas-based Slawson Exploration Company (on December 1, 2016); and Texas-based Noble Energy (on April 22, 2015).¹ We also discuss EPA notices of violation sent to Chesapeake Energy on December 21, 2016, and to

¹ Order Granting Motion to Enter Consent Decree, *United States v. Noble Energy, Inc.*, 2015 WL 3524405, (No. 15-cv-00841-RBJ) (D.Colo. 2015) (“Noble Consent Decree”); *United States v. PDC Energy Inc.*, (No 1:17-cv-01552-MSK-MJW) (D.Colo. 2017) (“PDC Consent Decree”); *United States v. Slawson Expl. Co.*, 1:16-cv-00413-CSM (D.N.D. 2016) (“Slawson Consent Decree”); *Devon Energy, Administrative Order on Consent*, Docket No. CAA 06-2018-3302 (2018) (“Devon Consent Decree”). *Table A: EPA Enforcement Against Oil and Gas Producers* contains links to these documents.

Gulfport Energy on December 22, 2016. No further enforcement action has been taken against either of these companies, both of which are headquartered in Oklahoma.

As explained further below, all six cases involved the failure to comply with rules designed to limit emissions of smog forming chemicals from storage tanks and other equipment serving natural gas production sites. A review of these documents raise questions about whether the Oklahoma-based companies received comparatively favorable treatment for similar violations relative to the penalty and cleanup requirements faced by their competitors, or whether other oil companies can expect to benefit from this “hands off” approach in the future.

II. Devon Settlement vs. Noble, Slawson and PDC Judicial Consent Decrees

A. Alleged Violations

On December 14, 2017, EPA notified Devon Energy that Agency inspections and aerial surveillance had discovered violations of federally enforceable emission control requirements for tanks and flares serving multiple well drilling sites recently acquired by Devon in Texas. These violations were uncovered in the fall of 2015, after Devon had reported to the state of Texas that it had audited these acquisitions, located in the Eagle Ford Shale area, and corrected all violations.²

Devon Energy’s operations in Texas violated the state’s federally approved CAA regulations in similar ways. Devon’s violations include: failing to properly maintain equipment in good condition and properly operate emissions controls; failing to assure ignition at flares; failing to maintain tank seals; and failing to destroy or recover volatile organic compounds via flares or vapor recovery systems. In Devon Energy’s case, EPA found that some flares were unlit; all the waste gases sent to these inoperative flares would be released directly to the atmosphere rather than destroyed through combustion.

EPA’s investigations of Devon followed earlier enforcement action against Noble Energy, PDC Energy, and Slawson Exploration for violating federally enforceable Clean Air Act standards requiring that “all condensate collection, storage, processing, and handling operations, regardless of size, shall be designed, operated, and maintained so as to minimize the leakage of VOCs to the atmosphere.” Additionally, EPA and Colorado alleged that PDC and Noble failed to ensure that “all such air pollution control equipment shall be adequately designed and sized . . . to handle reasonably foreseeable fluctuations in emissions of [VOCs].”

Natural gas wells are usually equipped with “separators” that split condensate (so called wet gas) that can be used as liquid fuel or chemical feedstock from the dry gas that is sent to pipelines. Condensate is stored onsite in tanks until it can be trucked offsite to industrial

² Devon Consent Decree ¶¶ 12-16. Devon Energy notified Texas of the completion of corrective action on May 28, 2015. EPA aerial surveys in October and November of 2015 showed leaks from unlit flares at Devon facilities.

customers. Federal Clean Air Act rules are designed to minimize the leakage of gas, which includes smog forming chemicals, from separators and tanks at well sites.

In each case, the consent decrees specifically address issues related to the storage of condensates. These natural gas liquids (or NGL's) are produced from shale fields and are highly valued for their use in the manufacture of chemicals or fuels. But condensates are also volatile liquids that emit gas vapors that include toxins and smog forming pollutants. The gases must be contained in storage tanks until they can be routed to vapor recovery units or destroyed through flares. The rules in question generally prohibit tanks from leaking gases to the atmosphere and require operators to recover or destroy at least 95% of any waste gases that are periodically removed from tanks.³

Although the violations in each case are comparable, EPA's February 22, 2018 settlement with Devon Energy requires far less than the consent decree terms agreed to by the other three companies.

B. Emission Controls and Compliance Monitoring

To comply with their duties under the consent decrees, Noble, PDC, and Slawson must fulfill a long and detailed list of obligations, which include designing and implementing vapor control systems capable of handling the maximum potential emissions from each tank; certifying that upgrades were completed appropriately; developing identification numbers that make it easier for EPA to track the performance of larger tanks through the Agency's data system; evaluating all pressure release valves, thief hatches, and gaskets at large tanks; replacing faulty equipment as appropriate; developing a preventive maintenance and inspection regime and submitting it to EPA and Colorado Department of Public Health and the Environment for approval; establishing periodic inspection schedules; installing tank pressure monitoring systems; and establishing a system for third-party verification of engineering evaluations and modifications.⁴

The three companies also agreed to a strict, verifiable inspection regime that includes the use of infrared cameras to discover leaks, monthly inspections of large tank systems, and third party audits to verify that tanks are airtight, flares are lit and operating properly, and that vapor control systems meet the agreed upon engineering standards.⁵ Each company agreed to undertake corrective actions within five to ten days when leaks are discovered over the course of these inspections.⁶ These requirements have specific reporting instructions and stipulate penalties for noncompliance with consent decree obligations.

