

Title 8. Environmental Law

Chapter I. Arkansas Pollution Control and Ecology Commission, Department of Energy and Environment

Subchapter C. Water Quality

Part 26. Arkansas Underground Injection Control Code

Subpart 1. Generally

8 CAR § 26-101. Title and purpose.

(a) The following rules of the Arkansas Pollution Control and Ecology Commission, adopted pursuant to the provisions of the Arkansas Water and Air Pollution Control Act, Arkansas Code § 8-4-101 et seq., shall be known as the "Arkansas Underground Injection Control Code", hereinafter called the UIC Code.

(b)(1) It is the purpose of this UIC Code to adopt underground injection control (UIC) rules necessary to qualify the State of Arkansas to retain authorization for its Underground Injection Control Program pursuant to the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f et seq.

(2) In order to retain program authorization, it is necessary for the commission to have rules as stringent as the federal program administered by the United States Environmental Protection Agency.

8 CAR § 26-102. Definitions.

When used in this UIC Code:

(1) "Abandoned well" means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes (see 40 C.F.R. § 146.3, Definitions);

(2) "Application" means the United States Environmental Protection Agency standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by the United States Environmental Protection Agency for use in approved states, including any approved modifications or revisions. For RCRA, "application" also includes the information required by the Director

of the Division of Environmental Quality under 40 C.F.R. § 122.25 (contents of Part B of the RCRA application) (see 40 C.F.R. § 146.3, Definitions);

(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, and applicable regulations promulgated under those statutes (see 40 C.F.R. § 144.3, Definitions);

(4) "Aquifer" means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(5) "Area of review" means the area surrounding an injection well described according to the criteria set forth in 40 C.F.R. § 146.06, or in the case of an area permit, the project area plus a circumscribing area the width of which is either one-fourth (1/4) of a mile or a number calculated according to the criteria set forth in 40 C.F.R. § 146.06 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(6) "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 to 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 (see 40 C.F.R. § 146.3, Definitions);

(7) "Catastrophic collapse" means the sudden and utter failure of overlying "strata" caused by removal of underlying materials (see 40 C.F.R. § 146.3, Definitions);

(8) "Cementing" means the operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing (see 40 C.F.R. § 146.3, Definitions);

(9) "Cesspool" means a "drywell" that receives untreated sanitary waste containing human excreta and which sometimes has an open bottom and/or perforated sides (see 40 C.F.R. § 144.3);

(10) "Confining bed" means a body of impermeable or distinctly less permeable material stratigraphically adjacent to one (1) or more aquifers (see 40 C.F.R. § 146.3, Definitions);

(11) "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 (see 40 C.F.R. § 146.3, Definitions);

(12) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(13) "Director" means the Director of the Division of Environmental Quality;

(14) "Division" means the Division of Environmental Quality;

(15) "Disposal well" means a well used for the disposal of waste into a subsurface stratum (see 40 C.F.R. § 146.3, Definitions);

(16) "Draft permit" means a document prepared under 40 C.F.R. § 124.6 indicating the Director of the Division of Environmental Quality's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit". A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in 40 C.F.R. § 124.5 are types of "draft permits". A denial of a request for modification, revocation and reissuance, or termination, as discussed in 40 C.F.R. § 124.5 is not a "draft permit" (see 40 C.F.R. § 144.3, Definitions);

(17) "Drilling mud" means a heavy suspension used in drilling an "injection well", introduced down the drill pipe and through the drill bit (see 40 C.F.R. § 144.3, Definitions);

(18) "Drywell" means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids (see 40 C.F.R. § 144.3);

(19) "Effective date of a UIC program" means the date that a state UIC program is approved or established by the Administrator of the United States Environmental Protection Agency (see 40 C.F.R. § 146.3, Definitions);

(20) "Emergency permit" means a UIC "permit" issued in accordance with 40 C.F.R. § 144.34 (see 40 C.F.R. § 144.3, Definitions);

(21) "Environmental Protection Agency" means the United States Environmental Protection Agency (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(22) "Exempted aquifer" means an "aquifer" or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been

exempted according to the procedures in 40 C.F.R. § 144.7 (see 40 C.F.R. § 144.3, Definitions);

(23) "Existing injection well" means an "injection well" other than a "new injection well" (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(24) "Facility or activity" means any UIC "injection well", or another facility or activity that is subject to regulation under the UIC programs (see 40 C.F.R. § 144.3, Definitions);

(25) "Fault" means a surface or zone of rock fracture along which there has been displacement (see 40 C.F.R. § 146.3, Definitions);

