

Testimony for America's Energy Future, Part I: A Review of Unnecessary and Burdensome Regulations presented by Joe Leonard, Devon Energy Corporation

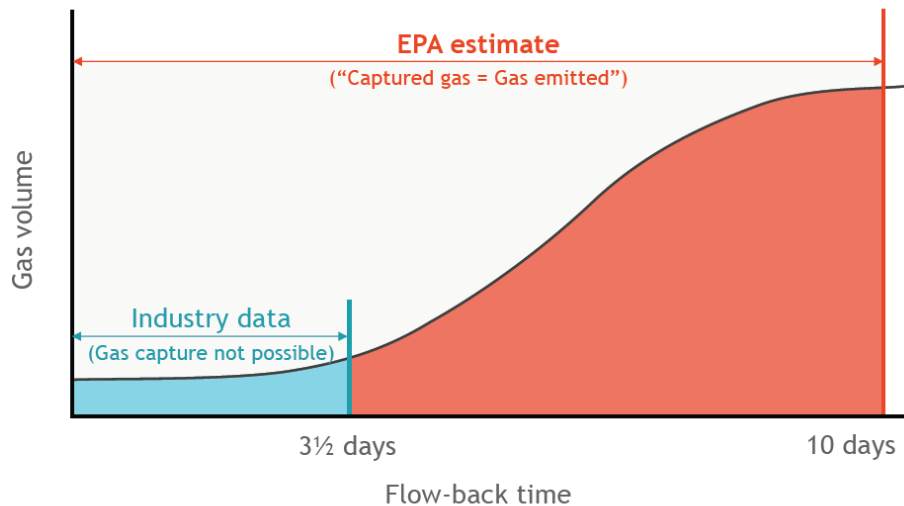
Before The Committee on Oversight and Government Reform on July 13, 2012, Edmond, OK

Good morning and thank you for providing the opportunity to testify on such an important issue. My name is Joe Leonard, and I am the Environmental, Health and Safety Engineer for Devon Energy with a particular technical expertise in air quality.

EPA's unreasonable and inappropriate misuse of industry data and bad science leads to unnecessary and burdensome air quality regulations on the oil and gas industry. I would like to focus on two examples of this today.

First, I would like to address EPA's development of an emission factor for well completions by improperly using Natural Gas STAR data. In short, the EPA assumes that gas recovered would have otherwise been flared or vented. However, industry data shows that reduced emission completions account for significantly more gas produced and sold than would be flared or vented during older and less common completion processes. The below figure depicts the comparison between what EPA perceives and what industry data actually shows.

Well Emissions: Actual vs. Perceived by EPA



EPA's fundamental misperception of initial gas production from natural gas wells leads to dramatic overestimates of methane emissions.

Second, EPA Region 6 recently designated Wise County in the State of Texas, a significant gas production and transmission area, to be in "nonattainment" for ozone. Region 6's argument can best be described as arbitrary and capricious. Their stance rests on only two data points and their attempt to link Barnett Shale gas production development. The science behind the designation is lackluster, and relies on methods rejected by other EPA regions.

EPA's flawed methane emission estimates continue to mischaracterize natural gas

In regards to flawed completion emissions, EPA continues to state that reduced emission completion estimates are reasonable estimates for gas that would have otherwise been flared or vented - despite a wealth of data showing that those estimates are dramatically overstated. This overstatement is consistent with the latest industry study from API/ANGA of more than 90,000 wells that demonstrated estimates were at least 100% too high across upstream processes. This work follows similar industry work that shows even greater errors.

This is outrageous because EPA, using incorrect assumptions, applying inappropriate data, and then analyzing it improperly, has not only changed its emission estimates for completion operations on a forward-looking basis, but revised all oil and gas completion estimates back to 1990 - a period before the combined use of horizontal drilling and hydraulic fracturing. Since revising its estimates, EPA submitted those estimates as part of the US input to the UN Intergovernmental Panel on Climate Change, giving it a worldwide audience.

The effect of the revision has allowed for the mischaracterization of natural gas. Non-governmental organizations and university studies have claimed that (on a life-cycle basis) gas-fired electricity generation is no cleaner than coal-fired, and that natural gas-powered vehicles are no cleaner than those running on gasoline. The ripple effects like these will continue until EPA acknowledges and corrects this inaccurate data. Severe damage has been inflicted on the many benefits of using natural gas as a clean fuel that will last for years to come. EPA must exercise more scrutiny in their methods for calculating such factors if the oil and gas industry is to be represented fairly. This issue proves that casual efforts on the part of the EPA can have such a strong and negative impact to our industry.

