

**EAST BRADFORD TOWNSHIP  
CHESTER COUNTY, PENNSYLVANIA**

**ORDINANCE NO. 04 of 2015**

**AN ORDINANCE PURSUANT TO ARTICLE VI, SECTION 609 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, AMENDING CHAPTER 115 OF THE CODE OF ORDINANCES OF EAST BRADFORD TOWNSHIP, BEING THE ZONING ORDINANCE PROVIDING FOR THE REGULATION OF SURFACE LAND USES AFFILIATED WITH TRANSMISSION PIPELINES AND AMENDING §115-52B(3) AND §115-52B(4) TO REFER TO §115-51.4C(2). EFFECTIVE FIVE DAYS FROM ENACTMENT.**

**Section 1.** The Code of the Township of East Bradford, Chapter 115 thereof, being the East Bradford Township Zoning Ordinance, Article II, §115-6, Definitions, is amended by adding the following terms and definitions therefore in the correct alphabetical sequence:

PIPELINE – As defined by Title 49, Code of Federal Regulations, Sections 195.2 and 192.3.

SURFACE LAND USES AFFILIATED WITH TRANSMISSION PIPELINES – Above-ground transmission pipeline facilities including, but not limited to, compressor stations, pumping stations, regulator stations, launcher/receiver stations, and other surface pipeline appurtenances.

TRANSMISSION PIPELINES – Transmission pipelines include, but are not limited to, pipelines designed for the transmission of a "gas" or "petroleum gas", except a "service line", as those terms are defined by Title 49, Code of Federal Regulations, Section 192.3; also included are pipelines designed for the transmission of a "hazardous liquid", as defined by Title 49, Code of Federal Regulations, Section 195.2.

**Section 2.** The Code of the Township of East Bradford, Chapter 115, thereof, being the East Bradford Township Zoning Ordinance, Article XII, Supplementary Regulations, is amended to add a new §115-51.4, to read as follows:

§115-51.4 Surface Land Uses Affiliated with Transmission Pipelines.

A. Purpose. The purpose of this section shall be to:

- (1) Accommodate the need for surface land uses affiliated with transmission pipelines consistent with the desire to protect the health, safety and welfare of the citizens of the Township.
- (2) Minimize aesthetic, nuisance and visual impacts of surface land uses affiliated with transmission pipelines through proper design, siting and vegetative screening.

- (3) Ensure the location of surface land uses affiliated with transmission pipelines in compliance with applicable government and industry standards, including standards administered by the Federal Energy Regulatory Commission (FERC), the Pennsylvania Oil and Gas Act (as amended), and Pennsylvania case law.
- (4) Preserve the rural character of neighborhoods adjacent to surface land uses affiliated with transmission pipelines.

B. Use provisions.

- (1) Surface land uses affiliated with transmission pipelines shall be permitted as a principal use by right in Article X I Industrial District, where underground pipelines exist or are proposed. Such uses shall meet the dimensional requirements, including but not limited to area and bulk standards, of Article X I Industrial District. Applicants are required to demonstrate to the satisfaction of the Township that the requirements of Section C, Standards for surface land uses affiliated with transmission pipelines, can be met.
- (2) Except as otherwise designated in Subsection (3) below, surface land uses affiliated with transmission pipelines shall be permitted as a principal use in all other zoning districts where underground pipelines exist as of the date of adoption of this ordinance on properties owned by East Bradford Township when authorized as a conditional use pursuant to Section C, Standards for surface land uses affiliated with transmission pipelines and Article XV, §115-77, conditional uses. In addition, such uses shall meet the dimensional requirements, including but not limited to area and bulk standards, of the underlying district.
- (3) Surface land uses affiliated with transmission pipelines shall be prohibited in Certified Historic Districts, as defined in Article XX, Historic Preservation.
- (4) All other uses ancillary to surface land uses affiliated with transmission pipelines are prohibited unless otherwise permitted in the zoning district in which the use is located.

