



December 8, 2017

Sent by First Class U.S. Mail and email

Penn Township Board of Commissioners
c/o Michael T. Korn, Solicitor
Avolio Law Group, LLC
117 North Main Street
Greensburg, PA 15601

Re: Comment on proposed standards for location of injection wells within the Township

Dear Board of Commissioners,

As you are aware, Protect PT is a grassroots nonprofit working to protect the safety, security, and quality of life for people in Penn Township, Trafford, and surrounding areas from the impacts of unconventional natural gas development. Protect PT appreciates the opportunity to provide written comments and proposed revisions to the proposed draft Ordinance amending Chapter 190, Zoning, Standards for the Location of Injection Wells within the Township (the "Injection Well Ordinance"). We are sending this letter in advance of your December Caucus Meeting so that you have time for consideration. These comments and enclosed proposed revisions are intended to assist the Commissioners with ensuring that appropriate standards are imposed on this land use to advance public health, safety, and welfare.

Protect PT submits these comments based on review of final and proposed injection well ordinances from other Pennsylvania municipalities as well as comments from citizens and local leaders in communities where this specific type of development has already occurred. Based on this research, it is clear to Protect PT that injection wells significantly impact the community with a significant increase in truck traffic, dust, noise and light. In addition, development of injection wells increases the risk of environmental hazards such as water and soil contamination as well as earthquakes. See Kim, Won-Youn, *Journal of Geophysical Research*, "Induced seismicity associated with fluid injection into a deep well in Youngstown Ohio," (July 19, 2013), available online at: <http://onlinelibrary.wiley.com/doi/10.1002/jgrb.50247/full>; see also, Seeber, Leonardo, et. al., *Bulletin of the Seismological Society of America*, "A Fluid-Injection-Triggered Earthquake Sequence in Ashtabula, Ohio: Implications for Seismogenesis in Stable Continental Regions," (February 01, 2004).

First, Protect PT suggests revisions to the definitions section of the Injection Well Ordinance to clarify the class of injection wells which are permitted and regulated. The Environmental Protection Agency identifies several different classes of injection wells (Class I through VI), all with different purposes and restrictions. While the Injection Well Ordinance does not define the class of injection wells, Protect PT is assuming the purpose is to permit Class II, oil and gas related injection wells. Class II wells can be further divided into three categories: disposal wells,


enhanced recovery wells, and hydrocarbon storage wells. The category of injection well under consideration must be explicitly identified because the use and potential impacts may vary between Class and category of injection well.

Second, Protect PT suggests that the minimum site size requirements and setback distances should be increased, as provided in the enclosed proposed revisions. Development of underground injection wells is a highly industrial activity and land use. Increasing the minimum site size and setback distances is a necessary step to address the visual, noise, and dust impacts from this land use. These changes are also necessary to ensure that residents who reside or own property adjacent to the Industrial Commerce Zone are not disproportionately impacted or put at risk by this land use.

Third, Protect PT suggests several additional requirements that will advance protection of public health, safety and welfare. More specifically, Protect PT suggests including standards that require an applicant for an injection well provide, 1) an Environmental Impacts Analysis which should include: a pre and post development soil testing, a geological study, and an air quality study; 2) a site specific Preparedness, Prevention, and Contingency Plan; and 3) a Traffic Impact Study.

Again, Protect PT appreciates this opportunity to provide comments on the proposed Injection Well Ordinance. We urge the Commissioners to learn more about the impacts of this type of land use and seriously consider including the additional standards which are detailed in the enclosed proposed revisions. The public health, safety, and welfare for Penn Township and surrounding communities is of utmost importance and the final ordinance that you adopt will directly impact those citizens.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Hamilton", with a stylized flourish extending to the right.

Ryan E. Hamilton, Esq.
Counsel for Protect PT

Enclosures

**TOWNSHIP OF PENN
WESTMORELAND COUNTY, PENNSYLVANIA
ORDINANCE #**

**AN ORDINANCE OF THE TOWNSHIP OF PENN,
WESTMORELAND COUNTY, PENNSYLVANIA AMENDING CHAPTER 190,
ZONING, STANDARDS FOR THE LOCATION OF INJECTION WELLS
WITHIN THE TOWNSHIP**

WHEREAS, the Township of Penn wishes to update Chapter 190, Zoning, to provide zoning district locations, standards, application procedures and definitions for Injection Wells, and

WHEREAS, the Township of Penn wishes to impose standards necessary to provide for the public health, safety, and welfare for this land use.

NOW THEREFORE, BE IT HEREBY ORDAINED AND ENACTED, by the Township of Penn, is amended as follows:

SECTION I.

The following definitions placed within Article II, General Terminology, shall be added, as follows:

INJECTION WELL -An Injection Well is a device which helps in placing fluids underground in porous rock formations like limestone and sandstone, or below in the shallow soil layer. For the purposes of this definition, an Injection Well is limited to a Class II Oil and Gas Related Injection Well as defined by the Environmental Protection Agency's Underground Injection Control program. The fluids could be wastewater, brine, water, or water mixed with chemicals.

