

ANALYSIS: Right-to-Know Request - Pennsylvania Department of Health Log of Complaints Related to Gas Drilling and Fracking

Pennsylvania resident complaints to the state Department of Health (acquired by Right-To-Know Law requests) about negative effects of fracking reveal a disturbing picture of the many health problems that fracking brings and the suffering of people forced to live near drilling sites. Common symptoms reported include difficulty breathing, asthma, throat and nose irritation, noxious odors, skin problems, and abdominal issues. Residents also reported headaches, nosebleeds, eye irritation, cancer and hair loss.

Background

In June 2014, [StateImpact Pennsylvania](#) reported that, according to two former Pennsylvania Department of Health (DOH) employees, the agency had instituted policies designed to stop DOH field staff from addressing complaints from residents regarding natural gas drilling and fracking-related health impacts. The two whistleblowers independently said that DOH employees had been given specific instructions to refrain from engaging with residents who called with health complaints containing specific “buzzwords.” They reported that in [2012](#), DOH community health workers at regional offices across the state were given a memo containing [19 “buzzwords.”](#) These “buzzwords,” if used by callers, triggered the DOH staffer to immediately get the person’s contact information and give it to higher-level staff. NPR’s *StateImpact* released the “buzzwords” memo in a follow-up story, revealing that the memo includes words and phrases such as 'fracking,' 'Marcellus,' 'hair falling out,' 'skin rash,' 'cancer cluster', and other symptoms that residents had complained of since the shale boom began.

“We were absolutely not allowed to talk to them,” said Tammi Stuck, one of the two retirees-turned-whistleblowers.¹ In addition, any DOH employee who wanted to attend a fracking-related workshop or seminar had to file for special permission from the agency. Some employees saw these actions as attempts to silence the department on human health impacts of fracking, a move that had a “chilling effect”² on the staff.

When these policies became public, the Corbett administration’s Secretary of Health claimed they were implemented so that the agency was “[speaking with one voice](#)” on fracking. However, whistleblower Marshall Deasy could not recall anything like it in his 20 years with the DOH stating, “community health wasn’t told to be silent on any other topic that I can think of.”³

In June 2014, the DOH confirmed the buzzword list and reported that they had logged 51 complaints from residents and found “no link between drilling and illness.”⁴

Right to Know Request Process

In July 2014, Food & Water Watch filed a Right-to-Know Law (RTKL) [request](#) with Pennsylvania’s DOH seeking records related to both policies. Food & Water Watch requested copies of all records (phone calls and emails) of natural gas drilling-related public health concerns and/or complaints received by the agency, and response records detailing if and how promptly those concerns and/or complaints were answered.

¹ Colaneri, Katie. “Former state health employees say they were silenced on drilling.” *StateImpact Pennsylvania*. June 19, 2014.

² *Ibid.*

³ *Ibid.*

⁴ *Ibid.*

Although the DOH did initially turn over some memos and internal email exchanges related to processes and procedures, they fully denied access to any records of citizen concerns/complaints and the agency's response to the complaints. DOH claimed that such records were protected from disclosure by the state's Disease Prevention and Control Act of 1955, a law that was enacted primarily to address and control the outbreak of communicable diseases like syphilis and gonorrhea, not keep quiet the human health impacts of toxic industrial practices.

Over the ensuing many months, Food & Water Watch fought hard to get these records, appealing DOH's denial to the state Office of Open Records (OOR). Food & Water Watch pointed out the many reasons why DOH had no legal right to withhold public records and, while they were free to redact names of people from the complaint logs to protect privacy, they could not withhold records related to the human health impacts of natural gas drilling and fracking. DOH not only refused to allow Food & Water Watch access to these records, but also denied access to an OOR judge who asked to conduct an *in camera* review of the records to see if they were truly subject to withholding from the public.

By early 2015, OOR informed the health department that OOR was prepared to go to court and file an enforcement action against DOH if it didn't turn over the requested records. At this time, Governor Tom Wolf took office, replacing Governor Corbett who received more than [\\$2 million dollars from the oil and gas industry](#).

In late March 2015, DOH indicated to us that they would work with us to resolve the matter outside of a Right-to-Know Law (RTKL) request context. After a couple months of correspondence DOH was suddenly ready to turn over the redacted resident concerns/complaints they had fought so hard to keep secret under the Corbett administration. On June 1st, Food & Water Watch received 111 pages of citizen concerns/complaints received by DOH over a four-year period, from 2011 through the beginning of 2015, containing more than 80 separate records, many of which alleged drilling and fracking-related illness and/or human health concerns. The records paint a very troubling picture of the many health problems that fracking brings and the suffering of people forced to live near drilling sites.