C. Standards for surface land uses affiliated with transmission pipelines. The following standards will be considered by the Township prior to permitting surface land uses affiliated with transmission pipelines:

- (1) **Setbacks.** Unless otherwise approved by the Board of Supervisors upon recommendation of the Township Planning Commission, the applicant shall demonstrate that the setbacks for surface land uses affiliated with transmission pipelines and all supporting equipment and structures to any property line or right-of-way shall be consistent with the minimum setback in the underlying zoning district. In addition, surface land uses affiliated with transmission pipelines and all supporting equipment and structures shall be setback a minimum of seven

hundred and fifty (750) feet from residential buildings and all commercial, industrial and institutional uses or a minimum of five hundred (500) feet from the nearest lot line, whichever is greater. While these setbacks originated in amendments to the PA Oil and Gas Act (Act 13 of 2012), the Township intends to monitor emerging science on setback safety and revise these standards periodically. Where yard area or other setbacks of the underlying zoning district contradict these standards, the larger of the setbacks shall apply.

Setbacks may be modified by the Township pursuant to the type of material being managed at the surface land use affiliated with transmission pipelines, whether the use is adjacent to areas of high on-site population, and the current status of science regarding safety protocols in proximity to pipelines or surface land uses affiliated with transmission pipelines. The Township shall, on a case-by-case basis determine if increased setbacks are warranted consistent with the "Potential Impact Radius" (PIR), defined by the relationship between the diameter of the adjacent pipeline (and appurtenances) and its maximum operating pressure (see 115 Attachment 1), whether high on-site populations are located in close proximity (often referred to as High Consequence Areas), and whether more than one transmission pipeline (such as coupled lines) will be managed at the surface land use affiliated thereto. The PIR approach is applicable only to surface land uses affiliated with "gas" or "petroleum gas" transmission pipelines as defined by Title 49, Code of Federal Regulations, Section 192.3. Surface land uses affiliated with transmission pipelines carrying "hazardous liquids", as defined by Title 49, Code of Federal Regulations, Section 195.2, shall adhere to the setback standards contained in this subsection.

- (2) Landscaping. The applicant shall provide a plan prepared by a landscape architect licensed in Pennsylvania showing landscaping proposed to be installed to screen and buffer surface land uses affiliated with transmission pipelines. The landscape plan shall incorporate the use of a decorative fence surrounded by a mix of native vegetation, including evergreens, shrubbery and trees, which shall not be less than the height of the fence and shall be of sufficient density to screen the facility. Existing vegetation in proximity to surface land uses affiliated with transmission pipelines shall be preserved to the greatest extent possible. All proposed landscaping shall comply with the requirements of §95-25.1 of Chapter 95 Subdivision and Land Development. Applicants shall submit a visual survey from mutually agreed upon vantage points in order to support the proposed landscaping plan's mitigation of visual impacts.
- (3) Noise. Sound produced by the surface land use affiliated with transmission pipelines shall not result in noise or vibration clearly exceeding the average intensity of noise or vibration occurring from other causes at the property line; in no case shall the sound pressure level exceed 60 dB(A) (according to the American National Standards Institute (ANSI) "a" weighted scale) at the property line closest to the land use.

- (4) Odors. Odor, vapors or particulate matter produced by the surface land use affiliated with transmission pipelines shall not exceed the average emission of such substances occurring from other causes at the property line. Specific contaminants shall be regulated by PA Code, Title 25, Environmental Protection, Part 1, Subpart C, Article III, Air Resources.
- (5) Signage. All signs, other than utility identification signs, appropriate warning signs, or owner identification signs, shall be prohibited. There shall be no antennae, advertising, or other items or material affixed to or otherwise placed on surface land uses affiliated with transmission pipelines, except as permitted by the Township.
- (6) Parking. If the surface land use affiliated with transmission pipelines is fully automated, adequate parking shall be required for maintenance workers. If the site is not automated, the number of parking spaces shall be equal to the number of people on the largest shift. Parking spaces shall be located within the decorative fence and landscape buffer area so they are substantially concealed when viewed from surrounding properties.
- (7) Lighting. No surface land use affiliated with pipeline utilities shall be artificially lighted except as required for emergency night time access. Any such lights shall be shielded so as to prevent intrusion upon nearby properties.
- (8) Engineered drawing submission. Applications for a land use affiliated with pipeline utilities shall be accompanied by engineering drawings prepared by an engineer licensed in Pennsylvania. The applicant shall show that all applicable Commonwealth of Pennsylvania and U.S. standards for the construction, operation, and maintenance of the proposed facility have been met.
- (9) Design. The applicant proposing a surface land use affiliated with transmission pipelines must demonstrate that the structure has been designed to blend in with or mimic existing structures in the landscape such as residential outbuildings, farm structures, or other uses permitted in the underlying districts.
- (10) Visual impact. Any surface land use affiliated with transmission pipelines shall be designed and constructed so as to mitigate the visual impact from public roads and nearby uses. In addition, the color and other visual features of the land use affiliated with pipeline utilities shall be designed and installed in such a manner so as to create the least visual impact practicable. The applicant shall demonstrate compliance with this section, by among other things, providing photographic perspectives of the proposed site from all sides of the property, adjacent road ways and neighboring properties (with permission of the owners).
- (11) Need. The applicant for a surface land use affiliated with transmission pipelines is required to demonstrate, using scientific and technological evidence, that the facility must be located where it is proposed in order to satisfy its function in the

