



Building people power for climate & energy justice

June 24, 2016

Inspector General Arthur A. Elkins, Jr.
U.S. Environmental Protection Agency
Office of Inspector General
1200 Pennsylvania Avenue, N.W. (2410T)
Washington, DC 20460

Subject: Second Supplement to NC WARN complaint 2016-0212

Dear Inspector General Elkins:

This supplemental filing is to inform you of published statements made, in response to our June 8 complaint, which are demonstrably untrue, and which further support our original allegations regarding Dr. Allen's willingness to misrepresent factual information in order to avoid transparent scrutiny of his actions.

It is apparent that both his written statement and one published by the Environmental Defense Fund served to create doubt within news organizations receiving the statements, and with members of the public relying on the news outlets and/or the statements themselves.

1. The attached statement by Dr. Allen contains several misleading passages, but we point to a key one that is unequivocally untrue: His statement that the University of Texas team "had 2-3 additional, independent measurement systems that we ran in parallel with the HiFlow®."

In fact, regarding the Optical Gas Imaging (OGI) comparisons he cites, these were made at only 16% of all the BHFS measurement sites. Furthermore, while OGI is useful for leak *detection*, it is not a useful tool for determining *the size of leaks*. Just as importantly, the OGI scans and the BHFS measurements were made *at different times* for pneumatic controllers, which can vary widely in emission rates from one moment to the next. Consequently, this is not a valid comparison.

In addition, Dr. Allen cites the independent downwind measurements as additional evidence that the BHFS sensor failure did not occur. This is a particularly puzzling assertion, since the analysis in Howard (2015) specifically demonstrated that these downwind measurements actually *confirmed the occurrence of BHFS sensor failure* in Allen et al (2013).

Given that Dr. Allen withdrew his rebuttal to Howard (2015) after he saw Mr. Howard's response, it seems clear that Dr. Allen does in fact recognize that BHFS sensor failure affected measurements made by Allen et al. (2013).

So, contrary to Allen's statement, there was virtually no back-up of the BHFS samples except for a limited number that were backed up by downwind measurements that actually confirmed the BHFS sensor failure.

2. In a written response posted the day after our June 8 complaint was submitted, the Environmental Defense Fund circulated a blog post that included a subheading, "Small Parts of a Vast Body of Research," that preceded the statement that other studies "broadly support Allen's findings." In truth, as clearly shown in the bar chart on page 3 of NC WARN's complaint, the Allen et al. (2013) study is an outlier among many other methane emission studies. That very point is spelled out in depth as a key argument in our June 8 complaint, as is the fact that the gas industry has used Allen's work to persistently argue against EPA regulation, thus digging in for years of delay in cutting emissions.

In effect, the Allen and EDF statements continue the pattern of covering up the underreporting of methane emissions in Allen et al. (2013) and Allen et al. (2014). They also hamper efforts to gain a clear understanding of both the widespread ramifications of methane emissions and the importance of integrity within the scientific process used as the basis for appropriate regulation.

Most of all, the misstatements amplify the need for the Inspector General to get to the truth of this issue, and make it clear for the public and policymakers. Otherwise, the gas industry will continue playing the long game of delaying any potential EPA regulation of methane emissions from the myriad existing sources, while more gas facility workers and neighbors are harmed, and while humanity surges past the tipping point toward irreversible climate chaos.

I look forward to meeting with you soon. Thank you for your prompt attention to this issue.

Sincerely,

A handwritten signature in black ink that reads "Jim Warren". The signature is written in a cursive, slightly slanted style.

Jim Warren
Executive Director

Dave Allen Press Statement: first issued to reporters June 8, 2016

It has been suggested that one of the instruments used in one of our methane emissions studies, published in 2013 by the Proceedings of the National Academy of Sciences, may experience instrument failure under certain high emission rate conditions.

This claimed equipment failure is restricted to one of multiple types of instruments that were used. The instrument was used for only a subset of the measurements that were made. The instrument in question (HiFlow®) has been an industry standard device for the past 20 years.

We take no position on whether all HiFlow® instruments have the instrument failure mode that has been described, however, our study team strongly asserts that the instrument we used and the measurements we made were not impacted by the claimed failure.

