



Ohio Administrative Code

Rule 3745-34-01 Underground injection control definitions.

Effective: November 11, 2016

(1) "Abandoned well" means a well whose use has been permanently discontinued or that is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

(2) "Application" means the Ohio EPA standard forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by Ohio EPA, including any approved modifications or revisions. For a Class I hazardous waste facility, application also includes the information already required by the director under section 3734.05 of the Revised Code.

(3) "Appropriate act and regulations" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) or Safe Drinking Water Act (SDWA), whichever is applicable; Chapter 3734. of the Revised Code and sections 6111.043 and 6111.044 of the Revised Code and all rules promulgated thereunder.

(4) "Aquifer" means a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(5) "Area of review" means the area surrounding an injection well described according to the criteria set forth in rule 3745-34-32 of the Administrative Code, or in the case of an area permit, the project area plus a circumscribing area of a width that is either one-quarter of a mile or a number calculated according to the criteria set forth in rule 3745-34-32 of the Administrative Code.

(B) [Reserved.]

(1) "Casing" means a pipe or tubing of appropriate material, of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water, gas, or other fluid from entering or leaving the hole.



- (2) "Catastrophic collapse" means the sudden and utter failure of overlying strata caused by removal of underlying materials.
- (3) "Cementing" means the operation whereby a cement slurry is pumped into a drilled hole or forced behind the casing.
- (4) "Cesspool" means a "well" other than a "septic system" or a "subsurface fluid distribution system" that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom or perforated sides.
- (5) "Cone of influence" means that area around the well within which increased injection zone pressure caused by injection into the hazardous waste injection well would be sufficient to drive fluids into an underground source of drinking water (USDW).
- (6) "Confining bed" means a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.
- (7) "Confining zone" means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.
- (8) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.
- (9) "Conventional mine" means an open pit or underground excavation for the production of minerals.
- (1) "Director" means the director of the Ohio EPA or the director's duly authorized representative.
- (2) "Disposal well" means a well used for the disposal of waste into a subsurface formation.
- (3) "Draft permit" means a draft action as provided in rule 3745-49-02 of the Administrative Code.
- (4) "Drilling mud" means a heavy suspension used in drilling an injection well, introduced down the



drill pipe and through the drill bit.

(5) "Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so its bottom and sides are typically dry except when receiving fluids.

(1) "Effective date of a UIC program" means the date that a state of Ohio UIC program is approved or established by the United States environmental protection agency.

(2) "Emergency permit" means a UIC permit issued in accordance with rule 3745-34-19 of the Administrative Code.

(3) "Exempted aquifer" means an aquifer or its portion that meets the criteria in the definition of underground source of drinking water but that has been exempted according to the procedures in 40 CFR 144.7.

(4) "Experimental technology" means a technology that has not been proven feasible under the conditions that are being tested.

(1) "Facility" or "activity" means any hazardous waste facility as defined in section 3734.01 of the Revised Code, UIC injection well, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under Chapter 3734. or 6111. of the Revised Code and all rules promulgated thereunder.

(2) "Fault" means a surface or zone of rock fracture along which there has been displacement.

(3) "Federal Water Pollution Control Act" or "FWPCA" means the Federal Water Pollution Control Act, 86 Stat. 816 (1972), 33 U.S.C. 1251-1387, as amended through 1987.

(4) "Flow rate" means the volume per time unit given to the flow of gases or other fluid substance that emerges from an orifice, pump, turbine, or passes along a conduit or channel.

(5) "Fluid" means material or substance that flows or moves whether in a semisolid, liquid, sludge,



gas, or any other form or state.

(6) "Formation" means a body of rock characterized by a degree of lithologic homogeneity that is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

(7) "Formation fluid" means fluid present in a formation under natural conditions as opposed to introduced fluids, such as drilling mud.

(1) "Generator" means any person, by site location, whose act or process produces hazardous waste identified or listed in Chapter 3745-51 of the Administrative Code.

(2) "Ground water" means water below the land surface in a zone of saturation.

(1) "Hazardous waste" means a hazardous waste as defined in rule 3745-51-03 of the Administrative Code.

(2) "Hazardous waste management facility" or "HWM facility" means all contiguous land, structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combination of them).

