

*Protect Our Parks*  
c/o Thomas Merton Center  
5129 Penn Avenue  
Pittsburgh, PA 15224  
June 23, 2016

Allegheny County Health Department  
542 Fourth Avenue  
Pittsburgh, PA 15219  
ATTN: Karen Hacker, MD, MPH, Director

REF: *Air Monitoring Network Plan for 2017* (Public Comment)

Dear Dr. Hacker:

Thank you for the opportunity to comment on ACHD's referenced submittal to the Environmental Protection Agency (EPA). The attached "public comment" document is offered by *Protect Our Parks* and the other grassroots groups and individuals listed below.

Local responsibility for air quality ought to be a source of pride and reassurance to Allegheny County residents. At its best, local responsibility allows for more responsive and more creative decisions, reflecting local concerns and local conditions. This delegated responsibility can also offer opportunities to go beyond the minimum requirements of national standards, so as to reflect the values and the aspirations of our community.

But local responsibility comes with a price. It calls for a proportionally greater public awareness and participation (such as this "public comment" period), from a relatively smaller constituency. Even more important, there is a greater risk of "regulatory capture" because of the smaller size and necessarily limited resources and sophistication of a local agency, compounded by the political pressures exerted by large-scale industries. Examples are easy to find in our region, where the very existence of some Mon Valley municipalities is the result of industrial self-interest. So "regulatory capture" is a central concern in our attached comments.

We recognize that the proposed monitoring plan is a largely *pro forma* deliverable, written to meet a specific requirement of DEP and EPA. But we also see the plan as an early "window" into the strategic direction of ACHD, demonstrating the impact which the *Plan for a Healthier Allegheny (PHA)* is – or is not – having on day-to-day activities of your Department. So we have given closer attention to this plan than such a routine work product might otherwise demand.

As such, then, our comments include recommendations for changes to the proposed plan, and for longer-term actions which are suggested by our review of the monitoring plan itself.

Thank you again for this opportunity to participate in the important responsibilities of your Department.

cc: Board of Health  
EPA

Sincerely,

John S. Detwiler, PhD, P.E.  
for *Protect Our Parks*

**Submitted on behalf of *Protect Our Parks* and these additional grassroots groups and individuals (as described on the following page):**

Aaron Booz (for *South Hills Area Against Dangerous Drilling – SHAADD*)

Peter Wray (for *350Pittsburgh*)

Terri Supowitz (for *Marcellus Protest*)

Dana Dolney (for *Friends of the Harmed*)

Thaddeus Popovich (for *Allegheny County Clean Air Now*)

Stephanie Ulmer (for *Churchill Residents Against Fracking*)

Briget Shields (for *Pennsylvanians Against Fracking*)

Gwen Chute (for *Allegheny Group of the Sierra Club*)

- *Protect Our Parks* – an association of Allegheny County residents, formed to preserve public spaces from industrialization and pollution. Among its other accomplishments, *Protect Our Parks* made the first successful petition drive to bring a citizens’ agenda initiative under the provision of the county’s Home Rule Charter, and presented over 7,000 signatures to the County Council as part of the debate on natural gas drilling at Deer Lakes Park.
- *South Hills Area Against Dangerous Drilling (SHAADD)* – a group of concerned citizens working to educate the public about the dangers of fracking and shale gas extraction and to advocate for the protection of our communities and environment.
- *350 Pittsburgh* – a grassroots organization devoted to promoting awareness of the impacts of climate change on our rural and urban communities, to ending our reliance on fossil fuels, and to achieving just investment in good jobs in a renewable energy economy.
- *Marcellus Protest* – an alliance of Western Pennsylvania groups and individuals, building a broad movement to stop the destruction of our environment and communities caused by Marcellus Shale drilling, as well as to support other directly-affected communities.
- *Friends of the Harmed* – educating the public on all aspects of development and the impacts that the oil and gas industry has had on our health, land, air and water; actively helping the people in Pennsylvania who have been negatively impacted.
- *Allegheny County Clean Air Now (ACCAN)* – a grassroots group working to clean up the air to improve health in Allegheny County with a focus on the DTE Shenango coke plant – a facility that spewed toxic emissions from Neville Island for years. ACCAN is committed to telling the stories of those who have been affected by those toxic emissions, and sharing them with other communities to inspire action. ACCAN is committed to documenting the health impacts of the facility, and to repurposing the site to be used as a non-polluting facility (such as a solar array).
- *Churchill Residents Against Fracking* – citizens working to raise public awareness regarding the safety and zoning of fossil fuel extraction through hydrofracturing within the Borough of Churchill and surrounding communities.
- *Pennsylvanians Against Fracking* – a statewide coalition of groups who are calling for a ban on fracking in Pennsylvania.
- *Allegheny Group of the Sierra Club* – one of the local groups which comprise the Pennsylvania Chapter of the Sierra Club. The Sierra Club represents over 2 million members and supporters, and is a leader in the effort to move away from fossil fuels which are causing climate disruption.

