

Enforcement Report
PA DEP

PENNSYLVANIA DEPARTMENT
OF ENVIRONMENTAL
PROTECTION

**Inadequate enforcement
guarantees irresponsible oil and
gas development in Pennsylvania**

SEPTEMBER 2012



Failure to adequately enforce
oil and gas rules is harming
Pennsylvania's public health,
safety, and environment



EARTHWORKS™

OIL & GAS ACCOUNTABILITY PROJECT

Pennsylvania's Oil & Gas Enforcement

DEP CAN'T KEEP UP WITH RAPID DEVELOPMENT

The Pennsylvania Department of Environmental Protection (DEP) Office of Oil and Gas Management is responsible for overseeing "the safe exploration, development, and recovery of Pennsylvania's oil and gas reservoirs in a manner that will protect the Commonwealth's natural resources and the environment."¹

Through the 1990s, only 1,383 wells were drilled in Pennsylvania.² Recently, however, oil and gas development has boomed in the state: more than 20,000 conventional oil and gas wells and more than 5,700 "unconventional" shale gas wells have been drilled since 2005.³

DEP recently quadrupled the size of its enforcement staff to 130 employees, 65 of whom are inspectors.⁴ In 2012, the number of inspectors was reported to be 83.⁵ While these increases are necessary, they are not sufficient in light of the rapid increase in wells and related facilities. Even with increased staff, DEP does not adequately enforce existing oil and gas regulations:

- Tens of thousands of active wells are not inspected every year.
- The number of oil and gas violations continues to increase, and some operators have a chronic problem with non-compliance.
- Enforcement actions are insufficient to deter violators—violators are now more likely than ever to go unpunished.

Inspection Capacity – LACKING

In Pennsylvania, when inspections of oil and gas well sites occur, violations are found. Unfortunately, not enough inspections are taking place, and as a result it is likely that many problems are going unreported and are being left unaddressed.

In 2010 DEP failed to inspect more than 82,000 or 91 percent of active wells. In 2011, more than 66,000 active wells (86 percent) did not receive DEP oversight.⁶

In 1989, DEP's "Inspection Policy for Oil and Gas Well Activities" was incorporated into the Pennsylvania State Code. This policy recommends that a well be inspected seven times before it even begins to produce oil or gas; at least once a year thereafter during production to determine compliance with oil and gas statutes; and at various other times throughout the life of the well.⁷

However, codifying these recommendations has not resulted in compliance with the policy. There were 2,843 new wells drilled in Pennsylvania in 2010.⁸ Under the Inspection Policy,

there should have been close to 20,000 inspections of those wells. Also, each of the 70,000 wells that produced oil or gas in 2010 should have received an inspection.⁹ If DEP had been following its adopted policy, it would have performed more than 90,000 inspections. However, DEP carried out just 15,368 inspections, or 19 percent of the inspections suggested in the policy.¹⁰

Even some representatives of the oil and gas industry believe that DEP cannot keep up with its inspection load. At a conference held in April 2012, the president of Southwestern Energy Company stated that "We as an industry have gone to the state of Pennsylvania and said you don't have enough inspectors, you don't have enough people."¹¹



Pennsylvania failed to inspect 86% of the 66,000 active wells in the state in 2011.

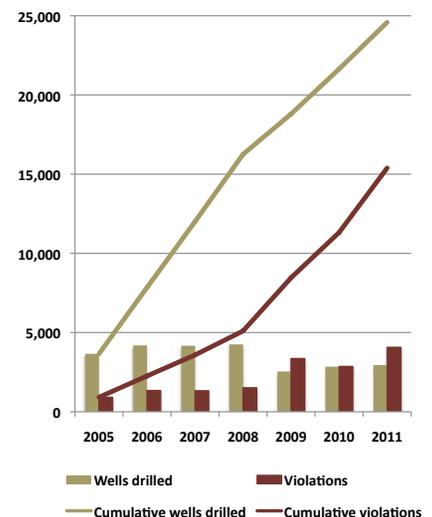
Violations – INCREASING, WITH CONTINUED NON-COMPLIANCE

More violations were found by inspectors in 2011 than in any of the past 15 years.

As seen in the chart below, even though drilling has slowed in the past few years, violations have remained high.¹²

Our research shows that many operators repeatedly violate the same rule at different well sites, and from one year to the next. And the practices of many operators are getting worse.¹³

The table on the next page shows the 12 Pennsylvania oil and gas operators with the most violations in 2011. All but two (Chief and Anadarko) had more violations in 2011 than in previous years, and many operators have had consistently large numbers of violations for three years in a row (e.g., Chesapeake, Cabot, Chief, Range, XTO, and Ultra).