Some of the supporting documents including emails, testing results and other letters referenced in the complaint records were not turned over to Food & Water Watch and will be the subject of a subsequent RTKL request.

Analysis of Complaints

Between March 30, 2011 and April 6, 2015, the Department of Health logged **87⁵ records of complaints** filed by concerned residents, health professionals, state legislators and agencies on behalf of Pennsylvania residents. In some instances, complaints were filed on behalf of a family, a community or on behalf of multiple patients served by a single health provider. The DOH staff logged the details in the records inconsistently, but of the records that did include a number for the cases (number of persons affected), **at least 122 people were affected in the 87 records.**⁶ Many

⁵ If you look at the records you will see on page 109 the final recorded number is "86." The reason we counted more records than that is because we tallied records 46a (page 50), 46b (page 51), 48a (page 54) and 48b (page 55) as individual records. Also - there are a total of 88 records - but one was a general inquiry made from an individual living in New Mexico - so that is not included in our analysis since it is not from a Pennsylvania resident. Omitting that record, there are a total of 87 records.

⁶ At the bottom of each report is a section that says "Number of Cases Affected" - at times a number is given and at times it is left blank

more people were likely impacted since not every record identified how many "cases" (or people) were affected.

Medical doctors, health-related state agencies or public health educators filed about 20 percent of the 87 records. Nearly a third of the records came from the Southwestern region of the state with 28 complaints, followed closely by the Northeastern region with 23 complaints, and the North Central region with 19 complaints⁷ (see Table 1). **These three regions with the most complaints also have the most wells that have been drilled and fracked** (see Table 2).

The number of complaints reported increased each year, and 2015 is on track to surpass the 2014 number of complaints.

Table 1: Records by Year and Region

Region	2011	2012	2013	2014	2015 (through April)	Total
Southwest	4	3	4	12	5	28
Northeast	3	4	3	11	2	23
North Central	4	4	5	3	3	19
Southeast		6	5			11
Northwest			1	1		2
South Central	1					1
Unknown*		1	2			3
Total	12	18	20	27	10	87

*Not able to identify region of complaint

Table 2: Total Shale Wells Drilled By Region, January 1, 2011 to April 30, 2015⁸

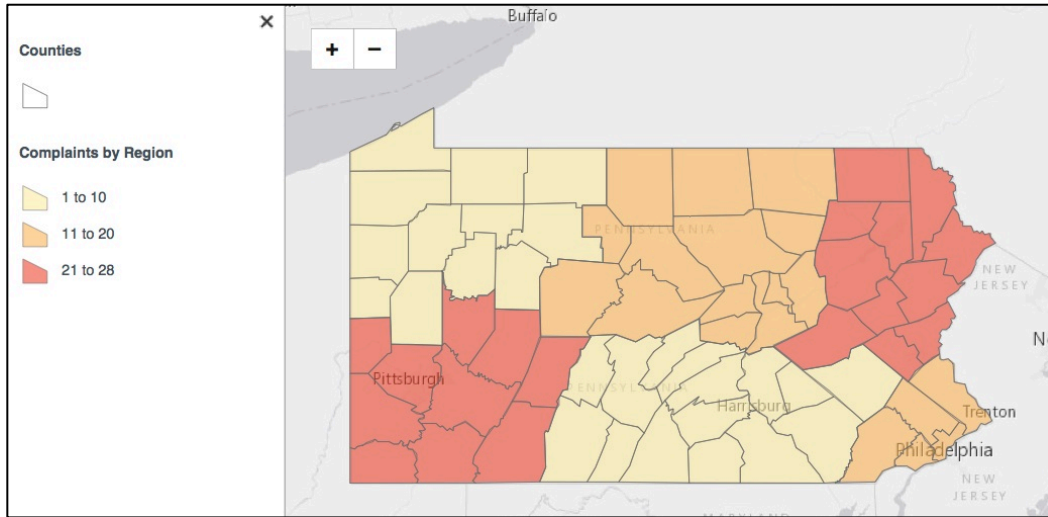
Region	Total Shale Wells
Southwest	2,436
North Central	2,171
Northeast	1,135
Northwest	453
South Central	2
Total	6,197

⁷ FrackTracker.org Map of PADOH Complaint Records By Region available at: <http://maps.fracktracker.org/latest/?appid=882e783a205c46b2a7f04aa260c9bf0c>

⁸ Food & Water Watch analysis of unconventional wells drilled,** from PA DEP's Interactive Reports, Wells Drilled By County between January 1, 2011 and April 30, 2015, available at http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/Wells_Drilled_By_County, accessed June 15, 2015; organized by PA DOH regions, using a map of Pennsylvania Department of Health Districts and Counties, available at <http://www.health.state.pa.us/pdf/hpa/stats/screening/map.pdf>.