**PUBLIC COMMENT on ACHD's  
"Air Monitoring Network Plan for 2017"**

from *Protect Our Parks*  
on behalf of Allegheny County residents  
and other grassroots groups as listed

**Executive Summary**

*Protect Our Parks* is a grassroots, unincorporated association of Allegheny County residents and non-profit organizations, working to preserve public lands from industrialization and its resultant environmental pollution. We are joined by other grassroots groups and individuals as listed in the transmittal letter. The following Comments are presented to the Allegheny County Health Department (ACHD) with respect to the Department's *Air Monitoring Network Plan for 2017* (the "Plan").

We are concerned by continued evidence of "regulatory capture" in the Plan. ACHD's approach to monitoring, like its use of consent agreements, demonstrates a virtual partnership with large industrial operators and an abdication of arms-length oversight and enforcement. Working in such a partnership, ACHD seeks no more than nominal "attainment" to national standards, while deflecting and delaying any cost or inconvenience to its "partner" operators.

Our review of the Plan has led us to the following recommendations:

- #1. That EPA require documentation and justification of ACHD's data-sharing arrangement with US Steel (wherein ACHD provides exclusive, real-time telemetry from its monitoring locations). In the absence of compelling justification and clear protections against "gaming" of regulation, EPA should require ACHD to dismantle this data-sharing capability.
- #2. That EPA and DEP assess the potential risks to Allegheny County air quality which are created by the proposed ethylene "cracker" plant in Beaver County, and that ACHD be directed to include that proposed source in the scope of its monitoring responsibilities.
- #3. That EPA assist and encourage ACHD to adopt a more comprehensive approach to air monitoring and emissions-inventory, for the benefit of Allegheny County residents, which should include:
  - a. Consideration of unconventional oil and gas development (**UOGD**) as a distributed major source;
  - b. Inclusion of greenhouse gas (**GHG**) emissions as equally significant as "criteria" pollutants.

## Introduction

*Protect Our Parks* is delivering these comments on behalf of Allegheny County residents and the other grassroots groups listed in our transmittal letter. We are responding to the May 25, 2016, solicitation<sup>1</sup> from the Allegheny County Health Department (ACHD) – the “Department” – concerning the proposed *Air Monitoring Network Plan for 2017*<sup>2</sup>, – the “Plan.”

Collectively, among our various organizations, *Protect Our Parks* and the other signatories represent roughly 10,000 county residents who have directly participated in our efforts to preserve and improve the county’s environment. As laypeople, we claim no special expertise in the regulatory requirements to which the Plan is written. (In any case, EPA will make its own determination as to whether ACHD’s submittal meets those formal criteria.) But, as individuals and as a broad-based collection of grassroots groups, we do have a breadth of credentials, experience and local knowledge which can be valuable to both ACHD and to EPA.

We appreciate this opportunity to offer public comment on the Plan. Necessarily, our comments are directed toward possible omissions, unintended consequences and missed opportunities we find in the current Plan. This does not imply any judgment on the overall technical quality of the ACHD’s submittal.

## Observations

### #1. The Plan does not identify a context for the proposed monitoring network.

As written, the Plan is essentially a *pro forma* deliverable, written to satisfy a specific requirement of EPA. Its lack of context – or of any references to related ACHD documentation – makes public understanding more difficult. There may be other filings on record which would address our questions, but those documents are so far unknown to us.

- ACHD has stated<sup>3</sup> that a new “State Improvement Plan” (SIP) will be submitted in late October, 2017. In the interim, there is no clear framework to explain just what objectives the current Plan (for 2017) is intended to achieve.
- Apparently, the existing monitoring and enforcement regime has failed to achieve “attainment,” so it would be reasonable to expect that a more rigorous implementation should be required going forward. Yet the proposed Plan appears to be a minimal ‘refresh’ of prior monitoring submittals, with no indication of higher aspirations.

---

<sup>1</sup> [http://www.achd.net/pr/pubs/2016release/052516\\_air-monitoring-comment.html](http://www.achd.net/pr/pubs/2016release/052516_air-monitoring-comment.html)

<sup>2</sup> *Air Monitoring Network Plan for 2017*, Allegheny County Health Department, May 25, 2016. (Obtained from ... <http://www.achd.net/air/publiccomment2016/ANP2017.pdf> )

<sup>3</sup> *Analysis of the Allegheny County Health Department’s Air Quality Program*, Allegheny County Controller’s Office, May 16, 2016. (Obtained from ... [http://alleghenycontroller.com/report.php?fn\\_name=document\\_download&file=admin/uploads/9443235AirQuality-FinalReport.pdf](http://alleghenycontroller.com/report.php?fn_name=document_download&file=admin/uploads/9443235AirQuality-FinalReport.pdf) )

- The Plan addresses only the collection of air quality data, so it is impossible to know how the monitoring would drive or support enforcement actions.

