

**MUNICIPALITY OF MURRYSVILLE  
WESTMORELAND COUNTY, PENNSYLVANIA**

**ORDINANCE NO. xxx-10**

AN ORDINANCE OF THE MUNICIPALITY OF MURRYSVILLE AMENDING CHAPTER 220-31 – STANDARDS FOR SPECIFIC USES, ADDING SUBSECTION CC TO THE CODE OF THE MUNICIPALITY OF MURRYSVILLE, EXPLORATION OR PRODUCTION OF OIL OR NATURAL GAS FROM A SHALE RESERVOIR OR SOURCE ROCK.

**§P1.1 Recovery of Subsurface Gas and Oil Deposits:** These are activities limited to the recovery and removal of subsurface gas and oil deposits drilled with the intent to explore or produce oil or natural gas from a shale reservoir or source rock. This does not include the recovery and removal of any other subsurface minerals, such as coal, gravel, sand, clay, topsoil, stone or any other mineral other than oil and gas. This use is permitted subject to all of the following requirements:

**A. Purpose**

**Statement of Purpose:** The purpose of this subsection is to provide for the health, safety and welfare of the residents and their property in the Municipality of Murrysville; to provide the procedure for the issuance of zoning permits to enable the exploration or production of oil or natural gas from a shale reservoir or source rock; to protect the character of the community, facilitating beneficial and compatible land uses; and to further the Municipality's interest in the orderly development and use of land in a manner consistent with local demographic and land use concerns.

Subject to the provisions of this subsection, this use shall be listed as a principal or an accessory use upon conditional use approval in the Oil and Gas Recovery District as identified on the Official Zoning Map of the Municipality of Murrysville.

For any Oil and Gas Development or Facility, if development and/or drilling have not been initiated within one (1) year after the conditional use approval of the application, the conditional use approval is automatically rescinded. An extension may be granted by the Council of the Municipality of Murrysville for a maximum of one (1) year upon written request by the applicant, prior to the expiration of the original one-year period, subject to the finding that the plan is in compliance with all standards. All development activity in connection with the approved Development or Facility and, specifically, all well site reclamation, must be

completed within three (3) years of commencement of development. An extension may be granted by the Council of the Municipality of Murrysville for a maximum of one (1) year upon written request by the applicant, prior to the expiration of the original three year period, subject to the finding that the plan is in compliance with all standards.

This use is prohibited on any property subject to a conservation easement whether public or private.

Upon approval of the application, all subsequent operations shall be in conformance with the site plan, the conditional use decision and all conditions, zoning permit, all state and federal permits (as applicable) and all standards contained in this ordinance.

This use shall not occur, no conditional use approval shall be granted, and no building or zoning permit shall be issued, until the applicable procedures and standards in this subsection have been satisfied, the applicable provisions of this chapter and the Code of the Municipality of Murrysville have been satisfied and all applicable requirements of the Commonwealth of Pennsylvania and United States Government have been satisfied, as evidenced by the prior written approval of the applicable agency having jurisdiction including, without limitation, the operator's license and copies of all state and federal permits.

To the extent any provision of this ordinance conflicts with any provision of any other applicable ordinance, law, rule or regulation, the more restrictive provision shall apply.

## **B. Definitions**

As used in this ordinance, the following terms shall be interpreted or defined as follows:

1. **Ambient Noise Level:** The all encompassing noise level associated with a given environment, being a composite of sounds from all sources at the location, constituting the normal or existing level of environmental noise at a given location without extreme atmospheric conditions such as wind greater than three meters per second or precipitation and then adjusting the noise level to eliminate any noise associated with then existing Developments or Facilities. The noise level shall be established based on a test performed during a continuous seventy-two (72) hour time span which shall include at least one twenty-four (24) hour reading during either a Saturday or Sunday. The testing shall be done by a qualified Noise Control Engineer or other qualified person approved by the Municipality and shall be in accordance with specifications ANSI S12.18-

1994 Method II and ANSI S1.4-1971. The Municipality reserves the right to hire a third party consultant to witness testing and review the results. The third party costs will be deducted from the escrow deposit. The sound level meters used shall meet the American National Standard Institute's standard for a Type I sound level meter.