** Unconventional wells refer to Marcellus Shale wells

FrackTracker Map of PADOH Complaint Records By Region⁹



Health and Nuisance Concerns

An analysis of the health concerns included in the 87 complaints made to the DOH found common concerns expressed by residents living in close proximity to gas wells, compressor stations, and pipelines.

Respiratory issues, including symptoms such as breathing issues, asthma, and throat and nose irritation, were the most common complaints reported by residents (see Figure 1, Table 3). Residents reported to DOH staff that they experienced “a sore or hoarse throat for the past 4 months”¹⁰, labored breathing¹¹, “tightness in her chest,”¹² and “a burning pain in his chest.”¹³

Table 3: Common Health Complaints, By Region

Region	Respiratory	Odors	Skin Problems	Abdominal Issues	Noise Pollution	Head-aches	Nose Bleeds	Eye Irritation	Cancer	Hair Loss	Total
Southwest	8	11	8	8	7	4	1	4	1	1	53
Northeast	7	5	5	7	4	3	2	3	1		37
North Central	3	1	1	1			2		1	1	10
Southeast	2		2		2	2	1				9
South Central	1		1	1			1	1		1	6
Northwest	1	1							1		3
Unknown*	1		1		1		1				4
	23	18	18	17	14	9	8	8	4	3	

*Not able to identify region of complaint

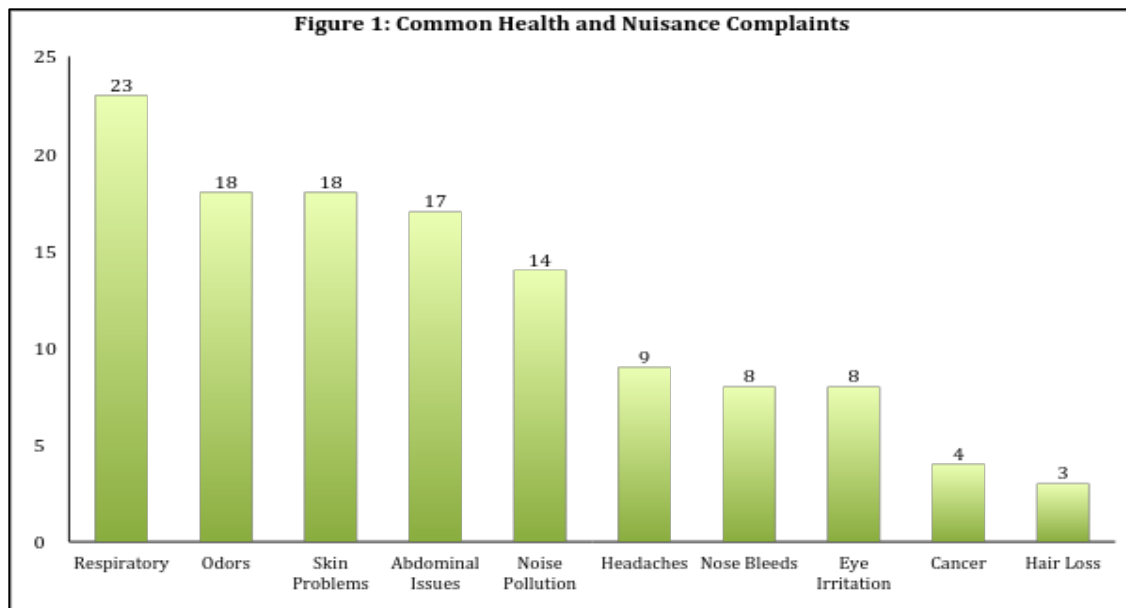
⁹ FrackTracker.org Map of PADOH Complaint Records By Region available at: <http://maps.fracktracker.org/latest/?appid=882e783a205c46b2a7f04aa260c9bf0c>

