**Section 245.110 Definitions**

*For the purposes of this* Part, *unless the context otherwise requires*:

"Act" means the Hydraulic Fracturing Regulatory Act [225 ILCS 732].

*"Agency" means the Illinois Environmental Protection Agency.* (Section 1-5 of the Act)

"ANSI" means the American National Standards Institute.

"API" means the American Petroleum Institute.

"Applicant" means any person registered with the Department pursuant to Section 245.200 of this Part that has filed an application in accordance with this Part.

"Application" means a filing by an applicant to the Department seeking a high volume horizontal hydraulic fracturing permit pursuant to Section 245.210 or a modification pursuant to Section 245.330 of this Part.

*"Aquatic life" means all fish, reptiles, amphibians, crayfish, and mussels.* (Section 1-5 of the Act)

*"Aquifer" means saturated (with groundwater) soils and geologic materials that are sufficiently permeable to readily yield economically useful quantities (at least 70 gallons per minute) of fresh water to wells, springs, or streams under ordinary hydraulic gradients. "Aquifer" is limited to aquifers identified as major sand and gravel* *aquifers in the Illinois State Water Survey's Illinois Community Water Supply Wells map (Map Series 2006-01).* (Section 1-5 of the Act)

*"Base fluid" means the continuous phase fluid type, including, but not limited to, water* or nitrogen or other gas *used in a high volume horizontal hydraulic fracturing operation.* (Section 1-5 of the Act) "Base fluid" shall also include both hydrocarbon and non-hydrocarbon fluids in gas and/or liquid form used in high volume horizontal hydraulic fracturing operations. Calculation and reporting of volumes for all base fluid shall be for the normal volume that the base fluid would occupy at 20°C and one atmosphere (National Institute of Standards and Technology Standard Temperature and Pressure, or "STP"). If part or all of the base fluid will contain any component that at STP would exist in a gaseous state, regardless of whether the component is transported or injected or combined in any other form or at any other temperature or pressure, or whether, when mixed with other substances the component forms a foam or gel or other dispersion, the volume of that component shall be calculated and reported as the uncompressed volume at STP for all purposes under this Part.

*"BTEX" means benzene, toluene, ethylbenzene, and xylene.* (Section 1-5 of the Act)

"By-product materials" has the same meaning as in the Illinois Radiation Protection Act of 1990 [420 ILCS 40].

"Certified local health department" means a local governmental agency that has been certified by the Illinois Department of Public Health to meet the requirements set forth in Subparts C and D of this Part and 77 Ill. Adm. Code 600.210.

*"Chemical" means any element, chemical compound, or mixture of elements or compounds that has its own specific name or identity, such as a Chemical Abstracts Service number, regardless of whether the chemical is subject to the requirements of 29 CFR 1910.1200(g)(2).* (Section 1-5 of the Act)

*"Chemical Abstracts Service" means the division of the American Chemical Society that is the globally recognized authority for information on chemical substances.* (Section 1-5 of the Act)

*"Chemical Abstracts Service number" or "CAS number" means the unique identification number assigned to a chemical by the Chemical Abstracts Service.* (Section 1-5 of the Act)

"Class II UIC well" shall have the same meaning as in 62 Ill. Adm. Code 240.

*"Completion combustion device" means any ignition device, installed horizontally or vertically, used in exploration and production operations to combust otherwise vented emissions.* (Section 1-5 of the Act)

*"Delineation well" means a well drilled in order to determine the boundary of a field or producing reservoir.* (Section 1-5 of the Act)

*"Department"* or "IDNR" *means the Illinois Department of Natural Resources.* (Section 1-5 of the Act)

*"Diesel" means a substance having any one of the following Chemical Abstracts Service numbers: 68334-30-5; 68476-34-6; 68476-30-2; 68476-31-3; 8008-20-6; or 68410-00-4. "Diesel" includes any additional substances regulated by the United States Environmental Protection Agency as diesel fuel used in hydraulic fracturing activities under the federal Safe Drinking Water Act* (42 USC 300f et seq.)*.* (Section 1-5 of the Act)

*"Director" means the Director of* the Illinois Department of *Natural Resources* or his or her designee. (Section 1-5 of the Act)

*"Enhanced oil recovery operation" means any secondary or tertiary recovery method used in an effort to recover hydrocarbons from a pool by injection of fluids, gases or other substances to maintain, restore, or augment natural reservoir energy, or by introducing gases, chemicals, other substances, or heat, or by in-situ combustion, or by any combination thereof.* (Section 1-5 of the Act)

