

15A NCAC 02C .0209 CLASSIFICATION OF INJECTION WELLS

Injection Wells are classified as follows:

- (1) Class 1. No person shall construct, use, or operate an injection well of this class. This class applies to industrial, municipal, and nuclear disposal wells that are used to inject wastes beneath the lowermost formation containing underground sources of drinking water. A description of the primary function for wells of this class is as follows:
 - (a) Hazardous Waste Disposal Well. These wells are used by generators of hazardous wastes or owners of hazardous waste management facilities to inject hazardous waste.
 - (b) Industrial Disposal Well. These wells are used to inject non-hazardous industrial waste.
 - (c) Municipal Disposal Well. These wells are used to inject non-hazardous waste.
 - (d) Nuclear Disposal Well. These wells are used to inject nuclear waste.
- (2) Class 2. No person shall construct, use, or operate an injection well of this class. This class applies to oil and gas production and storage related injection wells and includes wells that are used to inject fluids:
 - (a) that are brought to the surface in connection with natural gas storage operations or conventional oil or natural gas production;
 - (b) for enhanced recovery of oil or natural gas; and
 - (c) for storage of hydrocarbons that are liquid at standard temperature and pressure.
- (3) Class 3. No person shall construct, use, or operate an injection well of this class. This class applies to wells that are used for the purpose of extraction of minerals or energy. A description of the primary function for wells of this class is as follows:
 - (a) In Situ Production of Uranium or Other Metals. This category includes only in-situ production from ore bodies that have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class 5.
 - (b) Solution Mining Well. These wells are used in the solution mining of salts or potash.
 - (c) Sulfur Mining Well. These wells are used in the mining of sulfur by the Frasch process.
- (4) Class 4. No person shall construct, use, or operate an injection well of this class. This class applies to injection wells that are used to inject hazardous wastes into or above a formation containing an underground source of drinking water and includes wells used by:
 - (a) generators of hazardous wastes or radioactive wastes; and
 - (b) owners of hazardous waste management facilities, or radioactive waste disposal sites.
- (5) Class 5. This class applies to all injection wells not included in Class 1, 2, 3, 4, or 6.
 - (a) The construction, use, or operation of the following Class 5 injection well types is prohibited. A description of the primary function for these prohibited Class 5 wells is as follows:
 - (i) Agricultural Drainage Well. These wells receive irrigation tailwaters, other field drainage, animal yard, feedlot, or dairy runoff;
 - (ii) Air Scrubber Waste Disposal Well. These wells are used to inject wastes from air scrubbers;
 - (iii) Gaseous Hydrocarbon Storage Well. These wells are used for the storage of hydrocarbons that are gases at standard temperature and pressure;
 - (iv) Groundwater Aquaculture Return Flow Well. These wells inject groundwater or surface water that has been used to support aquaculture;
 - (v) In-situ Fossil Fuel Recovery Well. These wells are used for the in-situ recovery of coal, lignite, oil shale, and tar sands;
 - (vi) Mining, Sand, or Other Backfill Well. These wells are used to inject a mixture of fluid and sand, mill tailings, and other solids into mined out portions of subsurface mines, whether the injectant is a radioactive waste or not. This also includes wells used to control mine fires and acid mine drainage wells;
 - (vii) Motor Vehicle Waste Disposal Well. These wells receive wastes from motor vehicle facilities and include autobody repair shops, new and used car dealerships, specialty repair shops, such as transmission, muffler, and radiator repair shops and any facility that steam cleans or otherwise washes undercarriages or engine parts or does any vehicular repair work;

- (viii) Sewage or Wastewater Disposal Well. These wells are used to inject sewage or wastewater from any source to the groundwaters of the State. This includes cesspools and abandoned drinking water wells;
 - (ix) Solution Mining Well. These wells are used in solution mining in conventional mines, such as stopes leaching;
 - (x) Special Drainage Well. These wells are used for disposing of water from sources other than direct precipitation. Examples of this well type include: landslide control drainage wells, water tank overflow drainage wells, swimming pool drainage wells, and lake control drainage wells; and
 - (xi) Water Softener Regeneration Brine Disposal Well. These wells are used to inject regeneration wastes from water softeners.
- (b) The construction, use, or operation by an individual of the following Class 5 injection well types may be approved by the Director provided that the injected material does not contain any waste or any substance of a composition and concentration such that, if it were discharged to the land or waters of the State, would adversely affect human health or would otherwise render those waters unsuitable for their best intended usage:
- (i) Aquifer Recharge Wells specified in Rule .0218 of this Section;
 - (ii) Aquifer Storage and Recovery Wells specified in Rule .0219 of this Section;
 - (iii) Aquifer Test Wells specified in Rule .0220 of this Section;
 - (iv) Experimental Technology Wells specified in Rule .0221 of this Section;
 - (v) Geothermal Aqueous Closed-Loop Wells specified in Rule .0222 of this Section;
 - (vi) Geothermal Direct Expansion Closed-Loop Wells specified in Rule .0223 of this Section;
 - (vii) Geothermal Heating/Cooling Water Return Wells specified in Rule .0224 of this Section;
 - (viii) Groundwater Remediation Wells specified in Rule .0225 of this Section;
 - (ix) Salinity Barrier Wells specified in Rule .0226 of this Section;
 - (x) Stormwater Drainage Wells specified in Rule .0227 of this Section;
 - (xi) Subsidence Control Wells specified in Rule .0228 of this Section;
 - (xii) Tracer Wells specified in Rule .0229 of this Section; and
 - (xiii) Other Wells specified in Rule .0230 of this Section;
- (6) Class 6. No person shall construct, use, or operate an injection well of this class. This class applies to wells that are used for containment of a gaseous, liquid, or supercritical carbon dioxide stream in subsurface geologic formations.

History Note: Authority G.S. 87-87; 143-211; 143-214.2(b); 143-215.1A; 143-215.3(a)(1); 143-215.3(c); Eff. August 1, 1982; Amended Eff. May 1, 2012; September 1, 1996; March 1, 1984; Readopted Eff. September 1, 2019.