¹⁰ RTK records, Page 91

¹¹ RTK records, Page 27

¹² RTK records, Page 26

¹³ RTK records, Page 40



The next most common complaints were noxious odors, skin problems, abdominal issues and noise pollution. Residents reported many strong odor complaints including “a bad burning chemical odor,”¹⁴ “sickening sweet odor,”¹⁵ “strong rotten egg odor.”¹⁶ A concerned doctor in the Southwestern region contacted the DOH because “she was seeing unusual numbers of skin lesions/rashes in residents.”¹⁷ In Susquehanna County a 53 year old woman living nearby numerous wells reported that her skin has become “very dry” and “itchy” and developed rashes.¹⁸

Reported at a lesser extent were headaches, nosebleeds, eye irritation, cancer and hair loss. One woman from Bradford County reported that her daughter lost one-third of her hair in the “previous two weeks.”¹⁹ Another resident reported “experiencing a severe nose bleed that required medical intervention.”²⁰

The records also include complaints made by [industry employees](#) concerned about the health effects from their work. In 2011, an anonymous industry employee made a call to the DOH concerned about “radiation exposure” at a worksite in the Northeast region. The DOH found the concern serious enough that they requested OSHA get involved.²¹

Many residents reported multiple health concerns in a single complaint. In 2014 a Fayette County woman contacted DOH because of her health issues, including “...blisters, tremors and diagnosis of chemical induced asthma she believed was coming from a gas well 500 feet from her property.” She also reported that her son, age 11, experiences stomach aches and blisters.²²

¹⁴ RTK records, Page 31

¹⁵ RTK records, Page 27

¹⁶ RTK records, Page 89

¹⁷ RTK records, Page 35

¹⁸ RTK records, Page 64 - 67

¹⁹ RTK records, Page 6

²⁰ RTK records, Page 36

²¹ RTK records, Page 8

²² RTK records, Page 72

The health concerns reported to the DOH from residents in Pennsylvania are consistent with the types of health effects associated with the chemicals used in fracking. According to a report by the Endocrine Disruptor Exchange, 75 percent of the chemicals used in fracking could affect the skin, eyes and respiratory system, resulting in various problems such as skin and eye irritation or flu-like symptoms, 40 to 50 percent could cause nervous, immune and cardiovascular system problems, 37 percent could disrupt the endocrine system, and 25 percent of chemicals known to be used in fracking fluids are implicated in cancer.²³

Furthermore, a 2014 study from Yale University of 492 people found that those who live near gas wells in southwestern Pennsylvania have a higher prevalence of reported skin conditions and upper respiratory conditions than those farther away. The conditions were more common in households less than one kilometer from gas wells, compared to those more than two kilometers away. The authors of this study, the largest to date on the link between reported symptoms and natural gas drilling activities, say that their findings are "... consistent with earlier reports of respiratory and dermal conditions in persons living near natural gas wells." They also cite literature demonstrating the biological plausibility of a link between oil and gas extraction activities and both categories of health effects reported.²⁴

DOH Response to Complaints

The DOH response to residents' complaints did not address the seriousness of their health concerns. Many residents who called due to the seriousness or persistence of the health concerns they were experiencing at the time were referred to other agencies for testing of air or water.

The DOH frequently referred the residents to the Pennsylvania Department of Environmental Protection (DEP). Food & Water Watch identified 14 different occasions in which a resident was told by the DOH that it was not under its jurisdiction to test their air or water, but suggested that they request the DEP to do so, stating that the DOH could then review the results when available.²⁵ Food & Water Watch also identified 18 times, in some instances overlapping, when the DOH directly contacted or referred an air or water contamination complaint to the DEP, requesting their involvement or requesting test results.²⁶

Regardless, in many instances the record did not report whether or not the data was ever submitted to the agency. Here are a few examples:

- From 3/2/2012: "We are waiting receipt of the environmental data."²⁷
- "[Redacted] was told that the Health Department does not conduct air sampling and that she should make her request for air sampling to the Pennsylvania Department of Environmental Protection (PADEP). She was also told that the Health Department's Division of Environmental Epidemiology would be happy to review the results of PADEP's air

²³ Colborn, T., Kwiatkowski, C., Schultz, K., & Bachran, M. (2011). Natural gas operations from a public health perspective. *Human and Ecological Risk Assessment: An International Journal*, 17(5), 1039-1056. doi: 10.1080/10807039.2011.605662