2. **Closed Loop System:** A system utilized while drilling so that various types of pits are not used and instead steel bins or closed containers are used to collect all drilling waste.
3. **Completion of drilling, re-drilling and re-working:** The date within sixty (60) days of the completion of the drilling, re-drilling or re-working of the Well Site.
4. **Disposal Well:** A non-producing gas well used for the storage of waste water.
5. **Exploration:** Temporary geologic or geophysical activities, drilling in context with the zoning definition in this ordinance, including seismic surveys, related to the search for natural gas or other subsurface hydrocarbons.
6. **Fracture or Fracking:** The process of injecting water, customized fracking fluid, steam, or gas into a gas well under pressure to improve gas recovery.
7. **Gas Well:** Any well drilled for the intent of extracting gas or other hydrocarbons from beneath the surface of the earth.
8. **Municipality:** Municipality of Murrysville, Westmoreland County, Pennsylvania.
9. **Oil and Gas:** Crude oil, natural gas, methane gas, coal bed methane gas, propane, butane and/or any other constituents or similar substances that are produced by drilling a well of any depth into, through, and below the surface of the earth.
10. **Oil and Gas Development or Development.** The Well Site preparation, Well Site construction, drilling, fracturing, and/or site restoration associated with an oil and gas well of any depth; water and other fluid storage, gas reservoir; impoundment and transportation used for such activities; and the installation and use of all associated equipment, including tanks, meters, and other equipment and structures whether permanent or temporary; and the site preparation, construction,

installation, maintenance and repair of oil and gas pipelines and associated equipment and all other equipment and activities associated with the exploration for, production and transportation of oil and gas including Natural Gas Compressor Stations and Natural Gas Processing Plants, structures defined as other support facilities or structures performing similar functions that operate as midstream facilities.

11. **Oil and Gas Development Facility or Facility:**

- a. **Natural Gas Compressor Station:** A facility designed and constructed to compress natural gas that originates from an oil and gas well or collection of such wells operating as a midstream facility for delivery of oil and gas to a transmission pipeline, distribution pipeline, Natural Gas Processing Plant or underground storage field, including one or more natural gas compressors, associated buildings, pipes, valves, tanks and other equipment.
- b. **Natural Gas Processing Plant:** A facility designed and constructed to remove materials such as ethane, propane, butane, and other constituents or similar substances from natural gas to allow the natural gas to be of such quality as is required or appropriate for transmission or distribution to commercial markets, but not including facilities or equipment that are/is designed and constructed primarily to remove water, water vapor, oil or naturally occurring liquids from natural gas.
- c. **Gathering System Facility:** A facility associated with a gathering system or water collection line such as a drip station, vent station, pigging facility, chemical injection station, or transfer pump station.
- d. **Production Facility:** A facility related to the production of gas which utilizes motors and/or engines.

12. **Operator:** The operator and, if a separate entity from the operator, the owner of the Oil and Gas Development or Facility which is the subject of the application.

13. **Protected Structure:** Any occupied structure measured horizontally within 600 feet of the nearest portion of the Oil and Gas Development or Facility. The term shall not include any structure whose owner has signed a waiver relieving the Operator from implementation of the measures established in this ordinance. In the waiver, the owner must acknowledge that the Operator is explicitly relieved from complying with the regulations applicable to a Protected Structure.

14. **Re-Drill:** Deepening or sidetrack/horizontal drilling of the existing well bore extending more than one hundred fifty (150) feet from said well bore.
15. **Re-Work:** Re-entry of existing well within the existing bore hole or by deepening or sidetrack/horizontal operations (which do not extend more than one-hundred fifty (150) feet horizontally from the existing well bore) or replacement of well liners or casings.
16. **Well Site:** The well site shall consist of the area occupied by any of the facilities, structures, and equipment associated with or incidental to the construction, drilling, fracturing, production, or operation of an oil or gas well. If multiple areas are used, then the total combined areas shall be considered the Well Site.

### C. Application

A person or entity desiring approval of a conditional use application pursuant to this ordinance shall submit a written application. The application shall not be considered to be complete and properly filed unless and until all items required by this section, including the application fee, have been received. Such application shall include the following information and plans:

1. Payment of an application fee of \$5,000. The applicant shall also provide to the Municipality the sum of \$25,000.00 to be deposited into an escrow account from which the Municipality may draw from/be reimbursed for administrative expenses and engineering costs and fees for review and inspections to ensure compliance with this ordinance. The Municipality may adjust the escrow amount from time to time as may reasonably be required to cover administrative and engineering expenses. The Municipality shall be reimbursed for any costs over and above the escrow amount along with a ten percent administrative and overhead charge within thirty days of invoicing by the Municipality.
2. Fourteen (14) paper copies and one electronic copy of the completed application form supplied by the Municipality along with supporting documentation as identified in this section.
3. Copies of any and all permits and applications submitted to the various local, county, state and federal agencies. Permits and plans shall include but not be limited to the Pennsylvania Department of Environmental Protection well application and permit, ESCGP-1 or other erosion and sedimentation permits and all air, water and waste management permits.