Drilling and Violations in Pennsylvania
The lines in chart above show that between 2005 and 2011 more than 24,000 oil and gas wells were drilled in Pennsylvania, and there were more than 15,000 violations of oil and gas regulations.

Violations are on the rise. Since 2008 the number of wells drilled per year has decreased, yet the number of violations per year has more than doubled.

Trends in Violations for the Top Offenders in Pennsylvania

Operator	Number of active wells 2011	Violations per year 2009	Violations per year 2010	Violations per year 2011
Catalyst Energy Inc.	1,633	41	27	187
Chesapeake Appalachia LLC	1,378	123	157	161
Cabot Oil & Gas Corp	315	82	115	174
N. Amer. Oil & Gas Drilling Co. Inc.	1,001	26	0	128
Chief Oil & Gas LLC	181	33	178	95
Range Resources Appalachia LLC	5,068	12	54	95
Farrington & Hepler Gas & Oil Inc.	70	4	20	88
XTO Energy Inc	4,747	23	68	81
Eagle Resources Corp	61	7	0	70
Ultra Resources Inc.	222	25	59	70
Anadarko E&P Co. LP	480	8	83	70
Allegheny Natural Resources Inc.	33	4	8	55

The table also shows that operators with the most violations are not necessarily those with the largest number of wells.¹⁴

Enforcement Actions – NOT KEEPING PACE WITH VIOLATIONS

When violations of oil and gas rules occur, the DEP can take a variety of enforcement actions such as: issue notices of violation, assess penalties, negotiate consent agreements with operators, and suspend or revoke permits.¹⁵

According to DEP, “environmental inspectors have had greater authority since April [2012] to penalize operators...and enforce violations.”¹⁶ Yet enforcement actions have not increased relative to violations. In fact, a larger percent of violations are going unpunished now than in any of the past 10 years.

In April, May and June of 2012 an average of 20% of violations

resulted in enforcement actions. This is down from 2011, when enforcement action was taken on 24% of violations, and nowhere near 2004, when DEP took action for more than half of all violations.¹⁷

DEP does not publish annual statistics on oil- and gas-related penalties assessed and collected by the agency. DEP’s Compliance Report system includes data on penalties, but it is not a straightforward task to determine the total penalties assessed per year. Our analysis shows that penalties plummeted in 2011, even though violations and enforcement actions increased that year.¹⁸

DEP’s enforcement actions and penalties have decreased relative to the number of violations recorded. Fines per enforcement action have declined over the same period. **The result: violations are not being effectively deterred.**

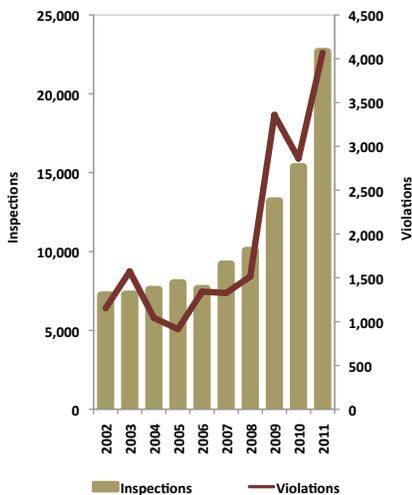


Many operators have had consistently large numbers of violations for three years in a row, including, Chesapeake, Cabot, Chief, Range, XTO, and Ultra.

The Public’s Role – CITIZENS HELP FIND VIOLATIONS; PUBLIC DATA ACCESS NEEDS IMPROVEMENT

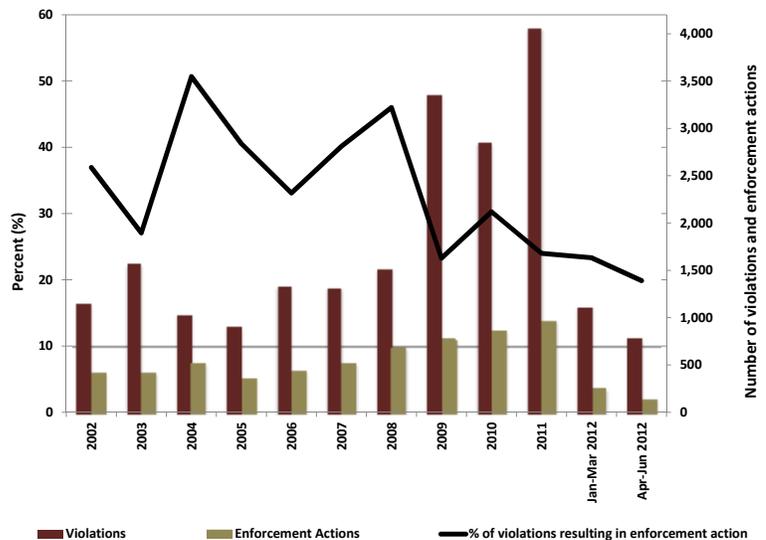
In Pennsylvania, citizens play an important role when it comes to oil and gas enforcement. Between 2007 and 2011 approximately 2,890 oil and gas inspections took place because of complaints, and violations were found as a result of more than 700 of these complaint-driven DEP inspections.¹⁹