In contrast, Devon's agreement requires no third-party oversight, sets no timeframe for corrective action, does not include monthly inspections or require that large tanks be identified for EPA tracking purposes, and contains minimal reporting requirements. Additionally, Devon's settlement with EPA "acknowledges that Devon Energy may have already implemented some of

³ Hiroko Tabuchi and Eric Lipton, "How Rollbacks at Scott Pruitt's E.P.A. Are a Boon to Oil and Gas," The New York Times, May 20, 2017 <https://www.nytimes.com/2017/05/20/business/energy-environment/devon-energy.html>.

⁴ Noble Consent Decree ¶¶ 7-21; PDC Consent Decree ¶¶ 8-19; Slawson Consent Decree ¶¶7-17.

⁵ Noble Consent Decree ¶ 20; PDC Consent Decree ¶ 18; Slawson Consent Decree ¶ 15.

⁶ Noble Consent Decree ¶ 18; PDC Consent Decree ¶ 15; Slawson Consent Decree ¶ 13.

these requirements and acknowledges that activities completed . . . may satisfy the requirements of this consent order.⁷⁷ Devon's agreement is also only an Administrative Order on Consent, filed with the agency, meaning its terms do not extend past one year. The Noble, PDC, and Slawson agreements are each judicial consent decrees, filed in Federal District Courts and effective until the companies reach compliance.

C. Civil Penalties for Past Violations.

Noble Energy paid \$4.9 million for its past violations of the Clean Air Act, including \$3.45 million in federal penalties and \$1.45 million in Colorado state penalties.⁸ PDC agreed to \$2.5 million in penalties, evenly split between the federal government and Colorado,⁹ while Slawson paid \$2.1 million in total federal penalties violating the Clean Air Act on tribal lands.¹⁰ The three consent decrees also stipulate the specific penalties required for violating consent decree requirements.

Devon Energy paid no civil penalties to either the EPA or the State of Texas, and its settlement does not require any stipulated penalties for violating the terms of its agreement.

D. Cleanup Costs and Emission Reductions

Noble must undertake infrastructure improvements in the form of monitoring systems, tank replacements and modifications, and system-wide engineering evaluations, which the EPA estimates will cost approximately \$60 million.¹¹ The EPA expects these improvements, mitigation projects, and supplemental environmental projects to reduce VOCs and NOx emissions by over 3,300 tons per year, translating into a sizable reduction in ground level ozone.¹² PDC must also undertake rigorous engineering evaluations and update its monitoring and inspection regime, at an estimated cost of nearly \$18 million.¹³ The EPA expects these improvements, along with additional mitigation projects, to reduce VOCs and NOx emissions by over 2,000 tons per year.¹⁴ Slawson must undertake similar engineering evaluations, implement stringent inspection and preventative maintenance programs, and undergo third-party auditing, amongst other requirements, which the EPA expects will cost \$4.1 million.¹⁵ The EPA expects the Slawson improvements to reduce VOCs emissions by 11,700 tons per year -- equivalent to

⁷ Devon Consent Decree ¶ 30.

⁸ *Noble Energy, Inc. Settlement*, U.S. ENVTL. PROT. AGENCY (Apr. 22, 2015)

<https://www.epa.gov/enforcement/noble-energy-inc-settlement>.

⁹ *PDC Energy, Inc., Clean Air Act Settlement*, U.S. ENVTL. PROT. AGENCY (Oct. 31, 2017)

<https://www.epa.gov/enforcement/pdc-energy-inc-clean-air-act-settlement>.

¹⁰ *Slawson Expl. Co., Inc. Clean Air Act Settlement*, U.S. ENVTL. PROT. AGENCY (Dec. 1, 2016)

<https://www.epa.gov/enforcement/slawnson-exploration-company-inc-clean-air-act-settlement#civil>.

¹¹ *Noble Energy, Inc. Settlement*, <https://www.epa.gov/enforcement/noble-energy-inc-settlement>.

¹² *Id.*

¹³ *PDC Energy, Inc., Clean Air Act Settlement*, <https://www.epa.gov/enforcement/pdc-energy-inc-clean-air-act-settlement>.