4. Applicant shall comply with all applicable Murrysville codes including but not limited the subdivision and land development code.
5. Written authorization from the property owner(s) who has legal or equitable title in and to the surface of the proposed Development or Facility.
6. A site plan prepared by a licensed engineer shall be provided to establish compliance with all applicable regulations. All drilling and production operations, including derricks, vacuum pumps, storage tanks, vehicle parking, structures, machinery, temporary housing, ancillary equipment and Facilities shall be located not less than 600 feet from any Protected Structure and not less than 200 feet from the nearest property line.
7. Traffic Impact Study

The applicant shall provide a traffic impact study as defined in subsection 201-141 of the Murrysville Code and shall include particular emphasis on the following:

- 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 route to the development site, indicating all state, county, and local roads, and transportation infrastructure that may be used 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 Municipal roads along the proposed transportation route identified by the applicant, including photography, video and core boring as determined to be necessary by the Municipal Engineer.
8. The applicant shall provide a water withdrawal plan for the Development identifying the source of water, how many gallons will be used and withdrawn each day, the origination of the water, proposed truck routes and all permits issued by the State of Pennsylvania or any other governmental body. The site for the treatment and disposal of the water will also be identified.
  9. The applicant shall identify the means and availability of the site for disposal of cuttings, fracturing fluids, oil, toxic materials, hazardous materials and other waste products.

10. The applicant shall provide a plan for the transmission of gas from the Development. The plan will identify but not be limited to gathering lines, compressors and other mid and downstream facilities located within the Municipality and extending 800 ft beyond the Municipal boundary.
11. The applicant shall provide to the Municipality a Preparedness, Prevention and Contingency ("PPC") Plan as defined in the PADEP document Guidelines for the Development and Implementation of Environmental Emergency Response Plans or the most recent applicable guidance document.
12. The applicant shall provide the GIS location and 911 address of the Well Site.
13. Noise Management Plan

The Noise Management Plan shall detail how the equipment used in connection with the Development or Facility, including but not limited to the drilling, completion, transportation, or production of a well complies with the maximum permissible noise levels as defined in Section I (Noise). The Noise Management Plan must:

- a. Identify the sound power level of all major equipment and/or processes including the identification of maximum sound power levels at all points designated by the Municipality; and
- b. Provide documentation establishing the Ambient Noise Level; and
- c. Provide documentation including computer modeling in form and substance satisfactory to the Municipality and performed by a qualified person approved by the Municipality, establishing compliance with this section during the construction and operation of the applicable Development or Facility.
- d. Detail how noise impacts will be mitigated. In determining noise mitigation, specific site characteristics shall be considered, including but not limited to the following:
  - (1) Nature and proximity of adjacent development, location, and type;
  - (2) Seasonal and prevailing weather patterns, including wind directions;

- (3) Vegetative cover on or adjacent to the site;
- (4) Topography;
- (5) Operation and site noise management measures, which may include, but not be limited to: Use of critical grade mufflers on generators and motors; equipment or process substitution with a lower sound power level; use of structural noise curtains, walls, or enclosures; and best management practices by utilizing best available control technology to limit or eliminate noisier operations, such as tripping, deliveries of pipe, casing and heavy loads, use of horns for communication, and operation of vehicle audible back-up alarms at night.
- (6) Ability to increase setbacks
- (7) Erection of sound barriers; and
- (8) Altering the direction, size, proximity, duration and extent of the operations associated with the applicable Development or Facility.