DEP should foster relationships with communities by ensuring



Violations and the Number of Inspections

Violations surged in 2009 and have since remained high. One of the possible reasons for the recent increase in violations is that there has been an increase in inspections. This chart shows a fairly strong relationship between oil and gas violations and the number of inspections in Pennsylvania. **In other words when DEP inspectors go looking they find problems.**



Enforcement Actions and Violations

In the past ten years, the total number of enforcement actions in Pennsylvania more than doubled, from 426 in 2002 to 976 in 2011. Over that same time period, however, there was an even greater increase in violations (nearly four-fold), from approximately 1,153 in 2002 to 4,069 in 2011.

that citizens' complaints are taken seriously and are resolved in a timely manner. Moreover, to encourage public participation in oversight activities, DEP should increase transparency and access to information on oil and gas facilities, incidents, complaints and DEP enforcement efforts.

In January 2012, DEP released an online database that made some data on oil and gas wells more publicly accessible.²⁰ But public access to other important DEP data is lacking, especially when compared to data available in other states:²¹

- Detailed inspection reports are not posted online.
- Detailed information on wells (e.g., copies of permits and supporting data filed by operators) is not available online.
- There is no public spills/blowouts/well control database.
- There is no public database of citizen complaints.

The Path Forward

DEP's inadequate enforcement of existing drilling regulations promises irresponsible oil and gas development, particularly in light of the state's presumed goal of expanding production. The most important step to address these enforcement problems is to make enforcement a priority, rather than an afterthought.

Our review of enforcement shows that Pennsylvania does not have the regulatory tools to adequately enforce its oil and gas regulations. To remedy this, we believe there should be a new rulemaking focusing exclusively on enforcement.

At minimum, new rules should address:

INSPECTIONS

- Develop comprehensive and binding inspection protocols.
- Establish minimum inspector-to-well and annual-inspections-to-well ratios. New wells must not be allowed until the state can meet these minimum standards.
- Competitively pay inspectors so as to retain high-quality personnel and ensure competent inspections.

ENFORCEMENT ACTIONS

- Establish binding criteria for taking enforcement actions and levying penalties to ensure that violations receive consistent treatment.
- Increase fines and enforcement actions, especially against the worst operators (such as repeat offenders and those with the most fines) to encourage better practices and improve overall compliance.

PUBLIC PARTICIPATION

- Strengthen relationships with citizens by responding to and resolving citizen complaints in a timely and thorough manner and maintaining communication with the residents of properties where violations have occurred.
- Collect and track comprehensive data on citizen complaints – including facilities of concern, nature of complaint, DEP follow-up, and resolution (e.g., any enforcement actions taken).
- Periodically analyze and publicly report trends in enforcement.
- Increase transparency by improving public, online access to detailed data on wells and other oil and gas facilities, and incidents such as spills and blowouts.

For a more detailed analysis of oil and gas enforcement in Pennsylvania, visit Earthworks' Pennsylvania Enforcement web page: <http://enforcement-pa.earthworksaction.org>