*"Flare" means a thermal oxidation system using an open, enclosed, or semi-enclosed flame. "Flare" does not include completion combustion devices as defined in this Section.* (Section 1-5 of the Act)

*"Flowback period" means the* period of time when hydraulic fracturing fluid flows back to the surface from a well *following a* stimulation *treatment, either in preparation for a subsequent phase of* stimulation *treatment or in preparation for cleanup and* placing *the well* into *production*. *"Flowback period" begins when the hydraulic fracturing fluid returns to the surface following* a stimulation treatment. *"Flowback period" ends with either* the *well shut in, or when the well is producing continuously to the flow line or to a storage vessel for collection, whichever occurs first.* (Section 1-5 of the Act)

*"Fresh water" means surface and subsurface water in its natural state that is suitable for drinking water for human consumption, domestic livestock, irrigation, industrial, municipal and recreational purposes, that is capable of supporting aquatic life, and contains less than 10,000 ppm total dissolved solids.* (Section 1-5 of the Act)

*"Gas" means all natural gas, including casinghead gas, and all other natural hydrocarbons not defined as oil.* (Section 1-5 of the Act)

"GPS" means Global Positioning System.

*"Groundwater" means any water below the land surface that is within the saturated zone or geologic materials where the fluid pressure in the pore space is equal to or greater than atmospheric pressure.* (Section 1-5 of the Act)

"Hazardous material" has the same meaning as ascribed in Section 3 of the Illinois Hazardous Material Transportation Act [430 ILCS 30].

*"Health care services" means any services included in the furnishing to any individual of medical care, or the hospitalization incident to the furnishing of such care, as well as the furnishing to any person of any and all other services for the purpose of preventing, alleviating, curing or healing human illness or injury, including home health and pharmaceutical services and products.* [215 ILCS 134/10]

*"Health professional" means a physician,* physician assistant, nurse practitioner*, registered professional nurse,* emergency medical technician*, or other individual appropriately licensed or registered to provide health care services.* (Section 1-5 of the Act)

"Hearing Officer" means the presiding officer at the public hearing and other hearings referenced in this Part. The term also includes administrative law judge.

*"High volume horizontal hydraulic fracturing operations"* or "HVHHF operations" *means all stages of a stimulation treatment of a horizontal well by the pressurized application of more than 80,000 gallons* in any single *stage or more than 300,000 gallons* in *total of hydraulic fracturing fluid to initiate or propagate fractures in a geologic formation to enhance extraction or production of oil or gas.* (Section 1-5 of the Act)

*"High volume horizontal hydraulic fracturing permit" means the permit issued by the Department allowing high volume horizontal hydraulic fracturing operations to occur at a well site.* (Section 1-5 of the Act)

*"High volume horizontal hydraulic fracturing treatment" shall have the same definition as "High volume horizontal hydraulic fracturing operations".*

*"Horizontal well" means a well with a wellbore drilled laterally at an angle of at least 80 degrees to the vertical and with a horizontal projection exceeding 100 feet measured from the initial point of penetration into the* potential *productive formation through the terminus of the lateral in the same common source of hydrocarbon supply.* (Section 1-5 of the Act)

"Hydraulic fracturing" means the pressurized application of hydraulic fracturing fluid to initiate or propagate fractures in a geologic formation to enhance extraction or production of oil or gas.

*"Hydraulic fracturing additive" means any chemical substance or combination of chemicals, including, but not limited to, any chemical or proppant that is added to a base fluid for the purposes of preparing a hydraulic fracturing fluid for a high volume horizontal hydraulic fracturing operation.* (Section 1-5 of the Act)

*"Hydraulic fracturing flowback"* or "Flowback" *means all hydraulic fracturing fluid and other fluids* or materials *that return to the surface after a stage of hydraulic fracturing has been completed and prior to the well being placed in production.* (Section 1-5 of the Act)

*"Hydraulic fracturing fluid" means the mixture of the base fluid and all the hydraulic fracturing additives, used to perform hydraulic fracturing.* (Section 1-5 of the Act)

*"Hydraulic fracturing string" means any pipe or casing string used for the transport of hydraulic fracturing fluids during high volume horizontal hydraulic fracturing operations.* (Section 1-5 of the Act)

"IEMA" means the Illinois Emergency Management Agency.

"Inspector" means a well inspector from the Department's Office of Oil and Gas Resource Management.