14. Community and Environmental Impact Analysis

An environmental impact analysis statement shall be submitted to the Municipality prior to approval of any Development or Facility. The person(s) drafting the statement shall be qualified and have prior approval by the Municipality. The purpose of the statement is to determine the impact of the project on the environment of the existing site and the resultant changes the proposal will have on the immediate site and surrounding area. This information will allow the Municipality to make more informed decisions relating to the proposed action. At a minimum, the statement shall provide of the following information:

- a. A description of the proposed Development or Facility, its purpose, a schedule of construction and length of operation and its interrelationship with other oil and gas developments within the Municipality. This information and technical data must be sufficient to allow a thorough assessment of the proposed Development or Facility's environmental impact.
- b. A comprehensive description of baseline environmental conditions identified before any activities associated with the Development or

Facility and then probable environmental impacts both during and after complete build out of the proposed Development or Facility. This description should focus both on the environmental details most likely to be affected by the Development or Facility proposal and on the broader regional aspects of the environment, including ecological interrelationships.

- c. A description of the environmental impacts of the proposed Development or Facility. These impacts are defined as direct or indirect changes in the existing environment, either beneficial or detrimental. Whenever possible, these impacts should be quantified. This discussion should include the impact not only upon the natural environment, but upon land use as well. Provide separate discussion for such potential impacts as man-caused accidents and natural catastrophes and their probabilities and risks with supporting statistics developed by an analysis of similar Developments or Facilities in similar locations. Specific mention should also be made of partially understood impacts.
- d. A discussion of measures which are required to or may enhance, protect, or mitigate impacts upon the environment, including any associated research or monitoring. Include sufficient documentation and supporting material to demonstrate that the proposed measures will function as expected.
- e. A discussion of the unavoidable adverse impacts described in Sections b, c, and d above; the relative values placed upon those impacts, and an analysis of who or what is affected and to what degree affected.
- f. A discussion of the short term impacts (i.e. those occurring during build out of the Development or Facility), long term impacts and cumulative impacts to the environment. Particular attention should be paid to the Development or Facility's relationship to trends of similar Developments or Facilities (i.e. cumulative noise degradation poised by similar Developments or Facilities).
- g. A discussion, quantified where possible, of any irrevocable uses of resources, including such things as resource extraction, erosion, destruction of archaeological or historical sites, elimination of endangered species' habitat, and significant changes in land use.
- h. A description of the environmental impacts, both beneficial and adverse, of the various alternatives considered.

- i. Hydrologic analysis and information, including but not limited to a description, inventory, analysis, and evaluation of the existing groundwater conditions. This analysis must be focused in terms of both surface water and groundwater quality and quantity, a discussion of likely and possible changes to these resources and a discussion of measures to reduce or mitigate the identified impacts.
15. The applicant shall provide any and all waivers from owners of Protected Structures.

**D. Standards**

**1. General**

- a. Offensive or noxious odors, fluids, gases or dust shall be confined to the subject parcel or the leasehold premises.
- b. Junk, refuse, waste, trash or abandoned material shall not be disposed of on-site. All refuse stored on site for final off-site disposal shall be stored indoors, in a dumpster or other permitted enclosure.
- c. Any hazardous or toxic material shall be securely contained, stored and removed in accordance with applicable state or federal regulations. On-site disposal is prohibited. All hazardous materials stored must be clearly marked identifying the contents, chemicals, and hazards as required by the OSHA Hazard Communication Standard 29 CFR 1910.1200 and National Fire Protection Association Code 704-Standard System for the Identification of the Hazards of Materials for Emergency Response.
- d. Fractured fluid storage ponds, open pits and reserve pits are prohibited under any circumstance. Only Closed Loop Systems shall be used during the drilling or completion of any well.
- b. Fresh water storage ponds are permitted.
- f. All operations shall be in accordance with all applicable federal laws and regulation; the Pennsylvania Oil and Gas Act (58 P.S.

601.101 et seq.), as amended and pursuant to all other applicable rules, regulations and procedures adopted thereto.

- g. Drip pans and other containment devices shall be placed or installed underneath all tanks, containers, pumps, lubricating oil systems, engines, fuel and chemical storage tanks, system valves, connections, and any other areas or structures that could potentially leak, discharge, or spill hazardous liquids. The Operator shall be responsible for prevention and prompt removal of spills involving waste materials, oil and toxic or hazardous materials.
- h. Multiple well pad sites on any one Oil and Gas Development shall be prohibited, unless the Operator proves to the satisfaction of the Municipality the underlying geology makes using a single well pad impractical.
- i. Changes in the site plan including but not limited to any expansion of the ground surface area used and/or devoted towards drilling operations or changes in depth, type or extent of drilling requires further conditional use approval pursuant to the terms and conditions of this ordinance.
- j. Except for emergency activities or during drilling and fracturing operations, hours of operation are limited to Monday through Saturday, 7:00 a.m. to 9:00 p.m. All deliveries and pickups incidental to the Oil and Gas Development or Facility must occur during the defined hours of operation.
- k. At least 30 days prior to any development activity at the Development or Facility, the Operator shall provide the following information to each property owner within one thousand (1,000) feet of the planned surface location of the well(s):
  - (1) A copy of the site plan submitted as part of the conditional use application;
  - (2) A general description of the planned operations at the Development or Facility and associated equipment to be used;
  - (3) The contact information for the Operator; and
  - (4) The availability of the Operator to hold a meeting locally with such residents to present Operator's plans for the Development or Facility and to allow for questions and