(1) "Improved sinkhole" means a naturally occurring karst depression or other geologic setting which has been modified by man for the purpose of directing and emplacing fluids into the subsurface.

(2) "Industrial waste" means any liquid, gaseous, or solid waste substance resulting from any process of industry, manufacture, trade, or business, or from the development, processing, or recovery of any natural resource, together with such sewage as is present.

(3) "Injection interval" means that part of the injection zone in which the well is screened, perforated or in which the waste is otherwise directly emplaced.

(4) "Injection well" means a well into which fluids are being injected.



(5) "Injection zone" means a geological formation, group of formations, or part of a formation receiving fluids through a well.

(6) "Innovative technology" means any proposed innovative and experimental hazardous or industrial waste treatment technology or process for which research and development are necessary to establish technical or operational validity.

(J) [Reserved.]

(K) [Reserved.]

(1) "Large capacity cesspool" means a multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes, containing human excreta that have an open bottom and sometimes have perforated sides. The UIC requirements do not apply to single-family residential cesspools nor to non-residential cesspools that receive solely sanitary wastes and have the capacity to serve fewer than twenty persons per day.

(2) "Lithology" means the description of rocks on the basis of their physical and chemical characteristics.

(1) "Manifest" means the shipping document originated and signed by the generator which contains the information required by Chapter 3745-52 of the Administrative Code.

(2) "Motor vehicle waste disposal well" means a well that has the potential to receive, receives, or has received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g. transmission and muffler repair shop), or any facility that does any vehicular repair work. Fluids disposed in these wells may contain organic and inorganic chemicals in concentrations that exceed the maximum contaminant levels (MCLs) established by the primary drinking water regulations. These fluids also may include waste petroleum products and may contain contaminants, such as heavy metals and volatile organic compounds, which pose risks to human health, safety or the environment.



(N) [Reserved.]

(1) "Other wastes" means garbage, refuse, decayed wood, sawdust, shavings, bark, and other wood debris, lime, sand, ashes, offal, night soil, oil, tar, coal dust, dredged or fill material, or silt, other substances that are not sewage, sludge, sludge materials, or industrial waste, and any other "pollutants" or "toxic pollutants" as defined in the Federal Water Pollution Control Act that are not sewage, sludge, sludge materials, or industrial waste.

(2) "Owner or operator" means the owner or operator of any facility or activity subject to regulation under Chapters 3734. and 6111. of the Revised Code and all rules promulgated thereunder.

(1) "Packer" means a device lowered into a well to produce a fluid-tight seal.

(2) "Permit" means an authorization, license, or equivalent document issued by Ohio EPA to implement the requirements of Chapter 6111. of the Revised Code. Permit does not include a draft permit, a permit issued by the hazardous waste facility approval board under Chapter 3734. of the Revised Code, or rule 3745-34-11 of the Administrative Code.

(3) "Person" means an individual, association, partnership, the State of Ohio or any agency or employee thereof, the federal government or any agency or employee thereof, any other state or agency or employee thereof, any interstate agency, any municipal corporation, political subdivision, public or private corporation, or other entity.

(4) "Plugging" means the act or process of stopping the flow of water, oil or gas into or out of a formation through a borehole or well penetrating that formation.

(5) "Plugging record" means a systematic listing of permanent or temporary abandonment of water, oil, gas, test, exploration and waste injection wells, and may contain a well log, description of amounts and types of plugging material used, the method employed for plugging, a description of formations that are sealed and a graphic log of the well showing formation location, formation thickness, and location of plugging structures.

(6) "Point of injection" means the last accessible sampling point prior to waste fluids being released



into the subsurface environment through a class V injection well. For example, the "point of injection" of a class V septic system might be the distribution box, which would be the last accessible sampling point before the waste fluids drain into the underlying soils. For a dry well, it is likely to be the well bore itself.

(7) "POTW" or "publicly owned treatment works" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a state or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(8) "Pressure" means the total load or force per unit area acting on a surface.

(9) "Project" means a group of wells in a single operation.

(Q) [Reserved.]

(1) "Radioactive waste" means any waste that contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, "Appendix B," Table II," column 2.

