

3745-34-04

Classification of wells.

Injection wells are classified as follows:

(A) Class I.

- (1) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing an underground source of drinking water (USDW) within one quarter mile of the well bore.
- (2) Other industrial and municipal disposal wells that inject fluids beneath the lowermost formation containing an ~~underground source of drinking water~~ USDW within one quarter mile of the well bore.
- (3) Radioactive waste disposal wells that inject fluids below the lowermost formation containing an ~~underground source of drinking water~~ USDW within one quarter mile of the well bore.

(B) Class II. Wells ~~which~~ that may inject brines and other fluids; associated with oil and gas production, and hydrocarbons for storage. Requirements of this type of injection well are referenced in Chapter 1509. of the Revised Code and Chapter 1509:9 of the Administrative Code.

- ~~(1) That are brought to the surface in connection with conventional oil or natural gas production and may be commingled with waste waters from gas plants that are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection;~~
- ~~(2) For enhanced recovery of oil or natural gas; and~~
- ~~(3) For storage of hydrocarbons which are liquid at standard temperature and pressure.~~

(C) Class III. Wells ~~which~~ that may inject ~~for extraction~~ fluids associated with solution mining of minerals ~~including~~ beneath the lowermost USDW. Requirements for this type of injection well are referenced in Chapter 1509. of the Revised Code and Chapter 1509:9 of the Administrative Code.

- ~~(1) Mining of sulfur by the Frasch process;~~
- ~~(2) 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;~~

~~(3) Solution mining of salts or potash.~~

(D) Class IV.

- (1) Wells used by generators of hazardous waste or of radioactive waste, by owners or 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 contains an ~~underground source of drinking water~~ USDW within one ~~quarter~~ mile of the well.
- (2) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste above a formation that within one-quarter mile of the well contains an ~~underground source of drinking water~~ USDW.
- (3) 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 paragraph (A)(1) or paragraphs (D)(1) and (D)(2) of this rule ~~(e.g., wells used to dispose of hazardous waste into or above a formation that contains an aquifer which has been exempted pursuant to rule 3745-34-31 of the Administrative Code).~~

(E) Class V. Injection wells not included in class I, II, III, or IV. Typically, class V wells are shallow wells used to place a variety of fluids directly below the land surface into or above formations that contain USDWs. However, if the fluids placed in the ground qualify as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), then the well is either a class I or class IV well, not a class V well. Class V wells include, but are not limited to the following:

- (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, that have an open bottom and sometimes have perforated sides. The ~~UC~~ underground injection control 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 a day~~;~~.
- (3) Cooling water return flow wells used to inject water previously used for

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- (4) Drainage wells used to drain surface fluid, 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 or used as part of an aquifer storage and recovery project§.
- (7) Salt water intrusion barrier wells used to inject water into a fresh water 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, community or regional business establishment septic tank. The ~~UIC~~underground injection control requirements do not apply to single-family residential septic system wells, nor to non-residential septic system wells that are used solely for the disposal of sanitary waste and have the capacity to serve fewer than twenty persons a day§.
- (10) Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a non-oil 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) Radioactive waste disposal wells other than class IV or class I wells that inject radioactive material listed in 10 CFR part 20, "appendix B," "table II," column 2§.
- (13) Wells used for solution mining of conventional mines such as stopes leaching§.
- (14) Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts§.

- (15) Injection wells used in experimental technologies~~;~~.
- (16) Injection wells used for in-situ recovery of lignite, coal, tar sands, and oil shale~~;~~.
- (17) Motor vehicle waste disposal wells as defined in rule 3745-34-01 of the Administrative Code~~;~~~~and~~.
- (18) Wells used to inject fluids for the remediation of contaminated soils or ground water.

[Comment: This rule references the following "Code of Federal Regulations": 10 CFR Part 20, appendix B, table II, column 2, last amended September 30, 2015. Copies of this code 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 code is available for review at "Ohio EPA, Lazarus Government Center, 50 West Town Street, Suite 700, Columbus, OH, 43215."]