answers. The meeting(s) shall be held prior to the commencement of development activity.

- l. A duly authorized representative of the Municipality shall have the authority, at any time, both in relation to the enforcement of this ordinance and pursuant to the Municipality's enforcement rights under the Pennsylvania Oil and Gas Act, to enter upon the property of a Development or Facility for the purpose of inspecting the site, equipment and all other aspects of the site necessary to assure compliance with this ordinance.
- m. Disposal Wells are prohibited in the Municipality.
- n. The Operator will be required to have a Knox Box at the site.
- o. Only essential safety and emergency personnel shall be permitted to occupy any trailer, or temporary living quarters at the site overnight.

#### **E. Traffic Impact**

1. The proposed routes must be designed to minimize the impact on streets within the Municipality. The Municipality reserves the right to designate alternate routes in the event the applicant's proposed routes are deemed inadequate, unsafe or overly disruptive to normal vehicular traffic by the Municipal Engineer. Vehicles are to operate on state routes and may only use municipal roads when the use of state routes is not feasible.
2. Prior to the commencement of any activity at the Development or Facility, the Operator shall enter into a Municipal Roadway Maintenance and Repair agreement with the Municipality, in a form acceptable to the Municipality, regarding maintenance repair and bonding of Municipal roads that are to be used by vehicles for development activities. The Municipal Roadway Maintenance and Repair agreement will identify the responsibilities of the applicant to prepare, maintain, and repair Municipal roads before, during and immediately after drilling operations associated with the Development or Facility. The applicant shall take all necessary corrective action and measures as directed by the Municipality pursuant to the agreement to ensure the roadways are repaired and maintained during and at the conclusion of all development activities.
3. The operator shall take the necessary safeguards to ensure that the Municipal roads utilized remain free of dirt, mud and debris resulting from

development activities and/or shall ensure such roads are promptly swept and cleaned if dirt, mud and debris occur.

4. The Operator shall take all necessary precautions to ensure the safety of persons in areas established for road crossing and/or adjacent to roadways (for example, persons waiting for public or school transportation). Where necessary and permitted, during periods of anticipated heavy or frequent truck traffic associated with the Development or Facility, Operator will provide flagmen to ensure the public safety and include adequate signs and/or other warning measures for truck traffic and vehicular traffic.

**F. Visual**

1. The Well Site, access roads/driveways and all structures shall be located, designed and constructed to minimize the removal of trees and shrubs, protect all natural resources, and minimize the amount of surface disturbance.
2. Operator shall not clear brush or trees by way of burning, and shall chip, grind or remove all tree stumps from properties it clears for development purposes. However, applicant shall be permitted to, consistent with any relevant outdoor burning ordinance(s), laws and regulations and with agreement of the property owner, burn any brush, trees, or stumps that have been removed from the ground and collected into a pile or piles on the properties where the Operator is engaging in development activities.
3. The location and design of structures and site improvements shall be integrated with the natural color, form and texture of the surrounding area.
4. All structures, equipment and operations shall be fully screened from off-site view. Methods may include, but are not limited to:
  - a. Existing and/or replanted vegetation.
  - b. Existing and/or artificially created land forms.
  - c. Walls.

**G. Lighting**

1. The illumination projected from the Development or Facility to a property used for residential purposes shall at no time exceed 0.1 foot-candle, measured line-of-sight from any point on the receiving property.