²⁴ Rabinowitz, P.M., Slizovskiy, I.B., Lamers, V., Trufan, S.J., Holford, T.R., Dziura, J.D., Peduzzi, P.N., Kane, M.J., Reif, J.S., Weiss, T.R. and Stowe, M.H. (2014). Proximity to natural gas wells and reported health status: Results of a household survey in Washington County, Pennsylvania. *Environmental Health Perspectives*. Advance online publication. <http://dx.doi.org/10.1289/ehp.1307732>

²⁵ See RTK records, Pages 19, 27, 28, 29, 33 – 34, 48, 73, 74, 89, 91 – 92, 93, 94, 95, 97

²⁶ See RTK records, Pages 30, 31, 43, 64, 65 – 67, 74, 76, 80 – 81, 82 – 83, 91 – 92, 93, 94, 95, 97 – 99, 100 – 101, 103, 104, 106

²⁷ RTK records, Page 15

sampling to determine if a health hazard exists." ... "On 8/13/12, DEHE received a copy of a letter dated 8/9/12 to Secretary Michael Krancer, Pennsylvania Department of Environmental Protection (PADEP.) In her letter to DEP, she stated that she has not received the reports or the results from DEP's investigation of her 7/16/2012 complaint."²⁸

- From 8/30/12: "[Redacted] was also told that the PADOH does not conduct environmentally sampling and that she should make her request for sampling to the Pennsylvania Department of Environmental Protection (PADEP.) She was further told that PADOH's Division of Environmental Epidemiology would be happy to review the results of PADEP's air and water sampling and determine if a health hazard exists." ... "She said that she would send DEP's sampling results to DEHE as soon as they are available."²⁹
- From 6/6/2013: "DEHE told him to have the air inside his home and on his property tested by the Pennsylvania Department of Environmental Protection or a qualified environmental engineering firm and analyzed by a certified laboratory when the pollution was present and that DEHE would determine if exposures to contaminants represented a health threat."³⁰
- From 8/28/14: "I recommended that they call PADEP when the odors are occurring and offered to review any air quality results, if available. Odor complaint referred to PADEP Air Management who stated they will contact this family. Recommended they follow up with their family health care provider as needed. Telephone conversation with PADEP who will be conducting air sampling at the well pad, offered to review air data, when available." ... "His attorney has air quality data, offered to evaluate, if desired. Recommended he close windows when odors are occurring and turn on air conditioning/use an air filter."³¹

For many of these records, it is unknown whether or not the residents ever received a response from the DEP for their request for testing, whether they ever had the testing completed or if the testing data was sent to the DOH. There are also instances in which the DOH staff person recommends that the DEP resample the well if possible based on the nature of the health complaints from the residents. In one record, a family with 8 children was experiencing "nausea and vomiting, stomach cramps and skin rashes," the DOH staff person requested that the DEP resample their well if possible. In response, the DEP "states that they will not be resampling the well based on current request." The record then states that the family was sent a response letter by a doctor but the letter is not included in the documents.³²

The DOH response to physicians' complaints also seems inadequate. For instance, one doctor called regarding a patient with "elevated blood barium level and requested a consultation on the potential sources and health effects of barium exposure." The DOH called the doctor to follow up and "discussed the sources and health effects of exposures to barium with him." They then sent literature on the environmental fact sheet on barium and other sources. The inquiry was then closed.³³

Although there is additional information that needs to be requested from the DOH, the complaints included in these documents raise serious concern about the state's response to health issues brought forward by residents across the state living in close proximity to natural gas development. In one record, a woman told the DOH that others in her community have health complaints. When the DOH staff indicated that the agency is interested in speaking with anyone with health concerns,

²⁸ RTK records, Page 27

²⁹ RTK records, Page 28

³⁰ RTK records, Page 48

³¹ RTK records, Page 74

³² RTK records, Page 106

³³ RTK records, Page 16

the woman responded by saying “many people signed nuisance agreements” with the industry.³⁴ This comment makes clear that many people who are experiencing health problems are unable to report their complaints to the agency. As investigations have shown, drilling companies have a history of silencing residents experiencing these types of symptoms with non-disclosure agreements.³⁵ As a result, the DOH has no idea how widespread the health problems are.

Reported Symptoms Consistent with Scientific Assessments and Findings:

The symptoms residents reported to the DOH are consistent with concerns identified in a range of scientific and public health assessments of the potential health impacts of drilling and fracking. In particular, there has been a recent surge in peer-reviewed papers pointing to the dangers of air pollution from drilling and fracking, and the likelihood of associated respiratory and other health effects.