company's pipeline system and demonstrate that there is a need for this facility at the location where it will be located.

- (12) State and Federal Regulation. All applicants, whether commercial pipeline companies or otherwise, must demonstrate the submission of sufficient filings and/or receive sufficient approvals, as required, through the Federal Energy Regulatory Commission (FERC), the Pipeline and Hazardous Materials Safety Administration (PHMSA), and the Commonwealth of Pennsylvania [the Pennsylvania Department of Environmental Protection (PADEP) and/or the Pennsylvania Public Utilities Commission (PA PUC)]. Such documentation is not required as part of the initial application to the Township, but must be included with the final as-built plans submitted upon approval by the Township.
- (13) Removal of surface land uses affiliated with transmission pipelines. Any surface land uses affiliated with transmission pipelines that are no longer licensed and active shall be removed and the site restored to its original condition at the owner's expense within 60 days of the last date that the facility was licensed by the PADEP and FERC. A bond or escrow account shall be posted with the Township in an amount sufficient to ensure such removal and site restoration prior to the construction of the facility. The applicant shall have prepared and submit to the Township to accompany the bond or escrow account, an estimate of the cost necessary to remove the surface land use facility associated with the pipeline and restore the site to its preconstruction condition.

**Section 3.** The Code of the Township of East Bradford, Chapter 115, thereof, being the East Bradford Zoning Ordinance, Article XIII, Design Standards, §115-52B(3) and §115-52B(4) is amended as follows:

§115-52B(3).

		Abutting Land Use/Zoning District								
		SFR	MFR	MH	INS	COM	IND	AG/R	ROW	PL
P	SFR	P	P	P	P	P	P	P	P	S
R	MFR	S	P	P	P	P	P	S	P	S
O	MH	S	S	P	S	P	P	S	S	S
P	INS	S	S	S	P	P	P	S	P	S
U	COM	S	S	S	S	P	P	S	P	S
S	IND	S	S	S	S	P	P	S	S	S
E	REC	P	P	P	P	P	P	P	P	S
S	PL	S	S	S	S	S	S	S	S	P

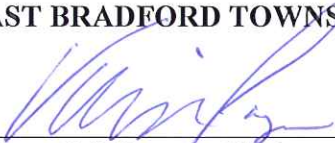
§115-52B(4).

“PL” indicates pipe line land uses pursuant to §115-51.4

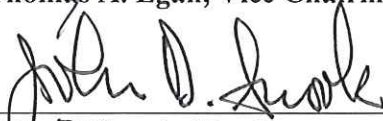
**Section 4.** This Ordinance shall be effective five (5) days from the date of enactment.