Wise County, TX nonattainment ruling is based on analysis rejected by other regions

As I mentioned earlier, EPA has recently designated Wise County, TX, as an ozone non-attainment area contributor. An area is considered “nonattainment” when it exceeds a national air standard, in this case ozone. The area must then take steps to come to “attain” the standard, or come into “attainment”.

That action, in Region 6, was initiated under a since-resigned regional administrator who once likened enforcement action approaches to the oil and gas industry to what might be described as examples-by-crucifixion. There are several other concerns when analyzing their justification for nonattainment.

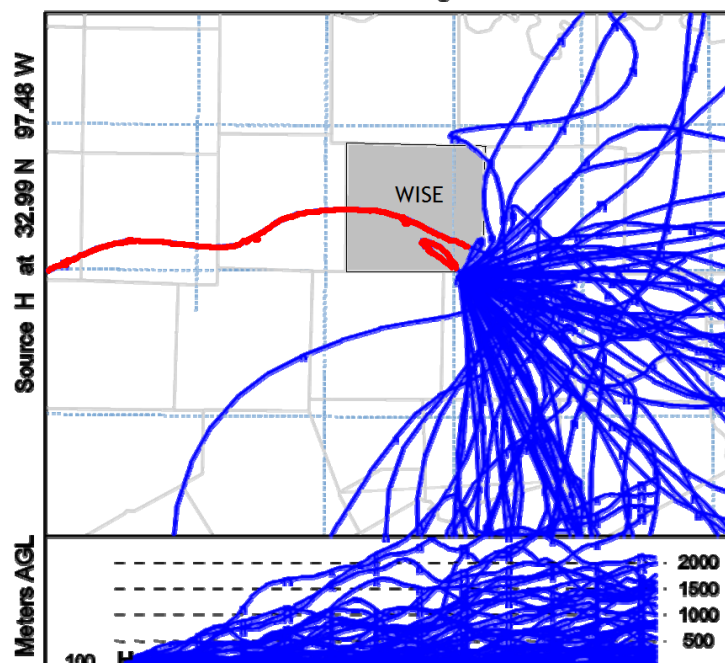
Concern 1: The model used by Region 6 is inadequate for modeling ozone formation and transport. Other regions specifically refused to use this method because of its unreliability.

Concern 2: The model only traced two events over four years passing through Wise County, one of which originated in the notoriously nonattainment Tarrant County, which is coincidentally the same county of the only monitor that EPA provided results for. Data shows that winds blow from Wise County into Tarrant County less than three percent of the time. Other EPA regions denied nonattainment considerations based solely on wind occurrences of less than 20% of the time.

Concern 3: We do not know the results from other monitors downstream of the prevailing wind from Wise County. If the EPA Region 6 wanted to justify Wise County as a contributor of ozone, why did they not provide results from more representative monitors? As the Texas Commission of Environmental Quality described, the presented data seems to be “cherry-picked”.

The below figure contained in this handout shows a composite of all modeling results done by EPA Region 6, with the two Wise County events highlighted in red.

**NOAA HYSPLIT MODEL
Backward trajectory ending at 2200 UTC 28 May 04
EDAS Meteorological Data**



If Wise County is in fact nonattainment, then Devon will diligently comply with the regulations, but we do not believe the EPA's argument, or the data supporting their decision.

In conclusion, it is difficult to adequately capture all of the unnecessary and burdensome air regulations imposed on our industry. I hope that the examples of completion emission estimates and Wise County Nonattainment provide at least some insight into this issue.

This concludes my testimony. Thank you.

Joe Leonard - Devon Energy Corporation - 405.552.4740 or joe.leonard@dvn.com

Bio for Joe Leonard:

Joe Leonard is the Environmental, Health, and Safety Engineer for Devon Energy Corporation, and has been with the company in that position since January of 2010. As an EHS Engineer for the company, Joe is responsible for supporting all areas regarding air quality calculations as well as state and federal regulation interpretation. He also acts as a technical air quality expert in both Devon Energy and among several trade organizations.

He received his Bachelor of Science degree in Chemical Engineering at Oklahoma State University, and has a brief work background in oil and gas processing and transmission.

Committee on Oversight and Government Reform
Witness Disclosure Requirement – "Truth in Testimony"
Required by House Rule XI, Clause 2(g)(5)

Name: Joe Leonard

1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2009. Include the source and amount of each grant or contract.

None

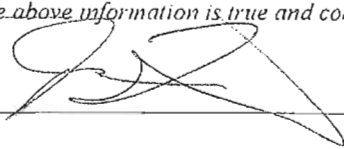
2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

Devon Energy Corporation - I am an employee

3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2009, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

None

I certify that the above information is true and correct.

Signature: 

Date: 7/11/12