If, as would seem to be necessary, the future SIP is more ambitious than ACHD's past efforts, the Department might be well advised to include some – at least “preliminary” – monitoring plans in this current submittal cycle, if only to minimize delay in implementing its new long-awaited SIP.

## **#2. The data-sharing arrangement with US Steel may undermine enforcement. It underscores fears of “regulatory capture.”**

The following annotation appears at multiple places in the Plan (e.g., p. 28, §7.2):

*At the request of US Steel, telemetry devices have been installed on the ... monitors that transmit continuous readings via radio signals to a location within the US Steel facility.... This real-time data allows US Steel to minimize fugitive emissions and to adjust production levels to keep particulate levels and gaseous emissions within allowable ambient limits in downwind communities.*

ACHD's willingness to cooperate in such data-sharing suggests that ACHD treats US Steel as a virtual partner in satisfying a set of “external” reporting requirements imposed by EPA, rather than as the subject of arms-length oversight for the benefit of the county population.

In particular, in the context of other intra-governmental warnings about the efficacy of consent agreements for enforcement [for example, see Ref. 3, above], this data sharing posture must raise alarms about the opening it creates for US Steel to “game” the regulatory process.

- “Spot” monitoring (as described in the Plan, consistent with accepted practices) is a necessarily imperfect surrogate for the total air pollution “load” affecting a community. Spot monitoring may be the only practical approach to estimating that pollution load. But by arranging for a major industrial source to directly manipulate the monitoring data (i.e., by “managing to the monitor”), ACHD is acting in a fashion which can only increase the real (although, in practice, unmeasurable) pollution load from US Steel's operations.

For example, when prevailing winds are carrying emissions toward the monitor location and the monitor reading rises, the plant operator will naturally take steps to avoid “unallowable” readings. In the same way, however, when winds carry emissions away from the monitor, the operator will feel free to relax those process constraints, up to the point where the readings are once again approaching the “allowable” limit. As a result, the monitor no longer serves as a statistical indicator of total pollution; it has become a “best case” measurement, and the intended health benefit from monitoring has been compromised.

- There is no information in the Plan about additional real-time measurements within the plant(s), or at the fence-line, either on behalf of ACHD or for US Steel's process management. But a proper quality assurance protocol would require the plant operator to manage according to its own real-time data, while the oversight authority collects independent “blind” measurements

for enforcement purposes only<sup>4</sup>. In that way, the operator remains responsible for keeping the plant processes within acceptable control at all times, regardless of varying external conditions.

When circumstances are such that “gaming” cannot be entirely prevented, there are commonly-used statistical methods<sup>5</sup> to help detect it. Unfortunately, ACHD’s detailed real-time data has been offered only to US Steel, and is not available to the public or to independent researchers. So we cannot say for certain whether “gaming” is happening; but the existence of this data-sharing arrangement (at US Steel’s request) would strongly suggest that it could be.

**#3. The Plan offers no evidence that ACHD is anticipating future challenges, even those which are already near at hand.**

As already noted, the Plan does not look ahead to the SIP that the Department has committed to delivering in the 2017 timeframe. But even beyond that promised SIP – which is to address existing nonattainments of very long standing – there are challenges to air quality coming from new major sources and from entirely new forms of pollution.

- The Plan proposes to downgrade one monitor (Avalon) to take advantage of the shutdown of a major source (the Shenango coke works). But the former Shenango site will almost certainly be aggressively marketed to other operators, and ACHD will be under political pressure to expedite the requisite permits.
- Shell Chemical Appalachia has announced construction of an ethylene “cracker” plant in neighboring (upwind) Beaver County. Shell has already submitted an air quality plan to DEP, showing a significant air quality impact on Allegheny County residents. Although ACHD has no role in permitting or enforcement in Beaver County, it is reasonable to expect that downwind air monitoring would be an important facet of DEP’s oversight. Yet the current Plan does not have even a placeholder for such a consideration.

Moreover, given the enthusiasm which the incumbent Allegheny County Executive has demonstrated for the “cracker” project (and his political domination of the ACHD) we are concerned as to whether the ACHD can prepare for this challenge without rigorous leadership from EPA.