2. The illumination projected from the Development or Facility to a nonresidential use at no time shall exceed 1.0 foot-candle, measured line-of-sight from any point on the receiving property.
3. All lighting shall be aimed, located, designed, fitted and maintained so as not to present a hazard to drivers or pedestrians by impairing their ability to safely traverse and so as not to create a nuisance by projecting or reflecting objectionable light or glare onto a neighboring use or property.
4. The lighting system shall be designed with cutoff luminaries that have a cutoff angle of 60° or less.
5. An applicant may request a modification to these requirements to be approved by the Municipality, subject to meeting the following standards:
  - a. All general performance standards as noted above, including maximum foot-candles at property lines, shall be maintained.  
  
Proper cutoff angles shall be maintained in an effort to eliminate or minimize glare.
  - c. The applicant shall demonstrate a need to vary from the prescribed standards based upon safety and security issues, the general design of the site and other factors that may shield the proposed lighting and minimize glare, or the ability to meet or exceed the general performance standards outlined above.
  - d. The applicant shall submit a photometric plan, construction details, and a narrative which demonstrate achievement of the above criteria.

## **H. Air and Water Quality**

1. Air contaminant emissions shall be in compliance with all county, state and federal regulations, including without limitation the control provisions of the Clean Air Act, as amended; and all applicable regulations for smoke, ash, dust, fumes, gases, odors and vapors.
2. Operator shall take the necessary safeguards to ensure appropriate dust control measures are in place to prevent visible plumes of dust from crossing the property line or adversely impacting neighboring properties.

3. Sixty (60) days prior to drilling, the Operator shall notify residents with water wells within one thousand (1,000 feet) of the gas well of their intentions to drill.

## I. Noise

1. All construction, maintenance, and operations of any Development or Facility shall be conducted in a manner to minimize noise to the greatest extent possible utilizing the best available control technology.
  - a. The applicant shall be responsible for establishing to the Municipality that the Development or Facility complies with all applicable noise regulations, including but not limited to the noise regulations contained in this ordinance.
  - b. The noise generated by the Development or Facility, when measured from the source of the sound to the property line of the nearest Protected Structure, shall not:
    - (1) Exceed the Ambient Noise Level by more than five (5) *dBA* during daytime hours and more than three (3) *dBA* during nighttime hours (from 9 p.m. to 7 a.m. Eastern Standard Time).
    - (2) During fracturing operations, exceed the Ambient Noise Level by more than ten (10) *dBA* during daytime hours or five (5) *dBA* during nighttime hours.
  - c. The Operator shall be responsible for continuously monitoring the noise level generated by the Development or Facility through completion of the development. The equipment used for the monitoring well shall permit the Municipality remote access to the data at any time. The Operator shall be responsible for audio file recording to identify and immediately remediate any deviations from the allowable noise levels. The costs shall be borne by the Operator. The file shall be maintained through the completion of the well.
  - d. No person shall operate or permit to be operated in connection with the operation of a Development or Facility any engine, small compressor, or motor-driven machinery of any type, which creates a sound level that exceeds the Ambient Noise Level by more than five (5) *dBA* during the daytime and more than three (3) *dBA* during the nighttime (from 9 p.m. to 7 a.m. Eastern Standard Time) when measured at the property line of the nearest Protected Structure.

- e. No person shall operate or permit to be operated any Oil and Gas Development or Facility, which creates a sound level that exceeds the Ambient Noise Level by more than five (5) *dBA* during the daytime and more than three (3) *dBA* during the nighttime when measured at the property line of the nearest Protected Structure.
- f. A violation may be immediately issued for failure to comply with the provisions of this section.

**J. Hazards**

1. For areas that are, in the opinion of the Municipality's Emergency Management Coordinator, of potential wildfire hazard, fire line intensities shall be abated to less than 100 BTU/foot/second through fuel breaks or other equally effective means around structures or areas of activity. Required practices for grass/shrub lands include the following:
  - a. Fuel breaks of a width three to four times the height of adjacent vegetation.
  - b. Re-vegetation to short grasses.
2. Upon request of the Emergency Management Coordinator, the Operator shall, prior to drilling its first gas well in the Municipality, make available with at least 30 days' notice, at the applicant's sole cost and expense, one appropriate group training program for emergency responders. Such training shall be made available at least annually during any year that drilling activities take place at the Oil and Gas Development or Facility. If additional wells are drilled at the site, the Operator and Emergency Management coordinator will determine if additional training is required.
3. Activities or structures proposed within a floodplain shall independently meet the floodplain provisions of the prevailing ordinance and shall be carried out in a manner that does not increase flood hazards upstream or downstream, nor reduces the efficiency with which flood waters are carried through the site.
4. Drilling or production operations shall not cause the acceleration of geologic processes such as erosion, sedimentation or gravitational movement of earth and/or rock material to the point that such processes become a hazard or nuisance to life or property.
5. The applicant shall maintain at the property and on file with the Municipality, a current list and the Material Safety Data Sheets (MSDS) for all chemicals used in the drilling operations (including but not limited

to types of additives, polymers, salts, surfactants and solvents) and in any fracturing operations.