*"Intake" means a pipe or other means to withdraw raw water from a water source.* (Section 1-5 of the Act)

*"Landowner" means the legal title holder or owner of real property and includes an owner of an undivided interest, a life tenant, a remainderman, a public or private corporation, a trustee under an active trust, and the holder of the beneficial interest under a land trust. "Landowner" does not include a mortgagee, a trustee under a trust deed in the nature of a mortgage, a lien holder, or a lessee.* (Section 1-5 of the Act)

"Low-level radioactive waste" or "LLRW" shall have the same meaning as ascribed in Section 3 of the Illinois Low-Level Radioactive Waste Management Act [420 ILCS 20/3].

*"Low pressure well" means a well with reservoir pressure and vertical well depth such that 0.445 times the reservoir pressure (in psia) minus 0.038 times the vertical well depth (in feet) minus 67.578 psia is less than the flow line pressure at the sales meter.* (Section 1-5 of the Act)

"Material Safety Data Sheet" or "MSDS" means a document provided by chemical or industrial manufacturers that contains information on chemicals. An MSDS includes: nature of the chemical, precautions to take in using the chemical, conditions of safe use, clean-up procedure for a release, and recommended disposal procedures.

"Medium volume hydraulic fracturing operations" means a stimulation treatment of a horizontal well by the pressurized application of more than 80,000 gallons but less than 300,001 gallons in total of hydraulic fracturing fluid to initiate or propagate fractures in a geologic formation to enhance extraction or production of oil or gas.

"Naturally Occurring Radioactive Materials" or "NORM" means materials that may contain any of the primordial radionuclides or radioactive elements as they occur in nature, such as radium, uranium, thorium or potassium, and their radioactive decay products such as radium and radon that are undisturbed as a result of human activities. (See USEPA/Office of Radiation and Air, Radiation Protection Division – Technical Report on TENORM from Uranium Mining, vol. 1 and 2 (2006)).

*"Nature preserve" shall have the same meaning as provided in Section 3.11 of the Illinois Natural Areas Preservation Act* [525 ILCS 30/3.11]. (Section 1-5 of the Act)

*"Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of* specific *gravity, which are produced at the well in liquid form by ordinary production methods or by the use of an oil and gas separator and which are not the result of condensation of gas after it leaves the underground reservoir.* (Section 1-5 of the Act)

*"Operator" means the individual or entity controlling the right to drill or produce a horizontal well in accordance with the requirements of the Illinois Oil and Gas Act.* (Section 1-5 of the Act)

"Ordinary high water mark" means the boundary of a water source delineated by the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape. For:

rivers, the ordinary high water mark is the elevation of the top of the bank of the channel; and

natural or artificial lakes, ponds or reservoirs, the ordinary high water mark is the operating elevation of the normal operating pool.

"OSHA" means the Occupational Safety and Health Administration, an agency of the federal Department of Labor.

*"Owner"* when used with reference to oil and/or gas rights, *shall have the same meaning as provided in Section 1 of the Illinois Oil and Gas Act*, but when used with a modifying prepositional clause or, in the context of ownership of anything other than oil and gas drilling rights, shall have its plain and ordinary meaning. (Section 1-5 of the Act)

*"Perennial stream" means a stream that has continuous flow in its stream bed during all of the calendar year.* (Section 1-5 of the Act)

*"Permit" means a high volume horizontal hydraulic fracturing permit* issued under the Act and this Part*.* (Section 1-5 of the Act)

*"Permittee" means a person holding a high volume horizontal hydraulic fracturing permit under* the *Act* and this Part. (Section 1-5 of the Act)

*"Person" means any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, political subdivision, State agency, or any other legal entity or* its *legal representative, agent, or assigns.* (Section 1-5 of the Act)

*"Pollution or diminution" means:*

*in groundwater, any of the following:*

*detection of benzene or any other carcinogen in any Class I, Class II, or Class III groundwater;*

*detection of any constituent in 35 Ill. Adm. Code 620.310(a)(3)(A)(i) equal to or above the listed preventive response criteria in any Class I, Class II, or Class III groundwater;*

*detection of any constituent in 35 Ill. Adm. Code 620.410(a), (b), (c), (d), (e),* or (f) *equal to or above the listed standard in any Class I, Class II, or Class III groundwater;*

*detection of any constituent in Class III groundwater equal to or above a standard established under 35 Ill. Adm. Code 620.260; or*

*detection of any constituent in Class I, Class II, or Class III groundwater equal to or above a cleanup objective listed in 35 Ill. Adm. Code 742.*

*in surface water, exceeding any applicable numeric or narrative standard in 35 Ill. Adm. Code 302 or 304.* (Section 1-5 of the Act)