---

<sup>4</sup> As a less technical illustration, imagine that every automobile had – instead of a speedometer – a real-time dashboard display from every police radar gun along the highway. Now imagine further that this display discloses the effective speed limit (at which the police will collect fines) instead of the posted limit, as well as showing the dollar amount of the fine to be assessed at each level of violation. Such a scheme would, naturally, be welcomed by commercial haulers (and other wealthy or aggressive drivers), but could hardly be expected to ensure highway safety.

<sup>5</sup> Such statistical methods begin with simple analysis-of-variance, cross-correlations between monitoring and plant control data, etc. More sophisticated techniques are available, and we would suggest involving experts from (for example) Carnegie Mellon University – while emphasizing that CMU has had no role in preparing these comments.

- In its *Plan for a Healthier Allegheny*<sup>6</sup> ACHD makes a commitment to address “unconventional oil and gas development” (UOGD). However, in spite of peer-reviewed scientific literature on health impacts, and mounting anecdotal evidence from local health outcomes, the Plan reflects no influence of the Department’s public commitment nor any intention to fulfill it.

It should also be noted that ACHD has issued public statements about two air monitoring locations related to UOGD: “Imperial Pointe” and “Deer Lakes Park.” Neither of those locations is included in the scope of the Plan. We would appreciate clarification as to whether these two UOGD sites have some lesser status within ACHD: *Is their data not of the same technical quality? Is their continued operation in doubt? Is ACHD less interested or committed to following up on the data from these UOGD locations? Is ACHD unwilling, for some reason, to share data from these locations with EPA?*

- Finally, county residents are increasingly aware of the implications of climate change; ACHD itself has sponsored public meetings on “anticipating” the health effects to be expected from climate disruption.

So far, state, national and international leaders are failing to launch effective action on climate change, apparently hamstrung by the breadth of their obligation to other economic, military and societal pressures. That leaves ACHD, as a local agency with delegated authority, uniquely positioned to demonstrate practical leadership. Yet, again, the Plan is silent as to ACHD’s intentions, although air quality monitoring is a valuable asset which could be deployed to respond to the unprecedented challenge of climate change.

## Recommendations

### #1. EPA should require ACHD to formalize and justify the data-sharing agreement with US Steel.

Such justification must demonstrate to EPA that the arrangement is in the public interest, and will not lead to “gaming” of the enforcement process. ACHD’s justification and EPA’s analysis should be subject to public review and comment. Failing that, EPA should disapprove of this arrangement, and require its dismantling.

As a less desirable alternative, ACHD might be directed to deliver the same data<sup>7</sup> to the public as it provides to US Steel, and *vice versa*. In principle, the regulated source should not have better access to governmental monitoring data than is available to the general population.

As part of any approved data-sharing agreement, ACHD should also require US Steel to reciprocate by providing time-tagged data from any in-plant monitors relevant to air quality

---

<sup>6</sup> *Plan for a Healthier Allegheny*, Allegheny County Health Department, rev. April 15, 2016. (Obtained from ... [http://www.achd.net/pha/PHA\\_rev041516.pdf](http://www.achd.net/pha/PHA_rev041516.pdf) )

<sup>7</sup> For example, US Steel might receive monitoring data via an open “RSS” feed from ACHD, instead of by private radio telemetry. Regardless of the technology employed, ACHD should be required to suspend data transmittal to US Steel at any time that the public data feed is interrupted.

control. ACHD should be directed to provide that high-granularity data to the public for statistical cross-correlation.

**#2. ACHD should make – and EPA should encourage – additional efforts to anticipate and manage the air quality impacts of unconventional oil and gas development (UOGD).**

Specific efforts could include steps such as the following:

- adding monitoring sites at appropriate distance and direction from concentrations of UOGD wells, compressor stations and related infrastructure;
- adding chemical species such as VOCs, BTEX and others which have been implicated as pathways for adverse impacts of UOGD on human health;
- collecting and analyzing information on health outcomes which are potentially related to UOGD, and for which no specific pathways have been identified.

Since Western Pennsylvania is “ground zero” for Marcellus and Utica Shale development, ACHD ought to become a leader – or, at a poor minimum, a facilitator – for applied research on health impacts of shale extraction. The residents of Allegheny and surrounding counties have already become “guinea pigs” for shale gas development. The ACHD could at least try to ensure that something is learned from this unplanned, uncontrolled environmental experiment.

**#3. ACHD should pursue – and EPA should encourage – further analysis and public awareness of greenhouse gas (GHG) emissions and the resulting climate impacts.**

Specific efforts could include steps such as the following:

- tracking and reporting on residential and industrial consumption of fossil fuels, and the county’s contribution to worldwide GHG emissions;
- tracking and reporting local extraction of fossil fuels (no matter what their ultimate point of consumption), as an additional “contribution” to GHGs by the county;
- including GHGs in emission inventory data for sources which report to ACHD.