**K. Access**

1. Beginning with its intersection with a public street, any ingress or egress point for the Development or Facility shall be paved for the first fifty (50) feet and improved with limestone or other material for the next 100' in a manner that no water, sediment, or debris will be carried onto any public street. If any substantial amount of mud, dirt or other debris is carried on to public or private rights-of-way from the Well Site, the Operator shall immediately clean the roads and implement a remedial plan as directed by the Municipality to keep the streets continuously clean.
2. Ingress and egress points for all public and private driveways or roadways shall be located and improved in order to:
  - a. Meet Pennsylvania Code 67 Chapter 441 "Access to and Occupancy of Highways by Driveway and Local Roads, PennDot Design Manual 2.
  - b. Ensure adequate capacity for existing and projected traffic volume.
  - c. Provide efficient movement of traffic, including appropriate turning radii and transition grade
  - d. Minimize hazards to highway users and adjacent property and human activity.
3. All applicable permits or approvals must be obtained, including without limitation:
  - a. Access or driveway permits to state or county roads.
  - b. Overweight or oversize loads.
4. Use of streets serving exclusively residential neighborhoods is prohibited.
5. All weather access roads, suitable to handle emergency equipment, shall be provided to within 50 feet of any structure, improvement, or activity area.

**L. Reclamation**

1. The Operator of any Development or Facility shall notify the Emergency Management Coordinator, Municipal Zoning Officer and Municipal Engineer no less than 90 days prior to the abandonment or shutdown of any Well Site, to allow the Municipality to inspect the site and ensure that the Development or Facility has been properly secured.
2. Reclamation shall be carried out on all disturbed areas and achieve the following objectives:
  - a. Final soil profiles designed to equal or reduce soil erosion potentials over stable pre-operation conditions.
  - b. Restoration or enhancement of pre-existing visual character through planting of local or adaptive vegetation. Invasive species shall not be considered acceptable.
  - c. Final land forms shall be stable.
  - d. Disturbance of soil cover shall be minimized.
  - e. The Development or Facility shall be securely and safely maintained until reclamation has been completed and re-vegetation permanently established.
  - f. Reclamation shall be initiated as soon as weather and growing conditions permit after the abandonment of the well or installation of production equipment and shall be completed within 12 months.

**M. Geophysical Exploration**

1. Geophysical exploration systems employing thumper, vibroseis, explosives or other techniques shall be permitted upon a separate application described below and payment of the applicable fee.
2. The application for a permit to conduct geophysical exploration shall include the following:
  - a. Date of the application.
  - b. Name of proposed permittee.
  - c. Address of proposed permittee.

- d. Statement of the proposed commencement and completion date.
- e. Map or plan (three copies) outlining the areas to be covered by the geophysical survey.
- f. Compliance with all other applicable provisions of this chapter.

**N. Additional Safety Regulations**

1. Fences

- a. Prior to the commencement of and during all operations, the Well Site areas and facilities shall be completely enclosed by a chain link fence, masonry wall or other fencing material according to one of the following requirements:

- (1) The fence fabric shall be at least six (6) feet in height.
- (2) Support posts shall be set in concrete and shall be imbedded into the ground to a depth sufficient to maintain the stability of the fence.
- (3) The chain link fabric shall be galvanized steel wire with a minimum plating of 1.2 ounces of zinc per square foot of surface area or shall be coated with vinyl or plastic material, approved by the municipal building inspector.
- (4) The chain link fence fabric shall have a minimum thickness of 11 gauge.
- (5) The chain link fabric shall be two-inch mesh; provided, however, three and one-half-inch mesh may be used on any fence where the fabric is interwoven with artificial screening material approved by the municipal building inspector.
- (6) Post and rail shall be standard galvanized, welded pipe, Schedule 40 or thicker.
- (7) All pipe and other ferrous parts, except chain link fabric and drill pipe, shall be galvanized inside and outside with a

plating which contains a minimum of one and two-tenths ounces of zinc per square foot of surface area.