That assertion is based on the fact that we had 2-3 additional, independent measurement systems that we ran in parallel with the HiFlow®. These included an Optical Gas Imager (OGI, aka infrared camera, the same technology proposed by the EPA for use in new leak detection regulations), and downwind sampling and quantification of emissions from the entire site, by independent investigators.

In addition, we note that the measurements with the HiFlow® were made directly by highly trained personnel who operated the instrument within inches to feet of emissions being measured. At the emission rates for which the instrument failure is proposed, most of the emissions would be audible, and possibly detectable by odor.

Operator observations may or may not be considered a parallel measurement, hence we had 2-3 systems run in parallel with the HiFlow® (Optical Gas Imaging, downwind measurements, and operator observations).

None of these parallel systems indicated a problem with our HiFlow® instrument. All of these systems would have had to fail, simultaneously, and only at certain types of sites with the conditions that are claimed to produce the equipment failure, for our measurements to have been impacted.

So, our study team strongly asserts that the instrument we used and the measurements we made were not impacted by the equipment failure and we have documented this in a comment and response in the peer-reviewed scientific literature.

Keeping an Important Methane Research Question in Proper Perspective

By EDF Blogs, Published: June 9, 2016

Saved from: <http://blogs.edf.org/energyexchange/2016/06/09/keeping-an-important-methane-research-question-in-proper-perspective/#more-13320>

By [Mark Brownstein](#) and [Steve Hamburg](#)

An organization in North Carolina this week asked the U.S. Environmental Protection Agency to examine questions about the accuracy of measurements from a device used in two of the large and growing list of studies published in recent years quantifying the enormous amounts of methane released into the atmosphere by the U.S. oil and gas industry each year.

That long list of studies is a major reason why [EPA recently increased its official estimates of industry emissions by 34 percent](#), and why the agency is pursuing new rules to start fixing the problem. In fact oil and gas methane emissions have moved from obscurity to center stage with remarkable speed, thanks to rush of compelling data.

The particular papers at issue were written by a team of scientists led by Dr. David Allen of the University of Texas. They are among of a group of studies on oil and gas industry methane emissions organized and coordinated by EDF. Possible complications involving a piece of sampling equipment (among several that were used) have been discussed by researchers in both academic literature and the news media for more than a year. You can read the blog that EDF wrote on it back in 2015 [here](#).

Small Parts of a Vast Body of Research

The most important thing to understand is just how much new research has been produced on oil and gas methane emissions in just the past three years. EDF alone has organized 16 different research projects looking at emissions from on the ground and in the air. So far 27 peer-reviewed papers have been published on those projects, with at least nine more in the works. More than 35 different research institutions and over 120 individual co-authors have been involved in the work published to date.

That's nothing to sneeze at. In fact, it's completely unprecedented.

It's true that a handful of these papers have found emissions that were lower than previous estimates – often due to new or pending regulations – or cases where improved operating practices were working. But overall, the studies paint a clear picture of a significant problem that had been largely overlooked or ignored for years – and one that is much larger than either industry or government had previously recognized.

Moreover, other studies using entirely different methods and measurement technologies broadly support Allen's findings. Indeed, one of the strengths of the combined body of research using diverse methodologies is that it provides an extremely robust set of mutually reinforcing results.

Open and Honest Science

As we said more than year ago, EDF is pleased to see the methane work that we've sponsored receiving rigorous scrutiny by the research community, and we are equally pleased that the lead researchers we've chosen to work with are taking these critiques seriously and are taking the necessary steps to recheck their work. We believe good environmental policy begins with good science. The scientific process is working here precisely as it should.

As always, EDF welcomes – and indeed, we encourage – honest and open review of any science we're involved with, including these two papers. But the overall impact of the questions raised on national methane emissions rates is limited. It's important not to overestimate their individual significance in vast catalog of studies published in the two-and-a-half years since Dr. Allen's first study was released.

It is clear that methane emissions from the oil and gas industry are too high – higher than EPA originally or currently estimates, and that strong regulations are necessary to reduce them. Fortunately, research has also shown just how effective these solutions can be when properly implemented. We look forward to continuing to work with the federal government, the states and other stakeholders to reduce harmful methane emissions.