SECTION II.

Injection Well shall be a special exception in the Industrial Zone.

SECTION III.

Article VI, Supplemental Regulations, shall be amended as follows:

§ ____ Injection Wells, subject to:

- (1) The minimum site required shall be 25 acres.
- (2) The site shall have frontage on and direct vehicular access to an arterial or collector street.
- (3) The site shall not be located within 2640 feet of any protected use (residential dwelling, church, commercial building, public building, hospital, school, or public park) measured from any property boundary of the site in a straight line along a public street right-of-way to the nearest wall of a residential dwelling.
- (4) All activities shall comply with the performance standards specified in Article 641 of this chapter.
- (5) Adjacent public streets shall be adequate to accommodate traffic volumes and weight limits associated with truck traffic to and from the site.
- (6) The storage, handling, transportation and disposal of hazardous or potentially hazardous materials shall be in accordance with all applicable permits and requirements of the Pennsylvania Department of Environmental Protection (PA DEP) and the U.S. Environmental Protection Agency (EPA).
- (7) No permanent component of the injection well site shall be closer than 300 feet from the property line in which the well is located.
- (8) Written permission from the property owner(s) with legal or equitable title to the property where the proposed development or facility is located or demonstrable documentation of the applicant's authority to occupy the property.
- (9) The GPS location and 911 address of the Injection Well.
- (10) Copies of any and all applications and permits required from all applicable local, county, state, and federal agencies for development of the Injection Well.
- (11) A site plan prepared by an engineer or surveyor licensed in Pennsylvania shall be provided to establish compliance with all applicable regulations. All temporary and permanent structures, equipment, machinery, and sediment and erosion controls shall be identified. All protected structures within 1,500 feet of the property lines shall be identified. All roads related to the development or facility

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must also be shown. A sufficient number of copies of the site plan shall be provided for review and comment by all Township emergency service organizations.

(12) Scheduling. The applicant shall provide a schedule with the application indicating the anticipated beginning and ending dates for all proposed activities.

(13) A Risk Assessment Report. A report prepared by a professional expert in that field, that identifies the potential hazards stemming from the injection well at the proposed site and determines the quantitative and qualitative risk associated with the identified hazards. The quantitative risk assessment shall include calculations of two components of risk (R), the magnitude of the potential loss (L), and the probability (P) that the loss will occur. The report shall include a public health risk assessment including potential impacts to water supply. This assessment is the process of characterizing the nature and likelihood of harmful effects to individuals or populations within one linear mile from the well site. The report shall also include an assessment of potential seismic impacts created by the operations of the injection well.

(14) A Traffic Impact Study. The study shall include: a. A description of plans for the transportation and delivery of equipment, machinery, water, chemicals, products, materials and other items to be utilized in the siting, drilling, stimulating, completion, alteration and operation of the development or facility. Such description shall include a map showing the planned vehicular access roads and the transportation infrastructure being proposed and the type, weight, number of trucks and delivery schedule necessary to support each phase of the development. b. An inventory, analysis and evaluation of existing road conditions on Township roads along the proposed transportation route identified by the application, including photography, video and core boring as determined to be necessary by the Township engineer(s).

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Traffic Impact Study Guidelines. The Traffic Impact Study shall be performed by a qualified professional traffic engineer. The following is an outline of issues to be addressed by the Study.

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1. Description of the proposed project in terms of land use type and magnitude.
2. An inventory of existing conditions in the site environs including:
 - A. Roadway network and traffic control;
 - B. Existing traffic volumes in terms of peak hours and Average Daily Traffic (ADT)
 - C. Planned improvements to roadways by others.

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- 3. An analysis of existing traffic conditions including:
 - A. Intersection levels of service;
 - B. Roadway levels of service (where appropriate);
 - C. Other measures of roadway adequacy; i.e., lane widths; traffic signal warrants; vehicle delay studies, etc.
- 4. Projected site generated traffic volumes in terms of:
 - A. Peak hours and ADT;
 - B. Approach/departure distribution including method of determination;
 - C. Site traffic volumes on roadways;
 - D. Comparison of existing zoning to proposed site generation.
- 5. An analysis of future traffic conditions including:
 - A. Future design year (development fully completed) combined volumes (site traffic plus future roadway traffic);
 - B. Intersection levels of service;
 - C. Roadway levels of service (where appropriate);
 - D. Other measures of roadway adequacy; i.e., lane widths, traffic signals warrants, vehicle delay studies, et cetera.
- 6. A description of the recommended access plan and off-site improvements.
 - A. Schematic plan of access and on-site circulation;
 - B. General description of off-site improvements required. The aforementioned guidelines shall be used to determine a scope of work. The specific roadways and intersections to be studied shall be identified along with the planned data collection and analysis procedures.