*"Produced water" means water, regardless of chloride and total dissolved solids content, that is produced* from a well *in conjunction with oil or natural gas production or natural gas storage operations, but does not include hydraulic fracturing flowback.* (Section 1-5 of the Act)

*"Proppant" means sand or any natural or man-made material that is used during high volume horizontal hydraulic fracturing operations to prop open the artificially created or enhanced fractures.* (Section 1-5 of the Act)

*"Public water supply" means all mains, pipes, and structures through which water is obtained and distributed to the public, including wells and well structures, intakes and cribs, pumping stations, treatment plants, reservoirs, and storage tanks and appurtenances, collectively or severally, actually used or intended for use for the purpose of furnishing water for drinking or general domestic use, and which serves at least 15 service connections or which regularly serves at least 25 persons at least 60 days per year.* (Section 1-5 of the Act)

"Radiation" has the same meaning as ascribed in Section 4(f) of the Illinois Radiation Protection Act of 1990 [420 ILCS 40/4(f)].

"Radioactive material" has the same meaning as ascribed in Section 4(i) of the Illinois Radiation Protection Act of 1990 [420 ILCS 40/4(i)].

"Real property" means the surface, subsurface or mineral rights of land.

"Real property interest" means ownership in the surface, subsurface or mineral rights of land.

"Real property surface interest" means ownership in only the surface rights of land.

"Recycled water" means water in hydraulic fracturing flow back from a hydraulic fracturing operation or produced water that is physically or chemically treated for use as the base fluid or a component of hydraulic fracturing fluid.

*"Register of Land and Water Reserves" means the list of areas registered in accordance with Section 16 of the Illinois Natural Areas Preservation Act* *and 17 Ill. Adm. Code 4010.* (Section 1-5 of the Act)

"Registrant" means any person that registers with the Department to apply for high volume horizontal hydraulic fracturing permits pursuant to Section 245.200 of this Part.

*"Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment*. (Section 1-5 of the Act)

*"Serious violation" means any violation set forth in 62 Ill. Adm. Code 240.140(c).* (Section 1-5 of the Act)

*"Service connection" means the opening, including all fittings and appurtenances, at the water main through which water is supplied to the user.* (Section 1-5 of the Act)

"Stimulation treatment" has the same meaning given to "hydraulic fracturing" in this Section.

*"Surface water" means all water that is open to the atmosphere and subject to surface runoff.* (Section 1-5 of the Act)

"Technically enhanced naturally occurring radioactive materials" or "TENORM" means naturally occurring radioactive materials that have been concentrated or exposed to the accessible environment as a result of human activities such as manufacturing, mineral extraction or water processing. (See USEPA/Office of Radiation and Air, Radiation Protection Division – 2006, Technical Report on TENORM from Uranium Mining, vol. 1 and 2.)

*"Total water volume" means the total quantity of water from all sources used in the high volume horizontal hydraulic fracturing operations, including surface water, groundwater, produced water, or recycled water.* (Section 1-5 of the Act)

*"True vertical depth" means the vertical distance from a depth in a planned or existing wellbore or well to a point at the surface.* (Section 1-5 of the Act)

*"Water pollution" means any alteration of the physical, thermal, chemical, biological, or radioactive properties of any waters of the State, or the discharge of any contaminant into any water of the State, as will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate uses, or to livestock, wild animals, birds, or fish or other aquatic life.* (Section 1-5 of the Act)

*"Water source" means:*

*any existing water well or developed spring used for human or domestic animal consumption; or*

*any river, perennial stream, aquifer, natural or artificial lake, pond, wetland listed on the Register of Land and Water Reserves, or reservoir.* (Section 1-5 of the Act)

*"Well" means* the entire length of *any drill hole*, including all horizontal well bores, *required to be permitted under the Illinois Oil and Gas Act.* (Section 1-5 of the Act)

*"Well site" means surface areas, including the* surface location of the *well, occupied by all equipment or facilities necessary for, or incidental to, high volume horizontal hydraulic fracturing operations,* construction, *drilling, production, or plugging a well.* (Section 1-5 of the Act)

"Wholly contained" or "Wholly within" means a pond or lake, regardless of its hydrological source or connection, where the boundary of the pond or lake is completely contained within a landowner's property.

*"Wildcat well" means a well outside known fields or the first well drilled in an oil or gas field where no other oil and gas production exists.* (Section 1-5 of the Act)

*"Wildlife" means any bird or mammal that* is *by nature wild by way of distinction from those that are naturally tame and are ordinarily living unconfined in a state of nature without the care of man.* (Section 1-5 of the Act)