ENACTED and ORDAINED this 10th day of MARCH, 2015

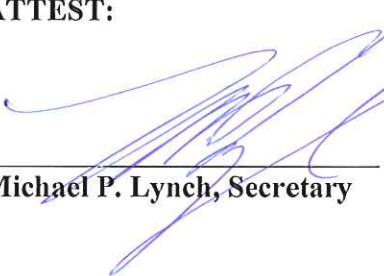
**BOARD OF SUPERVISORS  
EAST BRADEFORD TOWNSHIP**

  
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Vincent M. Pompo, Chairman

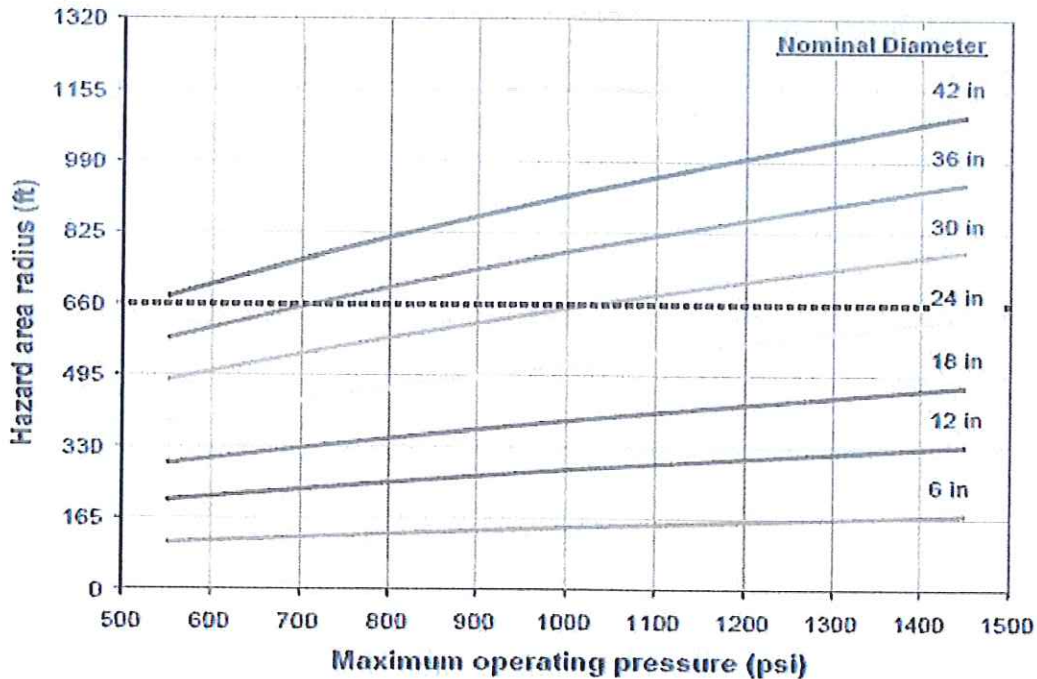
  
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Thomas A. Egan, Vice Chairman

  
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John D. Snook, Member

ATTEST:

  
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Michael P. Lynch, Secretary

**115 Attachment 1**  
**Potential Impact Radius (PIR) and Pipeline Class Locations**



Source: "A Model for Sizing High Consequence Areas Associated With Natural Gas Pipelines", Gas Research Institute and C-FER Technologies, 2000.

The Hazard Area Radius, also referred to as the Potential Impact Radius (PIR) or Blast Radius, is calculated by comparing the diameter of a pipeline to its maximum operating pressure (psi). Note that the Impact Radius increases as operating pressure rises.

Calculating the Potential Impact Radius (PIR)(as measured in feet)

$$PIR = 0.69 * d * \text{SQRT}(P)$$

Where:

d = diameter of the pipe (inches)

SQRT = square root

P = pressure (psi)

Take the square root of the pressure (if pressure is 100 psi, the square root is 10), multiply by the diameter (inches), then multiply by 0.69. Resulting number is the PIR in feet.

**Class Locations**

Many of the inspection protocol's through PHMSA and/or PA PUC are based on the pipeline "class location"; in general, class determines pipeline standards and frequency of inspections. Below are listed

## 115 Attachment 1 Potential Impact Radius (PIR) and Pipeline Class Locations

the various class locations. In essence, Class 3 & 4 areas are places where there would be greater human injury potential from a pipeline incident and therefore require more vigorous inspection regimes. Class locations are checked routinely and revised based on new development occurring in an area. Class locations are determined by the number of buildings within 660 feet (220 yards) on each side of a pipeline per sliding mile.

Class 1 location – 10 or fewer buildings.

Class 2 location – more than 10 but less than 46 buildings.

Class 3 & 4 locations – more than 46 buildings and buildings with high occupancy (churches, schools, etc.).