(26) "Flow rate" means the volume per time unit given to the flow of gases or other fluid substance which emerges from an orifice, pump, turbine or passes along a conduit or channel (see 40 C.F.R. § 146.3, Definitions);

(27) "Fluid" means any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state (see 40 C.F.R. § 144.3, Definitions);

(28) "Formation" means a body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily tabular, and is mappable on the earth's surface or traceable in the subsurface (see 40 C.F.R. § 144.3, Definitions);

(29) "Formation fluid" means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as "drilling mud" (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(30) "Generator" means any person, by site location, whose act or process produces hazardous waste identified or listed in 40 C.F.R. pt. 261 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(31) "Ground water" means water below the land surface in a zone of saturation (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(32) "Hazardous waste" means a hazardous waste as defined in 40 C.F.R. § 261.3 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(33) "Hazardous waste management facility (HWM facility)" means all

contiguous land and 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 (1) or more landfills, surface impoundments, or combination of them) (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(34) "Improved sinkhole" means a naturally occurring karst depression or other natural crevice found in volcanic terrain and other geological settings (such as limestone or dolomitic terrain) which have been modified by man for the purpose of directing and emplacing fluids into the subsurface (see 40 C.F.R. § 144.3);

(35) "Injection well" means a "well" into which "fluids" are being injected (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(36) "Injection zone" means a geological "formation", group of formations, or part of a formation receiving fluids through a "well" (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(37) "Lithology" means the description of rocks on the basis of their physical and chemical characteristics (see 40 C.F.R. § 146.3, Definitions);

(38) "Major facility" means any UIC "facility or activity" classified as such by the Regional Administrator or, in the case of approved state programs, the Regional Administrator in conjunction with the State Director (see 40 C.F.R. § 144.3, Definitions);

(39) "New injection well" means an "injection well" which began injection after a UIC program for the state applicable to the well is approved or prescribed (see 40 C.F.R. § 144.3, Definitions);

(40) "Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the UIC programs (see 40 C.F.R. § 144.3, Definitions);

(41) "Packer" means a device lowered into a well to produce a fluid-tight seal (see 40 C.F.R. § 146.3, Definitions);

(42) "Permit" means an authorization, license, or equivalent control document issued by the United States Environmental Protection Agency or an approved state to implement the requirements of 40 C.F.R. pts. 145, 146, and 124. "Permit" includes an

area permit (40 C.F.R. § 144.33) and an emergency permit (40 C.F.R. § 144.34). Permit does not include UIC authorization by rule (40 C.F.R. § 144.21) or any permit which has not yet been the subject of final agency action, such as a “draft permit”;

(43) “Person” means an individual, association, partnership, corporation, municipality, state, federal, or tribal agency, or an agency or employee thereof (see 40 C.F.R. § 144.3, Definitions);

(44) “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 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(45) “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 which are sealed, and a graphic log of the well showing formation location, formation thickness, and location of plugging structures (see 40 C.F.R. § 146.3, Definitions);

(46) “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, 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 (see 40 C.F.R. § 144.3);

(47) “Pollution” means such contamination, or other alteration of the physical, chemical, or biological properties of any waters of the state, or such discharge of any liquid, gaseous, or solid substance in any waters of the state as will or is likely to create a nuisance or render such waters harmful or detrimental or injurious to public health, safety, or welfare, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life;

(48) “Pressure” means the total load or force per unit area acting on a surface (see 40 C.F.R. § 146.3, Definitions);

(49) "Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 C.F.R. pt. 20, Appendix B, Table II, Column 2 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(50) "RCRA" means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. No. 94-580, as amended, 42 U.S.C. 6901 et seq.) (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(51) "Regional Administrator" means the Regional Administrator of the appropriate Regional Office of the United States Environmental Protection Agency or the authorized representative of the Regional Administrator (see 40 C.F.R. § 144.3, Definitions);

(52) "Sanitary waste" means liquid or solid wastes 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, clothes 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 recreation areas, other commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste (see 40 C.F.R. § 144.3);

(53) "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" (see 40 C.F.R. § 144.3, Definitions);

(54) "SDWA" means the Safe Drinking Water Act (Pub. L. No. 95-523, as amended, 42 U.S.C. 300f et seq.) (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(55) "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 (see 40 C.F.R. § 144.3, Definitions);

(56) "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 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(57) "Sole or principal source aquifer" means an aquifer which has been designated by the Administrator of the United States Environmental Protection Agency pursuant to Section 1424(a) or (e) of the SDWA (see 40 C.F.R. § 146.3, Definitions);

