

DEP Hearing on Pipeline  
Comments by Dr. Jay Parrish, PG,  
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Geologic work in Pennsylvania is required to be done by a registered Pennsylvania Geologist, except for

- (k) The practice of individuals providing geologic services to businesses engaged in the exploration or development of gas or oil. (1)

where the definition of "development" according to the Glossary of Geologic Terms is:

The work done on a mineral property before mineral production begins on a commercial scale. (2)

Work done on transportation networks such as pipelines or roads are NOT part of a resource development and therefore are not exempt. Pipelines can carry materials other than oil and gas (e.g. Mariner East) and it is clear that the use of the words "development" in the professional geologist statute refer to the geologic understanding of the word. All geologic work done on the pipeline should have been done by a Pennsylvania Professional Geologist or a visiting professional with equivalent certification who worked less than 30 days on the project.

I recognize that this probably does not correspond with DEP's current use of the word "development". Given this understanding, that it refers only to assessing and modifying the mineral property, it would be incumbent upon DEP to ascertain the qualifications of geologists who have worked on the project to date and have Williams conform with the Professional Licensing legislation.

Secondly, although I recognize that this is a 10<sup>th</sup> hearing, I would like to remind DEP that on April 23<sup>rd</sup> we experienced two earthquakes in the region (3). Such activity is not unrelated to surficial issues. Past experience (e.g. the Reading area) has shown that seismic activity can activate sinkhole formation. Placing a pipeline along a known seismically active zone, literally crossing a fault that had activity in 2008 with a 3.4 quake (4), and crossing one of the best known sinkhole-producing formations in the state (Epler Fm.) would seem to be a poor choice (5). The 2008 event had an epicenter about 1.5 miles from the proposed route, but more importantly, the likely fault that caused the quake runs east-west and the pipeline would cross it near Mount Joy. Moving the location of the pipeline by even a few miles could move it out of one of Pennsylvania's most active seismic zones. This is an entirely predictable hazard. We know where seismic activity generally occurs and we know about how often activity occurs. And we know that seismic activity can activate sinkhole formation. It is not a best practice to place a route where a known hazard exists.

- 1) <http://www.dos.pa.gov/ProfessionalLicensing/BoardsCommissions/EngineersLandSurveyorsandGeologists/Documents/Board%20Documents/Board%20Document%20-%20Law.pdf>
- 2) <http://geology.com/dictionary/glossary-d.shtml>
- 3) <http://abc27.com/2017/04/23/usgs-2-7-magnitude-earthquake-hits-lancaster-county/>
- 4) [http://www.pennlive.com/midstate/index.ssf/2008/12/minor\\_earthquake\\_shakes\\_lancas.html](http://www.pennlive.com/midstate/index.ssf/2008/12/minor_earthquake_shakes_lancas.html)
- 5) <https://ngwa.confex.com/ngwa/karst09/webprogram/Paper6119.html>

Methane leaks associated w/ pipeline  
Lanc Co poor air quality