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(15) An Environmental Impacts Analysis. To the extent that the same is not otherwise included or provided within copies of applications for permits from the Commonwealth of Pennsylvania or other governmental units and herewith submitted or where no such permit is required, the applicant shall provide an environmental impact analysis. The environmental impact analysis shall describe, identify and analyze all environmental aspects of the site and of neighboring properties that may be affected by the proposed operations or the ultimate use proposed to be conducted on the site. The limits of the impact area to be studied shall be reviewed and approved by the Township Zoning Hearing Board. The environmental impact study shall include, but not be limited to, all critical impact areas on or off-site that may be impacted by the proposed or ultimate use of the facility, including the impact on the critical areas, the protective measures and procedures to protect the critical areas from damage, and the actions to be taken to minimize environmental damage to the critical areas on the site and surrounding areas during and after completion of the operation. Critical impact areas include, but are not limited to stream corridors; streams; wetlands; slopes in excess of twenty-five (25%) percent; sites where there is a history of adverse subsurface

conditions or where available soils information or other geotechnical data, including data from the Bureau of Mines indicates the potential for landslides, subsidence or other subsurface hazards; Class I agricultural lands; highly acidic or erodible soils; carbonate or highly fractured bedrock; aquifer recharge and discharge areas; areas of unique or protected vegetation, wildlife habitat, and areas of historic, cultural and/or archaeological significance.

(16) An Air Quality Study. To the extent that the same is not otherwise included or provided within copies of applications for permits from the Commonwealth of Pennsylvania or other governmental units and herewith submitted or where no such permit is required, the applicant shall provide an Air Quality Study. The Study shall be prepared by experts acceptable to the Township and submitted with the application and shall include an analysis of the existing and predicted air quality levels, including smoke, odors, fumes, dust, and pollutants at the site. This report shall contain the sources of the information, the data and background tests that were conducted and the conclusions and recommendations of the professionals preparing the report that would be required to maintain the air quality at a level equal to or better than the existing background level prior to the proposed use; or the applicant/developer shall submit a statement prepared by an engineer warranting that the nature of the use will produce no impact on air quality.

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(17) A Geological Study. To the extent that the same is not otherwise included or provided within copies of applications for permits from the Commonwealth of Pennsylvania or other governmental units and herewith submitted or where no such permit is required, the applicant shall provide a Geological Study. The Study shall be prepared by experts acceptable to the Township and submitted with the application and shall include an analysis of the existing geological formations in and surrounding the proposed site. This report shall contain the sources of the information, the data and background tests that were conducted and the conclusions and recommendations of the professionals preparing the report regarding the potential geological impact of the proposed use.

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(18) A Hydrological Study. To the extent that the same is not otherwise included or provided within copies of applications for permits from the Commonwealth of Pennsylvania or other governmental units, and herewith submitted or where no such permit is required, the applicant shall provide a hydrological study. The study shall be prepared by a hydrogeologist acceptable to the Township. The study shall evaluate the existing surface and subsurface hydrogeology, based upon historical data and on-site investigation and studies. The study shall identify groundwater discharge and recharge areas that may be affected by the proposed

use, map the groundwater table and analyze and delineate the effects of the proposed use on the hydrology, including surface and ground water quantity and quality. Acceptance of the study is subject to final approval by the Township Zoning Hearing Board. If the study shows an alteration to the groundwater, the application shall be denied.

(19) Pre-Development and Post-Development Soil Testing. Prior to beginning any injection well development activities, the operator shall be responsible for testing soil conditions within 300 feet of each Injection Well site. The purpose of testing is to determine the baseline soil conditions surrounding the proposed Injection Well site and address resultant changes that may occur or have an impact on the soils of the site and surrounding area.

- a. Pre-drilling testing results shall be submitted as part of the Special Exception application.
- b. Post-development testing shall be completed twelve (12) months after operations have begun.
- c. The results shall be submitted to the Township and PA DEP within ten (10) days of their receipt.
- d. The operator shall be responsible for all costs associated with testing and testing shall be done by an independent state-certified testing laboratory agreed upon by the Township.

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(20) Insurance. Applicant shall furnish to the Township a Certificate of Liability Insurance naming the Township as an additional insured with respect to operations conducted within the Township, showing proof of liability insurance covering commercial, personal injury, and general liability in amounts not less than \$25,000,000 per occurrence. The applicant shall fully defend, protect, indemnify, and hold harmless the Township, its departments, agents, officers, employees, or volunteers from and against such and every claim, except for those claims relating to any negligent, willful or intentional acts of the Township, its department, agents, officers, employees, or volunteers. The insurance coverage may consist of a combination of self-insurance, excess coverage, and umbrella coverage.

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(21) Special Exception approval is non-transferrable without consent from Township Zoning Hearing Board and shall automatically terminate, unless extended, if operations have not commenced within one (1) year from the date of issuance of the approval. The Special Exception approval may be extended by the Township Zoning Hearing Board upon written request by the operator, after notice and hearing. The operator shall provide proof that the requested Special Exception

approval for such location has not changed and that the operator meets all applicable criteria contained in this Section.

SECTION IV.

Where any portion of the amendments adopted in Section II is overturned by a Court of Law, the former standards as of the date of this ordinance shall take effect.