(2) "Resource Conservation and Recovery Act" or "RCRA" or "Solid Waste Disposal Act" means Resource Conservation and Recovery Act, 90 Stat. 2795 (1976), 42 U.S.C. 6901, as amended through 2012.

(1) "Safe Drinking Water Act" or "SDWA" means Safe Drinking Water Act, 88 Stat. 1660 (1974), 42 U.S.C. 300(f), as amended through 1996.

(2) "Sanitary waste" means liquid or solid waste originating solely from humans and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, cloths washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes may include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreational areas, other commercial facilities, and industrial facilities provided the waste is not



mixed with industrial waste.

(3) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events leading to compliance with the appropriate act and regulations).

(4) "Septic system" means a "well" that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.

(5) "Sewage" means any liquid waste containing sludge, sludge materials, or animal or vegetable matter in suspension or solution, and may include household wastes as commonly discharged from residences and from commercial, institutional, or similar facilities.

(6) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(7) "Sole source aquifer" means any aquifer which has been so designated by the administrator of the United States environmental protection agency pursuant to section 1424 (a) or (e) of the SDWA.

(8) "Stratum (plural strata)" means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.

(9) "Subsidence" means the lowering of the natural land surface in response to: earth movement; lowering of fluid pressure; removal or underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.

(10) "Subsurface fluid distribution system" means an assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground.

(11) "Surface casing" means the first string of well casing to be installed in the well.

(1) "Total dissolved solids (TDS)" means the total dissolved (filterable) solids as specified in 40 CFR



part 136.

(2) "Transmissive fault or fracture" is a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

(1) "UIC" means the underground injection control program under part C of the Safe Drinking Water Act, or under sections 6111.043 and 6111.044 of the Revised Code.

(2) "Underground injection" means a well injection.

(3) "Underground source of drinking water" or "USDW" means an aquifer or its portion and is not an exempted aquifer, which does one of the following:

(i) Supplies any public water system as defined by Chapter 3745-81 of the Administrative Code.

(ii) Contains a sufficient quantity of ground water to supply a public water system as defined by Chapter 3745-81 of the Administrative Code and is one of one following:

(a) Currently supplies drinking water for human consumption.

(b) Contains fewer than ten thousand mg/l total dissolved solids.

(V) [Reserved.]

(1) "Well" means any one of the following:

(a) A bored, drilled, or driven shaft whose depth is greater than the largest surface dimension.

(b) A dug hole whose depth is greater than the largest surface dimension.

(c) An improved sinkhole.

(d) A subsurface fluid distribution system as defined in this rule.



(2) "Well injection" means the subsurface emplacement of fluids through a well.

(3) "Well plug" means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids.

(4) "Well stimulation" means several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected, thus making it possible for wastewater to move more readily into the formation, and includes (1) surging, (2) jetting, (3) blasting, (4) acidizing, and (5) hydraulic fracturing.

(5) "Well monitoring" means the measurement, by on-site instruments or laboratory methods, of the quality of water in a well.

(6) "Well work over" means any work performed on a class I injection well which involves maintenance, repair or removal and reinstallation of injection tubing string.

(X) [Reserved.]

(Y) [Reserved.]

(Z) [Reserved.]

[Comment: This rule references the following "Code of Federal Regulations or CFR and United States Code or U.S.C.": 40 CFR 144.7, last amended December 10, 2010; 10 CFR Part 20, last amended September 30, 2015; 40 CFR Part 136, last amended August 19, 2014. This rule also references the Resource Conservation and Recovery Act, 90 Stat. 2795 (1976), 42 U.S.C. 6901, as amended through 2012. Also, this rule references the following sections and part of the Safe Drinking Water Act (SDWA), as amended through 1996: Section 1424 (a) or (e) and Part C of the SDWA. Copies of these codes may be obtained from the "U.S. Government Bookstore" toll-free at (866) 512-1800 or <https://www.gpo.gov/fdsys>, or from "Ohio EPA, Lazarus Government Center, 50 West Town Street, Suite 700, Columbus, OH, 43215," (614) 644-2752. The codes are available for review at "Ohio EPA, Lazarus Government Center, 50 West Town Street, Suite 700, Columbus,



AUTHENTICATED,
OHIO LEGISLATIVE SERVICE
COMMISSION
DOCUMENT #234908

OH, 43215."]