(58) "State Director" means the Director of the Division of Environmental Quality;

(59) "State/United States Environmental Protection Agency agreement" means an agreement between the Regional Administrator and the state which coordinates United States Environmental Protection Agency and state activities, responsibilities, and programs (see 40 C.F.R. § 144.3, Definitions);

(60) "Stratum (plural strata)" means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(61) "Subsidence" means the lowering of the natural land surface in response to: earth movements; lowering of fluid pressure; removal of 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 (see 40 C.F.R. § 146.3, Definitions);

(62) "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 (see 40 C.F.R. § 144.3);

(63) "Surface casing" means the first string of well casing to be installed in the well (see 40 C.F.R. § 146.3, Definitions);

(64) "Total dissolved solids (TDS)" means the total dissolved (filterable) solids as determined by use of the method specified in 40 C.F.R. pt. 136 (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(65) "UIC" means the Underground Injection Control program under Part C of the Safe Drinking Water Act, including an "approved state program" (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(66) "Underground injection" means a "well injection" (see 40 C.F.R. §§ 144.3

and 146.3, Definitions);

(67)(A) "Underground source of drinking water" means an aquifer or its portion:

(i)(a) Which supplies any public water system; or

(b) Which contains a sufficient quantity of ground water to supply a public water system; and

(1) Currently supplies drinking water for human consumption; or

(2) Contains fewer than ten thousand milligrams per liter (10,000 mg/L) total dissolved solids; and

(ii) Which is not an exempted aquifer.

(B) See 40 C.F.R. §§ 144.3 and 146.3, Definitions;

(68) "Well" means a bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; a dug hole whose depth is greater than the largest surface dimension; an improved sinkhole; or a subsurface fluid distribution system (see 40 C.F.R. § 144.3, Definitions);

(69) "Well injection" means the subsurface emplacement of fluids through a well (see 40 C.F.R. §§ 144.3 and 146.3, Definitions);

(70) "Well plug" means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids (see 40 C.F.R. § 146.3, Definitions);

(71) "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 (A) surging, (B) jetting; (C) blasting; (D) acidizing, (E) hydraulic fracturing (see 40 C.F.R. § 146.3, Definitions); and

(72) "Well monitoring" means the measurement, by onsite instruments or laboratory methods, of the quality of water in a well (see 40 C.F.R. § 146.3, Definitions).

8 CAR § 26-103. Adoption of federal regulations.

(a)(1) The Director of the Division of Environmental Quality is responsible for implementing the UIC program in the State of Arkansas.

(2) The regulations listed below are hereby adopted and made part of this UIC Code as though set forth herein word for word.

(3) These regulations shall apply to all persons and activities subject to regulation under the provisions of the Safe Drinking Water Act and/or the Arkansas Water and Air Pollution Control Act, Arkansas Code § 8-4-101 et seq., relating to underground injection control within the State of Arkansas:

(A) 40 C.F.R. pt. 144, as amended to the date hereof;

(B) 40 C.F.R. pt. 145, as amended to the date hereof;

(C) 40 C.F.R. pt. 124, subpt. A, as amended to the date hereof; and

(D) 40 C.F.R. pt. 146, subpts. A, B, D, E, F, and G, as amended to the date hereof.

(b) The Oil and Gas Commission has authority over Class II and Class V bromine related wells, and shares enforcement authority with the Division of Environmental Quality of the Class V bromine wells as recognized in the memorandum of understanding between the division, the Oil and Gas Commission, and the United States Environmental Protection Agency.

8 CAR § 26-104. Violations.

(a) No person shall construct, install, alter, modify, or operate any underground injection facility without a permit from the Division of Environmental Quality or, as to Class II and Class V bromine-related brine disposal wells, from the Oil and Gas Commission.

(b) No person shall construct, install, or operate a Class IV well as defined in 8 CAR § 26-105 hereof, and no permit for a Class IV well shall be issued by the division.

(c) No person shall construct, install, alter, modify, or operate any underground injection facility contrary to the terms and conditions of a permit or of any provision of this UIC Code or the Arkansas Water and Air Pollution Control Act, Arkansas Code § 8-4-101 et seq., as amended.

(d) No person shall violate any other provision of this UIC Code or of the Arkansas Water and Air Pollution Control Act.

(e) Any person who violates any provision of this UIC Code shall be subject to the penalties as provided in Arkansas Code § 8-4-103 of the Arkansas Water and Air Pollution Control Act.