Among the major assessments:

- In December 2014, the New York State Department of Health released its multi-year health review that determined the state would ban fracking. Examining the scientific literature and investigating the issue, including speaking to state health and environmental departments, the NYS health review determined that drilling and fracking poses “significant public health risks.” The health risks it identified include, “air impacts that could affect respiratory health due to increased levels of particulate matter, diesel exhaust, or volatile organic chemicals.”³⁶
- In a comprehensive report on the potential impacts of drilling and fracking in 2014, the Council of Canadian Academies identified public health risks including risks from air and water pollution. The impacts raised in the report’s findings are consistent with the symptoms reported by Pennsylvania residents.³⁷
- A March 2015 assessment of the risks of drilling and fracking by the United Kingdom medical organization, Medact, identified numerous public health risks from fracking, including, “increased risks of cancer, respiratory disease and birth defects.”³⁸ In an associated letter in the *British Medical Journal*, 20 prominent medical experts wrote that, “Fracking is an inherently risky activity that produces hazardous levels of air and water pollution that can have adverse impacts on health.”³⁹
- In December 2014, the Natural Resources Defense Council analyzed 24 scientific studies looking at air emissions from oil and gas production, finding that there are significant threats to human health. Notably, the analysis found that breathing tainted air could cause respiratory problems, birth defects, blood ailments, cancer and nervous system disorders.⁴⁰

³⁴ RTK records, Page 99

³⁵ Efstathiou, J., Jr., & Drajem, M. (2013, June 5). Drillers silence fracking claims with sealed settlements. *Bloomberg*. Retrieved June 16, 2015, from <http://www.bloomberg.com/news/2013-06-06/drillers-silence-fracking-claims-with-sealed-settlements.html>

³⁶ New York State Department of Health. “A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development.” December 17, 2014.

http://www.health.ny.gov/press/reports/docs/high_volume_hydraulic_fracturing.pdf

³⁷ Council of Canadian Academies. (2014, May 1). *Environmental Impacts of Shale Gas Extraction in Canada: the Expert Panel on Harnessing Science and Technology to Understand the Environmental Impacts of Shale Gas Extraction*. Retrieved June 24, 2014, from <http://bit.ly/1nNicuf>

³⁸ Medact. “Health & Fracking: The impacts & opportunity costs.” March 30, 2015.

http://www.medact.org/wp-content/uploads/2015/03/medact_fracking-report_WEB3.pdf

³⁹ Stott, Robin et al. “Public Health England’s draft report on shale gas extraction.” *British Medical Journal*. March 27, 2015. <http://www.bmj.com/content/348/bmj.g2728/rr>

⁴⁰ Hasemyer, David. “Fracking Fumes: Where There’s a Well, All Is Not Well.” *InsideClimate News*. December 22, 2014. <http://insideclimatenews.org/news/20141222/fracking-fumes-where-theres-well-all-not-well>

Conclusion

Protecting Pennsylvanians' public health and safety from the special interests of the oil and gas industry is Governor Wolf's number one duty. "The Pennsylvania Department of Health Natural Gas Drilling Log" released to Food & Water Watch through a Right-To-Know Request from the Pennsylvania DOH raises serious concerns about the agency's handling of health concerns brought to them from across the state. The agency's mission includes working "to prevent injury and disease" in residents, yet according to these records the Department has failed to uphold its mandate.

The agency frequently referred residents complaining of acute health effects to the DEP, an agency that has a long-standing poor track record when it comes to oversight of the oil and gas industry. A [2014 report](#) from the Pennsylvania's Auditor General, Eugene DePasquale, found that Pennsylvania's Department of Environmental Protection has failed to respond adequately to many public complaints about water and air contamination resulting from gas development. This new information is consistent with that track record during the Corbett administration, yet it is still shocking that public health was dealt with in such disregard.

The documents illustrate the Corbett administration's willful negligence of the negative affects of gas drilling, and make clear that more decisive action is required by Governor Wolf to initiate a clear break from his predecessor. The consistent reports of problems from residents across the state - likely only the tip of the iceberg as many residents have signed nondisclosure agreements and would not have thought to contact the DOH - indicate that Governor Wolf should place a moratorium on unconventional gas drilling and high-volume hydraulic fracturing in Pennsylvania. People in the state are being exposed to contaminants in the air and water, which is negatively affecting their health and safety, and the state agencies are not doing their job to protect Pennsylvania residents.