¹⁴ *Id.*

¹⁵ *Slawson Expl. Co., Inc. Clean Air Act Settlement*, <https://www.epa.gov/enforcement/slawnson-exploration-company-inc-clean-air-act-settlement#civil>.

the annual emissions from 723,338 light-duty trucks/SUVs¹⁶ -- and to reduce the emission of other air pollutants by a further 3,000 tons per year.¹⁷

Devon may achieve some emission reductions through its administrative settlement with EPA, but the requirements are less specific than in the other requirements, making it will be harder to verify actual performance. And the delay in resolving violations at Devon, Chesapeake Energy, Gulfport, and other gas drilling operations leaves communities downwind exposed to health risks from thousands of tons of illegal pollution.

E. Environmental Projects/Mitigation

EPA settlements often include the violator's commitment to invest in environmental projects or other actions to mitigate (or offset) the illegal pollution that resulted from its violations. In addition to civil penalties, Noble agreed to spend \$4.5 million on environmental mitigation, and spend \$4 million on supplemental environmental projects. These projects include replacing woodstoves with newer and clear models reduce the emission of fine particles, carbon monoxide, VOCs, and hazardous air pollutants and help Colorado comply with federal air quality standards. PDC's agreement obligates the company to undertake \$1.7 million in mitigation projects to reduce VOCs and NOx emissions by 425 tons per year. Slawson's consent decree requires the company to undertake \$1.5 million in projects that include a commitment to install emission controls on every drilling rig it uses.

F. Releases from Future Liability

As is typical in such cases, the consent decrees release Noble, Slawson, and PDC from any remaining liability for the Clean Air Act violations in those cases, in return for each company's payment of civil fines, commitment to specific actions to clean up leaking tanks and flares, and investment in mitigation projects. The Devon settlement does not include these releases, and reserves EPA's right to take future enforcement action for the violations identified by the Agency.

But it is unclear whether EPA will ever exercise this authority. For example, the New York Times reported on May 20, 2017, that before President Trump took office Devon, "had been prepared to install a sophisticated system to detect and reduce leaks of dangerous gases" and had discussed paying a six figure penalty to resolve an EPA enforcement action alleging Clean Air Act violations at a Wyoming gas plant. Five days after Scott Pruitt took office in February of 2017, the company informed EPA that it was "re-evaluating its settlement posture," and was no longer willing to install emissions controls or pay a large fine.¹⁸ More than fifteen months later, this case apparently remains unresolved.

¹⁶ EPA, Office of Transportation and Air Quality. "Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks" EPA420-F-08-024 at page 5 (October 2008), <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100EVXP.PDF?Dockey=P100EVXP.PDF>.

¹⁷ *Slawson Expl. Co., Inc. Clean Air Act Settlement*, <https://www.epa.gov/enforcement/slawson-exploration-company-inc-clean-air-act-settlement#civil>.

¹⁸ Tabuchi and Lipton, *supra* note 3.

III. Notices of Violation Against Chesapeake Energy and Gulfport Energy

On December 21, 2016, EPA notified Oklahoma-based Chesapeake Energy that storage tanks serving 15 of its oil and gas well pads in eastern Ohio's Carrol and Columbiana counties were releasing illegal amounts of smog forming pollutants.¹⁹ The next day, EPA notified Gulfport Energy, another Oklahoma corporation, of similar violations at 15 of the company's well pads in Belmont, Guernsey, and Harrison counties in eastern Ohio.²⁰

The notice letters to each company allege violations of Clean Air Act New Source Performance Standards (NSPS) standards that apply to VOC emissions from storage tanks built between August 23, 2011 and September 28, 2015. The rules require such tanks to be leak-proof and inspected regularly to detect and stop any leaks that are found, and to recover or destroy at least 95% of any excess vapor that must be released when tanks are unloaded or depressurized.

EPA's notice letters to each company target sites with larger tanks which, when operating without the required emission controls, are likely to release at least six tons of volatile organic compounds within the first thirty days of operation. As well pads are typically served by at least four of these storage vessels, the emissions from leaking tanks at all of the sites targeted by EPA can add up to hundreds of tons per year. As noted earlier, EPA expects the cleanups required under consent decrees with Noble, PDC, and Slawson to eliminate a combined 20,025 tons of VOC's per year.

EPA has yet to take any follow-up enforcement action to fine Chesapeake Energy or Gulfport Energy or required it to eliminate the illegal emissions that EPA alleged in the notice letters sent to each company in December of 2016, more than eighteen months ago.

¹⁹ Chesapeake Energy Co., Finding of Violation, Docket No. EPA-5-17-OH-06 (Dec. 21, 2016) www.environmentalintegrity.org/wp-content/uploads/2017/02/Chesapeake-Energy-Corp..pdf (also available in *Table A* on page 2).

²⁰ Gulfport Energy Co., Finding of Violation, Docket No. EPA-5-17-OH-08 (Dec. 22, 2016) www.environmentalintegrity.org/wp-content/uploads/2017/02/Gulfport-Energy.pdf (also available in *Table A* on page 2).