ENDNOTES

- 1 Pennsylvania Department of Environmental Protection (DEP) web site. "Oil and Gas Program." http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas/6003
- 2 Pennsylvania DEP. Office of Oil and Gas Management. "Wells drilled by County." Searched 01/01/1990 to 12/31/1999. Accessed 06/11/12. http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/Wells_Drilled_By_County
- 3 Unconventional includes Marcellus, Utica and other formations defined in Pennsylvania Code: <http://www.pacode.com/secure/data/025/chapter78/subchapAtoc.html>
Drilling statistics from DEP Well Permit Workload Report for the week of 07/09/2012 to 07/13/2012. Accessed 07/25/12. http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_reports/20297
- 4 Kusnetz, N. Feb. 3, 2011. "Many PA gas wells go unreported for months," *ProPublica*. <http://www.propublica.org/article/many-pa-gas-wells-go-unreported-for-months>
- 5 Gilmer, E.M. July 25, 2012. "Regulation: How many wells per inspector? In some states, answer is elusive." *Energy Wire*. <http://www.eenews.net/ew/>
- 6 Data on active wells: See Pennsylvania "Well Data from DEP Oil and Gas Production Database" table on Earthworks' Enforcement web page for references and details on how these numbers were generated. http://www.earthworksaction.org/images/uploads/Table_pennsylvania_active_well_data_footnotes.gif
Number of wells inspected: Pennsylvania DEP. Oil and Gas Compliance Report. Data accessed 03/20/12. http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/OG_Compliance
Search: 01/01/2010 to 12/31/2010 (and 01/01/2011 to 12/31/2011). Inspections with violations only; Number of download data into Excel. Then filtered by Permit number, selecting "unique records" to find how many wells were inspected.
- 7 Pennsylvania Code. Title 25 §78.901-906. "Inspection Policy Regarding Oil and Gas Wells." <http://www.pacode.com/secure/data/025/chapter78/subchapXtoc.html>
- 8 Pennsylvania DEP. Bureau of Oil and Gas Management. Jan. 25, 2011. 2010 Workload Report, p. 2. http://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/2010/2010_Year_End_Reports.pdf
- 9 This number is based on active wells that produced oil or gas. See Pennsylvania "Well Data from DEP Oil and Gas Production Database" table to find out how these numbers were generated. http://www.earthworksaction.org/images/uploads/Table_pennsylvania_active_well_data_footnotes.gif
- 10 See Earthworks' "Pennsylvania Inspections Data" table for more details: http://www.earthworksaction.org/images/uploads/Table_pennsylvania_inspection_data_footnotes.gif
- 11 April 11, 2012. *New York Times* Energy for Tomorrow Conference. Discussion Panel "What do we do with natural gas?" Steve Mueller quote occurred 26:15 minutes into the discussion. <http://www.nyenergyfortomorrow.com>
- 12 See Earthworks' "Pennsylvania Drilling and Violations Data" table for more details: http://www.earthworksaction.org/images/uploads/Table_pennsylvania_drilling_violations_footnotes.gif
- 13 Using data downloaded from the DEP Compliance Report system, it was possible to sort the data by "Violation Code" to determine which companies frequently violated a particular rule. View data chart at: http://www.earthworksaction.org/images/uploads/Table_pennsylvania_violations_repeat_offenders.gif
- 14 Violations data: DEP Oil and Gas Compliance Report system. Search by operator and year. http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_compliance_report/20299
Active well data: Wells Inventory by Operator. Removed wells permitted after 12/31/11. Filtered by Well Status: "active." http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/Operator_Well_Inventory_By_Operator
- 15 For full list of enforcement options see: PA DEP. 2005. "Enforcement Actions by DEP's Oil and Gas Management Program." <http://www.library.dep.state.pa.us/dsweb/Get/Document/48291/01%20550-4000-001.pdf>. Enforcement actions such as suspension of permits are discussed in Earthworks' Breaking All the Laws Report (Sec. 1.4). <http://enforcement.earthworksaction.org>
- 16 Zrinski, T. July 7, 2012. "Marcellus gas: No bust, just glut." *Beaver County Times*. http://www.timesonline.com/news/local_news/marcellus-gas-no-bust-just-glut/article_dcd0676d-7fcb-5672-be5a-f271caec242a.html
- 17 Data and citations for enforcement statistics used in this report can be found in Earthworks' "Pennsylvania Enforcement Data" table at: http://www.earthworksaction.org/images/uploads/Table_pennsylvania_violations_enf_actions_footnotes.gif
- 18 Visit Earthworks' Pennsylvania Enforcement web page "Enforcement Actions" for data and analysis on penalties in Pennsylvania. http://www.earthworksaction.org/issues/detail/pennsylvania_oil_gas_enforcement_sanctions
- 19 See Earthworks' Pennsylvania Enforcement web page "Public Participation" for more details on citizen complaints related to oil and gas in Pennsylvania. http://www.earthworksaction.org/issues/detail/pennsylvania_oil_gas_enforcement_the_publics_role
- 20 The new DEP Oil and Gas Compliance Report system is available at: http://www.portal.state.pa.us/portal/server.pt/community/oil_and_gas_compliance_report/20299
Prior to the new online data system, the Pennsylvania DEP published fairly detailed "Inspections, Enforcement and Violations" spreadsheets. But data were only available for 2008–2011. The new system contains data going back to 1984. The spreadsheets are no longer available on the website.
- 21 See Earthworks' Pennsylvania Enforcement web page "Public Participation" for examples of oil and gas data provided by states such as Colorado, New Mexico, Ohio and Texas. http://www.earthworksaction.org/issues/detail/pennsylvania_oil_gas_enforcement_the_publics_role