



Permitted to Pollute:

How oil and gas operators and regulators exploit clean air protections and put the public at risk

Executive Summary

Full report available at <http://www.earthworksaction.org/permittedtopollute>

February 2017



Nadia Steinzor
Eastern Program Coordinator
Earthworks Oil & Gas Accountability Project

Executive Summary

Permitted to Pollute is an unprecedented study of how state regulatory oversight of oil and gas operations, authorized by the Clean Air Act to protect air quality and public health, in some cases actually undermines both.

To do this we examined in depth three facilities in southwestern Pennsylvania:

- The Bluestone gas processing plant in Butler County owned by MarkWest.
- The Trilith compressor station in Butler County owned by MarkWest.
- The Shamrock compressor station in Fayette County owned by Laurel Mountain Midstream.

Each facility has numerous sub-facilities and has been expanded and modified significantly over time based on an initial, older operating permit. Over the course of a year at each facility we:

- **Measured air pollution to identify patterns of exposure for nearby residents.** Certified thermographers, using industry-standard infrared cameras, recorded normally invisible volatile organic compounds (VOCs) and other pollution from each facility. We also took air samples near each facility using Summa canisters that were analyzed by an independent accredited lab.
- **Researched the operations and permitting history of the facilities.** By conducting file reviews at the Pennsylvania Department of Environmental Protection (DEP), we determined how oil and gas operators seek authorization for their activities, how DEP permits changing activities at facilities, and how pollution from each facility is, and isn't, tracked.

FINDINGS

By assessing both public regulatory records and actual air pollution from these three facilities, we made five primary findings.

1. Deliberately or not, operators and DEP have prevented facilities that likely should have been categorized as “major” polluters under Title V of the Clean Air Act from being

so categorized—thereby avoiding closer government oversight and greater public scrutiny.

2. Operators of large oil and gas facilities are allowed to continually expand, increase capacity, and change function without DEP's consideration of cumulative air quality impacts.
3. Emissions information provided by operators to DEP is insufficient to reflect the actual risks to air quality and health.
4. Reliance on generalized emissions estimates allows operators and regulators to ignore what actually occurs at specific facilities and potential impacts on nearby residents.
5. An emphasis on regional and state air quality thresholds ignores localized impacts and fluctuating emissions patterns, which can have the most negative effects on health.

RECOMMENDATIONS

To address these five findings and protect air quality and public health as intended by the Clean Air Act, we make the following general recommendations (more specific recommendations in response to each individual finding can be found in the full report):

DEP should actively facilitate engagement of impacted residents and the public in facility oversight.

- DEP should make information on permitting and emissions publicly and easily available online in real time, or as close to real time as possible.
- DEP should give more weight to the complaints of residents regarding odors, noise, and health symptoms related to nearby oil and gas facilities, even if an inspector doesn't experience the problem when he/she is onsite.
- DEP should improve its existing Complaint Tracking System (CTS) to ensure that complaints records (with personal/private information redacted) are available to the public, including information on incidents, environmental and health impacts, how and when DEP employees responded to the complaint, remedial measures taken, and why DEP considers the complaint to be resolved.

DEP should take a comprehensive approach to facility permitting and oversight.

- DEP should require operators to present comprehensive plans for the development of interconnected gathering, compression, and processing facilities.
- When faced with requests for modifications and expansions to the same facility, DEP should examine prior permits and air pollution levels before issuing additional permits.
- DEP should explicitly review whether proposed changes in equipment and function would alter a facility's classification from a "minor" to "major" air pollution source under the Clean Air Act—and therefore become subject to tighter Title V permitting.

DEP should vastly improve its actual measurement of pollution.

- DEP should measure actual pollution levels at facilities, without advance notice to the operators.
- DEP should require operators to conduct continuous fenceline monitoring for all Clean Air Act criteria pollutants and hazardous air pollutants.
- DEP should follow through on its plan to increase the number of air monitors statewide for fine particulate matter, and expand this monitoring effort for other pollutants, in particular VOCs and hazardous air pollutants (HAPs).

DEP should expand and act upon its pollution measurements.

- DEP should acknowledge that pollutant volume alone is an insufficient measurement on which to base conclusions about potential health impacts.
- DEP should identify patterns and changes in air quality and potential health exposures and increase emissions control requirements that are warranted by those patterns and changes.

Federal and state regulators should require leak detection and repair (LDAR).

- EPA and DEP should require operators to conduct LDAR and use effective methane and VOC emission controls for existing, new, and modified sources.