8 CAR § 26-105. Classification of injection wells.

Injection wells are classified (see 40 C.F.R. § 144.80) as follows:

(1) Class I.

(A) Wells used by generators of hazardous wastes or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water.

(B) Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water.

(C) Radioactive waste disposal wells which inject fluids below the lowermost formation containing an underground source of drinking water within one-quarter (1/4) mile of the well bore;

(2) Class II. Wells which inject fluids:

(A) Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection;

(B) For enhanced recovery of oil and natural gas; and

(C) For storage of hydrocarbons which are liquid at standard temperature and pressure;

(3) Class III. Wells which inject fluids for extraction of minerals including:

(A) Mining of sulfur by the Frasch process;

(B) In situ production of uranium or other metals. This category includes only in situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V; and

(C) Solution mining of salts or potash;

(4) Class IV.

(A) Wells used by generators of hazardous waste or of radioactive waste, by owners and operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste into a formation which within one-quarter (1/4) mile of the well contains an underground source of drinking water.

(B) Wells used by generators of hazardous waste or of radioactive waste, by owners and operators of hazardous waste management facilities, or by owners and operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste above a formation which within one-quarter (1/4) mile of the well contains an underground source of drinking water.

(C) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to dispose of hazardous waste, which cannot be classified under subdivision (1)(B) or subdivisions (4)(B) and (C) of this section (e.g., wells used to dispose of hazardous waste into or above a formation which contains an aquifer which has been exempted pursuant to 40 C.F.R. § 146.04); and

(5) Class V.

(A) Injection wells not included in Classes I, II, III, or IV.

(B) Examples of Class V wells are described in 40 C.F.R. § 144.81 and in 8 CAR § 26-106.

8 CAR § 26-106. Examples of Class V injection wells.

(a) Typically, Class V wells are shallow wells used to place a variety of fluids directly below the land surface. However, if the fluids placed in the ground qualify as a hazardous waste under the RCRA, the well is either a Class I or a Class IV, not a Class V

(see 40 C.F.R. § 144.80(e)).

(b) Examples of Class V wells include:

(1) Air conditioning return flow wells used to return to the supply aquifer the water used for heating or cooling in a heat pump;

(2) Large capacity cesspools including multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes containing human excreta which have an open bottom and sometimes perforated sides. The UIC requirements do not apply to single-family residential cesspools nor to nonresidential cesspools which receive solely sanitary waste and have the capacity to serve fewer than twenty (20) persons a day;

(3) Cooling water return flow wells used to inject water previously used for cooling;

(4) Drainage wells used to drain surface fluids, primarily storm runoff, into a subsurface formation;

(5) Dry wells used for the injection of wastes into a subsurface formation;

(6) Recharge wells used to replenish the water in an aquifer;

(7) Saltwater intrusion barrier wells used to inject water into a fresh aquifer to prevent the intrusion of salt water into the fresh water;

(8) Sand backfill and other backfill wells used to inject a mixture of water and sand, mill tailings, or other solids into mined out portions of subsurface mines whether what is injected is a radioactive waste or not;

(9) Septic system wells used to inject the waste or effluent from a multiple dwelling, business establishment, or community or regional business establishment septic tank. The UIC requirements do not apply to single-family residential septic system wells, nor to nonresidential septic system wells which are used solely for the disposal of sanitary waste and have the capacity to serve fewer than twenty (20) persons a day;

(10) Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a nonoil or gas producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water;

(11) Injection wells associated with the recovery of geothermal energy for heating, aquaculture, and production of electric power;

(12) Wells used for solution mining of conventional mines such as stopes leaching;

(13) Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts;

(14) Injection wells used in experimental technologies;

(15) Injection wells used for in situ recovery of:

(A) Lignite;

(B) Coal;

(C) Tar sands; and

(D) Oil shale; and

(16)(A) Motor vehicle waste disposal wells that receive or have received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, an automotive repair shop, a new and used car dealership, a specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.

(B) Fluids disposed in these wells may contain organic and inorganic chemicals in concentrations that exceed the maximum contaminant levels established by the primary drinking water regulations (see 40 C.F.R. pt. 141).

(C) 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.

8 CAR § 26-107. Severability.

If any provision of this UIC Code or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of this UIC Code which can be given effect without the invalid provision or application, and to this end provisions of this UIC Code are declared to be severable.

8 CAR § 26-108. Effective date.

This UIC Code is effective ten (10) days after filing with the:

- (1) Secretary of State;
- (2) Arkansas State Library; and
- (3) Bureau of Legislative Research.