- (8) Tension rods shall be three-eighths-inch round steel bolt stock. Adjustable tighteners shall be turnbuckle or equivalent having a six-inch minimum take-up. Tension bars shall have a minimum thickness of one-fourth by three-fourths inch.
- (9) All fences shall have security extension arms at the top of such fences and such security extension arms shall be strung with galvanized barbed wire.

#### **O. Masonry Walls**

1. All masonry walls used to enclose in whole or in part any Well Site or operation site shall be constructed in accordance with standard engineering practices and shall meet the following minimum specifications:
  - a. The wall shall be of a design compatible with the facilities buildings and structures on and adjacent to the site.
  - b. The wall shall be at least six (6) feet in height.
  - c. The wall shall be constructed in accordance with the provisions of the Municipality of Murrysville Building Code, as amended.

#### **P. Gate Specifications**

1. For all points of ingress and egress to the Development and for all Well Sites and support operations, the chain link fences and/or masonry walls shall be equipped with a gated area. The gated areas shall meet the following specifications:
  - a. Each gated area shall be not less than 12 feet wide and be composed of two gates, each of which is not less than six feet wide, or one sliding gate not less than 12 feet wide. If two gates are used, gates shall latch and lock in the center of the span.
  - b. The gates shall be of chain link construction which meets the applicable specifications or of other approved material which, for safety reasons, shall be at least as secure as chain link fence.

- c. They shall be provided with a combination catch and locking attachment device for a padlock and shall be kept locked except when being used for access to the site.
- d. Hinges shall be heavy duty malleable iron or steel industrial service type with a 180 degrees swing.
- e. Upon completion of the well, all fencing and/or masonry walls not necessary for appropriate screening, noise abatement or security shall be removed from the Development site.

**Q. Storage of Equipment**

- 1. No equipment including drilling, re-drilling, re-working or other portable equipment shall be stored on the Development or Facility which is not essential to the everyday operation of the well located thereon. This includes the removal of idle equipment unnecessary for the operation of such wells.
- 2. Lumber, pipes, tubing and casing shall not be left on the Development or Facility except when drilling or well servicing operations are being conducted on the site.
- 3. It shall be illegal to park or store any vehicle or item of machinery on any street, right-of-way or in any driveway, alley or on the Development or Facility which constitutes a fire hazard or an obstruction to or interference with fighting or controlling fires except that equipment which is necessary for the maintenance of the Well Site or for gathering or transportation of hydrocarbon substances from the site.

**R. Screening**

- 1. Screening
  - a. Within 30 days of completion of drilling, re-drilling, re-working, converting, or activation of any idle well or the construction of a Facility, all permanent equipment including but not limited to wellheads, tanks and drilling related equipment shall be screened by an enclosure.
  - b. An enclosure shall be constructed of one of the following materials:

- (1) A solid masonry wall as defined in Section N, Additional Safety Regulations.
- (2) A fence as defined in Section N, Additional Safety Regulations
- (3) Any other material, compatible with surrounding uses, which effectively screen the Development or Facility and are approved by the Municipality of Murrysville.
- (4) All fencing, masonry walls, opaque slatting, or other compatible materials for use with chain link fabric, shall be of a solid neutral color, compatible with surrounding uses, and maintained in a neat, orderly, and secure condition. Neutral colors shall include sand, gray, and unobtrusive shades of green, blue and brown, or other colors approved by the Municipality of Murrysville.

**S. Oil and Gas Development Facilities**

1. Oil and Gas Development Facilities which employ the use of compressors, motors or engines as part of the operations and/or produce air contaminant emissions or offensive odors shall be listed as a principal use upon conditional use approval only in the Oil and Gas Recovery District.
2. Natural Gas Processing Plants shall be listed as a principal use upon conditional use approval in the Business District and shall be subject to all the provisions of Article V subsection 220-28 (R) of the Murrysville Code and subsection I (Noise) of this section.
3. All other Oil and Gas Facilities shall be listed as a principal use upon conditional use approval only in the Oil and Gas Recovery District subject to all the provisions of Article V subsection 220-30.

**T. Repealer**

Any ordinance, chapter, section, subsection, paragraph, sentence or phrase of any ordinance conflicting with the provisions of this ordinance is hereby repealed to the extent of such conflict.

**U. Severability**

If any section, subsection, sentence, clause or phrase or portion of this document is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portion thereof.

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